

# Enclosure systems and accessories

## Klippon® Protect

Let's connect.

Version 2020



# Our Orange Selection

## Quick and easy planning

To enable you to react quickly and easily to the requirements of your industrial environment, we have defined a core portfolio of more than 1,500 articles for you – our Orange Selection. The Orange Selection articles are tailored to one another and cover your standard requirements comprehensively.

All Orange Selection articles are "stock items": If you order by 3 p.m., your order will already be on the way the next working day! For even more efficient planning and production processes, we have marked all articles in our online product catalogue **catalog.weidmueller.com** as "always available" and stored the digital product data for the entire range.

By the way: the Orange Selection is of course also available in the Weidmüller Configurator **www.weidmueller.com/configurator**. Our powerful engineering software guides you intelligently and reliably through your selection and configuration process.

Further information and links to our services can be found at:  
**www.weidmueller.com/orange-selection**



## Dear Customers,

The PDF versions of our catalogues offer practical additional functions, helping you to find your way around our product range and simplifying the ordering process.

In addition to the catalogue, the PDF also contains:

- Internal page links
- Links to the online catalogue

Try it out for yourself. Click the order number to obtain more detailed information and close-up images via you web browser. The links in the PDF file also enable you to go directly to the next desired catalogue page.

Further Weidmüller product catalogues can be accessed by clicking the following:





# Enclosure systems and accessories

## Catalogue 5

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### Enclosure systems and accessories

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# Introduction

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# Digitalisation presents you with many new challenges

## We will support you to master them

The social and economic changes being caused by digitalisation are also pushing industrial production towards new, data-based services that need to be integrated into the value creation chains in a profitable manner.

Our objective is to support you with the implementation of these new structures and processes right from the start, and to successfully accompany you on new paths in the Industry 4.0 era.

Thanks to the entire range of Weidmüller products, the use of our local production and assembly facilities, and our global sales network, we can lay the very best foundations for a successful partnership with you, our customer.



Whether decentralisation, modularisation, data consistency and transparency or the implementation of completely individual applications in the IoT environment: the factory of the future needs to be able to take on a wide variety of challenges.

With our Klippon® products and services, we have created innovative and future-oriented solutions while setting new standards for applications within a wide range of industries.



More information about our Klippon® products and services at [www.weidmueller.com/KlipponProtect](http://www.weidmueller.com/KlipponProtect)

**Dive into the Klippon® world and discover our innovative products and services.**

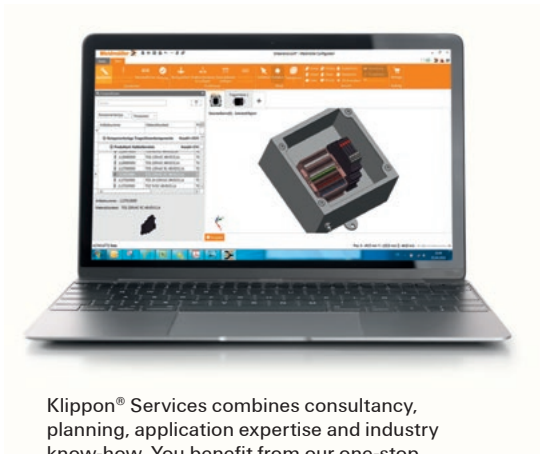


## It's Klippon® Bringing excellence together

For more than 50 years, Klippon® has been synonymous with innovation, competence, and quality of products and services in the automation technology. Klippon® Services is the most recent extension to the well known, proven Klippon® Connect and Klippon® Protect products. Klippon® Services provides innovative software and assembly services. With Klippon® we are your reliable partner throughout the complete value creation process. Create your competitive advantage with Klippon®.

### Your special advantages:

The flexible Klippon® Protect enclosure system is the perfect addition to our Klippon® Connect range of terminal blocks. You can rely on our mounted enclosures to offer a custom fit to your requirements and provide excellent protection. Klippon® Services completes our products range with optimal support for your processes.



Klippon® Services combines consultancy, planning, application expertise and industry know-how. You benefit from our one-stop production services. Thereby you will reduce costs, increase efficiency, and simplify quality management. We guarantee quick, quality-focused production and order-based availability. We deliver even individually assembled products anywhere within a short time.



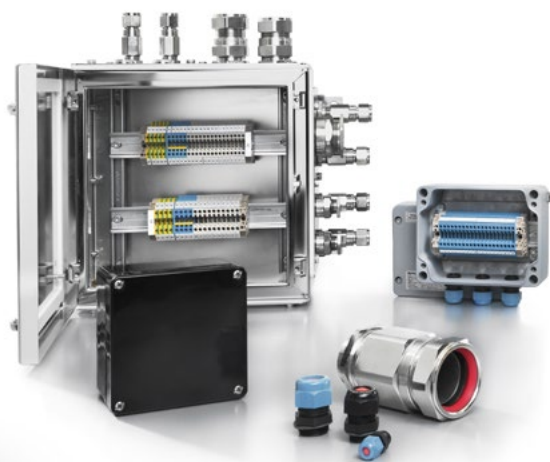
Klippon®  
Services



Klippon® Connect offers a wide range of tailored application products, universal terminals and in-process services. A complete range of standard solutions and application-specific products, including all conventional connection technologies and functions for your individual application.

Klippon®  
Connect

Klippon®  
Protect



With Klippon® Protect, you can choose from a wide range of universal and application-specific enclosures. These products cover all relevant approvals required for use in industrial and explosive risk zones. They are flexible enough for optimal adaptation to your requirements.

## Klippon® Services – expertise for your requirements

### Our service connects worldwide

Planning, engineering, and production processes have to be completed with ever greater speed, precision, and efficiency. Such an increase in efficiency needs innovative tools and processes that optimally support the entire process of product creation and assembly.

With Klippon® Services, we offer a comprehensive, digitalised support for planning and developing, offering and ordering, and assembly and delivery of your distinct product.

By bringing together the entire value chain – backed by efficient software tools, extraordinary expertise, and a technologically leading production – we are answering your requirements concerning a future-orientated, ready-to-install assembly.

#### **Your special advantages:**

One-stop configuring, ordering, and delivery of the assembled product: With Klippon® Services you benefit from greater flexibility in your project business. Our services span from reliable planning and professional engineering to manufacturing in perfect quality.



**An order will dispatch after just four days from Germany when a certain service level is selected. Order quantities start at one.**



Configuration and ordering are simple with the Weidmüller Configurator [www.weidmueller.de/wmc](http://www.weidmueller.de/wmc)



# Klippon® Services



### Fast Delivery Service

Obtain offers 24/7 and within minutes, including directly orderable article numbers. The Weidmüller Configurator (WMC) for planning and configuration is key for consistent processes.



### Engineer to Order

We offer highly qualified engineering service for standard or modified products.



### Customised Solutions

Our extensive customer consulting, powerful project management, and flexible production enable individual, customised solutions.

## Efficient digital engineering

### Weidmüller Configurator (WMC) integrates CAE access and direct offer

#### The choice is yours

Within Klippon® Services the WMC supports you step-by-step as you select and configure your assembled terminal strips and an extensive range of enclosures, including accessories and further Weidmüller products. You decide whether you want to carry out the complete configuration in WMC or whether you want to import data sets from your CAE system and simply transfer them back again after making final adjustments in the WMC. Whichever way you decide to go, you will benefit from centralised documentation that is always up to date, you will avoid transmission errors and you will no longer have to share your sensitive data with a third party. Using STEP, the universal 3D CAD exchange format, you can now also export your WMC solution directly into your CAE system, ensuring complete data consistency in all your systems.

#### Your special advantages:

Configuration is simple, safe, and convenient because of user-friendly operation, distinct design, and integration in your engineering workflows from planning with CAE to documentation.

## Three reasons to start using the Weidmüller Configurator now:

### 1. Proven configuration designs in real 3D

Digital product information is based on the classification standard eCI@ss advanced. An integrated plausibility and collision control with full digital documentation ensure that your configuration is 100 % reliable.

### 2. Seamless CAE integration

Integrated interfaces facilitate the simple import and export of product data between the WMC and all commonly-used engineering tools, such as Zuken E³ or EPLAN Electric P8.

### 3. Interfaces for automated manufacturing

The WMC provides all necessary digital information for a full automation, such as subsequent assembly, marking with M-Print® PRO, and wiring. This is the key for the fast delivery service.



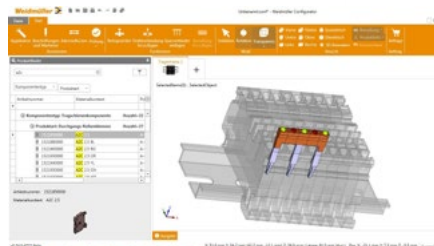
Configuration and ordering are simple with the Weidmüller Configurator  
[www.weidmueller.com/wmc](http://www.weidmueller.com/wmc)





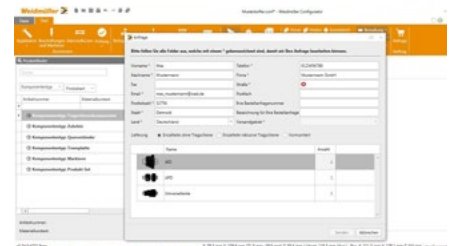
**Full engineering support**

The product data can be used in engineering systems such as EPLAN Electric P8 or Zuken E³ series. 3D models are available for panel set-up.



**Helpful wizard system**

The intelligent wizard function documents every step in which a component is assembled and only allows permissible configurations. Mistakes are corrected automatically.



**Integrated request function**

The selected components can be requested directly – as individual components, pre-installed on a terminal rail, or as an assembled enclosure.

# Klippon® Services – focus on your core business

## “Fast Delivery Service” enables short-term delivery of assembled products

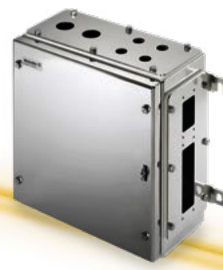
Today you are confronted with tough challenges in mechanical and plant engineering as well as in control cabinet production. On the one hand, the production of your products is becoming increasingly made to order/ custombuilt and a lot more complex. On the other hand, you have to deal with high price pressures, tight deadlines and short-term change requests. In addition, many products are requested in small quantities.

To meet these growing demands, you need ever more efficient planning and manufacturing processes - and you need to be able to rely on 100% fast and reliable delivery. With our Fast Delivery Service, we offer you both. The integrated concept simplifies your planning, accelerates your manufacturing processes and guarantees the delivery of individually assembled and ready-to-install terminal strips or enclosures within the shortest possible time. In this way, you reduce your costs, increase your flexibility and stay one step ahead of your competitors.



### Klippon® Connect and Klippon® Protect

Assembled enclosures with terminal strip, add-on components and optional Ex approval.



### Klippon® Protect

Individual empty enclosures with holes, threads or cut-outs according to your specifications – optionally unassembled, equipped or with add-on parts.



### WMC – Digital Engineering

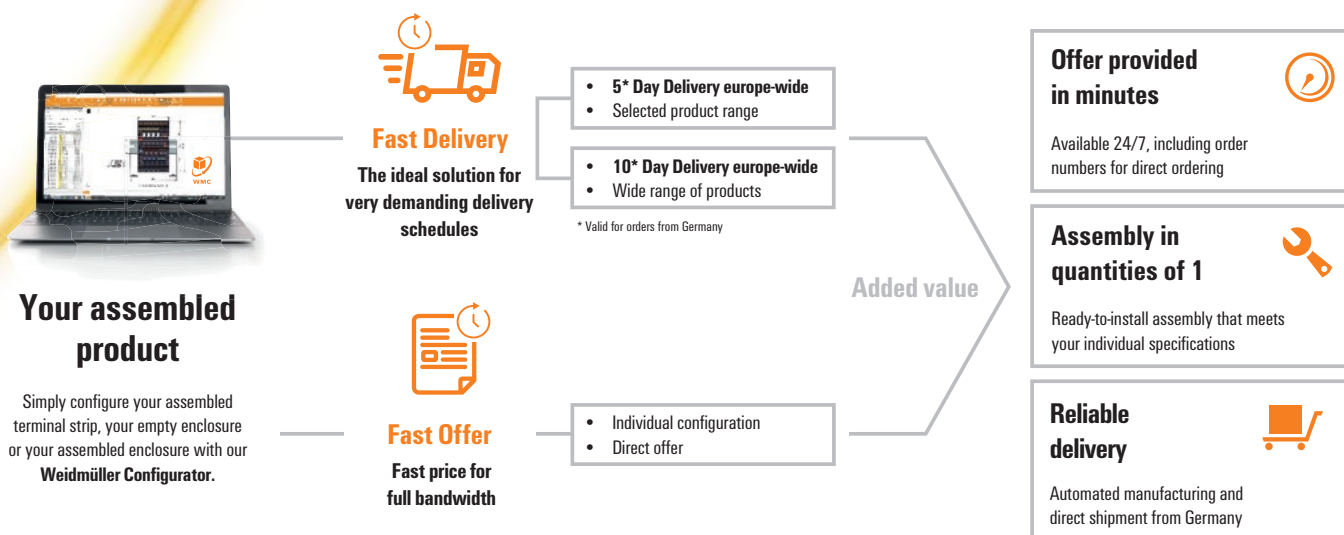
Our Weidmüller Configurator (WMC) gives you access to the “Fast Delivery Service”. You can import directly your CAE data.

### Klippon® Connect

Ready-to-install assembled terminal strips including electronic components - individually manufactured according to your specifications.

# Determine your own delivery time thanks to Fast Delivery Service

## We offer the choice between 3 service levels



## Your advantages at a glance with our Fast Delivery Service



### Reduce your costs

Your plants are becoming more and more specific and complex. Therefore, you have to stock many required components in your warehouse. With Fast Delivery, you receive complete assembled products – and can significantly minimise your purchasing and storage costs.



### Increase your flexibility

More and more often you have to manufacture small quantities of plants and be prepared for shortterm changes. With Fast Delivery, you get individual terminal strips and enclosures from batch size 1 – and you receive them ready for installation. This increases your flexibility.



### Meet your delivery commitments

You must complete and deliver your individual plants within tight time frames. Otherwise, your customers face high costs due to delays and production downtimes. With Fast Delivery, you can speed up all your processes and reliably meet your delivery commitments.

# With Klippon® Services you benefit from optimal support “Engineer to Order” – applications, based on your design

In a globally-orientated world, automation technology functions are becoming more complex by facing ambitious goals toward energy efficiency and smart production. We are your reliable partner for the best connections in Industrial Connectivity with our standard or customised products.



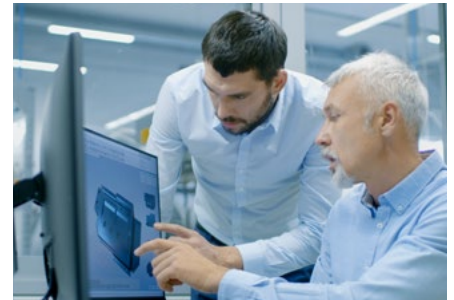
### Planning

You can rely on the support of our worldwide network of industrial managers, who know the challenges you face and who can assist with your particular applications.



### Engineering

After receiving your requirements, our experts analyse together with you the individual application and start the development process.



### Worldwide engineering network

Within our global engineering network, we are combining our expertise with your requirements – worldwide. This expertise allows us to assist you with advice and planning support toward resolving together the everyday challenges of your applications.

# Klippon® Services – plan, install, operate

## Individual projects need “Customised Solutions”

Our drive is your efficiency. Therefore we accompany you in all phases of your individual project and continuously develop our Klippon® Services product range. Throughout the entire duration of the project, professional project management is at your side so that you know that your products are in good hands up to delivery and beyond. The result are tailor-made products that are precisely tailored to the specific requirements of your project.

### Consulting

Our application experts advise you on the development of your individual project solution.



### Designing and Prototyping

Engineers create design studies and prototypes together with our experienced designers.



### Planning

A flexible, automatised production process ensures high quality products, whether standard or customised.



### Operation

Count on our solution-orientated after sales service combined with a complete traceability of the assembled products.



### Installation

Reduce your single part orders and stock while we focus on your final product.



### Assembly

We combine excellent products for your individual solution. Bringing added value for you and your customers.

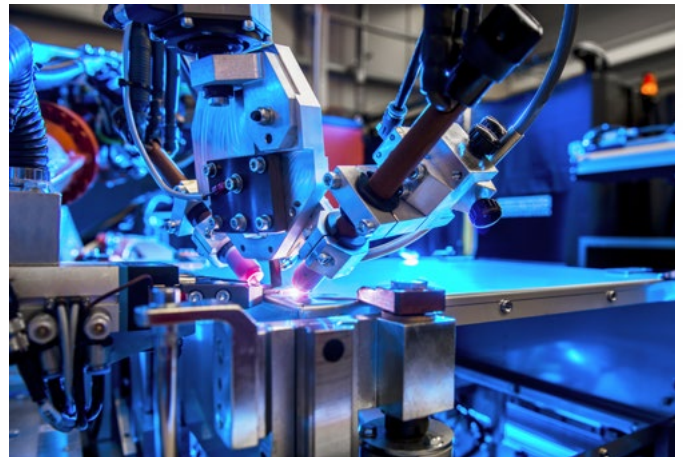
# Manufacturing expertise at the highest level

## Precision and reliability for your products

Our engineering and manufacturing expertise influences decisions in all areas of modern connection technology. It therefore plays an integral part of every solution. A variety of customised configurations can be constructed and produced at our worldwide assembly facilities according to individual requirements. All this based on maximum process and manufacturing reliability.



Continuous data management enables automated production and makes Industry 4.0 tangible.



Automated processes – here shown for our Klippon® TB enclosure range – ensures a reliable and consistent production process.



Whether you need modified products, pre-assembled terminal rails or complete devices for individual applications: we produce the solutions developed for your application quickly and flexibly.



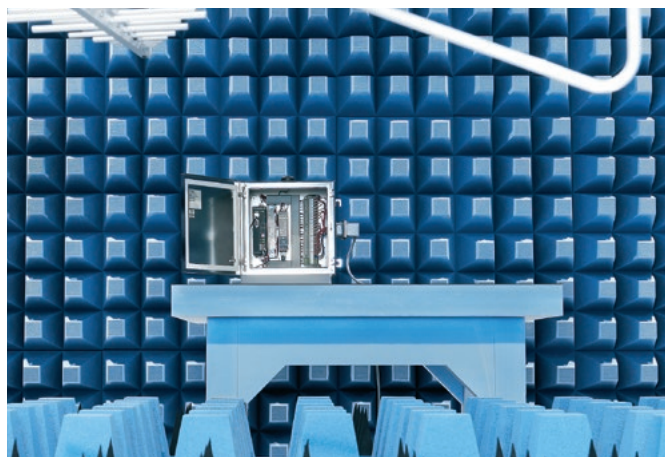
## When quality is the key

### You demand perfection – we take care of every detail

In the face of the international competition, you demand that all your equipment meets high safety, quality, and performance standards. Our products and services will support you to achieve these goals. We support you to advance new ideas that provide real value for your plant operation. After over 50 years of experience, we can determine the ideal combination of electrotechnical components which best suit your plant. We take into account your plant's specific conditions, including the local standards at its operation site. That's our definition of service.



Our laboratory assures the high quality and functionality of products.



Right from the start, we check exactly which components, materials, and systems are suitable for your application.



With our state-of-the-art processing technology, we ensure the highest quality during production and assembly.



We guarantee fast, quality-orientated production and order-ready product availability.





# Klippon® Protect

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# Klippon® Protect

## Safety and protection for connection solutions

### B

We designed the Klippon® Protect enclosure ranges to satisfy the extraordinary protection requirements for field applications. They provide outstanding high-performance features that satisfy the toughest demands within every industry and every application. The universal enclosures Klippon® Protect are made of stainless steel, aluminium, or plastic. Either one guarantees excellent protection for your assembly. With these robust enclosures, you can implement various field applications to suit your requirements. The matching system accessories enable simple integration, expansion, and customisation.

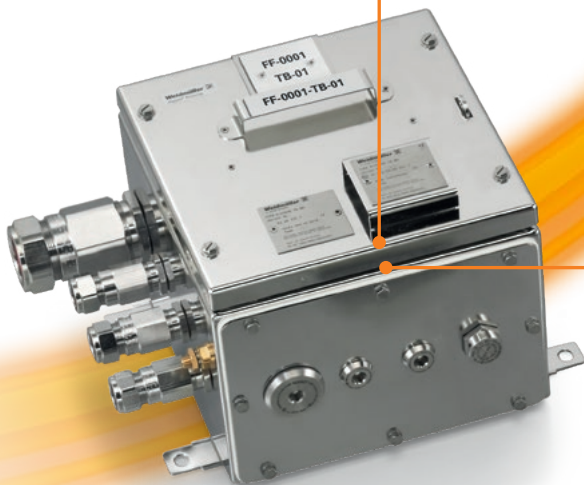
#### Your special advantages:

- Innovative enclosure concepts for outstanding performance even under extreme environmental conditions
- Robust and secure enclosure with optimised sealing system for the most stringent of protection requirements
- Klippon® Protect products are approved based on the most stringent international quality and safety standards



#### Reliable protection

The Klippon® TB has an integrated duct keeping contamination and moisture from penetrating when the enclosure is open. The outer earthing bolt is equipped with an IP67-certified seal mechanism and is protected against accidental rotation.



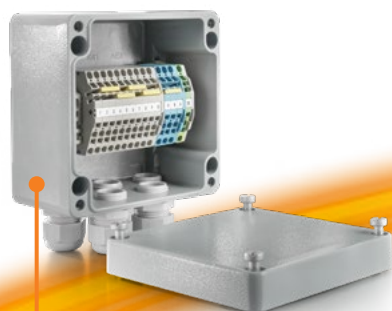
#### Temperature and sealing characteristics

All Klippon® TB and Klippon® STB enclosures are equipped with a silicone seal. It protects applications in extreme temperature conditions.

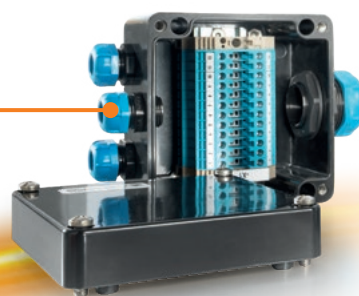




**Versatile lid design**  
The TBF, FPC and MPC enclosures are available with either transparent or grey lids.



**High IP protection**  
The Klippon® K aluminium enclosures are equipped with fully closed seals without adhesive points. The seal ensures an IP protection level from IP66 and up to IP68 – subject to use.



**Closed moulded gaskets**  
The Klippon® POK polyester enclosures gaskets are made of either silicone or chloroprene. The robust and secure sealing enhances ingress protection and increases the performance of each enclosure.



**Cable Glands and Cable Entry Systems: perfectly fulfilling your application needs**

We offer a variety of add-on components such as cable glands for a multitude of purposes and applications in addition to our extensive Klippon® Protect range. The supplementary cable entry system Cabtite allows connecting a pre-assembled cable to an installation enclosure or cabinet.

# Klippon® Protect

## Proven solutions for your application

### B

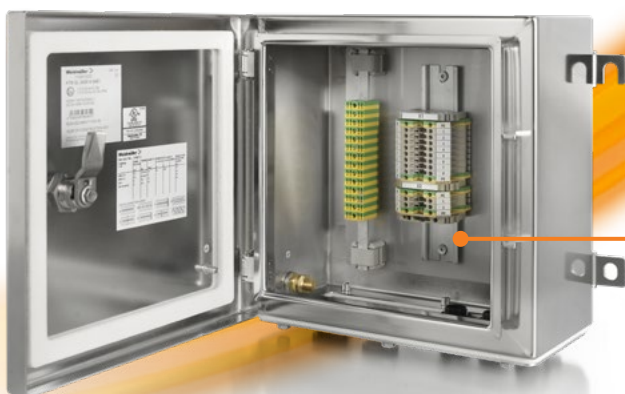
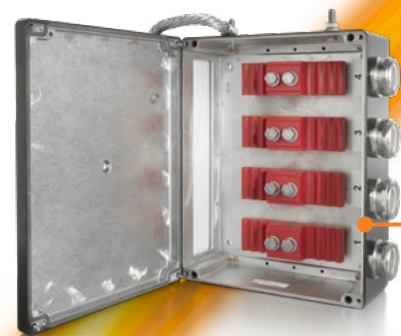
The Klippon® Protect solutions offer a wide range of standard industrial applications and explosive environments applications. The following overview of our Klippon® Protect range will give you an insight into its possibilities, including finding an individual solution.

#### Application range

Our Klippon® Protect application range provides solutions for monitoring and safety, measurement and control technology, and power distribution. These application solutions are based on high quality and comprehensive approvals for explosive risk zones.

#### Your special advantages:

- Terminal boxes, command and signalling devices as well as electronic boxes in a consistent enclosure design
- Extremely wide range of standard solutions for maximal safety, reliable functionality and low follow-up costs for maintenance, replacement and storage
- Certified to international standards for explosive risk zones and standard industrial applications such as automation, transportation and energy



#### Power distribution boxes and interfaces

In a complex environment, the efficient and reliable distribution of electrical energy requires optimally designed interface solutions that respond to the special features of the application. Our high-current terminal solutions offer an excellent interplay with our certified terminals with weather-resistant Klippon® Protect enclosures.

**Monitoring and Safety**

Through the assembly of units, we provide a myriad of monitoring and safety solutions; including proximeters for vibration measurement, temperature transmitters for monitoring of operating temperature, and eddy current sensors for non-contact distance measurement chains.



Klippon® Protect

B

**Measurement and Control systems**

Tailored to your respective requirements, the Klippon® Control Station combines control devices and status displays with various electronic components. You receive a turnkey plug-and-play solution – including all required approvals.



**Harmonisation – the key to market success**

Klippon® Protect is individually tailored to meet the changing and extremely harsh environments of the different industries. Certified to international standards, they also meet the latest ATEX and IECEx regulations for potentially explosive atmospheres in process industries. They have certifications for use in various standard industrial applications, such as automation, railway, transportation, and energy.

## Benefit from innovative automation concepts as a success factor Klippon® products for better performance and more efficient processes

### B

The advancing digitalisation of industrial manufacturing processes places ever higher demands on automation technology. Decentralised systems with high flexibility and easy operation are trend. System design, installation process, and plant operation are becoming more complex.

Klippon® products and services are optimally adapted to the requirements of modern automation concepts. They combine highest quality with excellent flexibility and performance – and thus become an integral part of your automation solutions. In the versatile Klippon® product portfolio you will find everything you need to optimise your production systems. The choice is yours.

#### Your special advantages:

- Wide range of products and services for every application
- Optimised for convenient planning, simple installation and efficient maintenance
- Highest product quality for reliable function and high durability
- Tested safety and conformity to standards
- Perfectly suited for flexible, decentralised automation concepts





**Klippon® K**  
 Klippon® K aluminium enclosures ensure a high level of system availability as well as the quick commissioning of your machines. Excellent shock, vibration, and temperature resistance combined with corrosion-resistant materials and surfaces make these enclosures particularly secure and long-lasting.



**Klippon® EBi**  
 Klippon® EBi stainless steel enclosures are suitable for both indoor and outdoor use, and can be combined with Klippon® Connect and Klippon® Protect components. They are extremely corrosion resistant and insensitive to dust and spray water. Ideally suited to the decentralised control of your system.



**Cabtite**  
 The Cabtite cable management system allows for quick cabling adjustment in the event of system modifications or during service and maintenance work. Modular components guarantee maximum flexibility while simultaneously ensuring a high level of protection.

# Increase efficiency and reliability in transportation

## Klippon® Protect enclosure solutions for the mobility of the future

### B

Mobility is becoming more and more important within our society. Increasing globalisation is also bringing rapid growth in the transportation of people and goods between continents. As a result, there is demand for particularly efficient and reliable solutions in the transportation sector.

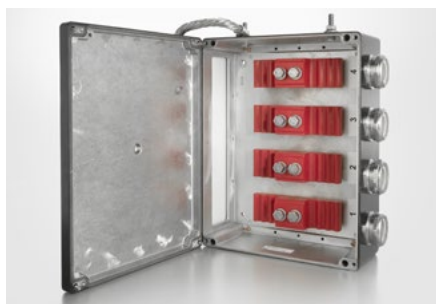
With secure connection solutions and tailor-made, individually configurable components, we are making a decisive contribution to the transport of the future. Our solutions are certified to the latest industry standards. They are produced using state-of-the-art manufacturing methods and stand for quality, durability and reliability.

#### Your special advantages:

- Particularly robust and long-lasting solutions
- Future-proof thanks to certification to the latest industry standards
- Resistant to an extremely wide range of external influences
- Optimally suited to the harsh environments typical of the rail and shipping industries
- Versatile use in the entire transport sector







**High-current terminal solutions**

Our high-current terminals are resistant to vibration, shock, and climatic conditions, making them ideal for use in engine compartments or on train bogies, for example. They can withstand large mechanical stresses and are characterised by their high electromagnetic compatibility.



**Klippon® K**

Our robust and resistant enclosures feature IP protection from IP66 to IP68, according to requirements. The customer-specific production in our Application Centers ensures quick assembly and a low risk of failure.



**Klippon® STB**

Extreme stability and corrosion resistance ensure the secure protection of devices and control components even in the harsh environments that are typical of the rail and shipping industries. Optimal sealing properties allow for use in extreme temperature ranges of between -60°C and +100°C.

## Comply with international standards in the energy supply sector

### Efficient and safe solutions with Klippon®

#### B

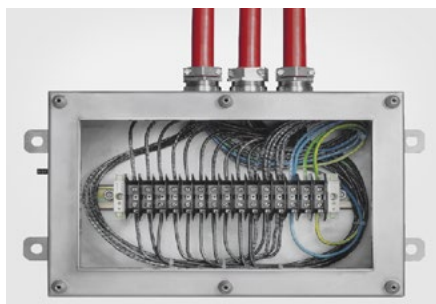
Alongside renewable energies such as wind and solar, the generation of energy from gas, coal and nuclear power will remain a key part of the world's energy mix for a long time to come. Our range of products therefore also features solutions for the specific requirements of the traditional energy sector.

With our complete solutions for all types of energy generation and supply, we can help you to guarantee the safe and reliable operation of your systems while also ensuring maximum availability. We provide you with the right Klippon® products for industrial solutions, harsh environments, explosive risk zones and safety-relevant applications – naturally with all of the market-specific certifications and approvals.

#### Your special advantages:

- International approvals and certifications
- Modified products for industry-specific requirements
- High resistance to weathering and corrosion
- Resistance to vibration, shock, and climatic conditions
- Compliance with explosion protection guidelines





#### Customer-specific solutions

Klippon® products are modified, assembled and approved in line with the respective sector. They comply with all of the required standards and guidelines on explosion protection and are resistant to vibrations, shock, and climatic conditions. For safe use in containment or non-containment areas.



#### Robust plastic enclosure

Klippon® plastic enclosures are extremely resistant to weather and corrosion, making them perfectly suited for use in the photovoltaic sector. International approvals and standards guarantee maximum security.



#### Intelligent accessories

Cable glands in protection classes IP54 to IP66, IP67 and IP69k are available as accessories. These cable glands are suitable for the most diverse applications and also cover high temperature ranges.

## Safely control work processes in hazardous areas on site Certified Klippon® Protect control and display elements

### B

Global demand for energy sources is on the rise. This presents a range of new challenges for the process industry: from research into new energy sources through to their processing and consumption.

Klippon® products satisfy these requirements with innovative technologies and active safety concepts. They ensure secure connections between the interfaces for different areas and guarantee safe, effective, and sustainable operation within the processes. Klippon® Protect control and display elements support all areas of automation within the process industry.

#### Your special advantages:

- Innovative control and display elements for an extremely wide range of automation applications
- Robust enclosure solutions with comprehensive protection for the assembled components
- Convenient independent engineering with the Weidmüller Configurator
- Professional advice during the engineering process on request
- Certified products that comply with the latest local and international standards including ATEX and IECEx.





**Klippon® Control Station**

The robust "on-site control station" is available in customer-specific optimised versions, with different enclosure materials and assembled components. Perfect for individual project solutions with international approvals for explosive risk zones.



**Klippon® TB**

The robust enclosures with electro-polished surfaces are perfectly suited to harsh environments, e.g. for use as distributor enclosures in offshore, food and beverage applications. The sealing system can withstand high operating temperatures and offers IP66/67 protection against moisture and dust.



**Klippon® Services**

Order specific enclosure solutions with explosion protection for your application, and make the most of the professional consulting and engineering services offered by our advisors – or carry out the engineering work yourself using the Weidmüller Configurator.



# Enclosures

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	Klippon® Control Station - Aluminium enclosures - Klippon® K	C.118
	Klippon® PDK - Polyester enclosures	C.128
	Klippon® Protect - Terminal Boxes Polyester - Klippon® PDK	C.150
	Klippon® Control Station - Polyester enclosures - Klippon® PDK	C.158
	TBF - Polyester enclosures	C.168
	MPC - Polycarbonate enclosures	C.176
	FPC - Polycarbonate enclosures	C.184

# Metal enclosures



	Klippon® TB MH	Klippon® TB QL	Klippon® TB FS	Klippon® EBi QL
Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Material Specification	Stainless steel 1.4404 (316L), enclosure 1.50 mm	Stainless steel 1.4404 (316L), enclosure 1.50 mm	Stainless steel 1.4404 (316L), enclosure 1.50 mm	Stainless steel 1.4301 (304), enclosure 1.50 mm, (1.25 mm)
Sea water resistance	very good	very good	very good	very good
UV resistance	very good	very good	very good	very good
Halogen free / cadmium free	x / x	x / x	x / x	x / x
Surface finish	electropolished	electropolished	electropolished	Brushed - grain size 240
Intended use	Explosive hazard areas, offshore, oil and gas industry, chemical industry, process industry	Explosive hazard areas, offshore, oil and gas industry, chemical industry, process industry	Explosive hazard areas, offshore, oil and gas industry, chemical industry, process industry	Machine construction, transport, power
<b>Dimensions</b>				
H x W x D (min.) in mm	229x152x133	229x152x133	229x152x133	300x200x150
H x W x D (max.) in mm	980x740x200	980x740x200	980x740x200	800x600x220
Geometry	3 standard depths	3 standard depths	3 standard depths	2 standard depths
<b>Specific characteristics</b>				
Gland plates	0,1,2,3,4	0,1,2,3,4	0,1,2,3,4	0,1
Type of gasket	Flat gasket	Flat gasket	Flat gasket	Flat gasket and foam seal
Seal material	Silicone	Silicone	Silicone	EPDM, polyurethane (PUR) foam
Enclosure attachment	4 or 6 mounting feet with 11 mm hole size	4 or 6 mounting feet with 11 mm hole size	4 or 6 mounting feet with 11 mm hole size	Direct mounting (9 mm mounting holes on rear wall) or via mounting feet (optionally available)
Installation mounting	4 or 6 mounting bolts with M6 threaded holes	4 or 6 mounting bolts with M6 threaded holes	4 or 6 mounting bolts with M6 threaded holes	Welded mounting bracket
Temperature range	-60 °C...+135 °C (IP66) -60 °C...+105 °C (IP67)	-60 °C...+135 °C	-60 °C...+135 °C (IP66) -60 °C...+105 °C (IP67)	-40 °C...+85 °C
Impact resistance	IK 09 (10J) in accordance with DIN EN 50102 / 7J in accordance with IEC 60079-0	IK 09 (10J) in accordance with DIN EN 50102 / 7J in accordance with IEC 60079-0	IK 09 (10J) in accordance with DIN EN 50102 / 7J in accordance with IEC 60079-0	IK 09 (10J) in accordance with IEC 62208
IP - protection class	IP66, IP67 /	IP66 /	IP66, IP67 /	IP66 /
NEMA protection class	Nema 3, Nema 4x, Nema 12	Nema 3, Nema 4x, Nema 12	Nema 3, Nema 4x, Nema 12	Nema 3, Nema 4x, Nema 5
Flammability rating				
Surface resistance (in ohms)				
<b>Approvals</b>				
ATEX	x	x	x	
AEx	x	x	x	
CCOE / INMETRO	In preparation / x	In preparation / x	In preparation / x	
cULus	x	x	x	x
EAC	x	x	x	
IECEX	x	x	x	
NEPSI / KOSHA	x / x	x / x	x / x	
RMR / LR / DNV GL	x / - / x	x / - / x	x / - / x	- / - / x
<b>Configuration</b>	Lid hinges Removable lid Gland plates Welded mounting feet Fitting for a padlock	Lid hinges Gland plates Welded mounting feet Quarter lock	Removable lid Gland plates Welded mounting feet	Lid hinges Gland plates Direct mounting, Optional mounting feet Quarter lock






	Klippon® STB		Klippon® K	
Material	Stainless steel	Sheet steel	Aluminium	
Material Specification	Stainless steel 1.4404 (316L) 1.50 mm	Powder-coated steel sheet 1.0330	High quality aluminium alloy (Al-Si12)	
Sea water resistance	very good	good	good	
UV resistance	very good	insufficient	very good	
Halogen free / cadmium free	x / x	x / x	x / x	
Surface finish	electropolished, Mirror-polish	powder-coated	neutral, powder-coated	
Intended use	Ex areas, packing industry, railways, shipping, process industry	Packing industry, railways, shipping, process industry	Ex-areas, process industry, transport, railways, shipping, port facilities, packaging, mechanical engineering	
<b>Dimensions</b>				
H x W x D (min.) in mm	120x120x80		50x45x30	
H x W x D (max.) in mm	250x400x130		230x280x111	
Geometry	5 standard depths		11 standard depths	
<b>Specific characteristics</b>	<b>Ex-version</b>	<b>Industrial version</b>	<b>Ex-version</b>	<b>Industrial version</b>
Gland plates	none	none	none	none
Type of gasket	Flat gasket	Flat gasket	Shaped gasket	Shaped gasket
Seal material	Silicone	Silicone	Silicone	Chloroprene, Silicone
Enclosure attachment	External holders with 8 mm holes	External holders with 8 mm holes	4 holes for M4 to M6 screws	4 holes for M4 to M6 screws
Installation mounting	20 mm C-rail welded to the enclosure	20 mm C-rail welded to the enclosure	M4 to M6 threaded holes	M4 to M6 threaded holes
Temperature range	-60 °C...+100 °C	-60 °C...+120 °C	-60 °C...+135 °C	-40 °C...+80 °C (CR); -60 °C...+135 °C (VMQ)
Impact resistance	7J in accordance with IEC 60079-0	IK 09 (10J) in accordance with DIN EN 50102	7J in accordance with IEC 60079-0	IK 09 (10J) in accordance with DIN EN 50102
IP - protection class	IP66 / Nema 4, 4x	IP66	IP66, IP67 / Nema 4x	IP66, IP67, IP68 / Nema 4x
Flammability rating				
Surface resistance (in ohms)				
<b>Approvals</b>				
ATEX	x		x	
AEx	x			
CCOE / INMETRO	- / x			
cULus	x			x
EAC	x		x	x
IECEX	x		x	
NEPSI / KOSHA	- / x			
RMR / LR / DNV GL	x / x / x	x / x / -	x / - / x	x / - / x
<b>Configuration</b>	TAS 20 C-profile rail Welded mounting feet Earth studs in enclosure lid and base		Internal earthing screw in the enclosure base an external earth stud	internal earthing screw in the enclosure base

# Plastic enclosures



	Klippon® POK		TBF	MPC	FPC
					
Material	Polyester		Polyester	Polycarbonate	Polycarbonate
Material Specification	Glass-fibre reinforced polyester in accordance with DIN 16913		Glass-fibre reinforced polyester, polycarbonate transparent cover		
Sea water resistance	very good		very good	very good	very good
UV resistance	good		good	good	good
Halogen free / cadmium free	x / x		x / x	x / x	x / x
Surface finish	Grey (industrial version), Black (Ex version)		grey	grey	grey
Intended use	Ex-areas, energy production, transportation, process industries, port facilities		Building installation, transportation, energy production, building sites, manufacturing industry, packaging industry	Building installation, transportation, energy production, building sites, manufacturing industry, packaging industry	Building installation, transportation, energy production, building sites, manufacturing industry, packaging industry
<b>Dimensions</b>					
H x W x D (min.) in mm	75x80x55		186x151x140	125x75x75	200x200x132
H x W x D (max.) in mm	250x600x120		603x603x175/210	250x175x150	600x400x132
Geometry	5 standard depths		3 standard depths	4 standard depths	1 standard depth
<b>Specific characteristics</b>	<b>Ex version (Black)</b>	<b>Industrial version (grey)</b>			
Gland plates	none	none	none	none	none
Type of gasket	Shaped seal	Shaped seal	O-ring	Foam seal	Foam seal
Seal material	Silicone	Chloroprene	Polyurethane	Polyurethane	Polyurethane
Enclosure attachment	4 holes for M4 to M6 screws	4 holes for M4 to M6 screws	4 holes or external mounting brackets (accessory)	4 holes or external mounting brackets (accessory)	4 holes or external mounting brackets (accessory)
Installation mounting	M4 to M6 threaded holes	M4 to M6 threaded holes	4 or 6 clamping screws M4	Self-tapping screws	Self-tapping screws
Temperature range	-55 °C...+100 °C	-40 °C...+100 °C	-50 °C...+130 °C (Continuous temperature max. 70 °C) (grey); -35 °C ...+120 °C ((Continuous temperature max. 70 °C) (transparent)	-50 °C...+100 °C (grey); -40 °C...+60 °C (transparent)	-50 °C...+100 °C (grey); -40 °C...+60 °C (transparent)
Impact resistance	7J in accordance with IEC 60079-0	IK 08 (5J) in accordance with DIN EN 50102	IK08 (5J) in accordance with IEC 62208, IK10 (20J) in accordance with IEC 62262	IK 08 (grey), IK 06 (transparent)	IK 08 (grey), IK 06 (transparent)
IP - protection class	IP66	IP66	IP66 (transparent lid) IP67 (grey lid)	IP66, IP67	IP66, IP67
Flammability rating	UL94 V0	UL94 V0	UL94 HB (grey), V2 (transparent)	V2	V2
Surface resistance (in ohms)	<10 <sup>9</sup>	10 <sup>12</sup>	10 <sup>12</sup>	10 <sup>16</sup>	10 <sup>16</sup>
<b>Approvals</b>					
ATEX	x				
AEx	x				
CCOE / INMETRO					
EAC	x	x			
cULus	x	x			
IECEX	x				
NEPSI / KOSHA	- / x				
RMR / LR / DNV GL	x / x / x	- / x / x			
<b>Configuration</b>	Fastening screws for the mounting plate		grey or transparent lid	grey or transparent lid	grey or transparent lid

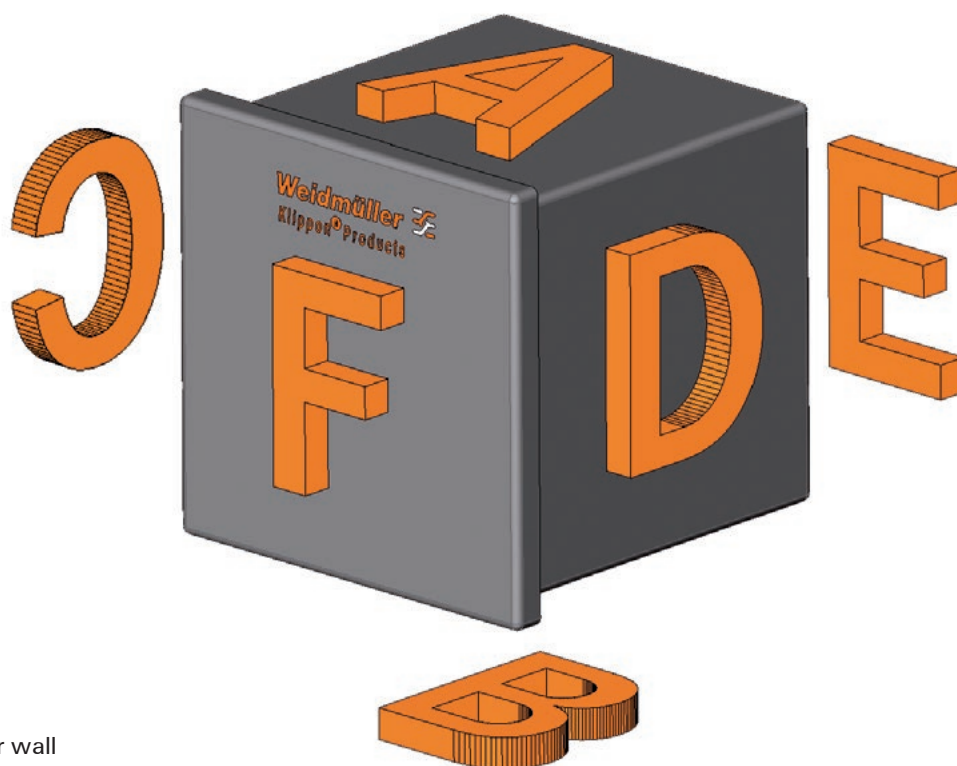
## Drawing design – For chapter C

The drawings contained in chapter C are constructed in the following way.

To identify the enclosure side views, these are marked with the letters A, B, C, D, E, and F. The schematic 3D representations shown underneath are of an enclosure that has been wall mounted.

- F** shows the view of the enclosure lid (front aspect),
- E** shows the interior surface of the enclosure (rear wall of the enclosure with the cover removed).
- A** shows the view of the enclosure from above and
- B** the view of the enclosure from underneath.
- C** shows the left and
- D** the right side of the enclosure.
- E** is the front view of the enclosure interior with the cover removed (enclosure rear wall).















You can find the dimensions of the enclosure sides for all enclosure sizes in each drawing.



- A** = Top
- B** = Bottom
- C** = Left
- D** = Right
- E** = Enclosure rear wall
- F** = Enclosure lid



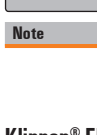
# Overview of dimensions

**Klippon® TB MH – Multi Hinge /  
Klippon® TB QL – Quarter Lock / Klippon® TB FS – Fixing Screw** Page C.10

		Dimensions in mm Height x width x depth
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	229 x 152 x 133
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	260 x 260 x 150
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	260 x 260 x 200
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	306 x 306 x 150
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	306 x 306 x 200
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	350 x 260 x 150
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	350 x 260 x 200
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	400 x 300 x 150
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	400 x 300 x 200
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	458 x 382 x 150
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	458 x 382 x 200
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	480 x 480 x 150
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	480 x 480 x 200
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	550 x 350 x 150
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	550 x 350 x 200
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	620 x 450 x 150
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	620 x 450 x 200
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	762 x 508 x 150
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	762 x 508 x 200












**Note** Additional enclosure sizes available on request.

**Klippon® TB MH – Multi Hinge /  
Klippon® TB QL – Quarter Lock / Klippon® TB FS – Fixing Screw** Page C.10

		Dimensions in mm Height x width x depth
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	914 x 610 x 150
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	914 x 610 x 200
	Klippon® TB MH Klippon® TB QL Klippon® TB FS	980 x 740 x 200

**Note** Additional enclosure sizes available on request.









**Klippon® EBi QL – Quarter Lock** Page C.48

		Dimensions in mm Height x width x depth
	Klippon® EBi QL	300 x 200 x 150
	Klippon® EBi QL	300 x 300 x 150
	Klippon® EBi QL	300 x 300 x 220
	Klippon® EBi QL	400 x 300 x 150
	Klippon® EBi QL	400 x 300 x 220
	Klippon® EBi QL	400 x 400 x 220
	Klippon® EBi QL	500 x 400 x 220
	Klippon® EBi QL	500 x 500 x 220
	Klippon® EBi QL	600 x 400 x 220
	Klippon® EBi QL	600 x 600 x 220
	Klippon® EBi QL	800 x 600 x 220

**Note** Additional enclosure sizes available on request.

## Klippon® STB






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		Dimensions in mm Height x width x depth
	1.4404 (316L), mirror polished 1.4404 (316L), electropolished MS RAL 7032	120 x 120 x 80
	1.4404 (316L), mirror polished 1.4404 (316L), electropolished MS RAL 7032	150 x 120 x 80
	1.4404 (316L), mirror polished 1.4404 (316L), electropolished MS RAL 7032	150 x 150 x 90
	1.4404 (316L), mirror polished 1.4404 (316L), electropolished MS RAL 7032	190 x 150 x 90
	1.4404 (316L), mirror polished 1.4404 (316L), electropolished MS RAL 7032	190 x 190 x 100
	1.4404 (316L), mirror polished 1.4404 (316L), electropolished MS RAL 7032	250 x 250 x 120
	1.4404 (316L), mirror polished 1.4404 (316L), electropolished MS RAL 7032	160 x 380 x 120
	1.4404 (316L), mirror polished 1.4404 (316L), electropolished MS RAL 7032	250 x 400 x 130

Information on the net weight of the enclosures can be found in the online catalogue. MS: Mild steel

## Klippon® K











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		Dimensions in mm Height x width x depth
	unpainted (S) unpainted (CR) RAL 7001 (CR) RAL 7001 (S)	45 x 50 x 30
	unpainted (S) unpainted (CR) RAL 7001 (CR) RAL 7001 (S)	64 x 58 x 34
	unpainted (S) unpainted (CR) RAL 7001 (CR) RAL 7001 (S)	64 x 98 x 34
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	70 x 70 x 45
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	80 x 75 x 57

Information on the net weight of the enclosures can be found in the online catalogue.

## Klippon® K

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


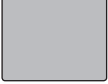
		Dimensions in mm Height x width x depth
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	70 x 100 x 45
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	80 x 125 x 57
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	70 x 165 x 45
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	80 x 175 x 57
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	80 x 250 x 55
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	82 x 130 x 72
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	120 x 122 x 81
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	130 x 170 x 90
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	120 x 220 x 81
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	160 x 160 x 91

Information on the net weight of the enclosures can be found in the online catalogue.

# Overview of dimensions

## Klippon® K









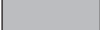
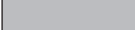
Page C.92

		Dimensions in mm Height x width x depth
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	160 x 200 x 100
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	160 x 260 x 91
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	160 x 350 x 100
	unpainted Ex (S) unpainted (CR) unpainted (S) RAL 7001 Ex (S) RAL 7001 (CR) RAL 7001 (S)	230 x 280 x 111

Information on the net weight of the enclosures can be found in the online catalogue.

## Klippon® POK



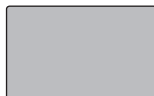




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		Dimensions in mm Height x width x depth
	RAL 7001 RAL 9011	75 x 80 x 56
	RAL 7001 RAL 9011	75 x 110 x 55
	RAL 7001 RAL 9011	75 x 160 x 55
	RAL 7001 RAL 9011	75 x 190 x 55
	RAL 7001 RAL 9011	75 x 230 x 55
	RAL 7001 RAL 9011	120 x 122 x 91
	RAL 7001 RAL 9011	120 x 220 x 91
	RAL 7001 RAL 9011	160 x 160 x 91
	RAL 7001 RAL 9011	160 x 260 x 91
	RAL 7001 RAL 9011	160 x 360 x 91

Information on the net weight of the enclosures can be found in the online catalogue.

## Klippon® POK





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		Maße [mm] Höhe x Breite x Tiefe	Gewicht [g]
	RAL 7001 RAL 9011	160 x 560 x 91	
	RAL 7001 RAL 9011	250 x 255 x 121	
	RAL 7001 RAL 9011	250 x 400 x 121	
	RAL 7001 RAL 9011	250 x 600 x 121	
	RAL 7001 RAL 9011	405 x 400 x 121	
	RAL 7001 RAL 9011	250 x 255 x 161	
	RAL 7001 RAL 9011	250 x 400 x 161	

Information on the net weight of the enclosures can be found in the online catalogue.





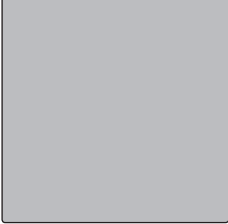
## TBF

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		Dimensions in mm Height x width x depth
	grey lid (RAL7035) transparent lid	186 x 151 x 140
	grey lid (RAL7035) transparent lid	302 x 186 x 175
	grey lid (RAL7035) transparent lid	302 x 302 x 175
	grey lid (RAL7035) transparent lid	372 x 302 x 175








Information on the net weight of the enclosures can be found in the online catalogue.

## TBF Page C.168


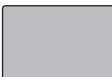
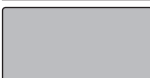



		Dimensions in mm Height x width x depth
	grey lid (RAL7035) transparent lid	<b>488 x 302 x 175</b> <b>488 x 302 x 210</b>
	grey lid (RAL7035) transparent lid	<b>558 x 302 x 175</b> <b>558 x 302 x 210</b>
	grey lid (RAL7035) transparent lid	<b>603 x 302 x 175</b> <b>603 x 302 x 210</b>
	grey lid (RAL7035) transparent lid	<b>603 x 372 x 175</b> <b>603 x 372 x 210</b>
	grey lid (RAL7035) transparent lid	<b>603 x 605 x 175</b> <b>603 x 605 x 210</b>

Information on the net weight of the enclosures can be found in the online catalogue.

## MPC Page C.176

		Dimensions in mm Height x width x depth
	grey lid (RAL7035) transparent lid	<b>75 x 125 x 75</b>
	grey lid (RAL7035) transparent lid	<b>75 x 125 x 100/120</b>
	grey lid (RAL7035) transparent lid	<b>120 x 120 x 75/100/120</b>
	grey lid (RAL7035) transparent lid	<b>120 x 175 x 75/100/120/150</b>
	grey lid (RAL7035) transparent lid	<b>175 x 175 x 75 /100/120/150</b>
	grey lid (RAL7035) transparent lid	<b>175 x 250 x 100</b>
	grey lid (RAL7035) transparent lid	<b>180 x 250 x 75/150</b>

## FPC Page C.184

		Dimensions in mm Height x width x depth
	grey lid (RAL7035) transparent lid	<b>200 x 200 x 132</b>
	grey lid (RAL7035) transparent lid	<b>200 x 300 x 132</b>
	grey lid (RAL7035) transparent lid	<b>200 x 400 x 132</b>
	grey lid (RAL7035) transparent lid	<b>300 x 300 x 132</b>
	grey lid (RAL7035) transparent lid	<b>300 x 400 x 132</b>
	grey lid (RAL7035) transparent lid	<b>400 x 600 x 132</b>

Information on the net weight of the enclosures can be found in the online catalogue.

# Klippon® TB enclosure series

## Stainless steel enclosures for use within hazardous areas

The Klippon® TB enclosure series offers excellent performance characteristics and meets the stricter requirements of hazardous areas.

The enclosures are available in twelve sizes and three standard depths. They consist of 1.4404 (316L) stainless steel and meet the requirements of the IP66 and IP67 protection classes. The enclosures are tested with this equipment to the latest international standards, including EN 62208 and EN 60079.

### Temperature and sealing characteristics

The enclosures come standard with a silicone seal for use under extreme temperatures.



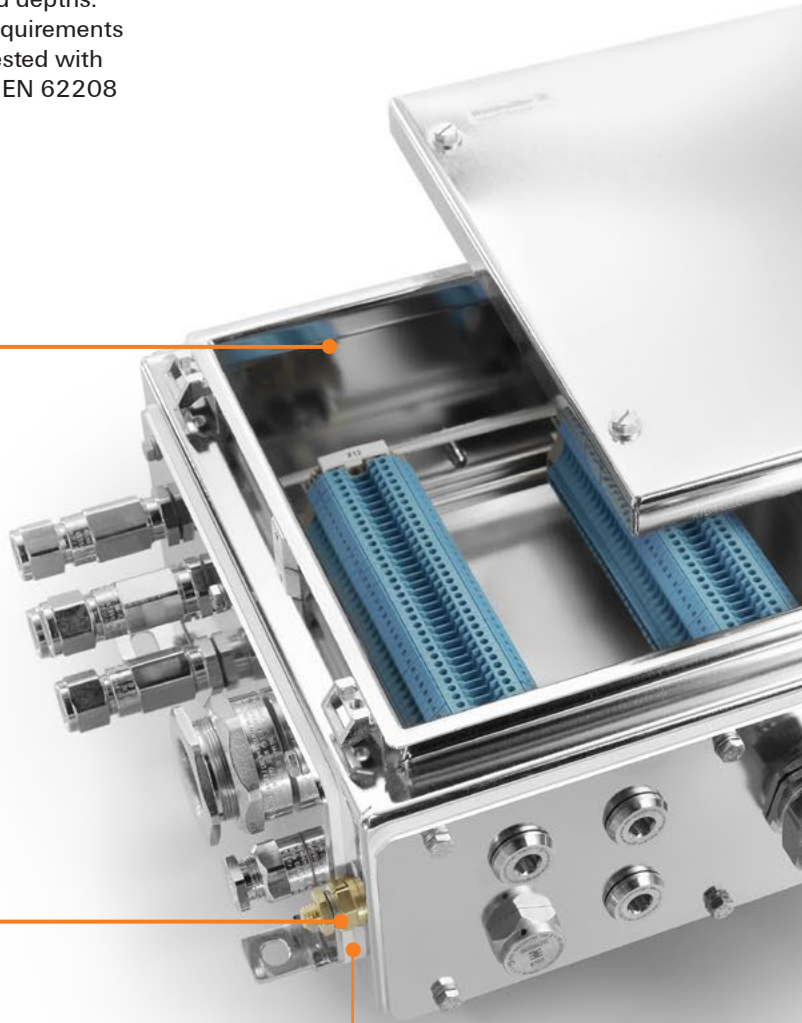
### Safe protection

An integrated dust and moisture channel prevents dirt and moisture from penetrating when the enclosure is opened. The external earthing stud is equipped with an IP66/67 certified sealing mechanism and is protected against twisting.



### Versatile installation options

Mounting bolts are located within the enclosure for installing rails and mounting plates. Welded-on mounting feet provide for a fast, secure and stable wall mounting.





**Safety and stability**

The different sealing systems prevents unauthorized access to the enclosure. Welded on inner thread sockets provide a stable attachment mechanism for gland plates and protect against leaks.



**Easy installation**

The enclosures are delivered with up to four gland plates so that cable glands can be easily and quickly installed and attached.



**Klippon® cable glands**

Our complete series of IP66 and IP68 cable glands and accessories are an excellent compliment to the Klippon® TB enclosure series. Cable glands enable the connection of armoured and unarmoured cables from M20 to M75.



**Approvals**

The Klippon® TB range of enclosures has been awarded international approvals.



**Industrial segments**

The enclosures are designed for use in a variety of applications and for use in hazardous areas in particular. Typical applications include the process industry, the petrochemicals and power generation. All enclosures are tested and approved in compliance with the latest international standards, including ATEX and IECEx according to EN 60079.



**Customer-specific solutions**

Weidmüller's customer-specific-service provides comprehensive consultation, engineering and installation for modified enclosures. The enclosures can be modified during the production process according to customer demands and completed with various accessory components. There is a wide range of customer specific options available, such as enclosures with pre drilled holes and cutouts, various surfaces and materials, locking options and alternative sizes. Holders for documents and rating labels, door retainers, rain shields and many more accessories can also be installed on the enclosures per customer request.



# Klippon® TB MH – Multi Hinge

## Steel enclosures for use in industrial and in potentially explosive atmospheres

The Klippon® TB enclosure range features excellent performance characteristics, even under the most difficult environmental conditions, and also comply with the stricter requirements of potentially explosive atmospheres found in the process or power generation industries. The Klippon® TB MH enclosure range offers further improvements to a product line that is already successfully leading the market.

Weidmüller manufactures and supplies the enclosures to match customer specifications – fully fitted with terminals, electronics and cable glands.

### Features:

- Available in 12 sizes and 3 standard depths, with customer-specific sizes on request
- The gasket is protected against compression
- Completely removable padlock tab
- Cover lock outside the sealed zone
- Improved temperature performance
- IP66/IP67 protection
- Lid can be removed without a tool
- Welded mounting feet
- International approvals



**i** Use our online catalogue to find additional product details, technical information and additional services:  
[www.weidmueller.com/KlipponTB](http://www.weidmueller.com/KlipponTB)

## Overview of enclosures

### Ordering data

Description	Height x width x depth in mm	0 Gland Plates	1 Gland Plate (below)	2 Gland Plates (above + below)	3 Gland plates (below + sides)	4 Gland plates (all sides)	Reference product
KTB MH 221513 S4E_*	229 x 152 x 133	1194550000	1194560000	1194570000	1194580000	1194590000	Klippon® TB10
KTB MH 262615 S4E_*	260 x 260 x 150	1194600000	1194610000	1194620000	1194630000	1194640000	Klippon® TB10A
KTB MH 262620 S4E_*	260 x 260 x 200	1194650000	1194660000	1194670000	1194680000	1194690000	Klippon® TB10A
KTB MH 303015 S4E_*	306 x 306 x 150	1194700000	1194710000	1194720000	1194730000	1194740000	Klippon® TB11
KTB MH 303020 S4E_*	306 x 306 x 200	1194750000	1194760000	1194770000	1194780000	1194790000	Klippon® TB11
KTB MH 352615 S4E_*	350 x 260 x 150	1194800000	1194810000	1194820000	1194830000	1194840000	Klippon® TB11A
KTB MH 352620 S4E_*	350 x 260 x 200	1194850000	1194860000	1194870000	1194880000	1194890000	Klippon® TB11A
KTB MH 403015 S4E_*	400 x 300 x 150	1194900000	1194910000	1194920000	1194930000	1194940000	-
KTB MH 403020 S4E_*	400 x 300 x 200	1194950000	1194960000	1194970000	1194980000	1194990000	-
KTB MH 453815 S4E_*	458 x 382 x 150	1195000000	1195010000	1195020000	1195030000	1195040000	Klippon® TB12
KTB MH 453820 S4E_*	458 x 382 x 200	1195050000	1195060000	1195070000	1195080000	1195090000	Klippon® TB12
KTB MH 484815 S4E_*	480 x 480 x 150	1195100000	1195110000	1195120000	1195130000	1195140000	Klippon® TB12A
KTB MH 484820 S4E_*	480 x 480 x 200	1195150000	1195160000	1195170000	1195180000	1195190000	Klippon® TB12A
KTB MH 553515 S4E_*	550 x 350 x 150	1195200000	1195210000	1195220000	1195230000	1195240000	Klippon® TB12B
KTB MH 553520 S4E_*	550 x 350 x 200	1195250000	1195260000	1195270000	1195280000	1195290000	Klippon® TB12B
KTB MH 624515 S4E_*	620 x 450 x 150	1195300000	1195310000	1195320000	1195330000	1195340000	Klippon® TB12D
KTB MH 624520 S4E_*	620 x 450 x 200	1195350000	1195360000	1195370000	1195380000	1195390000	Klippon® TB12D
KTB MH 765015 S4E_*	762 x 508 x 150	1195400000	1195410000	1195420000	1195430000	1195440000	Klippon® TB13
KTB MH 765020 S4E_*	762 x 508 x 200	1195450000	1195460000	1195470000	1195480000	1195490000	Klippon® TB13
KTB MH 916115 S4E_*	914 x 610 x 150	1195500000	1195510000	1195520000	1195530000	1195540000	Klippon® TB14
KTB MH 916120 S4E_*	914 x 610 x 200	1195550000	1195560000	1195570000	1195580000	1195590000	Klippon® TB14
KTB MH 987420 S4E_*	980 x 740 x 200	1195600000	1195610000	1195620000	1195630000	1195640000	-

**Note** \* Placeholder for the number of gland plates (0, 1, 2, 3, 4). The Klippon® TB enclosures with 2 and 4 gland plates are subject to minimum order quantities.

## Technical Overview

### Technical data

Enclosure material*	Stainless steel 1.4404 (316L) 1.5 mm
Surface finish	electropolished
IP protection class	IP66 / IP67 to DIN EN 60529
NEMA protection classes	3, 4x, 12
Gland plates	1 - 4 (fixed with M6 hexagon head screws with 10 mm heads), optionally without a gland plate
Gland plate thickness	3 mm (other thickness are available on request)
Earthing inside	Enclosure base and lid: welded M6 stainless steel earth studs
Earthing outside	Continuous M10 brass earth stud (optionally with stainless-steel earth stud)
Installation mounting	4 or 9 mounting bolts with M6 threaded holes to attach the mounting plate or mounting rail
Enclosure attachment	4 or 6 welded mounting feet with 11-mm holes (2 slotted and 2 cross-shaped openings)
Lid opening	Lid can be fully removed without the use of tools, can be fitted on both sides, lid opening angle: 130°
Cover attachment	4 hinges and M6 hex-head screws (AF 10) with slot
Equipped for a padlock	Removable padlock fitting, for additional product security
Impact resistance	7 J to IEC 60079-0, IK 09 (10J) to DIN EN 50102
Gasket material	Silicone
Operating temperature range	-60 °C...+105 °C (IP66/IP67), -60 °C...+135 °C (IP66)
Torque – lid and gland plate screws	2.5 Nm
<b>Note</b>	* Painted enclosures are available on request.

### Approvals for empty enclosures

ATEX certificate	IBExU14ATEX1028 U	EAC	RU-DE.08.B.00472
ATEX marking	II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db	cULus DNV GL	E243298 TAE000013S
IECEX certificate	IECEX IBE 14.0004U	Russian Maritime Register	15.40073.250
IECEX marking	Ex eb IIC Gb Ex tb IIIC Db	CCOE INMETRO	In preparation IEx 17.0020U
Nepsi Ex certificate	GYJ14.1308U	AEx	E223792
Nepsi Ex marking	Ex e IIC Gb, DIP A21	Miscellaneous	EN 45545, DIN EN 15085-2/CL2
<b>Note</b>	The Klippon® TB enclosure range can be pre-fitted in our customer specific production department according to your wishes.		

### Approvals for control and distribution box

ATEX certificate	IBExU14ATEX1050	IECEX certificate	IECEX IBE 14.0013
ATEX marking	⊕ II 2G Ex eb IIC/IIA T6/T5/T4 Gb ⊕ II 1G Ex ia IIC/IIA T6/T5/T4 Ga ⊕ II 2G Ex eb ia IIC/IIA T6/T5/T4 Gb ⊕ II 2D Ex tb IIIC T80°C/T95°C/T135°C Db ⊕ II 1D Ex ia IIC T80°C/T95°C/T135°C Da -60 °C ≤ Ta ≤ +40/+55/+90 °C	IECEX marking	Ex eb IIC/IIA T6/T5/T4 Gb Ex ia IIC/IIA T6/T5/T4 Ga Ex eb ia IIC/IIA T6/T5/T4 Gb Ex tb IIIC T80°C/T95°C/T135°C Db Ex ia IIC T80°C/T95°C/T135°C Da -60 °C...+40/+55/+90 °C
Nepsi Ex certificate	GYJ14.1309	INMETRO certificate	IEx 17.0021
Nepsi marking	Ex e IIC T4...T6 Gb Ex ia IIC T4...T6 Ga Ex e ia IIC T4...T6 Gb DIP A21 Ta 85°C...Ta 135°C Ex ia D20 T85 °C... T135 °C	INMETRO marking	Ex eb IIC T6/T5/T4 Gb Ex ia IIC T6/T5/T4 Ga Ex eb ia IIC T6/T5/T4 Gb Ex tb IIIC T85°C/T100°C/T135°C Db IP66/IP67 Ex ia IIC T85°C/T100°C/T135°C Da
EAC certificate	RUC-DE.08.B.01328	AEx certificate	E223792
EAC marking	II 2 G Ex eb IIC T6...T4 II 2 G Ex e IIC T6...T4 Gb II 1 G Ex ia IIC T6...T4 II 1 G Ex ia IIC T6...T4 Ga II 2(1) G Ex eb ia IIC T6...T4 II 2(1) G Ex e ia IIC T6...T4 Gb II 2 D Ex tb IIIC T85°C...T135°C II 2 D Ex tb IIIC T85°C...T135°C Db	AEx marking	Class I, Zone 1, AEx e IIC Gb T6...T4 Class I, Zone 2, AEx e IIC Gc T6...T4 Class I Div.2 Group A,B,C,D T6...T4 Class II Div.2 Group F,G Zone 21, AEx tb IIIC Db
KOSHA certificate	16-AV4B0-0245X		
KOSHA marking	Ex eb IIC/IIA T6/T5/T4 Gb Ex ia IIC/IIA T6/T5/T4 Ga Ex eb ia IIC/IIA T6/T5/T4 Gb Ex tb IIIC T80°C/T95°C/T135°C Db Ex ia IIC T80°C/T95°C/T135°C Da 60 °C...+40/+55/+90 °C		
<b>Note</b>	Labelling depends on the application layout. Limited to IP66 protection when used in temperatures greater than 105 °C. For details of power dissipation, please contact your Weidmüller representative. Additional approvals available on request.		

# Integrate, expand, and customise: the perfect supplement to every application

The fully structured range of system accessories for the Klippon® TB enclosure range allows you to easily adapt the enclosure to meet the specific requirements of every application.

The following options are available:

## 1 Document holder

Document holders for storage of important documents in the enclosure.

## 2 Earthing studs

Earthing studs are replaceable. Available in two versions – brass and stainless steel.

## 3 Gland plates

Gland plates are available as spares and also in various material thicknesses.

## 4 Mounting plates

Mounting plates with and without a drilling pattern, for horizontal and vertical mounting of rails, or components fitted directly.

## 5 Mounting hardware kits

Mounting hardware kits are available for quick and easy installation of label holders, mounting plates, gland plates, document holders, and rain hoods.

## 6 Door stay

A door stay prevent the door from being closed unintentionally, regardless of the mounting position of the enclosure. This item is **only** available Ex-works.

## 7 Locking systems

Various locking systems are available for the safe securing of the enclosure. There are padlocks for the Klippon® TB MH enclosures and a range of lock inserts for the Klippon® TB QL enclosures.

## 8 Type label holder

A range of label holders are available for product identification.

## 9 Rain hoods

The rain hood provides an ideal, additional level of protection for the enclosure. Particularly useful against heavy rainfall or extreme levels of direct sunlight.



Klippon® TB MH 221513

Depth 133 mm



Height / Width / Depth 229 / 152 / 133 mm

Ordering data

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1194550000
1 gland plate - positioned at the bottom (B)	1194560000
2 gland plates - positioned at top and bottom (A & B)*	1194570000
3 gland plates - positioned at bottom, left and right (B, C & D)	1194580000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1194590000

**Note** \*Minimum order quantity (20 pieces)

Accessories

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1193930000
With hole pattern, sheet steel, galvanised	2022050000
Stainless steel 1.4301 natural	1193810000
With hole pattern, natural stainless steel 1.4301	1257650000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000

Mounting rails**, TS35x7.5	Order No.
Horizontally	8000006720
Vertical	8000006708

Stainless steel spacer M6 x 8, Set of 4	Order No.
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000

Gland plates - 3 mm with M6 earth studs	Order No.
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2022770000
Left and right sides (C & D), electropolished stainless steel 1.4404	2022900000

Gland plates and screws - 6 mm	Order No.
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256270000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256280000
Mounting screw, stainless steel 1.4404	1253230000

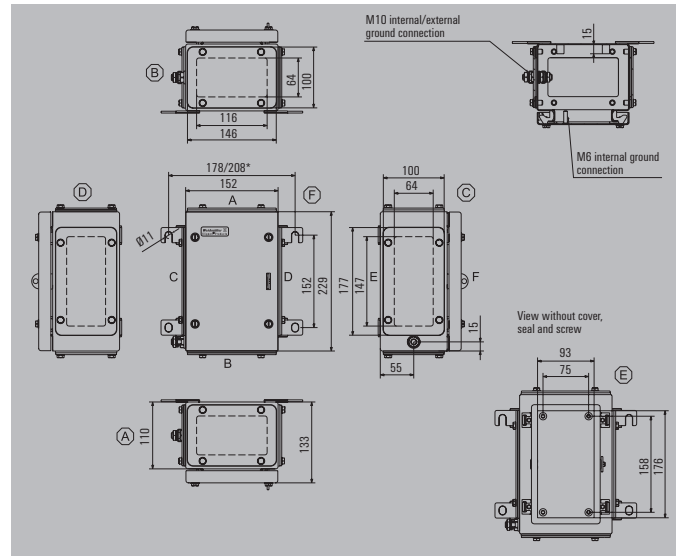
Rain hoods	Order No.
Stainless steel 1.4301, mirror-polished	1281360000
Stainless steel 1.4404, electro-polished	1314090000

Label holder	Order No.
70 x 70 angled stainless steel 1.4301	1279320000

Set of fixings*	Order No.
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000

Earthing stud	Order No.
Stainless steel 1.4404, M10	1192690000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



Guide value for max. number of terminals (industry)

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	1x26	1x10
4 mm <sup>2</sup>	1x21	1x8
6 mm <sup>2</sup>	1x16	1x6
10 mm <sup>2</sup>	1x13	1x4
16 mm <sup>2</sup>	1x10	1x3
35 mm <sup>2</sup>	1x7	1x2

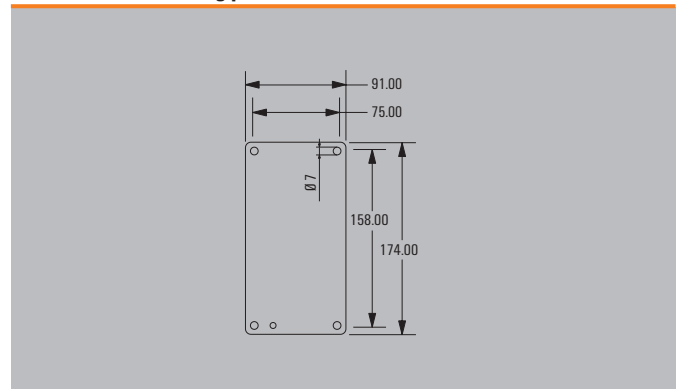
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

Guide value for max. number of cable entries

Cable entries	A / B	C / D
M12	6	8
M16	5	6
M20	2	3
M25	2	2
M32	1	2
M40	1	2
M50	0	0
M63	0	0
M75	0	0

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

Dimensions of mounting plate





Height / Width / Depth 260 / 260 / 150 mm

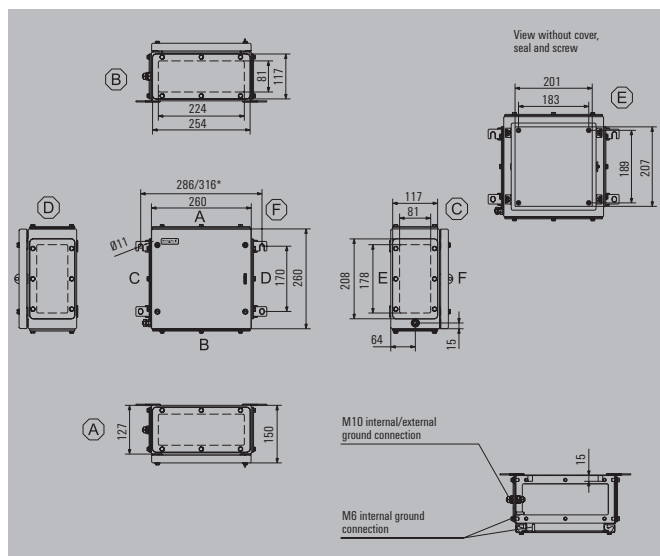
**Ordering data**

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1194600000
1 gland plate - positioned at the bottom (B)	1194610000
2 gland plates - positioned at top and bottom (A & B)*	1194620000
3 gland plates - positioned at bottom, left and right (B, C & D)	1194630000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1194640000
<b>Note</b>	*Minimum order quantity (20 pieces)

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1193950000
With hole pattern, sheet steel, galvanised	2022060000
Stainless steel 1.4301 natural	1193820000
With hole pattern, natural stainless steel 1.4301	1257660000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Horizontally	8000006721
Vertical	8000006709
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2022930000
Left and right sides (C & D), electropolished stainless steel 1.4404	2023090000
Gland plates and screws - 6 mm	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256290000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256310000
Mounting screw, stainless steel 1.4404	1253230000
Rain hoods	
Stainless steel 1.4301, mirror-polished	1281370000
Stainless steel 1.4404, electro-polished	1314100000
Label holder	
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000
Document holders	
For DIN A6 size documents	1252780000
Set of fixings*	
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud	
Stainless steel 1.4404, M10	1192690000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	2x31	2x31
4 mm <sup>2</sup>	1x26	1x26
6 mm <sup>2</sup>	1x19	1x19
10 mm <sup>2</sup>	1x15	1x15
16 mm <sup>2</sup>	1x12	1x12
35 mm <sup>2</sup>	1x9	1x9

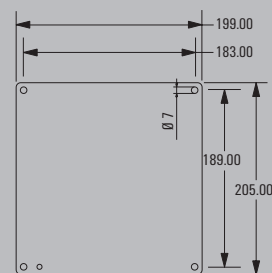
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	20	15
M16	11	8
M20	9	7
M25	4	3
M32	3	2
M40	3	2
M50	2	2
M63	0	0
M75	0	0

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**





Height / Width / Depth 260 / 260 / 200 mm

**Ordering data**

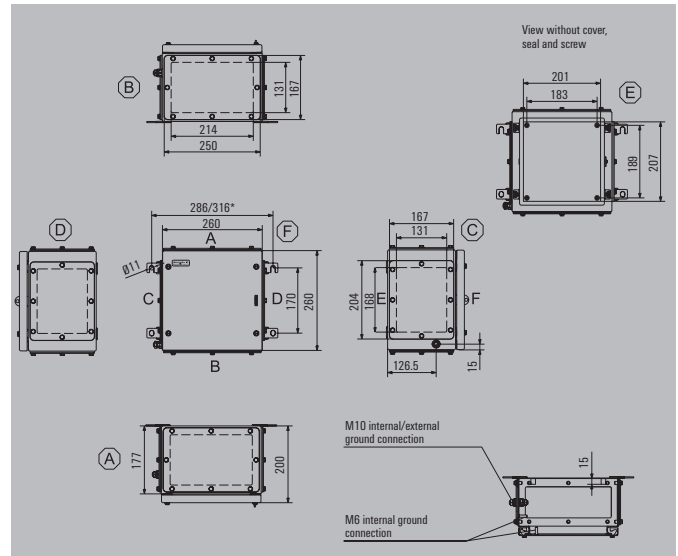
Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1194650000
1 gland plate - positioned at the bottom (B)	1194660000
2 gland plates - positioned at top and bottom (A & B)*	1194670000
3 gland plates - positioned at bottom, left and right (B, C & D)	1194680000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1194690000

**Note** \*Minimum order quantity (20 pieces)

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1193950000
With hole pattern, sheet steel, galvanised	2022060000
Stainless steel 1.4301 natural	1193820000
With hole pattern, natural stainless steel 1.4301	1257660000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Horizontally	8000006721
Vertical	8000006709
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023100000
Left and right sides (C & D), electropolished stainless steel 1.4404	2023110000
Gland plates and screws - 6 mm	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256320000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256330000
Mounting screw, stainless steel 1.4404	1253230000
Rain hoods	
Stainless steel 1.4301, mirror-polished	1281380000
Stainless steel 1.4404, electro-polished	1314110000
Label holder	
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000
Document holders	
For DIN A6 size documents	1252780000
Set of fixings*	
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud	
Stainless steel 1.4404, M10	1192690000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	2x31	2x31
4 mm <sup>2</sup>	1x26	1x26
6 mm <sup>2</sup>	1x19	1x19
10 mm <sup>2</sup>	1x15	1x15
16 mm <sup>2</sup>	1x12	1x12
35 mm <sup>2</sup>	1x9	1x9

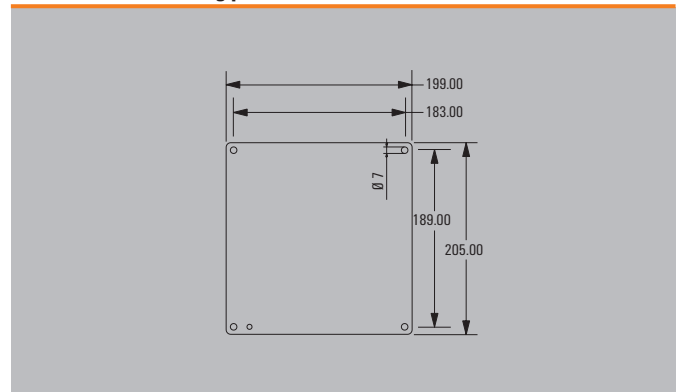
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	33	25
M16	22	16
M20	14	11
M25	12	9
M32	6	4
M40	5	4
M50	2	2
M63	2	1
M75	1	1

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**





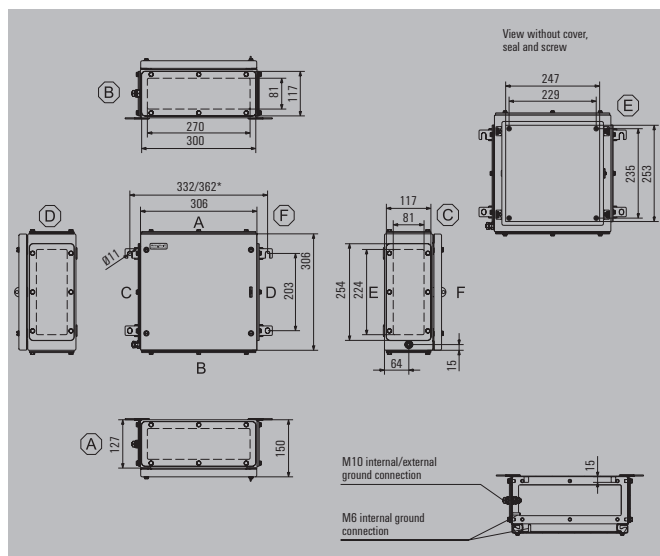
Height / Width / Depth 306 / 306 / 150 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1194700000
1 gland plate - positioned at the bottom (B)	1194710000
2 gland plates - positioned at top and bottom (A & B)*	1194720000
3 gland plates - positioned at bottom, left and right (B, C & D)	1194730000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1194740000
<b>Note</b>	*Minimum order quantity (20 pieces)

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1193960000
With hole pattern, sheet steel, galvanised	2022190000
Stainless steel 1.4301 natural	1193830000
With hole pattern, natural stainless steel 1.4301	1257670000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Horizontally	8000006722
Vertical	8000006710
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023120000
Left and right sides (C & D), electropolished stainless steel 1.4404	2023130000
Gland plates and screws - 6 mm	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256340000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256350000
Mounting screw, stainless steel 1.4404	1253230000
Rain hoods	
Stainless steel 1.4301, mirror-polished	1281390000
Stainless steel 1.4404, electro-polished	1314120000
Label holder	
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000
Document holders	
For DIN A6 size documents	1252780000
Set of fixings*	
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud	
Stainless steel 1.4404, M10	1192690000
<b>Note</b>	*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures **Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	1x41	2x40
4 mm <sup>2</sup>	1x34	2x33
6 mm <sup>2</sup>	1x25	2x25
10 mm <sup>2</sup>	1x20	1x20
16 mm <sup>2</sup>	1x17	1x16
35 mm <sup>2</sup>	1x12	1x12

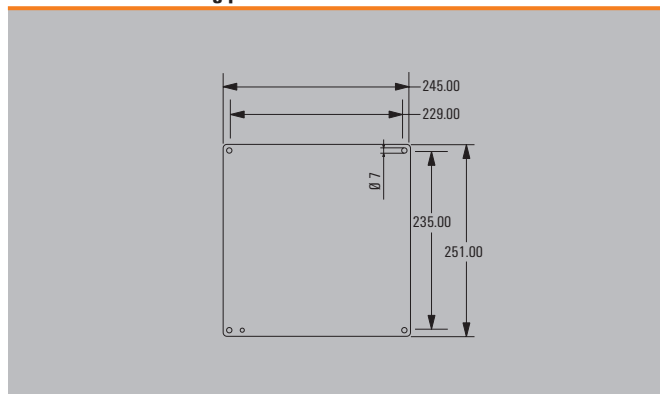
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAJ TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	24	20
M16	13	11
M20	11	9
M25	5	4
M32	4	3
M40	3	3
M50	3	2
M63	0	0
M75	0	0

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**





Klippon® TB MH 303020

Depth 200 mm



Height / Width / Depth 306 / 306 / 200 mm

Ordering data

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1194750000
1 gland plate - positioned at the bottom (B)	1194760000
2 gland plates - positioned at top and bottom (A & B)*	1194770000
3 gland plates - positioned at bottom, left and right (B, C & D)	1194780000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1194790000

**Note** \*Minimum order quantity (20 pieces)

Accessories

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1193960000
With hole pattern, sheet steel, galvanised	2022190000
Stainless steel 1.4301 natural	1193830000
With hole pattern, natural stainless steel 1.4301	1257670000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000

Mounting rails**, TS35x7.5	Order No.
Horizontally	8000006722
Vertical	8000006710

Stainless steel spacer M6 x 8, Set of 4	Order No.
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000

Gland plates - 3 mm with M6 earth studs	Order No.
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023140000
Left and right sides (C & D), electropolished stainless steel 1.4404	2023150000

Gland plates and screws - 6 mm	Order No.
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256360000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256370000
Mounting screw, stainless steel 1.4404	1253230000

Rain hoods	Order No.
Stainless steel 1.4301, mirror-polished	1281400000
Stainless steel 1.4404, electro-polished	1314130000

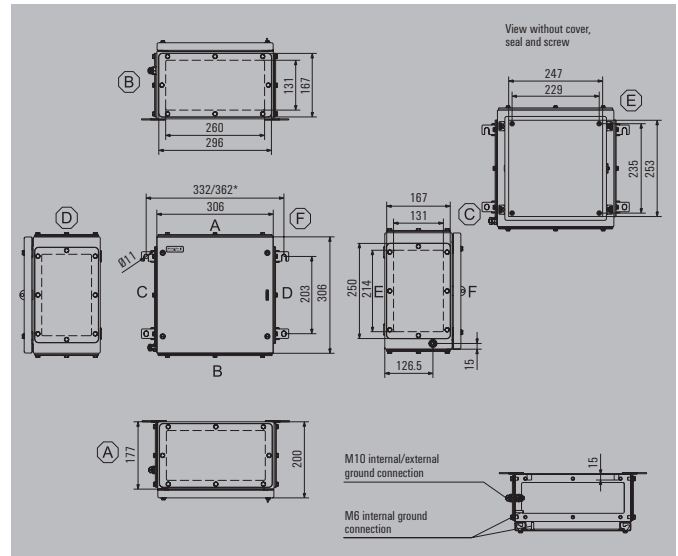
Label holder	Order No.
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000

Document holders	Order No.
For DIN A6 size documents	1252780000

Set of fixings*	Order No.
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000

Earthing stud	Order No.
Stainless steel 1.4404, M10	1192690000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



Guide value for max. number of terminals (industry)

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	1x41	2x40
4 mm <sup>2</sup>	1x34	2x33
6 mm <sup>2</sup>	1x25	2x25
10 mm <sup>2</sup>	1x20	1x20
16 mm <sup>2</sup>	1x17	1x16
35 mm <sup>2</sup>	1x12	1x12

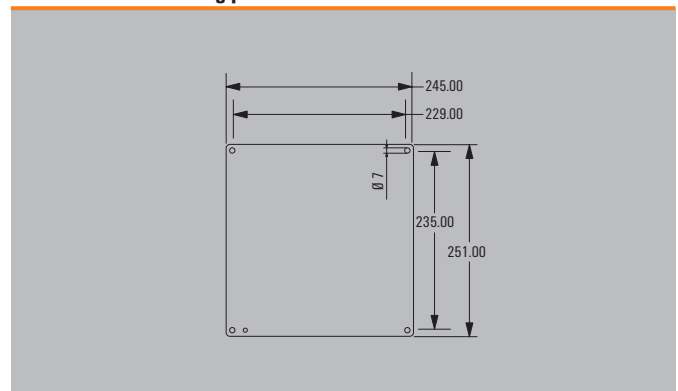
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

Guide value for max. number of cable entries

Cable entries	A / B	C / D
M12	40	33
M16	26	22
M20	17	14
M25	14	12
M32	8	6
M40	6	5
M50	3	2
M63	2	2
M75	2	1

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

Dimensions of mounting plate





Height / Width / Depth 350 / 260 / 150 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1194800000
1 gland plate - positioned at the bottom (B)	1194810000
2 gland plates - positioned at top and bottom (A & B)*	1194820000
3 gland plates - positioned at bottom, left and right (B, C & D)	1194830000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1194840000

**Note** \*Minimum order quantity (20 pieces)

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1193970000
With hole pattern, sheet steel, galvanised	2022310000
Stainless steel 1.4301 natural	1193840000
With hole pattern, natural stainless steel 1.4301	1257680000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000

Mounting rails**, TS35x7.5	Order No.
Horizontally	8000006721
Vertical	8000006711

Stainless steel spacer M6 x 8, Set of 4	Order No.
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000

Gland plates - 3 mm with M6 earth studs	Order No.
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023160000
Left and right sides (C & D), electropolished stainless steel 1.4404	2023210000

Gland plates and screws - 6 mm	Order No.
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256380000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256390000
Mounting screw, stainless steel 1.4404	1253230000

Rain hoods	Order No.
Stainless steel 1.4301, mirror-polished	1281410000
Stainless steel 1.4404, electro-polished	1314140000

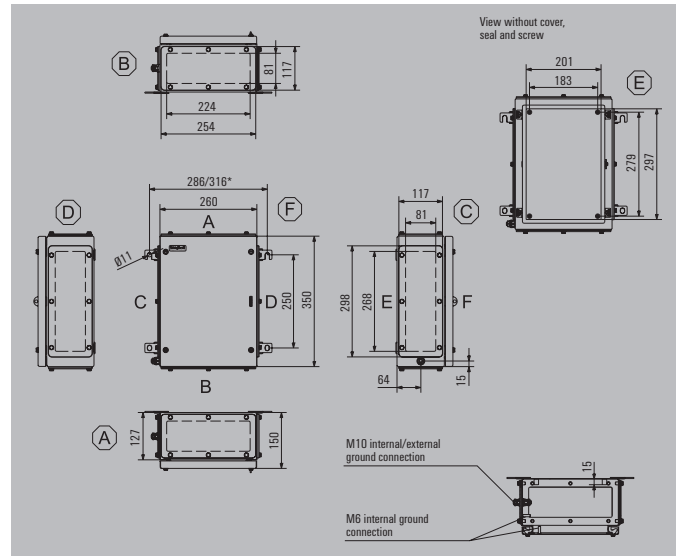
Label holder	Order No.
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000

Document holders	Order No.
For DIN A6 size documents	1252780000

Set of fixings*	Order No.
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000

Earthing stud	Order No.
Stainless steel 1.4404, M10	1192690000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	2x49	2x31
4 mm <sup>2</sup>	1x41	2x26
6 mm <sup>2</sup>	1x31	2x19
10 mm <sup>2</sup>	1x25	2x15
16 mm <sup>2</sup>	1x20	1x12
35 mm <sup>2</sup>	1x15	1x9

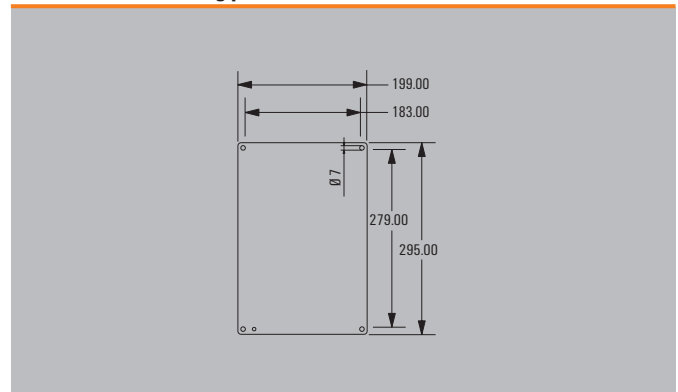
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	20	23
M16	11	13
M20	9	11
M25	4	5
M32	3	4
M40	3	3
M50	2	3
M63	0	0
M75	0	0

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**



Klippon® TB MH 352620

Depth 200 mm



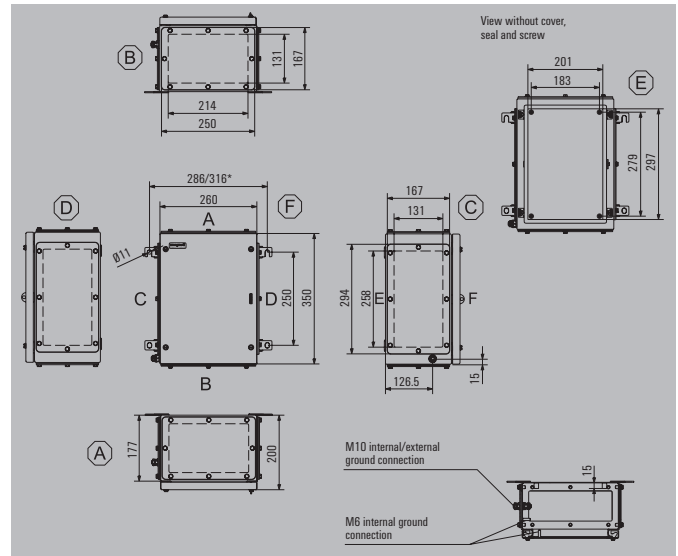
Height / Width / Depth 350 / 260 / 200 mm

Ordering data

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1194850000
1 gland plate - positioned at the bottom (B)	1194860000
2 gland plates - positioned at top and bottom (A & B)*	1194870000
3 gland plates - positioned at bottom, left and right (B, C & D)	1194880000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1194890000
<b>Note</b>	*Minimum order quantity (20 pieces)

Accessories

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1193970000
With hole pattern, sheet steel, galvanised	2022310000
Stainless steel 1.4301 natural	1193840000
With hole pattern, natural stainless steel 1.4301	1257680000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Horizontally	8000006721
Vertical	8000006711
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023230000
Left and right sides (C & D), electropolished stainless steel 1.4404	2023280000
Gland plates and screws - 6 mm	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256410000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256420000
Mounting screw, stainless steel 1.4404	1253230000
Rain hoods	
Stainless steel 1.4301, mirror-polished	1281420000
Stainless steel 1.4404, electro-polished	1314150000
Label holder	
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000
Document holders	
For DIN A6 size documents	1252780000
Set of fixings*	
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud	
Stainless steel 1.4404, M10	1192690000
<b>Note</b>	*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures **Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



Guide value for max. number of terminals (industry)

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	2x49	2x31
4 mm <sup>2</sup>	1x41	2x26
6 mm <sup>2</sup>	1x31	2x19
10 mm <sup>2</sup>	1x25	2x15
16 mm <sup>2</sup>	1x20	1x12
35 mm <sup>2</sup>	1x15	1x9

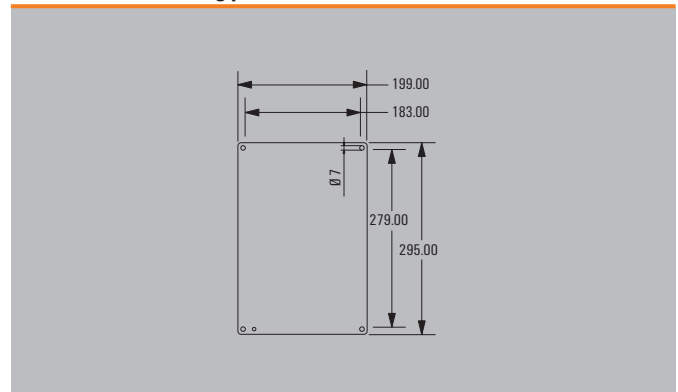
**Note**  
\*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm.  
When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail.  
Ordering recommendations:  
TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
TS 32 Mounting rail with clamping yoke technology SAK  
TS 15 Mounting rail with clamping yoke technology AKZ  
Order information for terminal blocks, please refer to online catalogue

Guide value for max. number of cable entries

Cable entries	A / B	C / D
M12	33	38
M16	22	26
M20	14	17
M25	12	14
M32	6	7
M40	5	6
M50	2	3
M63	2	2
M75	1	2

**Note**  
Our IP 68 brass cable glands serve as a reference for these recommended values.

Dimensions of mounting plate





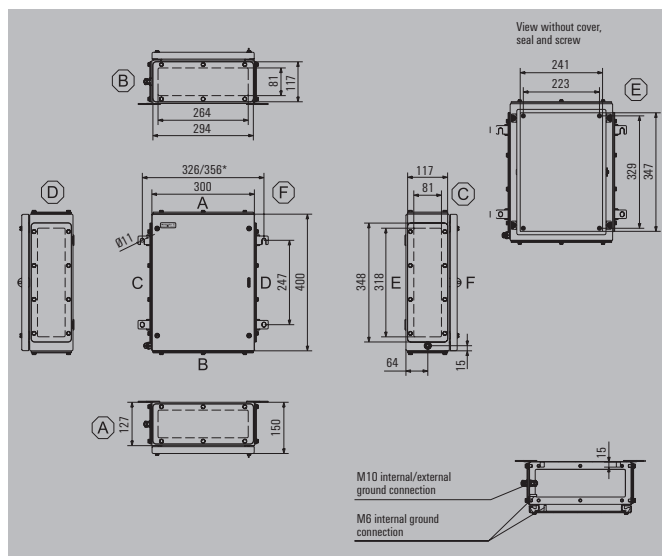
Height / Width / Depth 400 / 300 / 150 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished		Order No.
0 gland plates		1194900000
1 gland plate - positioned at the bottom (B)		1194910000
2 gland plates - positioned at top and bottom (A & B)*		1194920000
3 gland plates - positioned at bottom, left and right (B, C & D)		1194930000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*		1194940000
<b>Note</b>	*Minimum order quantity (10 pieces)	

**Accessories**

Mounting plates and fastening screws		Order No.
Steel sheet, zinc plated		1193980000
With hole pattern, sheet steel, galvanised		2022420000
Stainless steel 1.4301 natural		1193850000
With hole pattern, natural stainless steel 1.4301		1257690000
Fastening screws for mounting plates		0642600000
Fastening screws for terminal rails*		1274150000
Mounting rails**, TS35x7.5		
Horizontally		8000006723
Vertical		8000006712
Stainless steel spacer M6 x 8, Set of 4		
10 mm length		0935110000
15 mm length		0935120000
20 mm length		0935130000
30 mm length		0935140000
Gland plates - 3 mm with M6 earth studs		
Top and bottom sides (A & B), electropolished stainless steel 1.4404		2023320000
Left and right sides (C & D), electropolished stainless steel 1.4404		2023330000
Gland plates and screws - 6 mm		
Top and bottom sides (A & B), electropolished stainless steel 1.4404		1256430000
Left and right sides (C & D), electropolished stainless steel 1.4404		1256440000
Mounting screw, stainless steel 1.4404		1253230000
Rain hoods		
Stainless steel 1.4301, mirror-polished		1281430000
Stainless steel 1.4404, electro-polished		1314170000
Label holder		
70 x 70 angled stainless steel 1.4301		1279320000
130x50 stainless steel 1.4301		1283450000
100x25 stainless steel 1.4301		1257640000
Document holders		
For DIN A6 size documents		1252780000
Set of fixings*		
For label holders, rain hoods and document holders (rivet)		1252190000
For plastic (Trafolyte), identification plate (screw)		1285200000
Earthing stud		
Stainless steel 1.4404, M10		1192690000
<b>Note</b>	*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures **Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately	



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	2x59	3x39
4 mm <sup>2</sup>	2x49	3x32
6 mm <sup>2</sup>	1x37	2x24
10 mm <sup>2</sup>	1x30	2x19
16 mm <sup>2</sup>	1x24	2x16
35 mm <sup>2</sup>	1x18	1x11

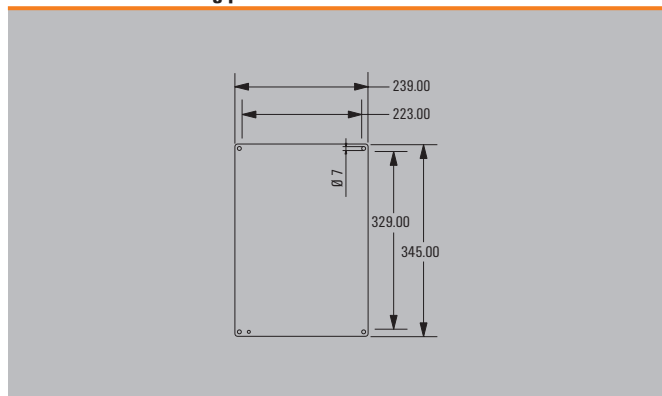
**Note**  
\*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm.  
When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail.  
Ordering recommendations:  
TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
TS 32 Mounting rail with clamping yoke technology SAK  
TS 15 Mounting rail with clamping yoke technology AKZ  
Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	23	29
M16	13	16
M20	11	13
M25	5	6
M32	4	5
M40	3	4
M50	3	3
M63	0	0
M75	0	0

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**





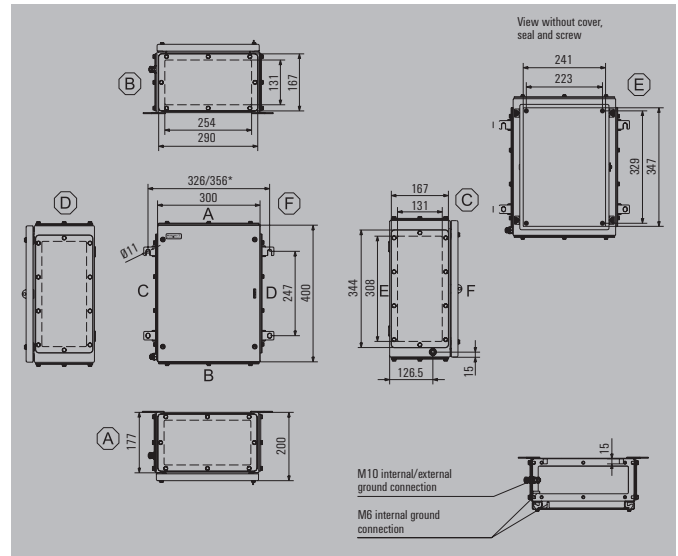
Height / Width / Depth 400 / 300 / 200 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1194950000
1 gland plate - positioned at the bottom (B)	1194960000
2 gland plates - positioned at top and bottom (A & B)*	1194970000
3 gland plates - positioned at bottom, left and right (B, C & D)	1194980000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1194990000
<b>Note</b>	*Minimum order quantity (10 pieces)

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1193980000
With hole pattern, sheet steel, galvanised	2022420000
Stainless steel 1.4301 natural	1193850000
With hole pattern, natural stainless steel 1.4301	1257690000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Horizontally	8000006723
Vertical	8000006712
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023450000
Left and right sides (C & D), electropolished stainless steel 1.4404	2023480000
Gland plates and screws - 6 mm	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256450000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256470000
Mounting screw, stainless steel 1.4404	1253230000
Rain hoods	
Stainless steel 1.4301, mirror-polished	1281440000
Stainless steel 1.4404, electro-polished	1314180000
Label holder	
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000
Document holders	
For DIN A6 size documents	1252780000
Set of fixings*	
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud	
Stainless steel 1.4404, M10	1192690000
<b>Note</b>	*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures **Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	2x59	3x39
4 mm <sup>2</sup>	2x49	3x32
6 mm <sup>2</sup>	1x37	2x24
10 mm <sup>2</sup>	1x30	2x19
16 mm <sup>2</sup>	1x24	2x16
35 mm <sup>2</sup>	1x18	1x11

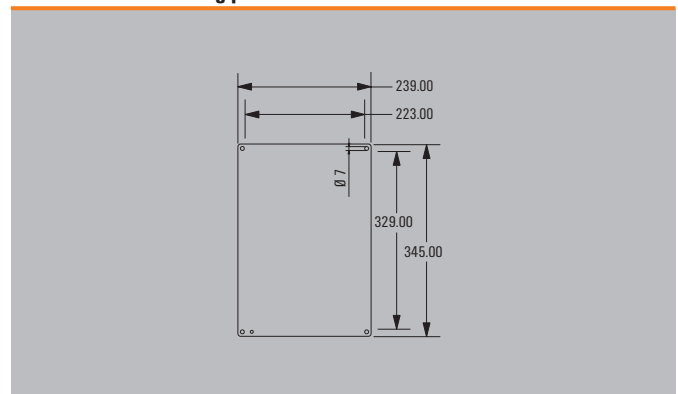
**Note**  
\*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm.  
When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail.  
Ordering recommendations:  
TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
TS 32 Mounting rail with clamping yoke technology SAK  
TS 15 Mounting rail with clamping yoke technology AKZ  
Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	38	48
M16	26	32
M20	17	20
M25	14	17
M32	7	9
M40	6	7
M50	3	3
M63	2	3
M75	2	2

**Note**  
Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**





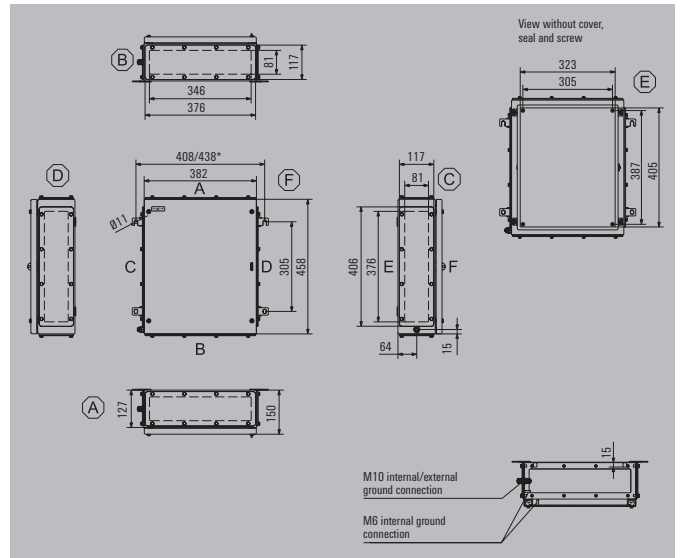
Height / Width / Depth 458 / 382 / 150 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1195000000
1 gland plate - positioned at the bottom (B)	1195010000
2 gland plates - positioned at top and bottom (A & B)*	1195020000
3 gland plates - positioned at bottom, left and right (B, C & D)	1195030000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1195040000
<b>Note</b>	*Minimum order quantity (10 pieces)

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1193990000
With hole pattern, sheet steel, galvanised	2022590000
Stainless steel 1.4301 natural	1193860000
With hole pattern, natural stainless steel 1.4301	1257700000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Horizontally	8000006724
Vertical	8000006713
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023490000
Left and right sides (C & D), electropolished stainless steel 1.4404	2023500000
Gland plates and screws - 6 mm	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256480000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256490000
Mounting screw, stainless steel 1.4404	1253230000
Rain hoods	
Stainless steel 1.4301, mirror-polished	1281450000
Stainless steel 1.4404, electro-polished	1314190000
Label holder	
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000
Document holders	
For DIN A6 size documents	1252780000
For DIN A5 size documents	1252750000
Set of fixings*	
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud	
Stainless steel 1.4404, M10	1192690000
<b>Note</b>	*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures **Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	3x71	4x54
4 mm <sup>2</sup>	2x59	3x46
6 mm <sup>2</sup>	2x44	3x34
10 mm <sup>2</sup>	2x36	2x27
16 mm <sup>2</sup>	2x29	2x22
35 mm <sup>2</sup>	1x22	1x17

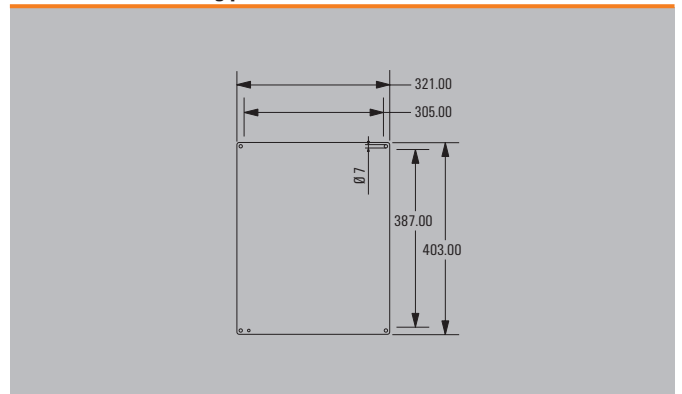
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	30	33
M16	17	19
M20	15	16
M25	6	7
M32	5	6
M40	4	5
M50	4	4
M63	0	0
M75	0	0

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**



Klippon® TB MH 453820

Depth 200 mm



Height / Width / Depth 458 / 382 / 200 mm

Ordering data

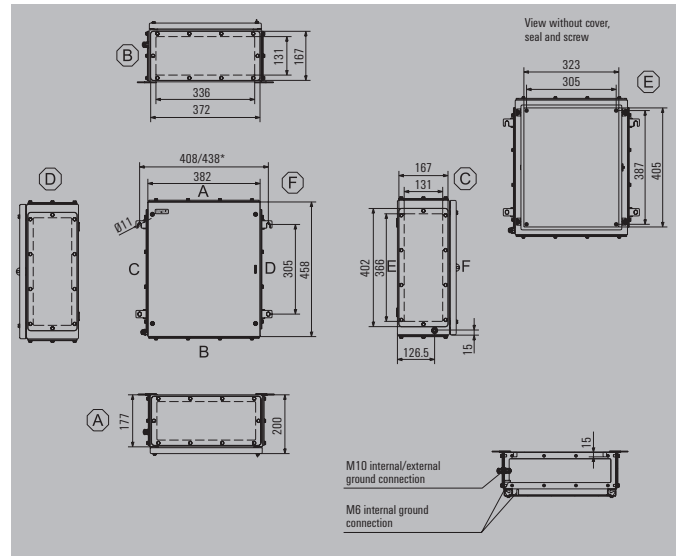
Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1195050000
1 gland plate - positioned at the bottom (B)	1195060000
2 gland plates - positioned at top and bottom (A & B)*	1195070000
3 gland plates - positioned at bottom, left and right (B, C & D)	1195080000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1195090000

**Note** \*Minimum order quantity (10 pieces)

Accessories

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1193990000
With hole pattern, sheet steel, galvanised	2022590000
Stainless steel 1.4301 natural	1193860000
With hole pattern, natural stainless steel 1.4301	1257700000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Horizontally	8000006724
Vertical	8000006713
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023510000
Left and right sides (C & D), electropolished stainless steel 1.4404	2023520000
Gland plates and screws - 6 mm	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256510000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256520000
Mounting screw, stainless steel 1.4404	1253230000
Rain hoods	
Stainless steel 1.4301, mirror-polished	1281460000
Stainless steel 1.4404, electro-polished	1314200000
Label holder	
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000
Document holders	
For DIN A6 size documents	1252780000
For DIN A5 size documents	1252750000
Set of fixings*	
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud	
Stainless steel 1.4404, M10	1192690000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



Guide value for max. number of terminals (industry)

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	3x71	4x54
4 mm <sup>2</sup>	2x59	3x46
6 mm <sup>2</sup>	2x44	3x34
10 mm <sup>2</sup>	2x36	2x27
16 mm <sup>2</sup>	2x29	2x22
35 mm <sup>2</sup>	1x22	1x17

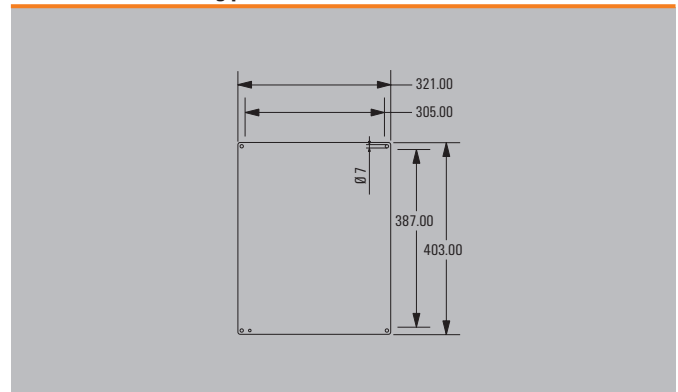
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

Guide value for max. number of cable entries

Cable entries	A / B	C / D
M12	50	55
M16	34	38
M20	23	24
M25	18	21
M32	10	11
M40	8	9
M50	4	4
M63	3	3
M75	2	3

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

Dimensions of mounting plate





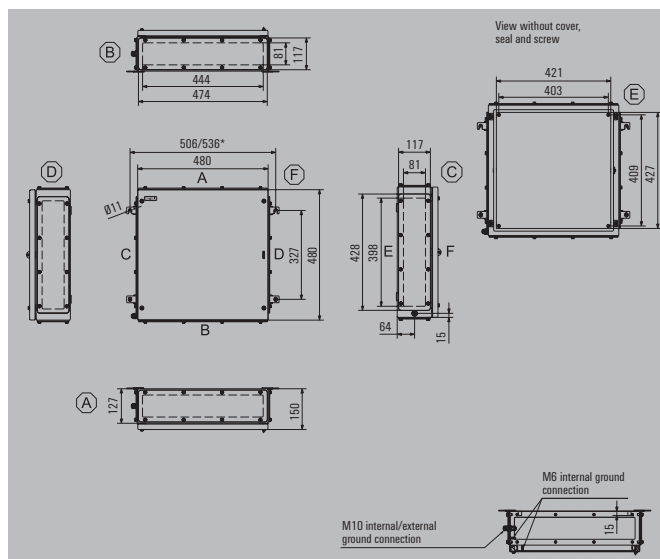
Height / Width / Depth 480 / 480 / 150 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1195100000
1 gland plate - positioned at the bottom (B)	1195110000
2 gland plates - positioned at top and bottom (A & B)*	1195120000
3 gland plates - positioned at bottom, left and right (B, C & D)	1195130000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1195140000
<b>Note</b>	*Minimum order quantity (10 pieces)

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1194000000
With hole pattern, sheet steel, galvanised	2022610000
Stainless steel 1.4301 natural	1193870000
With hole pattern, natural stainless steel 1.4301	1257710000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Vertical	8000006714
Horizontally	8000006725
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023530000
Left and right sides (C & D), electropolished stainless steel 1.4404	2023540000
Gland plates and screws - 6 mm	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256530000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256540000
Mounting screw, stainless steel 1.4404	1253230000
Rain hoods	
Stainless steel 1.4301, mirror-polished	1281470000
Stainless steel 1.4404, electro-polished	1314220000
Label holder	
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000
Document holders	
For DIN A6 size documents	1252780000
For DIN A5 size documents	1252750000
For DIN A4 size documents	1252730000
Set of fixings*	
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud	
Stainless steel 1.4404, M10	1192690000
<b>Note</b>	*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures **Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	4x75	4x74
4 mm <sup>2</sup>	3x62	3x62
6 mm <sup>2</sup>	3x47	3x46
10 mm <sup>2</sup>	2x38	3x37
16 mm <sup>2</sup>	2x31	2x31
35 mm <sup>2</sup>	1x23	2x23

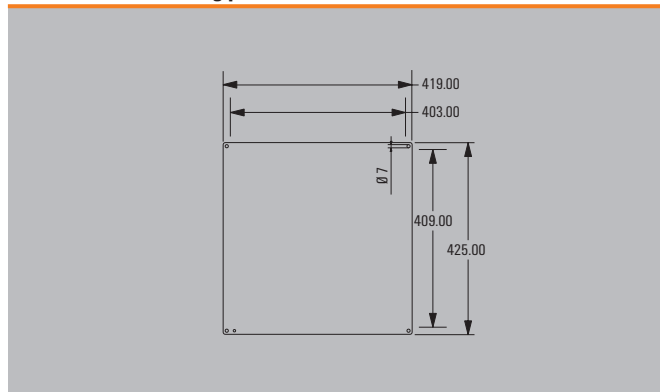
**Note**  
\*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	39	36
M16	22	20
M20	19	17
M25	8	7
M32	7	6
M40	6	5
M50	5	4
M63	0	0
M75	0	0

**Note**  
Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**





Klippon® TB MH 484820

Depth 200 mm



Height / Width / Depth 480 / 480 / 200 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1195150000
1 gland plate - positioned at the bottom (B)	1195160000
2 gland plates - positioned at top and bottom (A & B)*	1195170000
3 gland plates - positioned at bottom, left and right (B, C & D)	1195180000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1195190000

**Note** \*Minimum order quantity (10 pieces)

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1194000000
With hole pattern, sheet steel, galvanised	2022610000
Stainless steel 1.4301 natural	1193870000
With hole pattern, natural stainless steel 1.4301	1257710000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000

Mounting rails**, TS35x7.5	Order No.
Horizontally	8000006725
Vertical	8000006714

Stainless steel spacer M6 x 8, Set of 4	Order No.
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000

Gland plates - 3 mm with M6 earth studs	Order No.
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023580000
Left and right sides (C & D), electropolished stainless steel 1.4404	2023620000

Gland plates and screws - 6 mm	Order No.
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256550000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256560000
Mounting screw, stainless steel 1.4404	1253230000

Rain hoods	Order No.
Stainless steel 1.4301, mirror-polished	1281480000
Stainless steel 1.4404, electro-polished	1314230000

Label holder	Order No.
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000

Document holders	Order No.
For DIN A6 size documents	1252780000
For DIN A5 size documents	1252750000
For DIN A4 size documents	1252730000

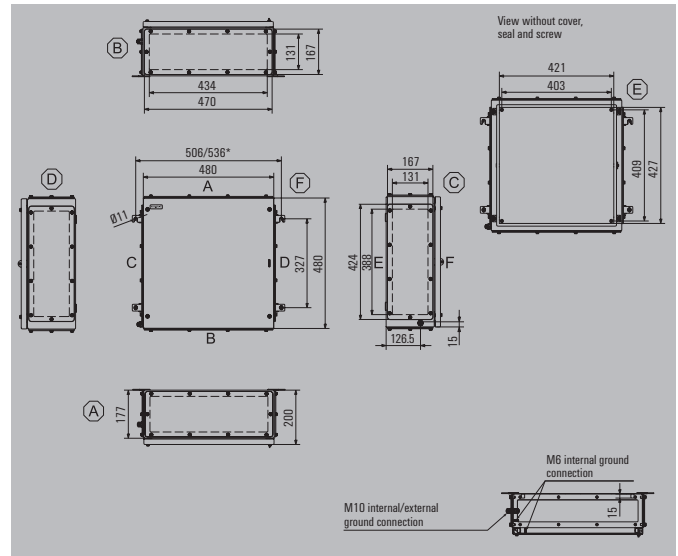
  

Set of fixings*	Order No.
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000

Earthing stud	Order No.
Stainless steel 1.4404, M10	1192690000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	4x75	4x74
4 mm <sup>2</sup>	3x62	3x62
6 mm <sup>2</sup>	3x47	3x46
10 mm <sup>2</sup>	2x38	3x37
16 mm <sup>2</sup>	2x31	2x31
35 mm <sup>2</sup>	1x23	2x23

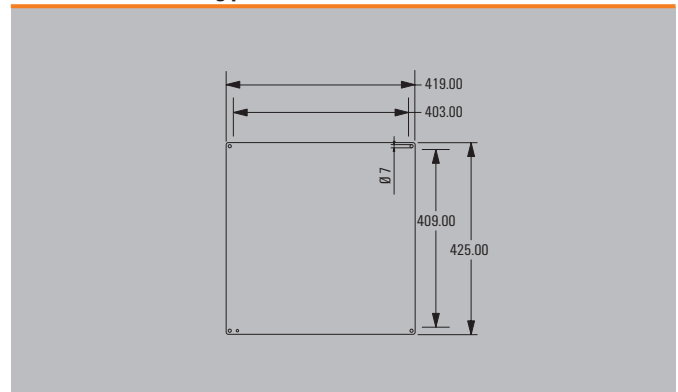
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	65	60
M16	44	40
M20	29	26
M25	24	21
M32	13	12
M40	11	10
M50	5	4
M63	4	4
M75	3	3

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**





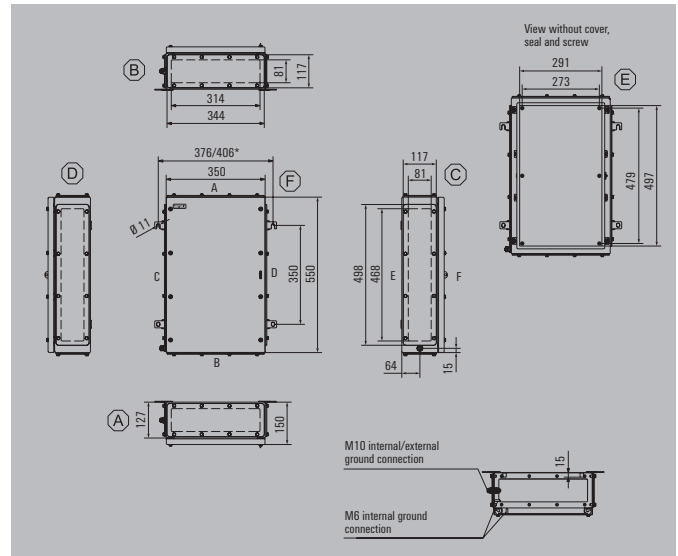
Height / Width / Depth 550 / 350 / 150 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1195200000
1 gland plate - positioned at the bottom (B)	1195210000
2 gland plates - positioned at top and bottom (A & B)*	1195220000
3 gland plates - positioned at bottom, left and right (B, C & D)	1195230000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1195240000
<b>Note</b>	*Minimum order quantity (10 pieces)

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1194010000
With hole pattern, sheet steel, galvanised	2022650000
Stainless steel 1.4301 natural	1193880000
With hole pattern, natural stainless steel 1.4301	1257720000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Horizontally	8000006726
Vertical	8000006715
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023660000
Left and right sides (C & D), electropolished stainless steel 1.4404	2023670000
Gland plates and screws - 6 mm	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256570000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256580000
Mounting screw, stainless steel 1.4404	1253230000
Rain hoods	
Stainless steel 1.4301, mirror-polished	1281490000
Stainless steel 1.4404, electro-polished	1314240000
Label holder	
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000
Document holders	
For DIN A6 size documents	1252780000
For DIN A5 size documents	1252750000
For DIN A4 size documents	1252730000
Set of fixings*	
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud	
Stainless steel 1.4404, M10	1192690000
<b>Note</b>	*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures **Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	2x89	4x48
4 mm <sup>2</sup>	2x73	4x40
6 mm <sup>2</sup>	2x55	4x30
10 mm <sup>2</sup>	2x45	3x24
16 mm <sup>2</sup>	1x37	3x20
35 mm <sup>2</sup>	1x28	2x15

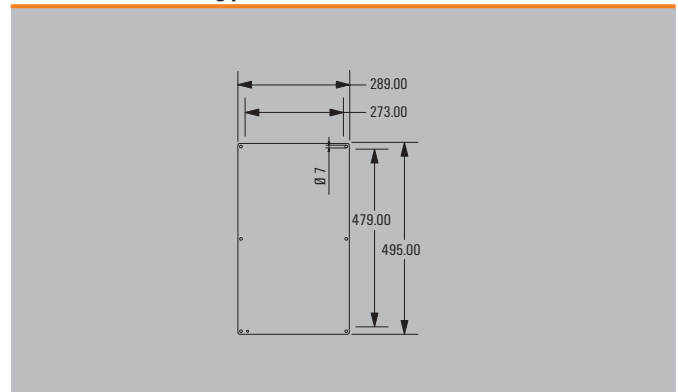
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAJ TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	27	42
M16	15	24
M20	13	20
M25	6	9
M32	5	7
M40	4	6
M50	3	5
M63	0	0
M75	0	0

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**





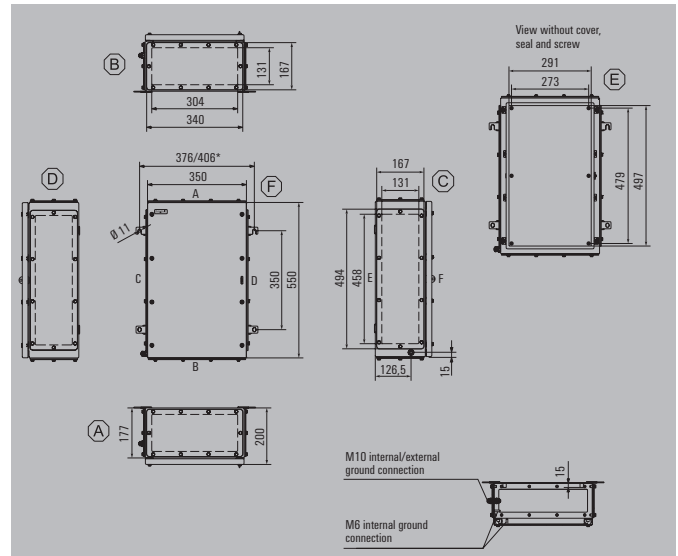
Height / Width / Depth 550 / 350 / 200 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1195250000
1 gland plate - positioned at the bottom (B)	1195260000
2 gland plates - positioned at top and bottom (A & B)*	1195270000
3 gland plates - positioned at bottom, left and right (B, C & D)	1195280000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1195290000
<b>Note</b>	*Minimum order quantity (10 pieces)

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1194010000
With hole pattern, sheet steel, galvanised	2022650000
Stainless steel 1.4301 natural	1193880000
With hole pattern, natural stainless steel 1.4301	1257720000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Horizontally	8000006726
Vertical	8000006715
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023740000
Left and right sides (C & D), electropolished stainless steel 1.4404	2023790000
Gland plates and screws - 6 mm	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256590000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256610000
Mounting screw, stainless steel 1.4404	1253230000
Rain hoods	
Stainless steel 1.4301, mirror-polished	1281500000
Stainless steel 1.4404, electro-polished	1314250000
Label holder	
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000
Document holders	
For DIN A6 size documents	1252780000
For DIN A5 size documents	1252750000
For DIN A4 size documents	1252730000
Set of fixings*	
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud	
Stainless steel 1.4404, M10	1192690000
<b>Note</b>	*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures **Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	2x89	4x48
4 mm <sup>2</sup>	2x73	4x40
6 mm <sup>2</sup>	2x55	4x30
10 mm <sup>2</sup>	2x45	3x24
16 mm <sup>2</sup>	1x37	3x20
35 mm <sup>2</sup>	1x28	2x15

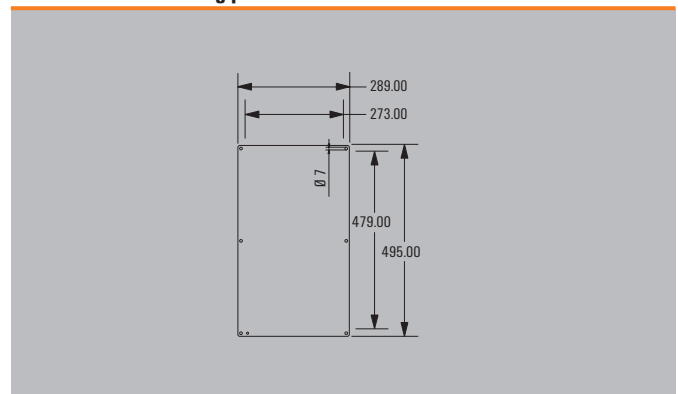
**Note**  
\*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm.  
When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail.  
Ordering recommendations:  
TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
TS 32 Mounting rail with clamping yoke technology SAJ  
TS 15 Mounting rail with clamping yoke technology AKZ  
Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	45	70
M16	30	48
M20	20	30
M25	17	26
M32	9	14
M40	7	12
M50	3	5
M63	3	4
M75	2	3

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**





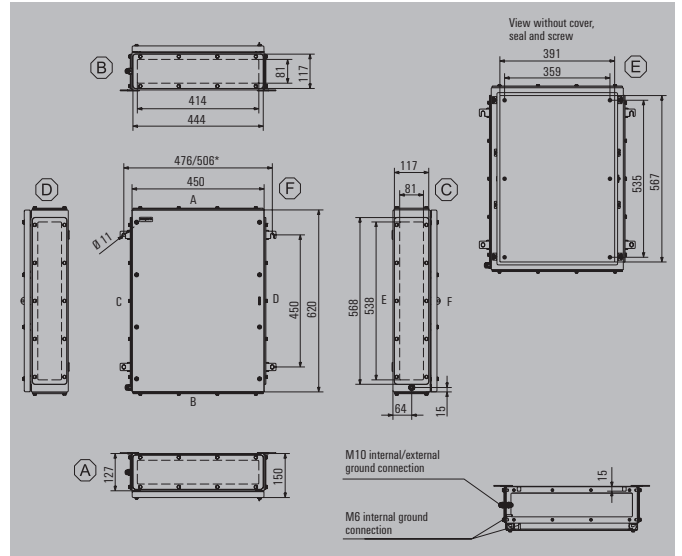
Height / Width / Depth 620 / 450 / 150 mm

Ordering data

Stainless steel 1.4404 316L, electropolished		Order No.
	0 gland plates	1195300000
	1 gland plate - positioned at the bottom (B)	1195310000
	2 gland plates - positioned at top and bottom (A & B)*	1195320000
	3 gland plates - positioned at bottom, left and right (B, C & D)	1195330000
	4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1195340000
<b>Note</b>	*Minimum order quantity (5 pieces)	

Accessories

Mounting plates and fastening screws		Order No.
	Steel sheet, zinc plated	1194020000
	With hole pattern, sheet steel, galvanised	2022670000
	Stainless steel 1.4301 natural	1193890000
	With hole pattern, natural stainless steel 1.4301	1257740000
	Fastening screws for mounting plates	0642600000
	Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5		
	Horizontally	8000006727
	Vertical	8000006716
Stainless steel spacer M6 x 8, Set of 4		
	10 mm length	0935110000
	15 mm length	0935120000
	20 mm length	0935130000
	30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs		
	Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023820000
	Left and right sides (C & D), electropolished stainless steel 1.4404	2023870000
Gland plates and screws - 6 mm		
	Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256620000
	Left and right sides (C & D), electropolished stainless steel 1.4404	1256630000
	Mounting screw, stainless steel 1.4404	1253230000
Rain hoods		
	Stainless steel 1.4301, mirror-polished	1281510000
	Stainless steel 1.4404, electro-polished	1314270000
Label holder		
	70 x 70 angled stainless steel 1.4301	1279320000
	130x50 stainless steel 1.4301	1283450000
	100x25 stainless steel 1.4301	1257640000
Document holders		
	For DIN A6 size documents	1252780000
	For DIN A5 size documents	1252750000
	For DIN A4 size documents	1252730000
Set of fixings*		
	For label holders, rain hoods and document holders (rivet)	1252190000
	For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud		
	Stainless steel 1.4404, M10	1192690000
<b>Note</b>	*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures **Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately	



Guide value for max. number of terminals (industry)

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	3x101	5x65
4 mm <sup>2</sup>	3x83	5x54
6 mm <sup>2</sup>	3x62	4x41
10 mm <sup>2</sup>	2x49	4x33
16 mm <sup>2</sup>	2x42	3x26
35 mm <sup>2</sup>	1x31	2x20

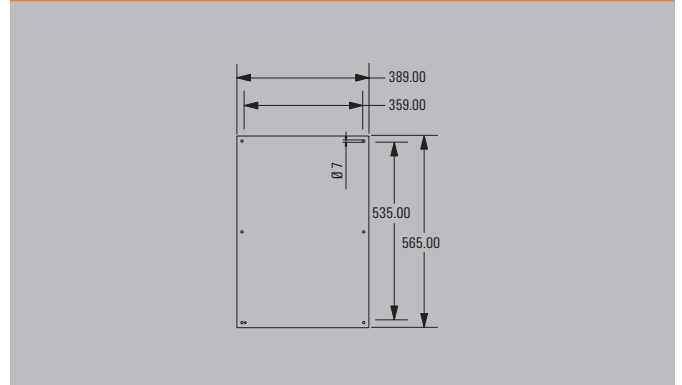
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

Guide value for max. number of cable entries

Cable entries	A / B	C / D
M12	38	48
M16	21	27
M20	18	24
M25	8	10
M32	6	9
M40	5	7
M50	4	6
M63	0	0
M75	0	0

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

Dimensions of mounting plate





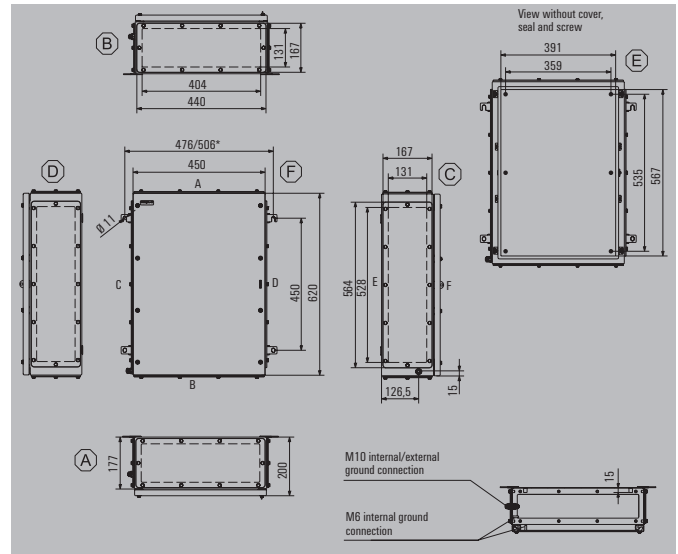
Height / Width / Depth 620 / 450 / 200 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished		Order No.
	0 gland plates	1195350000
	1 gland plate - positioned at the bottom (B)	1195360000
	2 gland plates - positioned at top and bottom (A & B)*	1195370000
	3 gland plates - positioned at bottom, left and right (B, C & D)	1195380000
	4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1195390000
<b>Note</b>	*Minimum order quantity (5 pieces)	

**Accessories**

Mounting plates and fastening screws		Order No.
	Steel sheet, zinc plated	1194020000
	With hole pattern, sheet steel, galvanised	2022670000
	Stainless steel 1.4301 natural	1193890000
	With hole pattern, natural stainless steel 1.4301	1257740000
	Fastening screws for mounting plates	0642600000
	Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5		
	Horizontally	8000006727
	Vertical	8000006716
Stainless steel spacer M6 x 8, Set of 4		
	10 mm length	0935110000
	15 mm length	0935120000
	20 mm length	0935130000
	30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs		
	Top and bottom sides (A & B), electropolished stainless steel 1.4404	2023880000
	Left and right sides (C & D), electropolished stainless steel 1.4404	2023930000
Gland plates and screws - 6 mm		
	Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256640000
	Left and right sides (C & D), electropolished stainless steel 1.4404	1256650000
	Mounting screw, stainless steel 1.4404	1253230000
Rain hoods		
	Stainless steel 1.4301, mirror-polished	1281520000
	Stainless steel 1.4404, electro-polished	1314280000
Label holder		
	70 x 70 angled stainless steel 1.4301	1279320000
	130x50 stainless steel 1.4301	1283450000
	100x25 stainless steel 1.4301	1257640000
Document holders		
	For DIN A6 size documents	1252780000
	For DIN A5 size documents	1252750000
	For DIN A4 size documents	1252730000
Set of fixings*		
	For label holders, rain hoods and document holders (rivet)	1252190000
	For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud		
	Stainless steel 1.4404, M10	1192690000
<b>Note</b>	*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures **Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately	



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal	
	2.5 mm <sup>2</sup>	3x101	5x65
	4 mm <sup>2</sup>	3x83	5x54
	6 mm <sup>2</sup>	3x62	4x41
	10 mm <sup>2</sup>	2x49	4x33
	16 mm <sup>2</sup>	2x42	3x26
	35 mm <sup>2</sup>	1x31	2x20

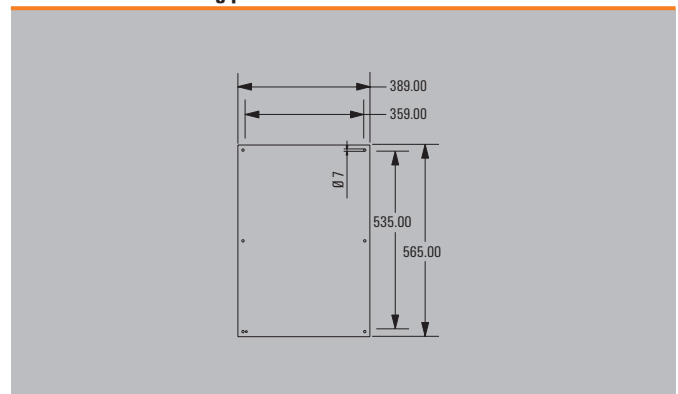
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D	
	M12	63	80
	M16	42	54
	M20	27	36
	M25	23	30
	M32	12	17
	M40	10	14
	M50	4	6
	M63	4	5
	M75	3	4

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**





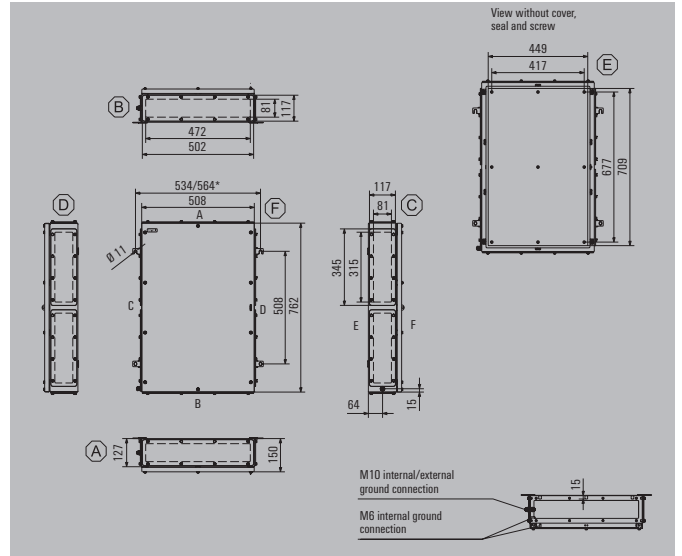
Height / Width / Depth 762 / 508 / 150 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished		Order No.
0 gland plates		1195400000
1 gland plate - positioned at the bottom (B)		1195410000
2 gland plates - positioned at top and bottom (A & B)*		1195420000
3 gland plates - positioned at bottom, left and right (B, C & D)		1195430000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*		1195440000
<b>Note</b>	*Minimum order quantity (5 pieces)	

**Accessories**

Mounting plates and fastening screws		Order No.
Steel sheet, zinc plated		1194030000
With hole pattern, sheet steel, galvanised		2022680000
Stainless steel 1.4301 natural		1193900000
With hole pattern, natural stainless steel 1.4301		1257750000
Fastening screws for mounting plates		0642600000
Fastening screws for terminal rails*		1274150000
Mounting rails**, TS35x7.5		
Horizontally		8000006728
Vertical		8000006717
Stainless steel spacer M6 x 8, Set of 4		
10 mm length		0935110000
15 mm length		0935120000
20 mm length		0935130000
30 mm length		0935140000
Gland plates - 3 mm with M6 earth studs		
Top and bottom sides (A & B), electropolished stainless steel 1.4404		2024040000
Left and right sides (C & D), electropolished stainless steel 1.4404		2024090000
Gland plates and screws - 6 mm		
Top and bottom sides (A & B), electropolished stainless steel 1.4404		1256660000
Left and right sides (C & D), electropolished stainless steel 1.4404		1256670000
Mounting screw, stainless steel 1.4404		1253230000
Rain hoods		
Stainless steel 1.4301, mirror-polished		1281530000
Stainless steel 1.4404, electro-polished		1314290000
Label holder		
70 x 70 angled stainless steel 1.4301		1279320000
130x50 stainless steel 1.4301		1283450000
100x25 stainless steel 1.4301		1257640000
Document holders		
For DIN A6 size documents		1252780000
For DIN A5 size documents		1252750000
For DIN A4 size documents		1252730000
Set of fixings*		
For label holders, rain hoods and document holders (rivet)		1252190000
For plastic (Trafolyte), identification plate (screw)		1285200000
Earthing stud		
Stainless steel 1.4404, M10		1192690000
<b>Note</b>	*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures **Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately	



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	4x128	7x78
4 mm <sup>2</sup>	4x107	6x64
6 mm <sup>2</sup>	3x80	5x48
10 mm <sup>2</sup>	3x65	5x39
16 mm <sup>2</sup>	2x53	4x32
35 mm <sup>2</sup>	2x40	3x24

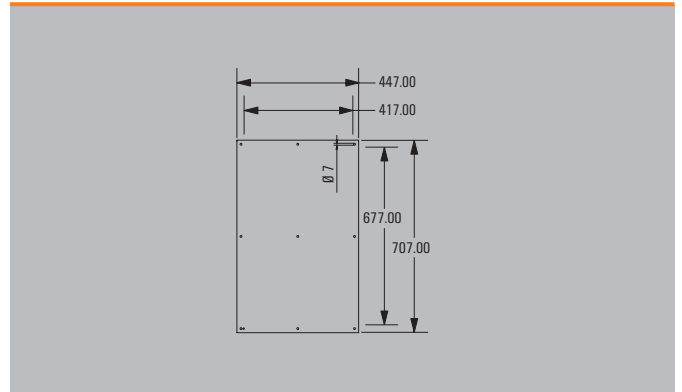
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	42	58
M16	24	32
M20	21	26
M25	9	12
M32	7	10
M40	6	8
M50	5	6
M63	0	0
M75	0	0

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**



Klippon® TB MH 765020

Depth 200 mm



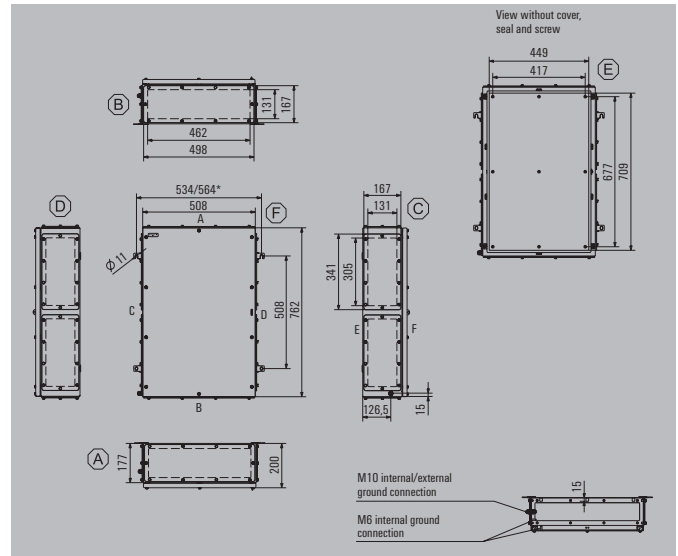
Height / Width / Depth 762 / 508 / 200 mm

Ordering data

Stainless steel 1.4404 316L, electropolished		Order No.
	0 gland plates	1195450000
	1 gland plate - positioned at the bottom (B)	1195460000
	2 gland plates - positioned at top and bottom (A & B)*	1195470000
	3 gland plates - positioned at bottom, left and right (B, C & D)	1195480000
	4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1195490000
<b>Note</b>	*Minimum order quantity (5 pieces)	

Accessories

Mounting plates and fastening screws		Order No.
	Steel sheet, zinc plated	1194030000
	With hole pattern, sheet steel, galvanised	2022680000
	Stainless steel 1.4301 natural	1193900000
	With hole pattern, natural stainless steel 1.4301	1257750000
	Fastening screws for mounting plates	0642600000
	Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5		
	Horizontally	8000006728
	Vertical	8000006717
Stainless steel spacer M6 x 8, Set of 4		
	10 mm length	0935110000
	15 mm length	0935120000
	20 mm length	0935130000
	30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs		
	Top and bottom sides (A & B), electropolished stainless steel 1.4404	2024100000
	Left and right sides (C & D), electropolished stainless steel 1.4404	2024140000
Gland plates and screws - 6 mm		
	Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256680000
	Left and right sides (C & D), electropolished stainless steel 1.4404	1256690000
	Mounting screw, stainless steel 1.4404	1253230000
Rain hoods		
	Stainless steel 1.4301, mirror-polished	1281540000
	Stainless steel 1.4404, electro-polished	1314300000
Label holder		
	70 x 70 angled stainless steel 1.4301	1279320000
	130x50 stainless steel 1.4301	1283450000
	100x25 stainless steel 1.4301	1257640000
Document holders		
	For DIN A6 size documents	1252780000
	For DIN A5 size documents	1252750000
	For DIN A4 size documents	1252730000
Set of fixings*		
	For label holders, rain hoods and document holders (rivet)	1252190000
	For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud		
	Stainless steel 1.4404, M10	1192690000
<b>Note</b>	*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures **Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately	



Guide value for max. number of terminals (industry)

Assembly with terminal	vertical	horizontal
	2.5 mm <sup>2</sup>	4x128
	4 mm <sup>2</sup>	4x107
	6 mm <sup>2</sup>	3x80
	10 mm <sup>2</sup>	3x65
	16 mm <sup>2</sup>	2x53
	35 mm <sup>2</sup>	2x40

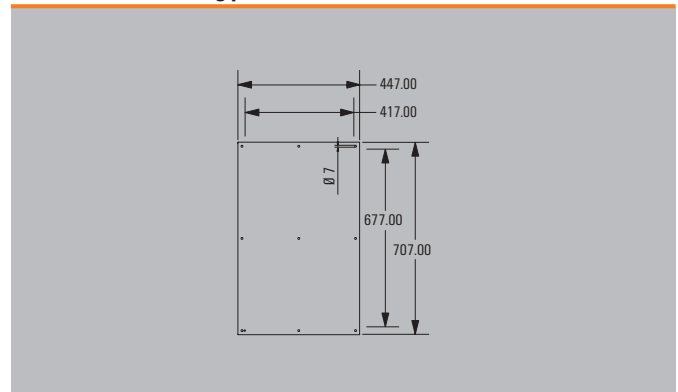
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

Guide value for max. number of cable entries

Cable entries	A / B	C / D
	M12	70
	M16	48
	M20	32
	M25	26
	M32	14
	M40	12
	M50	5
	M63	4
	M75	3

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

Dimensions of mounting plate





Height / Width / Depth 914 / 610 / 150 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1195500000
1 gland plate - positioned at the bottom (B)	1195510000
2 gland plates - positioned at top and bottom (A & B)*	1195520000
3 gland plates - positioned at bottom, left and right (B, C & D)	1195530000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1195540000

**Note** \*Minimum order quantity (5 pieces)

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1194040000
With hole pattern, sheet steel, galvanised	2022740000
Stainless steel 1.4301 natural	1193910000
With hole pattern, natural stainless steel 1.4301	1257760000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000

Mounting rails**, TS35x7.5	Order No.
Horizontally	8000006729
Vertical	8000006718

Stainless steel spacer M6 x 8, Set of 4	Order No.
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000

Gland plates - 3 mm with M6 earth studs	Order No.
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2024150000
Left and right sides (C & D), electropolished stainless steel 1.4404	2024300000

Gland plates and screws - 6 mm	Order No.
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256710000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256720000
Mounting screw, stainless steel 1.4404	1253230000

Rain hoods	Order No.
Stainless steel 1.4301, mirror-polished	1281550000
Stainless steel 1.4404, electro-polished	1314320000

Label holder	Order No.
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000

Document holders	Order No.
For DIN A6 size documents	1252780000
For DIN A5 size documents	1252750000
For DIN A4 size documents	1252730000

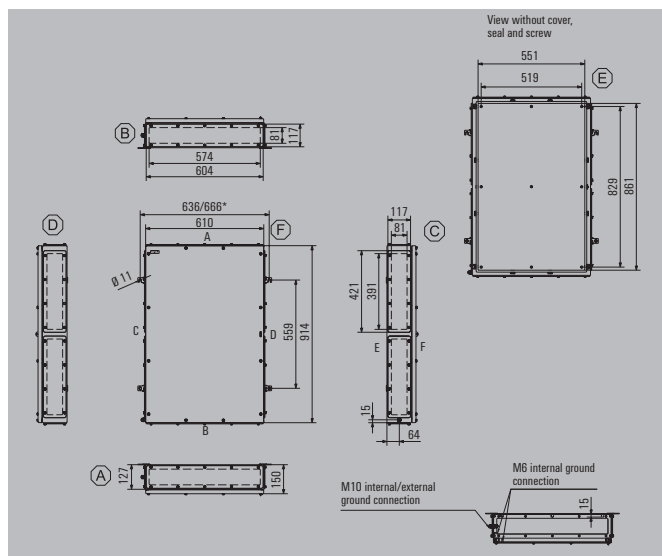
  

Set of fixings*	Order No.
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000

Earthing stud	Order No.
Stainless steel 1.4404, M10	1192690000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	5x157	8x99
4 mm <sup>2</sup>	4x132	7x80
6 mm <sup>2</sup>	4x100	7x62
10 mm <sup>2</sup>	3x85	6x50
16 mm <sup>2</sup>	3x66	5x40
35 mm <sup>2</sup>	2x49	4x30

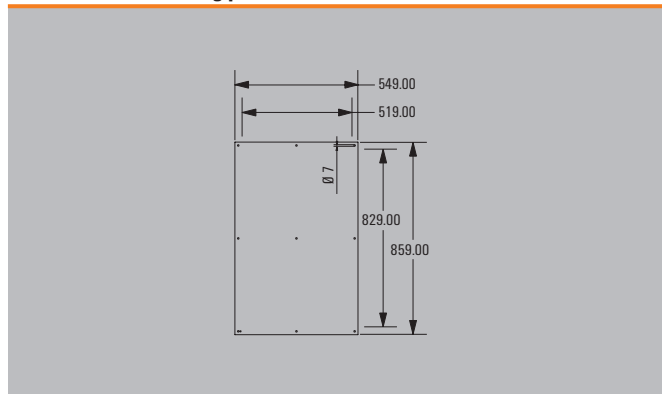
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	53	70
M16	29	40
M20	25	34
M25	11	14
M32	9	12
M40	8	10
M50	6	8
M63	0	0
M75	0	0

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**







Height / Width / Depth 914 / 610 / 200 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished	Order No.
0 gland plates	1195550000
1 gland plate - positioned at the bottom (B)	1195560000
2 gland plates - positioned at top and bottom (A & B)*	1195570000
3 gland plates - positioned at bottom, left and right (B, C & D)	1195580000
4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1195590000

**Note** \*Minimum order quantity (5 pieces)

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1194040000
With hole pattern, sheet steel, galvanised	2022740000
Stainless steel 1.4301 natural	1193910000
With hole pattern, natural stainless steel 1.4301	1257760000
Fastening screws for mounting plates	0642600000
Fastening screws for terminal rails*	1274150000

Mounting rails**, TS35x7.5	Order No.
Horizontally	8000006729
Vertical	8000006718

Stainless steel spacer M6 x 8, Set of 4	Order No.
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000

Gland plates - 3 mm with M6 earth studs	Order No.
Top and bottom sides (A & B), electropolished stainless steel 1.4404	2024470000
Left and right sides (C & D), electropolished stainless steel 1.4404	2024490000

Gland plates and screws - 6 mm	Order No.
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256730000
Left and right sides (C & D), electropolished stainless steel 1.4404	1256740000
Mounting screw, stainless steel 1.4404	1253230000

Rain hoods	Order No.
Stainless steel 1.4301, mirror-polished	1281570000
Stainless steel 1.4404, electro-polished	1314330000

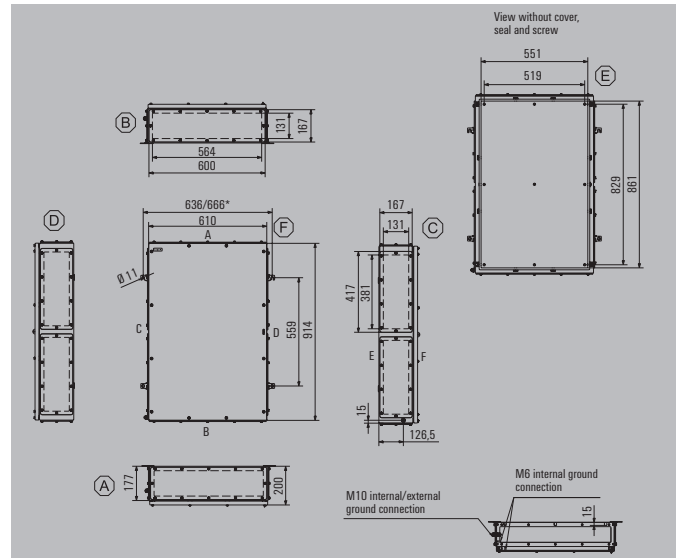
Label holder	Order No.
70 x 70 angled stainless steel 1.4301	1279320000
130x50 stainless steel 1.4301	1283450000
100x25 stainless steel 1.4301	1257640000

Document holders	Order No.
For DIN A6 size documents	1252780000
For DIN A5 size documents	1252750000
For DIN A4 size documents	1252730000

Set of fixings*	Order No.
For label holders, rain hoods and document holders (rivet)	1252190000
For plastic (Trafolyte), identification plate (screw)	1285200000

Earthing stud	Order No.
Stainless steel 1.4404, M10	1192690000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	5x157	8x99
4 mm <sup>2</sup>	4x132	7x80
6 mm <sup>2</sup>	4x100	7x62
10 mm <sup>2</sup>	3x85	6x50
16 mm <sup>2</sup>	3x66	5x40
35 mm <sup>2</sup>	2x49	4x30

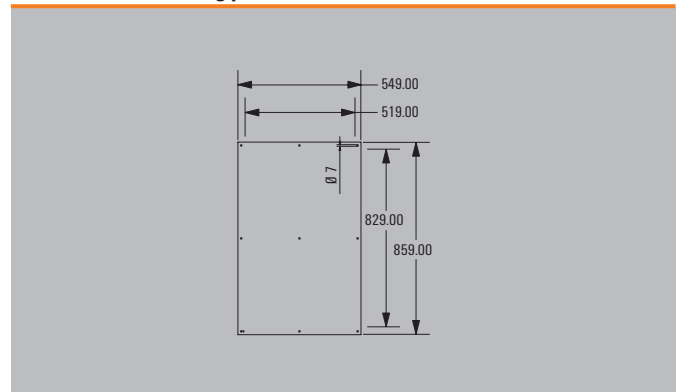
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	88	116
M16	58	80
M20	38	52
M25	33	42
M32	18	24
M40	15	20
M50	6	8
M63	5	6
M75	4	6

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**





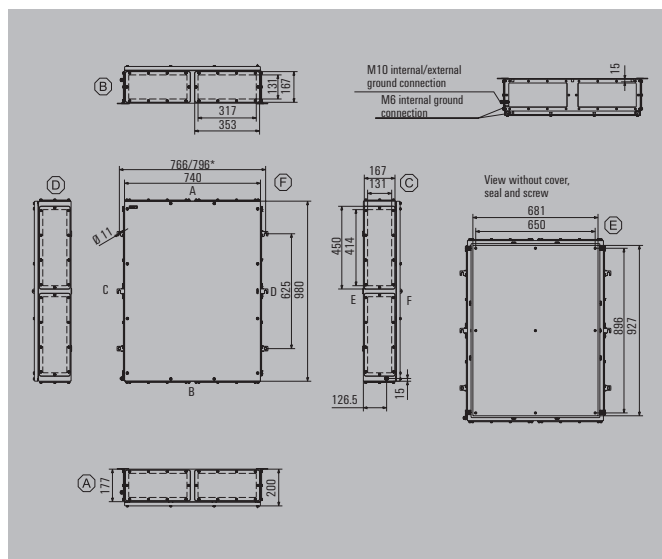
980 / 740 / 200 mm

**Ordering data**

Stainless steel 1.4404 316L, electropolished		Order No.
	0 gland plates	1195600000
	1 gland plate - positioned at the bottom (B)	1195610000
	2 gland plates - positioned at top and bottom (A & B)*	1195620000
	3 gland plates - positioned at bottom, left and right (B, C & D)	1195630000
	4 gland plates - positioned at top, bottom, left and right (A, B, C & D)*	1195640000
<b>Note</b>	*Minimum order quantity (5 pieces)	

**Accessories**

Mounting plates and fastening screws		Order No.
	Steel sheet, zinc plated	1194050000
	With hole pattern, sheet steel, galvanised	2022760000
	Stainless steel 1.4301 natural	1193920000
	With hole pattern, natural stainless steel 1.4301	1257770000
	Fastening screws for mounting plates	0642600000
	Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5		
	Horizontally	8000006730
	Vertical	8000006719
Stainless steel spacer M6 x 8, Set of 4		
	10 mm length	0935110000
	15 mm length	0935120000
	20 mm length	0935130000
	30 mm length	0935140000
Gland plates - 3 mm with M6 earth studs		
	Top and bottom sides (A & B), electropolished stainless steel 1.4404	2024560000
	Left and right sides (C & D), electropolished stainless steel 1.4404	2024590000
Gland plates and screws - 6 mm		
	Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256750000
	Left and right sides (C & D), electropolished stainless steel 1.4404	1256760000
	Mounting screw, stainless steel 1.4404	1253230000
Rain hoods		
	Stainless steel 1.4301, mirror-polished	1281580000
	Stainless steel 1.4404, electro-polished	1314340000
Label holder		
	70 x 70 angled stainless steel 1.4301	1279320000
	130x50 stainless steel 1.4301	1283450000
	100x25 stainless steel 1.4301	1257640000
Document holders		
	For DIN A6 size documents	1252780000
	For DIN A5 size documents	1252750000
	For DIN A4 size documents	1252730000
Set of fixings*		
	For label holders, rain hoods and document holders (rivet)	1252190000
	For plastic (Trafolyte), identification plate (screw)	1285200000
Earthing stud		
	Stainless steel 1.4404, M10	1192690000
<b>Note</b>	*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures **Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately	



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
	2.5 mm <sup>2</sup>	6x174
	4 mm <sup>2</sup>	6x146
	6 mm <sup>2</sup>	5x108
	10 mm <sup>2</sup>	4x85
	16 mm <sup>2</sup>	4x72
	35 mm <sup>2</sup>	3x54

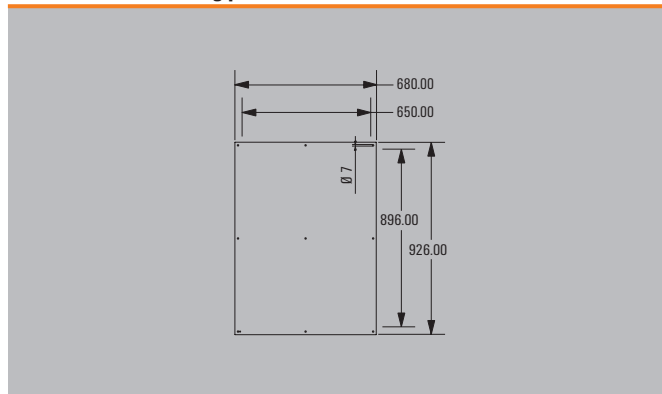
**Note** \*For the enclosure versions with no, one or two gland plates, the horizontal distance of the mounting feet is reduced by 30 mm. When mounting modular terminals please leave a distance of 10 mm to the ends of the DIN rail. Ordering recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
	M12	96
	M16	64
	M20	42
	M25	36
	M32	20
	M40	16
	M50	6
	M63	6
	M75	4

**Note** Our IP 68 brass cable glands serve as a reference for these recommended values.

**Dimensions of mounting plate**





# Klippon® TB QL – Quarter Lock

## Steel enclosures for use in industrial and in explosive hazard areas

The Klippon® TB enclosure range features excellent performance characteristics, even under the most difficult environmental conditions, and comply with the stricter requirements of explosive hazard areas found in the process or power generation industries. The Klippon® TB QL enclosure range offers further improvements to a product line that is already successfully leading the market.

Weidmüller manufactures and supplies the enclosures to match customer specifications – fully fitted with terminals, electronics and cable glands.

### Features:

- Available in 12 sizes and 3 standard depths, with customer-specific sizes on request
- Equipped with up to 4 gland plates
- The gasket is protected against compression
- Quick-locking lid, comes with a slot as standard
- Improved temperature performance
- IP66 protection class
- Earth studs in enclosure cover and bottom section
- Welded mounting feet



**i** Use our online catalogue to find additional product details, technical information and additional services:  
[www.weidmueller.com/KlipponTB](http://www.weidmueller.com/KlipponTB)

## Overview of enclosures

### Ordering data

Description	Height x width x depth in mm	0 Gland Plates	1 Gland Plate (below)	2 Gland Plates (above + below)	3 Gland Plates (below + sides)	4 Gland Plates (all sides)
KTB QL 221513 S4E_*	229 x 152 x 133	1199850000	1199860000	1199870000	1199880000	1199890000
KTB QL 262615 S4E_*	260 x 260 x 150	1199900000	1199910000	1199920000	1199930000	1199940000
KTB QL 262620 S4E_*	260 x 260 x 200	1199950000	1199960000	1199970000	1199980000	1199990000
KTB QL 303015 S4E_*	306 x 306 x 150	1200010000	1200020000	1200030000	1200040000	1200050000
KTB QL 303020 S4E_*	306 x 306 x 200	1200060000	1200070000	1200080000	1200090000	1200100000
KTB QL 352615 S4E_*	350 x 260 x 150	1200110000	1200120000	1200130000	1200140000	1200150000
KTB QL 352620 S4E_*	350 x 260 x 200	1200160000	1200170000	1200180000	1200190000	1200210000
KTB QL 403015 S4E_*	400 x 300 x 150	1200220000	1200230000	1200240000	1200250000	1200260000
KTB QL 403020 S4E_*	400 x 300 x 200	1200270000	1200280000	1200290000	1200310000	1200320000
KTB QL 453815 S4E_*	458 x 382 x 150	1200330000	1200340000	1200350000	1200360000	1200370000
KTB QL 453820 S4E_*	458 x 382 x 200	1200380000	1200390000	1200410000	1200420000	1200430000
KTB QL 484815 S4E_*	480 x 480 x 150	1200440000	1200450000	1200460000	1200470000	1200480000
KTB QL 484820 S4E_*	480 x 480 x 200	1200490000	1200510000	1200520000	1200530000	1200540000
KTB QL 553515 S4E_*	550 x 350 x 150	1200550000	1200560000	1200570000	1200580000	1200590000
KTB QL 553520 S4E_*	550 x 350 x 200	1200610000	1200620000	1200630000	1200640000	1200650000
KTB QL 624515 S4E_*	620 x 450 x 150	1200660000	1200670000	1200680000	1200690000	1200710000
KTB QL 624520 S4E_*	620 x 450 x 200	1200720000	1200730000	1200740000	1200750000	1200760000
KTB QL 765015 S4E_*	762 x 508 x 150	1200770000	1200780000	1200790000	1200810000	1200820000
KTB QL 765020 S4E_*	762 x 508 x 200	1200830000	1200840000	1200850000	1200860000	1200870000
KTB QL 916115 S4E_*	914 x 610 x 150	1200940000	1200890000	1200910000	1200920000	1200930000
KTB QL 916120 S4E_*	914 x 610 x 200	1200880000	1200950000	1200960000	1200970000	1200980000
KTB QL 987420 S4E_*	980 x 740 x 200	1200990000	1201010000	1201020000	1201030000	1201040000

**Note** \* Placeholder for the number of gland plates (0, 1, 2, 3, 4). The Klippon® TB QL enclosures are subject to a minimum order quantity.

## Technical Overview

### Technical data

Enclosure material*	Stainless steel 1.4404 (316L) 1.5 mm
Surface finish	Electropolished
IP protection class	IP66 to IEC EN 60079-0
NEMA protection classes	3, 4x, 12
Gland plates	1 - 4 (fixed with M6 hexagon head screws and 10 mm heads), optionally without a gland plate
Gland plate thickness	3 mm (other thickness of up to 20 mm are available on request)
Earthing inside	Enclosure base and lid: welded M6 stainless steel earth studs
Earthing outside	Continuous M10 brass earth stud (optionally with stainless-steel earth stud)
Installation mounting	4 or 9 mounting bolts with M6 threaded holes to attach the mounting plate or mounting rails
Enclosure attachment	4 or 6 welded mounting feet with 11-mm holes (2 slotted and 2 cross-shaped openings)
Lid opening	Can be removed completely, lid opening angle 130 °
Cover attachment	Quarter-turn lock with slotted insert (other inserts available on request)
Impact resistance	7 J in accordance with IEC 60079-0, IK 09 (10J) in accordance with DIN EN 50102
Gasket material	Silicone
Operating temperature range	-60 °C...+135 °C
Torque for flange plate screws	2.5 Nm
<b>Note</b>	* Painted steel enclosures are available on request.

### Approvals for empty enclosures

ATEX certificate	IBExU14ATEX1028 U	EAC	RU-DE.08.B.00472
ATEX marking	II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db	cULus	E243298
IECEX certificate	IECEX IBE 14.0004U	DNV GL	TAE000013S
IECEX marking	Ex eb IIC Gb Ex tb IIIC Db	Russian Maritime Register	15.40075.250
Nepsi Ex certificate	GYJ14.1308U	CCOE	In preparation
Nepsi Ex marking	Ex e IIC Gb, DIP A21	INMETRO	IEx 17.0020U
		AEx	E223792
		Miscellaneous	EN 45545, DIN EN 15085-2/CL2
<b>Note</b>	The Klippon® TB enclosure range can be pre-fitted in our customer specific production department according to your wishes.		

### Approvals for control and distribution box

ATEX certificate	IBExU14ATEX1050	IECEX certificate	IECEX IBE 14.0013
ATEX marking	⊕ II 2G Ex eb IIC/IIA T6/T5/T4 Gb ⊕ II 1G Ex ia IIC/IIA T6/T5/T4 Ga ⊕ II 2G Ex eb ia IIC/IIA T6/T5/T4 Gb ⊕ II 2D Ex tb IIIC T80°C/T95°C/T135°C Db ⊕ II 1D Ex ia IIC T80°C/T95°C/T135°C Da -60 °C ≤ Ta ≤ +40/+55/+90 °C	IECEX marking	Ex eb IIC/IIA T6/T5/T4 Gb Ex ia IIC/IIA T6/T5/T4 Ga Ex eb ia IIC/IIA T6/T5/T4 Gb Ex tb IIIC T80°C/T95°C/T135°C Db Ex ia IIC T80°C/T95°C/T135°C Da -60 °C...+40/+55/+90 °C
Nepsi Ex certificate	GYJ14.1309	INMETRO certificate	IEx 17.0021
Nepsi marking	Ex e IIC T4...T6 Gb Ex ia IIC T4...T6 Ga Ex e ia IIC T4...T6 Gb DIP A21 Ta 85°C...Ta 135°C Ex ia D20 T85 °C... T135 °C	INMETRO marking	Ex eb IIC T6/T5/T4 Gb Ex ia IIC T6/T5/T4 Ga Ex eb ia IIC T6/T5/T4 Gb Ex tb IIIC 85°C/100°C/135°C Db IP66/IP67 Ex ia IIC 85°C/100°C/135°C Da
EAC certificate	RUC-DE.08.B.01328	AEx certificate	E223792
EAC marking	II 2 G Ex eb IIC T6...T4 II 2 G Ex e IIC T6...T4 Gb II 1 G Ex ia IIC T6...T4 II 1 G Ex ia IIC T6...T4 Ga II 2(1) G Ex eb ia IIC T6...T4 II 2(1) G Ex e ia IIC T6...T4 Gb II 2 D Ex tb IIIC T85°C...T135°C II 2 D Ex tb IIIC T85°C...T135°C Db	AEx marking	Class I, Zone 1, AEx e IIC Gb T6...T4 Class I, Zone 2, AEx e IIC Gc T6...T4 Class I Div.2 Group A,B,C,D T6...T4 Class II Div.2 Group F,G Zone 21, AEx tb IIIC Db
KOSHA certificate	16-AV4B0-0245X		
KOSHA marking	Ex eb IIC/IIA T6/T5/T4 Gb Ex ia IIC/IIA T6/T5/T4 Ga Ex eb ia IIC/IIA T6/T5/T4 Gb Ex tb IIIC T80°C/T95°C/T135°C Db Ex ia IIC T80°C/T95°C/T135°C Da -60 °C...+40/+55/+90 °C		
<b>Note</b>	Labelling depends on the application layout. For details of power dissipation, please contact your Weidmüller representative. Additional approvals available on request.		

# Klippon® TB FS – Fixing Screw

## Steel enclosures for use in industrial and in explosive hazard areas

The Klippon® TB enclosure range features superior performance characteristics, even under the most extreme environmental conditions. The Klippon® TB FS enclosure range complements our Klippon® TB MH and Klippon® TB QL standard enclosures.

Weidmüller manufactures and supplies the enclosures to match customer specifications – fully fitted with terminals, electronics and cable glands.

### Features:

- Available in 12 sizes and 3 standard depths
- Equipped with up to 4 gland plates
- The gasket is protected against compression
- Cover lock outside the sealed zone
- Improved temperature performance
- IP66/IP67 protection class
- Earth studs in enclosure cover and bottom section
- Welded mounting feet



**i** Use our online catalogue to find additional product details, technical information and additional services:

[www.weidmueller.com/KlipponTB](http://www.weidmueller.com/KlipponTB)

## Overview of enclosures

### Ordering data

Description	Length x width x depth in mm	0 Gland Plate	1 Gland Plate (below)	2 Gland Plates (above + below)	3 Gland Plates (below + sides)	4 Gland Plates (all sides)
KTB FS 221513 S4E_*	229 x 152 x 133	1195650000	1195660000	1195670000	1195680000	1195690000
KTB FS 262615 S4E_*	260 x 260 x 150	1195700000	1195710000	1195720000	1195730000	1195740000
KTB FS 262620 S4E_*	260 x 260 x 200	1195750000	1195760000	1195770000	1195780000	1195790000
KTB FS 303015 S4E_*	306 x 306 x 150	1195800000	1195810000	1195820000	1195830000	1195840000
KTB FS 303020 S4E_*	306 x 306 x 200	1195850000	1195860000	1195870000	1195880000	1195890000
KTB FS 352615 S4E_*	350 x 260 x 150	1195900000	1195910000	1195920000	1195930000	1195940000
KTB FS 352620 S4E_*	350 x 260 x 200	1195950000	1195960000	1195970000	1195980000	1195990000
KTB FS 403015 S4E_*	400 x 300 x 150	1196000000	1196010000	1196020000	1196030000	1196040000
KTB FS 403020 S4E_*	400 x 300 x 200	1196050000	1196060000	1196070000	1196080000	1196090000
KTB FS 453815 S4E_*	458 x 382 x 150	1196100000	1196110000	1196120000	1196130000	1196140000
KTB FS 453820 S4E_*	458 x 382 x 200	1196150000	1196160000	1196170000	1196180000	1196190000
KTB FS 484815 S4E_*	480 x 480 x 150	1196200000	1196210000	1196220000	1196230000	1196240000
KTB FS 484820 S4E_*	480 x 480 x 200	1196250000	1196260000	1196270000	1196280000	1196290000
KTB FS 553515 S4E_*	550 x 350 x 150	1196300000	1196310000	1196320000	1196330000	1196340000
KTB FS 553520 S4E_*	550 x 350 x 200	1196350000	1196360000	1196370000	1196380000	1196390000
KTB FS 624515 S4E_*	620 x 450 x 150	1196400000	1196410000	1196420000	1196430000	1196440000
KTB FS 624520 S4E_*	620 x 450 x 200	1196450000	1196460000	1196470000	1196480000	1196490000
KTB FS 765015 S4E_*	762 x 508 x 150	1196500000	1196510000	1196520000	1196530000	1196540000
KTB FS 765020 S4E_*	762 x 508 x 200	1196550000	1196560000	1196570000	1196580000	1196590000
KTB FS 916115 S4E_*	914 x 610 x 150	1196600000	1196610000	1196620000	1196630000	1196640000
KTB FS 916120 S4E_*	914 x 610 x 200	1196650000	1196660000	1196670000	1196680000	1196690000
KTB FS 987420 S4E_*	980 x 740 x 200	1196700000	1196710000	1196720000	1196730000	1196740000

Note \* Placeholder for the number of gland plates (0, 1, 2, 3, 4). The Klippon® TB FS enclosures are subject to a minimum order quantity.

## Technical Overview

### Technical data

Enclosure material*	Stainless steel 1.4404 (316L) 1.5 mm
Surface	Electroplished
IP protection class	IP66 / IP67 (IP66 to IEC EN 60079-0)
NEMA Rating	3, 4x, 12
Gland plates	1 - 4 (fixed with M6 hexagon head screws with a slot and 10 mm heads), optionally without a gland plate
Gland plate thickness	3 mm (other thickness are available on request)
Earthing inside	Enclosure base part and enclosure cover: welded M6 stainless steel earth studs
Earthing outside	Continuous M10 brass earth stud (optionally with stainless-steel earth stud)
Installation mounting	4 or 9 mounting bolts with M6 threaded holes to attach the mounting plate or mounting rails
Enclosure attachment	4 or 6 welded-on mounting feet with 11-mm holes (2 slotted and 2 cross-shaped openings)
Lid opening	Fully removable lid
Lid fixing	M6 hexagon head slotted screws SW10
Impact resistance	7J in accordance with IEC 60079-0, IK 09 (10J) in accordance with DIN EN 50102
Gasket material	Silicone
Operating temperature range	-60 °C...+105 °C (IP66/IP67), -60 °C...+135 °C (IP66)
Torque - cover and flange plate screws	2.5 Nm
<b>Note</b>	* Lacquered enclosures available on request.

### Approvals for empty enclosures

ATEX certificate	IBExU14ATEX1028 U	EAC	RU-DE.08.B.00472
ATEX marking	II 2G Ex eb IIC Gb II 2D Ex tb IIIC Db	cULus	E256877
IECEX certificate	IECEX IBE 14.0004U	DNV GL	TAE000013S
IECEX marking	Ex eb IIC Gb Ex tb IIIC Db	Russian Maritime Register	15.40074.250
Nepsi Ex certificate	GYJ14.1308U	CCOE	In preparation
Nepsi Ex marking	Ex e IIC Gb, DIP A21	INMETRO	IEx 17.0020U
<b>Note</b>	The Klippon® TB enclosure range can be pre-fitted in our customer specific production department according to your wishes.		

### Approvals for control and distribution box

ATEX certificate	IBExU14ATEX1050	IECEX certificate	IECEX IBE 14.0013
ATEX marking	⊕ II 2G Ex eb IIC/IIA T6/T5/T4 Gb ⊕ II 1G Ex ia IIC/IIA T6/T5/T4 Ga ⊕ II 2G Ex eb ia IIC/IIA T6/T5/T4 Gb ⊕ II 2D Ex tb IIIC T80°C/T95°C/T135°C Db ⊕ II 1D Ex ia IIC T80°C/T95°C/T135°C Da -60 °C ≤ Ta ≤ +40/+55/+90 °C	IECEX marking	Ex eb IIC/IIA T6/T5/T4 Gb Ex ia IIC/IIA T6/T5/T4 Ga Ex eb ia IIC/IIA T6/T5/T4 Gb Ex tb IIIC T80°C/T95°C/T135°C Db Ex ia IIC T80°C/T95°C/T135°C Da -60 °C...+40/+55/+90 °C
Nepsi Ex certificate	GYJ14.1309	INMETRO certificate	IEx 17.0021
Nepsi marking	Ex e IIC T4...T6 Gb Ex ia IIC T4...T6 Ga Ex e ia IIC T4...T6 Gb DIP A21 Ta 85°C...Ta 135°C Ex ia D20 T85 °C... T135 °C	INMETRO marking	Ex eb IIC T6/T5/T4 Gb Ex ia IIC T6/T5/T4 Ga Ex eb ia IIC T6/T5/T4 Gb Ex tb IIIC 85°C/100°C/135°C Db IP66/IP67 Ex ia IIC 85°C/100°C/135°C Da
EAC certificate	RUC-DE.08.B.01328	AEx certificate	E223792
EAC marking	II 2 G Ex eb IIC T6...T4 II 2 G Ex e IIC T6...T4 Gb II 1 G Ex ia IIC T6...T4 II 1 G Ex ia IIC T6...T4 Ga II 2(1) G Ex eb ia IIC T6...T4 II 2(1) G Ex e ia IIC T6...T4 Gb II 2 D Ex tb IIIC T85°C...T135°C II 2 D Ex tb IIIC T85°C...T135°C Db	AEx marking	Class I, Zone 1, AEx e IIC Gb T6..T4 Class I, Zone 2, AEx e IIC Gc T6..T4 Class I Div.2 Group A,B,C,D T6...T4 Class II Div.2 Group F,G Zone 21, AEx tb IIIC Db
KOSHA certificate	16-AV4B0-0245X		
KOSHA marking	Ex eb IIC/IIA T6/T5/T4 Gb Ex ia IIC/IIA T6/T5/T4 Ga Ex eb ia IIC/IIA T6/T5/T4 Gb Ex tb IIIC T80°C/T95°C/T135°C Db Ex ia IIC T80°C/T95°C/T135°C Da -60 °C...+40/+55/+90 °C		
<b>Note</b>	Labelling depends on the application layout. For details of power dissipation, please contact your Weidmüller representative. Additional approvals available on request.		

# Klippon® Protect – Terminal Boxes – Product overview Steel enclosures

Various types of terminal boxes are available for installing signal / power supplies or distributors in explosive risk zones.

The terminal boxes are explosion-protected equipment approved for use in Ex areas in zones 0, 1, 2 and 20, 21, 22.

They are certified in accordance with the latest international standards Ex e, Ex ia and Ex tb. Customer-specific configuration means these terminal boxes are the optimum solution for all applications. Use the product overview to find the right solution for you!

Combine the enclosure, with or without threaded holes, a suitable mounting rail or pre-fitted strip terminals.

We have put together a small selection for you, but we are happy to configure a bespoke solution for you.

**Features:**

- Available in a wide range of versions to meet customer requirements
- Additional international approvals alongside IECEx, ATEX and EAC also available
- Increased quality thanks to the use of established basic products in the Klippon® brand



**Overview of enclosures**

**Terminal boxes based on the Klippon® TB range of enclosures**

Description	Height x width x depth in mm	Marking	Approval	Order No.
KTb MH 221513 Exia	229 x 152 x 133	Ex ia IIC T4 Ga	IECEX, ATEX, EAC	8000028398
KTb MH 262615 Exia	260 x 260 x 150	Ex ia IIC T4 Ga	IECEX, ATEX, EAC	8000028399
KTb QL 303020 Exe	306 x 306 x 200	Ex eb IIC T6 Gb	IECEX, ATEX, EAC	8000028400
KTb QL 484820 Exe	480 x 480 x 200	Ex eb IIC T6 Gb	IECEX, ATEX, EAC	8000028401
<b>Note</b>				



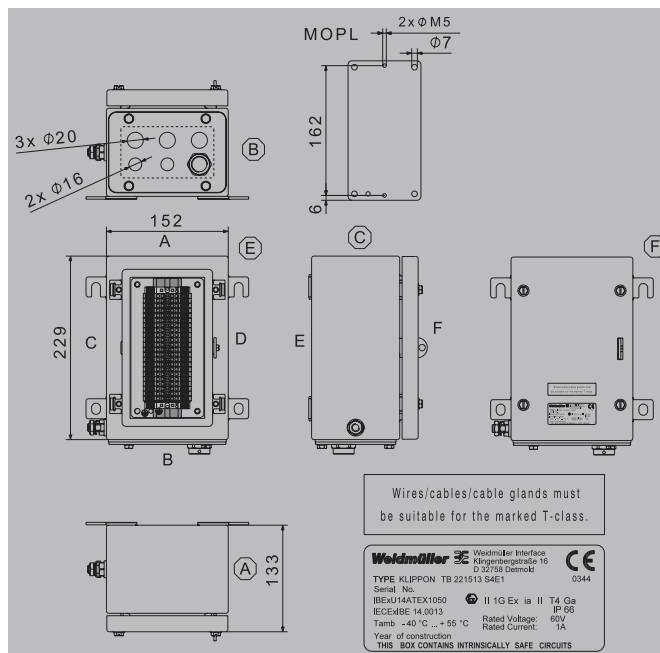
**Technical Overview**

**Technical data**

<b>Enclosures</b>	
Material	Stainless steel 1.4404 (316L) 1.5 mm
Surface finish	Electropolished (Klippon® TB)
IP protection class	IP66 / IP67 to DIN EN 60529
Gasket material	Silicone
<b>Terminal block</b>	
Material	Wemid
Colour	beige, blue or green/yellow
Connection system	screw connection
Clampable wires (H05V/H07V)	solid, flexible and flexible with ferrule
<b>Note</b>	

**Approvals for Klippon® TB**

ATEX certificate	IBExU14ATEX1050
IECEX certificate	IECEX IBE 14.0013
EAC certificate	RUC-DE.08.B.01328
<b>Note</b>	Labelling depends on the application layout. For details of power dissipation, please contact your Weidmüller representative.



Height / Width / Depth	229 / 152 / 133 mm
------------------------	--------------------

**Ordering data**

	Order No.
KTB MH 221513 Exia	<b>8000028398</b>

**Note**

**Technical data**

Article - short description	Klippon® Klippon TB (Terminal Box)-Enclosures, Terminal Box
Identification	Ex ia IIC T4 Ga
Certificate no. assembled enclosure (ATEX)	IBEXU14ATEX1050
Certificate no. assembled enclosure (IECEX)	IECEX IBE 14.0013
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-11, IEC 60079-31, EN 60079-0, EN 60079-7, EN 60079-11, EN 60079-31, EN/IEC 60079-26
Ambient temperature	Tamb -40°C...+55°C
Type label material	Polyester coated with aluminium
Protection class	IP66
<b>Assembly</b>	
Modular terminal blocks	1x22
Rated cross-section	4 mm²
Rated voltage	60 V
Rated current	1.00 A
Drill holes side A	none
Drill holes side B	2 x M16, 3 x M20, 1 x BDX
<b>Technical data, enclosure</b>	
Material	Stainless steel 1.4404 (316L)
Surface finish	electropolished
Material thickness	1.5 mm
Material thickness of flange	3 mm
Gland plates	Bottom
Seal material	Silicone
Enclosure attachment	4 welded-on mounting feet with 11 mm hole size
Mounting dimension - height / -width	152 mm / 178 mm
Lid attachment	4 hinges and M6 hex-head slotted screws SW10
Access opening: height / Access opening: width	176 mm / 93 mm
Earth, enclosure, external	Continuous M10 earth stud in body enclosure
Earth, enclosure, internal	Welded-on M6 stainless-steel earth stud in enclosure body and lid.

**Note**

**Accessories**

Mounting plates and fastening screws	Order No.
Stainless steel 1.4301 natural	<b>1193810000</b>
Fastening screws for mounting plates	<b>0642600000</b>
<b>Gland plate 3 mm</b>	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	<b>1280890000</b>
<b>Gland plates and screws - 6 mm</b>	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	<b>1256270000</b>
Mounting screw, stainless steel 1.4404	<b>1253230000</b>
<b>Rain hoods</b>	
Stainless steel 1.4301, mirror-polished	<b>1281360000</b>
<b>Label holder</b>	
70 x 70 angled stainless steel 1.4301	<b>1279320000</b>
<b>Earthing stud</b>	
Stainless steel 1.4404, M10	<b>1192690000</b>
<b>Pressure compensating element with drainage function</b>	
M20, brass	<b>2519520000</b>
<b>Cable glands</b>	
Nickel-plated brass, Ex e, M16, 3-12 mm	<b>1460040000</b>
Nickel-plated brass, Ex e, M20, 3-12 mm	<b>1460050000</b>
<b>Blanking plugs</b>	
Stainless steel 1.4404 (316L), Ex e, M16	<b>1477820000</b>
Stainless steel 1.4404 (316L), Ex e, M20	<b>1477840000</b>
<b>Locknuts</b>	
Nickel-plated brass, M16	<b>1736990000</b>
Nickel-plated brass, M20	<b>1737000000</b>
<b>Grounding strap</b>	
green-yellow, 6 mm² for M6 bolt	<b>2475490000</b>
<b>Note</b>	

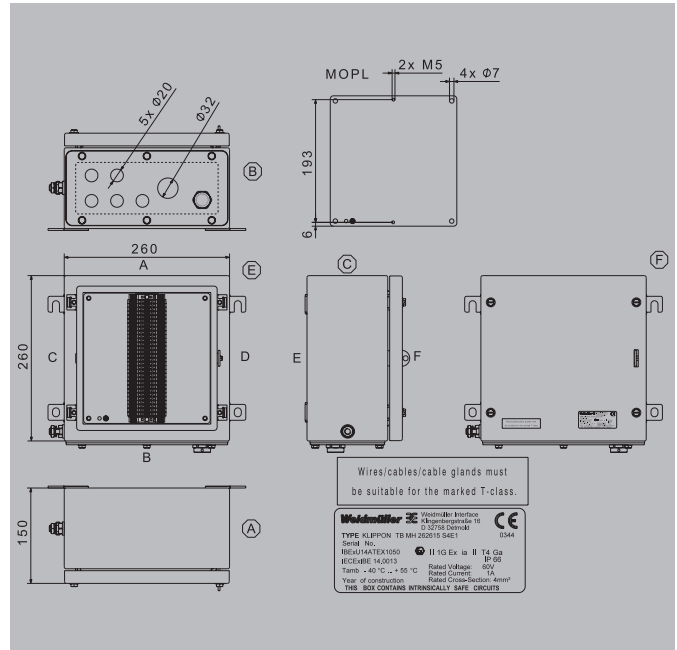
**Reference products**

	Order No.
KTB MH 221513 S4E1	<b>1194560000</b>
WDU 4 BL	<b>1020180000</b>
KLIPPON BDX M20 S	<b>2519550000</b>

**Note**

Klippon® TB MH 262615 Ex ia terminal box

Depth 150 mm



Height / Width / Depth 260 / 260 / 150 mm

Ordering data

	Order No.
KTB MH 262615 Exia	8000028399

Note

Technical data

Article - short description	Klippon® Klippon TB (Terminal Box)-Enclosures, Terminal Box
Identification	Ex ia IIC T4 Ga
Certificate no. assembled enclosure (ATEX)	IBEXU14ATEX1050
Certificate no. assembled enclosure (IECEX)	IECEX IBE 14.0013
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-11, IEC 60079-31, EN 60079-0, EN 60079-7, EN 60079-11, EN 60079-31, EN/IEC 60079-26
Ambient temperature	Tamb -40°C...+55°C
Type label material	Polyester coated with aluminium
Protection class	IP66
<b>Assembly</b>	
Modular terminal blocks	1x30
Rated cross-section	4 mm²
Rated voltage	60 V
Rated current	1.00 A
Drill holes side A	none
Drill holes side B	5 x M20, 1 x M32, 1 x BDX
<b>Technical data, enclosure</b>	
Material	Stainless steel 1.4404 (316L)
Surface finish	electropolished
Material thickness	1.5 mm
Material thickness of flange	3 mm
Gland plates	Bottom
Seal material	Silicone
Enclosure attachment	4 welded-on mounting feet with 11 mm hole size
Mounting dimension - height / -width	170 mm / 286 mm
Lid attachment	4 hinges and M6 hex-head slotted screws SW10
Access opening: height / Access opening: width	207 mm / 201 mm
Earth, enclosure, external	Continuous M10 earth stud in body enclosure
Earth, enclosure, internal	Welded-on M6 stainless-steel earth stud in enclosure body and lid.

Note

Accessories

Mounting plates and fastening screws	Order No.
Stainless steel 1.4301 natural	1193820000
Fastening screws for mounting plates	0642600000
<b>Gland plate 3 mm</b>	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1280910000
<b>Gland plates and screws - 6 mm</b>	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256290000
Mounting screw, stainless steel 1.4404	1253230000
<b>Rain hoods</b>	
Stainless steel 1.4301, mirror-polished	1281370000
<b>Label holder</b>	
100x25 stainless steel 1.4301	1257640000
130x50 stainless steel 1.4301	1283450000
70 x 70 angled stainless steel 1.4301	1279320000
<b>Earthing stud</b>	
Stainless steel 1.4404, M10	1192690000
<b>Document holders</b>	
For DIN A6 size documents	1252780000
<b>Pressure compensating element with drainage function</b>	
M20, brass	2519520000
<b>Cable glands</b>	
Nickel-plated brass, Ex e, M20, 3-12 mm	1460050000
Nickel-plated brass, Ex e, M32, 14-24 mm	1460080000
<b>Blanking plugs</b>	
Stainless steel 1.4404 (316L), Ex e, M20	1477840000
Stainless steel 1.4404 (316L), Ex e, M32	1477890000
<b>Locknuts</b>	
Nickel-plated brass, M20	1737000000
Nickel-plated brass, M32	1737020000
<b>Grounding strap</b>	
green-yellow, 6 mm² for M6 bolt	2475490000
<b>Note</b>	

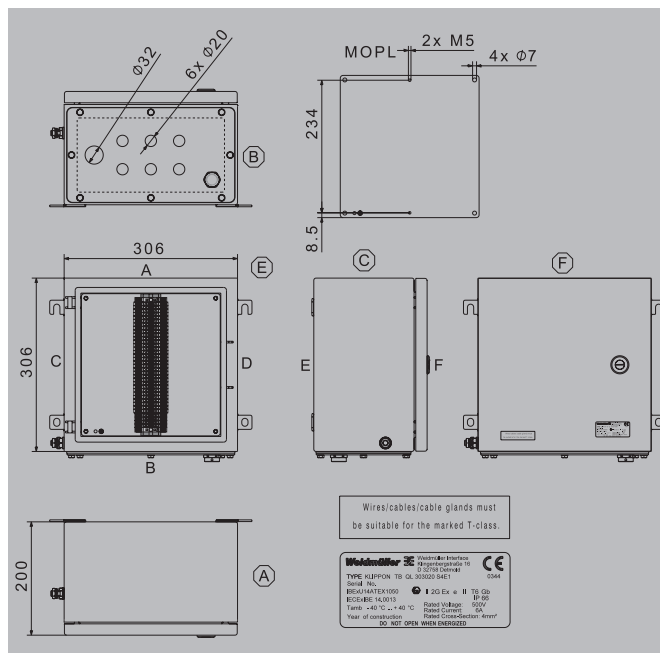
Reference products

	Order No.
KTB MH 262615 S4E1	1194610000
WDU 4 BL	1020180000
KLIPPON BDX M20 S	2519550000

Note

Klippon® TB QL 303020 Ex e terminal box

Depth 200 mm



Height / Width / Depth 306 / 306 / 200 mm

Ordering data

	Order No.
KTB QL 303020 EXE	8000028400

Note

Technical data

Article - short description	Klippon® Klippon TB (Terminal Box)-Enclosures, Terminal Box
Identification	Ex eb IIC T6 Gb
Certificate no. assembled enclosure (ATEX)	IBEXU14ATEX1050
Certificate no. assembled enclosure (IECEX)	IECEX IBE 14.0013
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31, EN 60079-0, EN 60079-7, EN 60079-31
Ambient temperature	Tamb -40°C...+40°C
Type label material	Polyester coated with aluminium
Protection class	IP66
<b>Assembly</b>	
Modular terminal blocks	1x32, 4 x PE
Rated cross-section	4 mm²
Rated voltage	550 V
Rated current	6.00 A
Drill holes side A	none
Drill holes side B	6 x M20, 1 x M32, 1 x BDX
<b>Technical data, enclosure</b>	
Material	Stainless steel 1.4404 (316L)
Surface finish	electropolished
Material thickness	1.5 mm
Material thickness of flange	3 mm
Gland plates	Bottom
Seal material	Silicone
Enclosure attachment	4 welded-on mounting feet with 11 mm hole size
Mounting dimension - height / -width	203 mm / 332 mm
Lid attachment	Quarter-turn fastener with slotted insert
Access opening: height / Access opening: width	253 mm / 247 mm
Earth, enclosure, external	Continuous M10 earth stud in body enclosure
Earth, enclosure, internal	Welded-on M6 stainless-steel earth stud in enclosure body and lid.

Note

Accessories

Mounting plates and fastening screws	Order No.
Stainless steel 1.4301 natural	1193830000
Fastening screws for mounting plates	0642600000
<b>Gland plate 3 mm</b>	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1280970000
<b>Gland plates and screws - 6 mm</b>	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256360000
Mounting screw, stainless steel 1.4404	1253230000
<b>Rain hoods</b>	
Stainless steel 1.4301, mirror-polished	1281400000
<b>Label holder</b>	
100x25 stainless steel 1.4301	1257640000
130x50 stainless steel 1.4301	1283450000
70 x 70 angled stainless steel 1.4301	1279320000
<b>Document holders</b>	
For DIN A6 size documents	1252780000
<b>Earthing stud</b>	
Stainless steel 1.4404, M10	1192690000
<b>Pressure compensating element with drainage function</b>	
M20, brass	2519520000
<b>Cable glands</b>	
Nickel-plated brass, Ex e, M20, 3-12 mm	1460050000
Nickel-plated brass, Ex e, M32, 14-24 mm	1460080000
<b>Blanking plugs</b>	
Stainless steel 1.4404 (316L), Ex e, M20	1477840000
Stainless steel 1.4404 (316L), Ex e, M32	1477890000
<b>Locknuts</b>	
Nickel-plated brass, M20	1737000000
Nickel-plated brass, M32	1737020000
<b>Grounding strap</b>	
green-yellow, 6 mm² for M6 bolt	2475490000

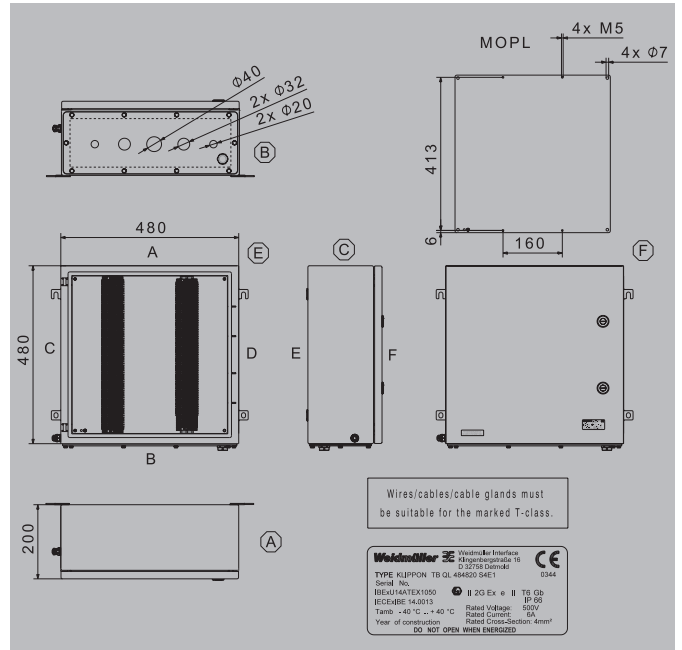
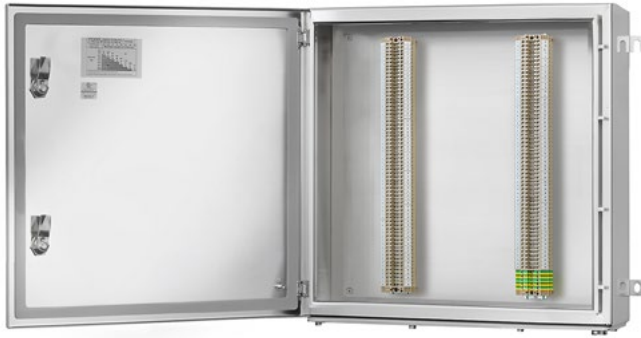
Reference products

	Order No.
KTB QL 303020 S4E1	1200070000
WDU 4	1020100000
WPE 4	1010100000
KLIPPON BDX M20 S	2519550000

Note

Klippon® TB QL 484820 Ex e terminal box

Depth 200 mm



Height / Width / Depth 480 / 480 / 200 mm

Ordering data

	Order No.
KTB QL 484820 Exe	8000028401

Note

Technical data

Article - short description	Klippon® Klippon TB (Terminal Box)-Enclosures, Terminal Box
Identification	Ex eb IIC T6 Gb
Certificate no. assembled enclosure (ATEX)	IBExU14ATEX1050
Certificate no. assembled enclosure (IECEx)	IECEX IBE 14.0013
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31, EN 60079-0, EN 60079-7, EN 60079-31
Ambient temperature	Tamb -40°C...+40°C
Type label material	Polyester coated with aluminium
Protection class	IP66
<b>Assembly</b>	
Modular terminal blocks	1x66, 1x59, 5 x PE
Rated cross-section	4 mm²
Rated voltage	550 V
Rated current	6.00 A
Drill holes side A	none
Drill holes side B	2 x M20, 2 x M25, 1 x M40
<b>Technical data, enclosure</b>	
Material	Stainless steel 1.4404 (316L)
Surface finish	electropolished
Material thickness	1.5 mm
Material thickness of flange	3 mm
Gland plates	Bottom
Seal material	Silicone
Enclosure attachment	4 welded-on mounting feet with 11 mm hole size
Mounting dimension - height / -width	327 mm / 506 mm
Lid attachment	Quarter-turn fastener with slotted insert
Access opening: height / Access opening: width	427 mm / 421 mm
Earth, enclosure, external	Continuous M10 earth stud in body enclosure
Earth, enclosure, internal	Welded-on M6 stainless-steel earth stud in enclosure body and lid.
<b>Note</b>	

Accessories

Mounting plates and fastening screws	Order No.
Stainless steel 1.4301 natural	1193870000
Fastening screws for mounting plates	0642600000
<b>Gland plate 3 mm</b>	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1281130000
<b>Gland plates and screws - 6 mm</b>	
Top and bottom sides (A & B), electropolished stainless steel 1.4404	1256550000
Mounting screw, stainless steel 1.4404	1253230000
<b>Rain hoods</b>	
Stainless steel 1.4301, mirror-polished	1281480000
<b>Label holder</b>	
100x25 stainless steel 1.4301	1257640000
130x50 stainless steel 1.4301	1283450000
70 x 70 angled stainless steel 1.4301	1279320000
<b>Document holders</b>	
For DIN A6 size documents	1252780000
For DIN A4 size documents	1252730000
<b>Earthing stud</b>	
Stainless steel 1.4404, M10	1192690000
<b>Pressure compensating element with drainage function</b>	
M20, brass	2519520000
<b>Cable glands</b>	
Nickel-plated brass, Ex e, M20, 3-12 mm	1460050000
Nickel-plated brass, Ex e, M25, 10-18 mm	1460070000
Nickel-plated brass, Ex e, M40, 22-32 mm	1460090000
<b>Blanking plugs</b>	
Stainless steel 1.4404 (316L), Ex e, M20	1477840000
Stainless steel 1.4404 (316L), Ex e, M25	1477870000
Stainless steel 1.4404 (316L), Ex e, M40	1477910000
<b>Locknuts</b>	
Nickel-plated brass, M20	1737000000
Nickel-plated brass, M25	1737010000
Nickel-plated brass, M40	1737030000
<b>Grounding strap</b>	
green-yellow, 6 mm² for M6 bolt	2475490000
<b>Note</b>	

Reference products

	Order No.
KTB QL 484820 S4E1	1200510000
WDU 4	1020100000
WPE 4	1010100000
KLIPPON BDX M20 S	2519550000
<b>Note</b>	

## Perfect protection for your components

### Klippon® EBi stainless steel enclosures for industrial applications

**C** Industrial environments place high demands on the enclosures. Even moderate environmental conditions require sophisticated measures for protecting the internal components from dust and moisture to ensure trouble-free operation.

Klippon® EBi stainless steel enclosures provide perfect protection for instrumentation, distribution, and control applications. All versions are dust- and water ingress-proof to IP66 or NEMA 4X and impact-resistant to IK09. They are made of durable 1.4301 stainless steel and comply with the latest international standards. The Klippon® EBi enclosures are available with or without a bottom gland plate. Lid fixing options include either a quarter lock (QL) as standard or a fixing screw (FS) version which is available on a request basis.

#### Your special advantages:

- Protection class IP66 / NEMA 4X
- Impact resistance according to IK09
- International conformity according to EN 62208, DNV GL and UL
- Operating temperatures from -40 °C to +85 °C
- PUR cover gasket for protection and safety
- Flexible wall assembly thanks to rear mounting holes or mounting feet (optional)
- Individual configuration supported by the Weidmüller Configurator (WMC)



Use our online catalogue to find additional product details, technical information and additional services:

[www.weidmueller.com/KlipponEBi](http://www.weidmueller.com/KlipponEBi)



**Quarter Lock Insert**  
 Hinged door with a quarter lock facility ensures safe and easy accessibility. If required, hinges can be placed on either side of the enclosure to support side by side placement.



**Gland plate with Torx® screws**  
 Torx® screws (M5/T20) are used for gland plate mounting to facilitate compliance with the required torque.



**Flexible mounting**  
 A dedicated mounting profile facilitates the flexible, simple and secure installation of mounting rails or mounting plates for component installation within the enclosure.

# Klippon® EBi QL – Quarter Lock

## Stainless steel enclosures for use within harsh industrial environments

Even under moderate environmental conditions, there is an increasing need for complex, individual automated solutions. A harsh industrial environment places additional, heavy demands on applications and determines the design of the industrial enclosures to meet these demands. With complete protection and excellent durability, our Klippon® EBi stainless steel enclosures offer the best protection for the components inside them.

- Available in 11 sizes and 2 depths
- Impact resistance IK09 (10J) in accordance with DIN EN 50102 for industrial applications
- Dedicated internal mounting support bracket for fixing terminal rail or mounting plates with self forming screws
- Concealed hinges
- Supplied in 0 or 1 gland plate version
- Direct enclosure mounting is provided via the fixing positions placed into the rear of the enclosure
- Mounting feet in stainless steel are optionally available and can be rotated 90°
- Dust and moisture channel
- Double-bit locking system

Our assembly service can supply these enclosure preassembled with terminals, electronics and cable glands.



**i** Use our online catalogue to find additional product details, technical information and additional services:  
[www.weidmueller.com/KlipponEBi](http://www.weidmueller.com/KlipponEBi)

### Overview of enclosures

#### Ordering data

Description	Height x width x depth in mm	0 Gland Plate	1 Gland Plate (below)
KEBi QL 302015 S2B_***	300 x 200 x 150	2470690000	2470800000
KEBi QL 303015 S2B_***	300 x 300 x 150	2470700000	2470810000
KEBi QL 303022 S2B_***	300 x 300 x 220	2470710000	2470820000
KEBi QL 403015 S2B_*	400 x 300 x 150	2470720000	2470830000
KEBi QL 403022 S2B_*	400 x 300 x 220	2470730000	2470840000
KEBi QL 404022 S2B_*	400 x 400 x 220	2470740000	2470850000
KEBi QL 504022 S2B_*	500 x 400 x 220	2470750000	2470860000
KEBi QL 505022 S2B_*	500 x 500 x 220	2470760000	2470870000
KEBi QL 604022 S2B_*	600 x 400 x 220	2470770000	2470880000
KEBi QL 606022 S2B_*	600 x 600 x 220	2470780000	2470890000
KEBi QL 806022 S2B_*	800 x 600 x 220	2470790000	2470900000

**Note** \*Placeholder for the number of gland plates (0 or 1), \*\*smaller reference size for material thickness



## Technical Overview

### Features

- Available in 11 sizes and 2 standard depths
- Welded mounting bracket for securing the mounting plate or mounting rail by means of self-tapping screws
- External earth - M6 earth rivet
- Concealed hinges
- M6 earthing bolt welded in the cover and base of the enclosure
- Available with 0 or 1 gland plates
- Optimised laser welding, high quality standard
- Direct mounting of the enclosure with rear mounting holes
- Mounting feet in stainless steel are optionally available, and can be rotated by 90°
- Moisture and dust channel
- Double-bit locking system
- Permanent labelling of items
- Key included for sash lock
- Packaging optimally designed for enclosure

### Note

### Technical data

Material	Stainless steel 1.4301 (304) 1.5 mm (1.25 mm for smaller sizes**)
Surface	Brushed – grain size 240
IP protection class	IP 66 to DIN EN 60529
NEMA Rating	3, 4x, 5
Gland plates	Stainless steel 1.4301 (304) 2 mm, fitted with M5 Torx T20 screws
Earthing inside	Welded-on M6 stainless-steel earth stud in enclosure lid and base
Earthing outside	External earth position – suitable for M6 threaded screw
Installation mounting	Welded mounting bracket for flexible mounting of the mounting plate, rails or TAS 20 rails. They contain 4.51 mm drill holes for accommodating the mounting plate or TS/TAS by means of self-tapping screws (1274150000)
Enclosure attachment	Direct mounting (9 mm mounting holes on rear wall) or via mounting feet (optionally available), adjustable by 90°
Lid opening	125°
Lid fixing	Quarter lock with double bit
Impact resistance	IK09 (10J) to DIN EN 50102
Gasket material	Polyurethane (PUR) foam (cover), EPDM flat gasket (gland plate)
Operating temperature range	-40 °C ... +85 °C
Tightening torque of gland plates screws*	2.5 Nm
<b>Note</b>	*SD TH20 screwdriver (9009160000) optionally available

### Approvals for empty enclosures

Empty enclosure standard	DIN EN 62208
DNV GL	TAE00002RN
cULus	E 243298
<b>Note</b>	For details of power dissipation, please contact your Weidmüller representative.



Height / Width / Depth 300 / 200 / 150 mm

Ordering data

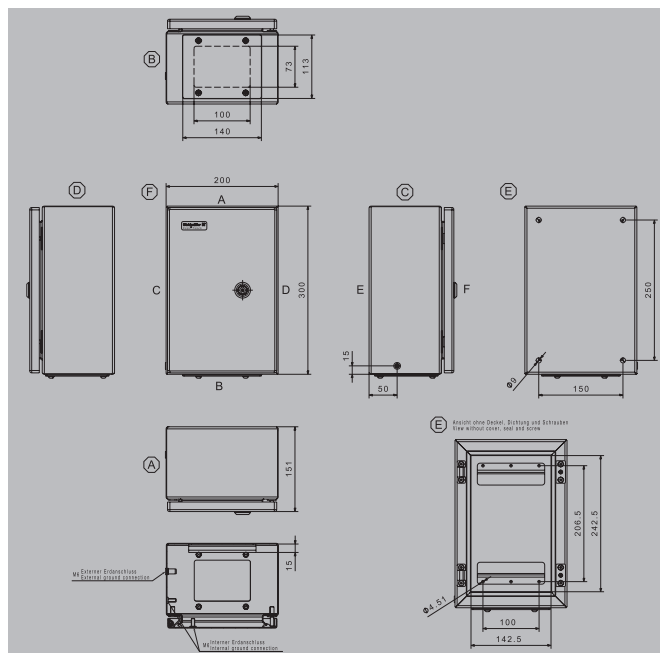
Stainless steel 1.4301 (304), brushed	Order No.
0 gland plates	2470690000
1 gland plate - positioned at the bottom (B)	2470800000

Note

Accessories

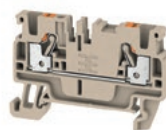
Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1309690000
Stainless steel 1.4301 natural	1309700000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Vertical	8000037556
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Mild steel nickel plated Spacer M6 x 8, set of 2	
15 mm length	3896100000
20 mm length	3896200000
30 mm length	3896300000
Mounting feet, set containing 4 pieces each	
Stainless steel 1.4301 natural	1289180000
Lock inserts	
Slot	1191600000
Pressure compensation elements	
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Double-bit key	2473930000

Note \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
 \*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



Guide value for max. number of terminals (industry)

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	1x36	3x17
4 mm <sup>2</sup>	1x30	3x14
6 mm <sup>2</sup>	1x23	3x11
10 mm <sup>2</sup>	1x18	3x9
16 mm <sup>2</sup>	1x15	3x7
35 mm <sup>2</sup>	1x11	3x5



Note The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Order recommendations:  
 TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
 TS 32 Mounting rail with clamping yoke technology SAK  
 TS 15 Mounting rail with clamping yoke technology AKZ  
 Order information for terminal blocks, please refer to online catalogue

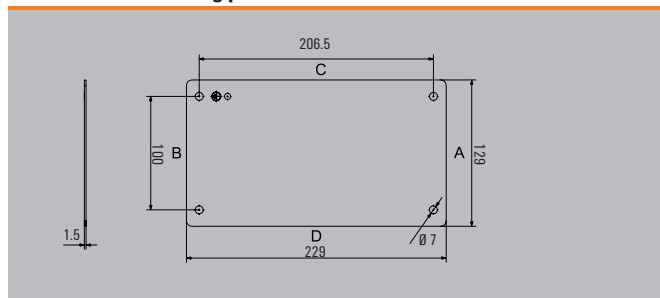
Guide value for max. number of cable entries

Cable entries	A / B	C / D
M12	21	33
M16	15	27
M20	8	14
M25	6	12
M32	3	5
M40	2	4
M50	2	3
M63	1	2
M75		



Note Our IP 68 brass cable glands are used as the reference for these guideline values.

Dimensions of mounting plate





Height / Width / Depth 300 / 300 / 150 mm

**Ordering data**

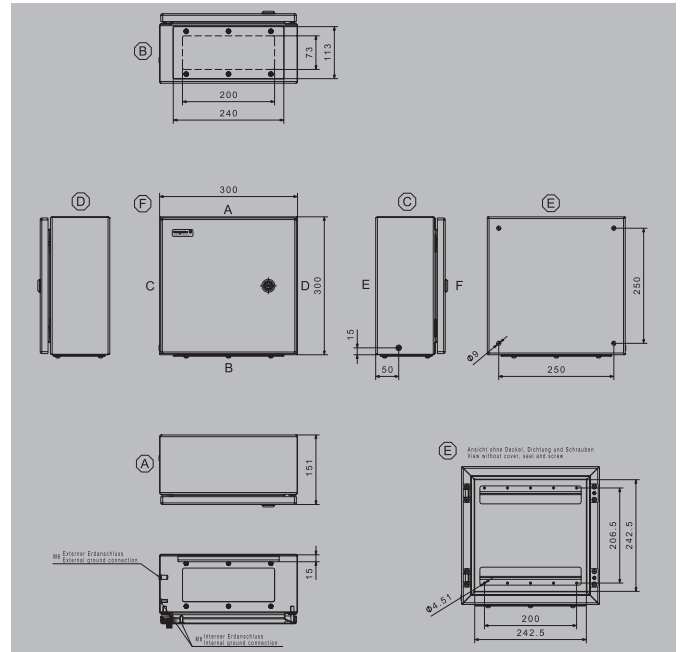
Stainless steel 1.4301 (304), brushed	Order No.
0 gland plates	2470700000
1 gland plate - positioned at the bottom (B)	2470810000

**Note**

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1310410000
Stainless steel 1.4301 natural	1310320000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Vertical	8000037556
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Mild steel nickel plated Spacer M6 x 8, set of 2	
15 mm length	3896100000
20 mm length	3896200000
30 mm length	3896300000
Mounting feet, set containing 4 pieces each	
Stainless steel 1.4301 natural	1289180000
Lock inserts	
Slot	1191600000
Pressure compensation elements	
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Double-bit key	2473930000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	3x36	3x36
4 mm <sup>2</sup>	3x30	3x30
6 mm <sup>2</sup>	3x23	3x23
10 mm <sup>2</sup>	3x18	3x18
16 mm <sup>2</sup>	3x15	3x15
35 mm <sup>2</sup>	3x11	3x11

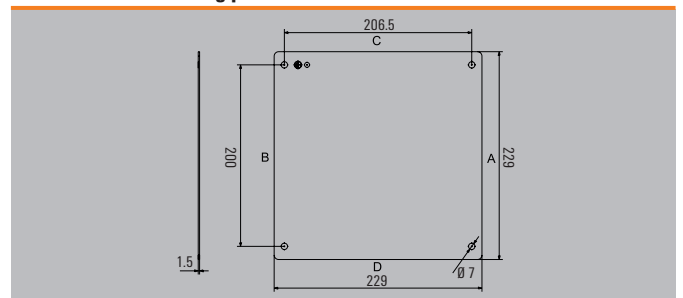
**Note** The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Order recommendations:  
TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
TS 32 Mounting rail with clamping yoke technology SAK  
TS 15 Mounting rail with clamping yoke technology AKZ  
Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	33	33
M16	27	27
M20	14	14
M25	12	12
M32	5	5
M40	4	4
M50	3	3
M63	2	2
M75		

**Note** Our IP 68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**





Height / Width / Depth 300 / 300 / 220 mm

**Ordering data**

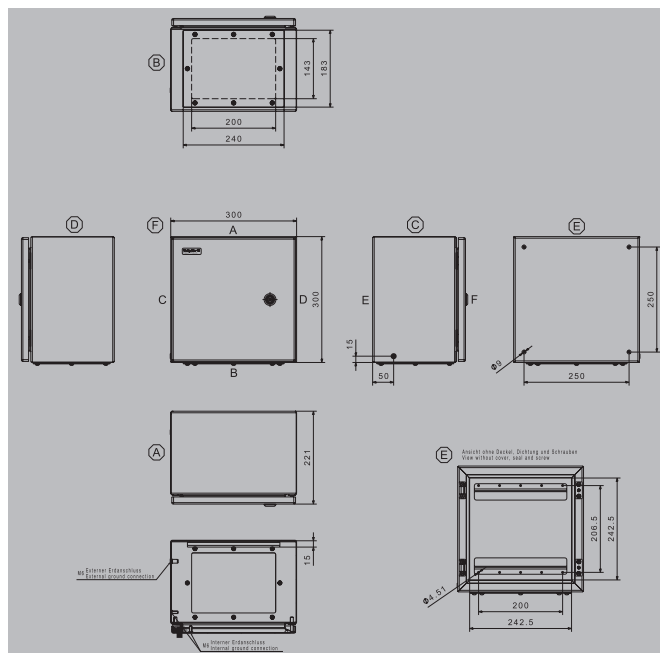
Stainless steel 1.4301 (304), brushed	Order No.
0 gland plates	2470710000
1 gland plate - positioned at the bottom (B)	2470820000

**Note**

**Accessories**

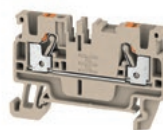
Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1310410000
Stainless steel 1.4301 natural	1310320000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Vertical	8000037556
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Mild steel nickel plated Spacer M6 x 8, set of 2	
15 mm length	3896100000
20 mm length	3896200000
30 mm length	3896300000
Mounting feet, set containing 4 pieces each	
Stainless steel 1.4301 natural	1289180000
Lock inserts	
Slot	1191600000
Pressure compensation elements	
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Double-bit key	2473930000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
 \*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm²	3x36	3x36
4 mm²	3x30	3x30
6 mm²	3x23	3x23
10 mm²	3x18	3x18
16 mm²	3x15	3x15
35 mm²	3x11	3x11



**Note** The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Order recommendations:  
 TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
 TS 32 Mounting rail with clamping yoke technology SAK  
 TS 15 Mounting rail with clamping yoke technology AKZ  
 Order information for terminal blocks, please refer to online catalogue

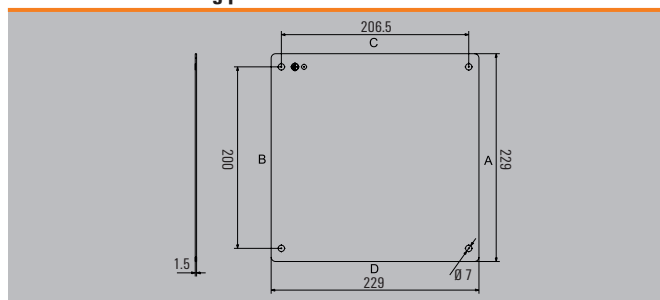
**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	76	76
M16	45	45
M20	28	28
M25	18	18
M32	15	15
M40	8	8
M50	6	6
M63	2	2
M75	2	2



**Note** Our IP 68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**





Height / Width / Depth 400 / 300 / 150 mm

**Ordering data**

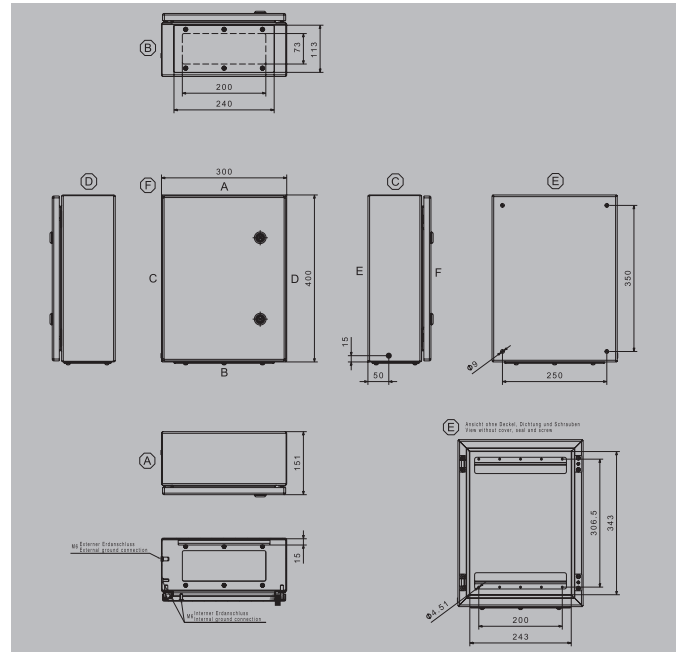
Stainless steel 1.4301 (304), brushed	Order No.
0 gland plates	2470720000
1 gland plate - positioned at the bottom (B)	2470830000

**Note**

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1310420000
Stainless steel 1.4301 natural	1310330000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Vertical	8000037555
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Mild steel nickel plated Spacer M6 x 8, set of 2	
15 mm length	3896100000
20 mm length	3896200000
30 mm length	3896300000
Mounting feet, set containing 4 pieces each	
Stainless steel 1.4301 natural	1289180000
Lock inserts	
Slot	1191600000
Pressure compensation elements	
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Double-bit key	2473930000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	3x56	4x36
4 mm <sup>2</sup>	3x47	4x30
6 mm <sup>2</sup>	3x35	4x23
10 mm <sup>2</sup>	3x28	4x18
16 mm <sup>2</sup>	3x23	4x15
35 mm <sup>2</sup>	3x18	4x11

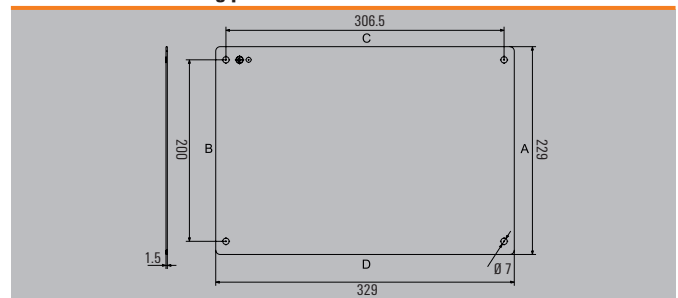
**Note** The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Order recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
TS 32 Mounting rail with clamping yoke technology SAK  
TS 15 Mounting rail with clamping yoke technology AKZ  
Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	33	48
M16	27	39
M20	14	20
M25	12	16
M32	5	7
M40	4	5
M50	3	4
M63	2	3
M75		

**Note** Our IP 68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**





Height / Width / Depth 400 / 300 / 220 mm

**Ordering data**

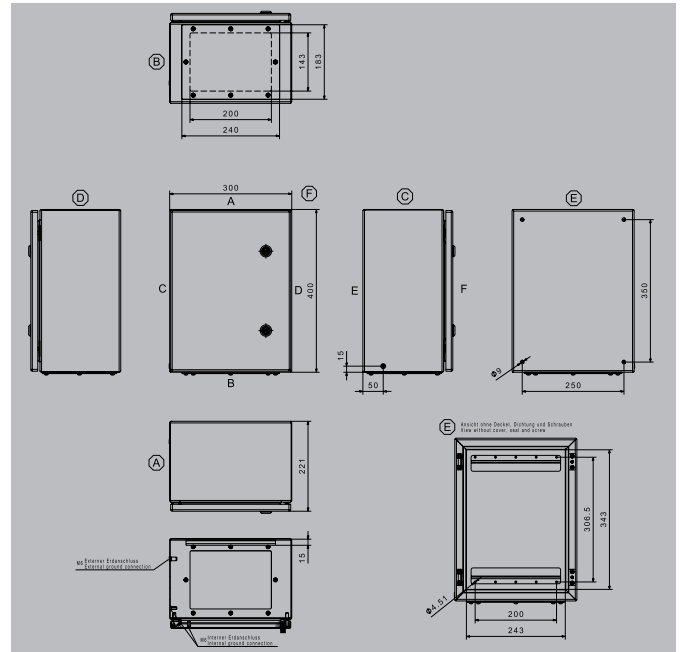
Stainless steel 1.4301 (304), brushed	Order No.
0 gland plates	2470730000
1 gland plate - positioned at the bottom (B)	2470840000

**Note**

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1310420000
Stainless steel 1.4301 natural	1310330000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Vertical	8000037555
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Mild steel nickel plated Spacer M6 x 8, set of 2	
15 mm length	3896100000
20 mm length	3896200000
30 mm length	3896300000
Mounting feet, set containing 4 pieces each	
Stainless steel 1.4301 natural	1289180000
Lock inserts	
Slot	1191600000
Pressure compensation elements	
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Double-bit key	2473930000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	3x56	4x36
4 mm <sup>2</sup>	3x47	4x30
6 mm <sup>2</sup>	3x35	4x23
10 mm <sup>2</sup>	3x28	4x18
16 mm <sup>2</sup>	3x23	4x15
35 mm <sup>2</sup>	3x18	4x11

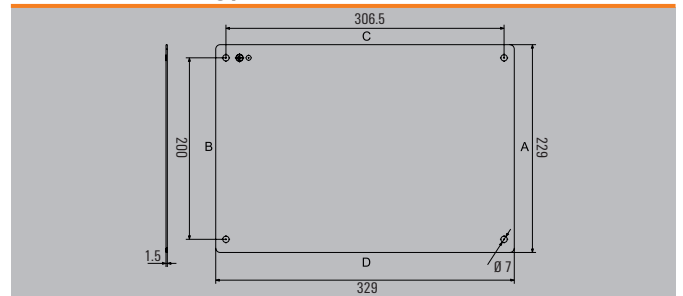
**Note** The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Order recommendations: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
TS 32 Mounting rail with clamping yoke technology SAK  
TS 15 Mounting rail with clamping yoke technology AKZ  
Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	76	112
M16	45	65
M20	28	40
M25	18	24
M32	15	21
M40	8	10
M50	6	8
M63	2	3
M75	2	2

**Note** Our IP 68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**





Height / Width / Depth 400 / 400 / 220 mm

**Ordering data**

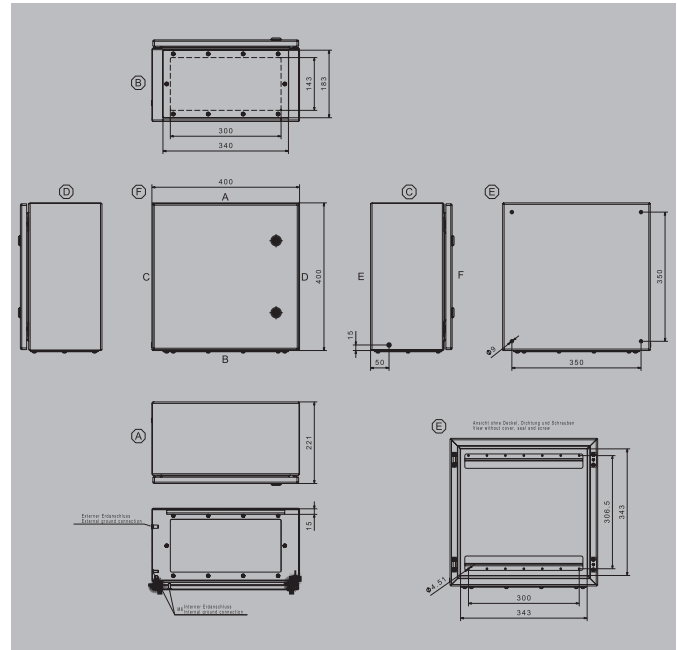
Stainless steel 1.4301 (304), brushed	Order No.
0 gland plates	2470740000
1 gland plate - positioned at the bottom (B)	2470850000

**Note**

**Accessories**

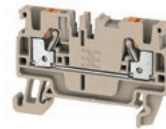
Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1310430000
Stainless steel 1.4301 natural	1310340000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Vertical	8000037555
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Mild steel nickel plated Spacer M6 x 8, set of 2	
15 mm length	3896100000
20 mm length	3896200000
30 mm length	3896300000
Mounting feet, set containing 4 pieces each	
Stainless steel 1.4301 natural	1289180000
Lock inserts	
Slot	1191600000
Pressure compensation elements	
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Double-bit key	2473930000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	4x56	4x56
4 mm <sup>2</sup>	4x47	4x47
6 mm <sup>2</sup>	4x35	4x35
10 mm <sup>2</sup>	4x28	4x28
16 mm <sup>2</sup>	4x23	4x23
35 mm <sup>2</sup>	4x18	4x18



**Note** The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Order recommendations:  
TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
TS 32 Mounting rail with clamping yoke technology SAK  
TS 15 Mounting rail with clamping yoke technology AKZ  
Order information for terminal blocks, please refer to online catalogue

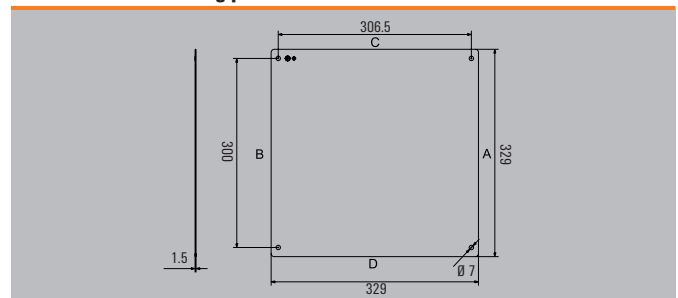
**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	112	112
M16	65	65
M20	40	40
M25	24	24
M32	21	21
M40	10	10
M50	8	8
M63	3	3
M75	2	2



**Note** Our IP 68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**





Height / Width / Depth 500 / 400 / 220 mm

**Ordering data**

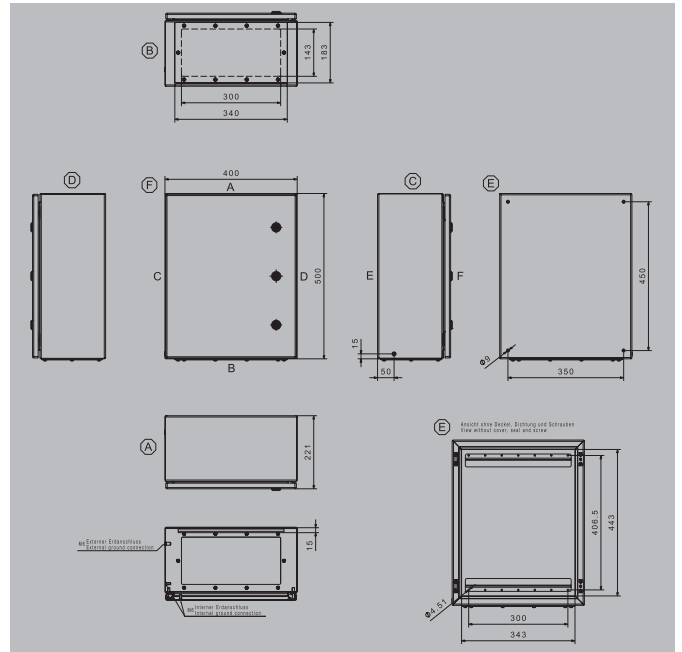
Stainless steel 1.4301 (304), brushed	Order No.
0 gland plates	2470750000
1 gland plate - positioned at the bottom (B)	2470860000

**Note**

**Accessories**

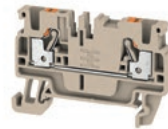
Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1310440000
Stainless steel 1.4301 natural	1310350000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Vertical	8000037554
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Mild steel nickel plated Spacer M6 x 8, set of 2	
15 mm length	3896100000
20 mm length	3896200000
30 mm length	3896300000
Mounting feet, set containing 4 pieces each	
Stainless steel 1.4301 natural	1289180000
Lock inserts	
Slot	1191600000
Pressure compensation elements	
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Double-bit key	2473930000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
 \*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	4x75	6x56
4 mm <sup>2</sup>	4x63	6x47
6 mm <sup>2</sup>	4x47	6x35
10 mm <sup>2</sup>	4x38	6x28
16 mm <sup>2</sup>	4x32	6x23
35 mm <sup>2</sup>	4x24	6x18



**Note** The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Order recommendations:  
 TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
 TS 32 Mounting rail with clamping yoke technology SAK  
 TS 15 Mounting rail with clamping yoke technology AKZ  
 Order information for terminal blocks, please refer to online catalogue

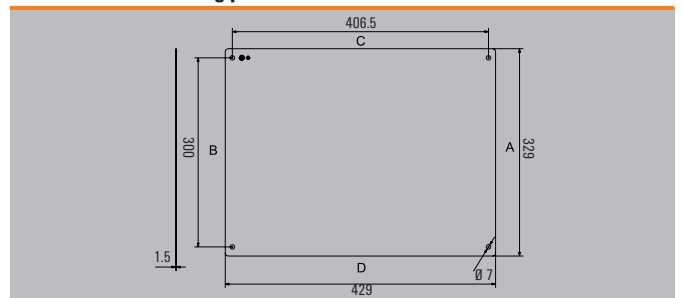
**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	112	140
M16	65	85
M20	40	52
M25	24	33
M32	21	27
M40	10	14
M50	8	10
M63	3	4
M75	2	3



**Note** Our IP 68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**







Height / Width / Depth 500 / 500 / 220 mm

**Ordering data**

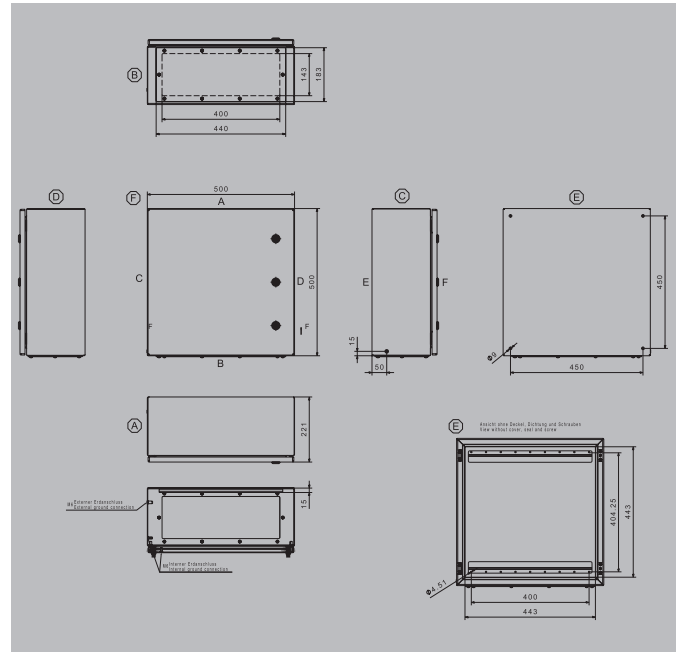
Stainless steel 1.4301 (304), brushed	Order No.
0 gland plates	2470760000
1 gland plate - positioned at the bottom (B)	2470870000

Note

**Accessories**

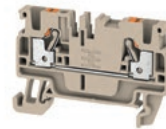
Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1310450000
Stainless steel 1.4301 natural	1310360000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Vertical	8000037554
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Mild steel nickel plated Spacer M6 x 8, set of 2	
15 mm length	3896100000
20 mm length	3896200000
30 mm length	3896300000
Mounting feet, set containing 4 pieces each	
Stainless steel 1.4301 natural	1289180000
Lock inserts	
Slot	1191600000
Pressure compensation elements	
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Double-bit key	2473930000

Note \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	6x75	6x75
4 mm <sup>2</sup>	6x63	6x63
6 mm <sup>2</sup>	6x47	6x47
10 mm <sup>2</sup>	6x38	6x38
16 mm <sup>2</sup>	6x32	6x32
35 mm <sup>2</sup>	6x24	6x24



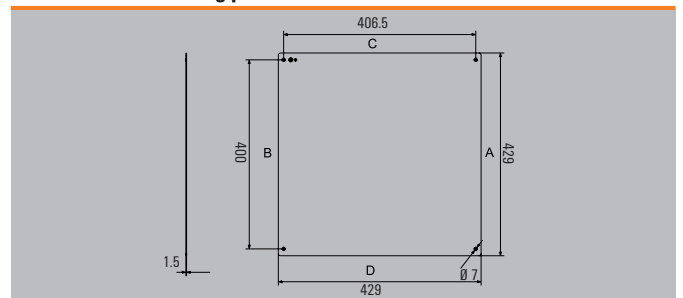
Note The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Order recommendations:  
TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
TS 32 Mounting rail with clamping yoke technology SAJ  
TS 15 Mounting rail with clamping yoke technology AKZ  
Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	140	140
M16	85	85
M20	52	52
M25	33	33
M32	27	27
M40	14	14
M50	10	10
M63	4	4
M75	3	3

Note Our IP 68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**





Height / Width / Depth 600 / 400 / 220 mm

**Ordering data**

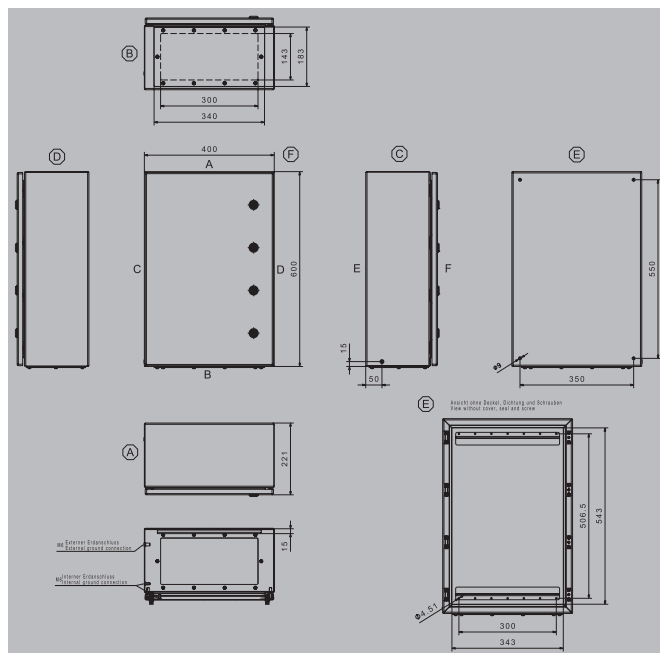
Stainless steel 1.4301 (304), brushed	Order No.
0 gland plates	2470770000
1 gland plate - positioned at the bottom (B)	2470880000

**Note**

**Accessories**

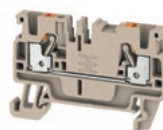
Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1310460000
Stainless steel 1.4301 natural	1310370000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Vertical	8000037553
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Mild steel nickel plated Spacer M6 x 8, set of 2	
15 mm length	3896100000
20 mm length	3896200000
30 mm length	3896300000
Mounting feet, set containing 4 pieces each	
Stainless steel 1.4301 natural	1289180000
Lock inserts	
Slot	1191600000
Pressure compensation elements	
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Double-bit key	2473930000

**Note** \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	4x94	8x56
4 mm <sup>2</sup>	4x79	8x47
6 mm <sup>2</sup>	4x60	8x35
10 mm <sup>2</sup>	4x48	8x28
16 mm <sup>2</sup>	4x40	8x23
35 mm <sup>2</sup>	4x30	8x18



**Note** The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Order recommendations:  
TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
TS 32 Mounting rail with clamping yoke technology SAK  
TS 15 Mounting rail with clamping yoke technology AKZ  
Order information for terminal blocks, please refer to online catalogue

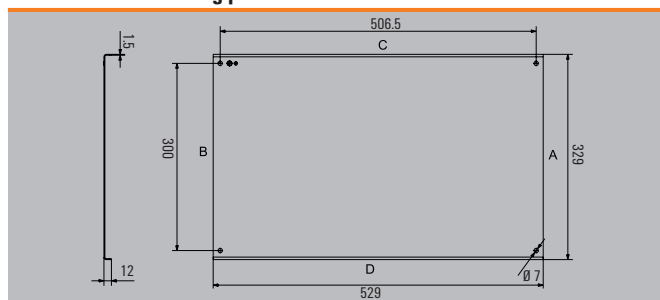
**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	112	176
M16	65	96
M20	40	64
M25	24	39
M32	21	33
M40	10	16
M50	8	14
M63	3	5
M75	2	4



**Note** Our IP 68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



Klippon® EBi QL 606022

Depth 220 mm



Height / Width / Depth 600 / 600 / 220 mm

**Ordering data**

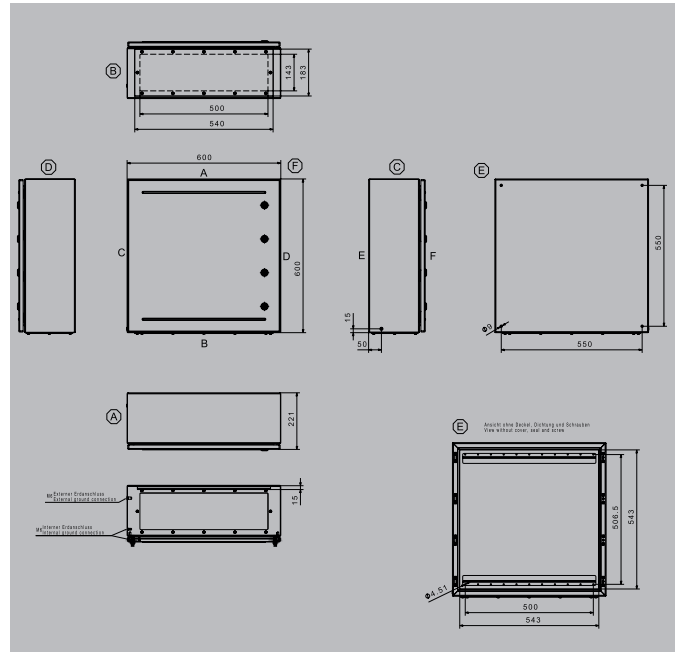
Stainless steel 1.4301 (304), brushed	Order No.
0 gland plates	2470780000
1 gland plate - positioned at the bottom (B)	2470890000

Note

**Accessories**

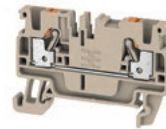
Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1310470000
Stainless steel 1.4301 natural	1310380000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Vertical	8000037553
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Mild steel nickel plated Spacer M6 x 8, set of 2	
15 mm length	3896100000
20 mm length	3896200000
30 mm length	3896300000
Mounting feet, set containing 4 pieces each	
Stainless steel 1.4301 natural	1289180000
Lock inserts	
Slot	1191600000
Pressure compensation elements	
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Double-bit key	2473930000

Note \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
\*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	8x94	8x94
4 mm <sup>2</sup>	8x79	8x79
6 mm <sup>2</sup>	8x60	8x60
10 mm <sup>2</sup>	8x48	8x48
16 mm <sup>2</sup>	8x40	8x40
35 mm <sup>2</sup>	8x30	8x30



Note The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Order recommendations:  
TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
TS 32 Mounting rail with clamping yoke technology SAK  
TS 15 Mounting rail with clamping yoke technology AKZ  
Order information for terminal blocks, please refer to online catalogue

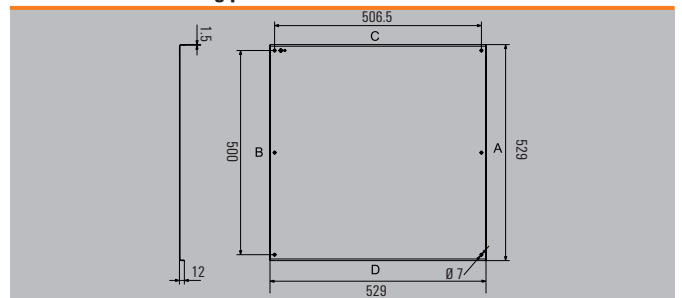
**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	165	176
M16	96	96
M20	64	64
M25	39	39
M32	33	33
M40	16	16
M50	14	14
M63	5	5
M75	4	4



Note Our IP 68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**





800 / 600 / 220 mm

Ordering data

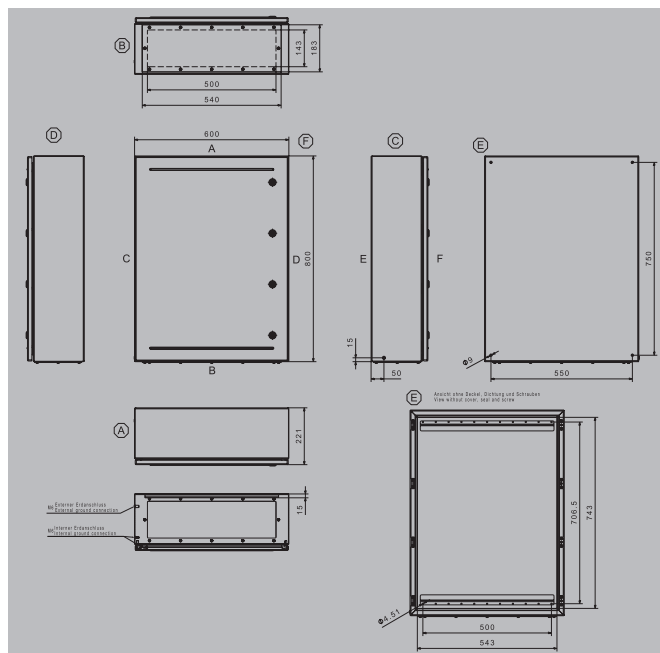
Stainless steel 1.4301 (304), brushed	Order No.
0 gland plates	2470790000
1 gland plate - positioned at the bottom (B)	2470900000

Note

Accessories

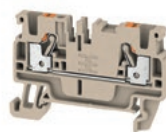
Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	1310480000
Stainless steel 1.4301 natural	1310390000
Fastening screws for terminal rails*	1274150000
Mounting rails**, TS35x7.5	
Vertical	8000037552
Stainless steel spacer M6 x 8, Set of 4	
10 mm length	0935110000
15 mm length	0935120000
20 mm length	0935130000
30 mm length	0935140000
Mild steel nickel plated Spacer M6 x 8, set of 2	
15 mm length	3896100000
20 mm length	3896200000
30 mm length	3896300000
Mounting feet, set containing 4 pieces each	
Stainless steel 1.4301 natural	1289180000
Lock inserts	
Slot	1191600000
Pressure compensation elements	
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Double-bit key	2473930000

Note \*Packing unit (PU) = 20 pcs., sufficient for 10 fixtures  
 \*\*Packing unit (PU) = 20 pcs., fixing screws 1274150000 available separately



Guide value for max. number of terminals (industry)

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	8x133	11x94
4 mm <sup>2</sup>	8x111	11x79
6 mm <sup>2</sup>	8x84	11x60
10 mm <sup>2</sup>	8x67	11x48
16 mm <sup>2</sup>	8x56	11x40
35 mm <sup>2</sup>	8x42	11x30



Note The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Order recommendations:  
 TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
 TS 32 Mounting rail with clamping yoke technology SAK  
 TS 15 Mounting rail with clamping yoke technology AKZ  
 Order information for terminal blocks, please refer to online catalogue

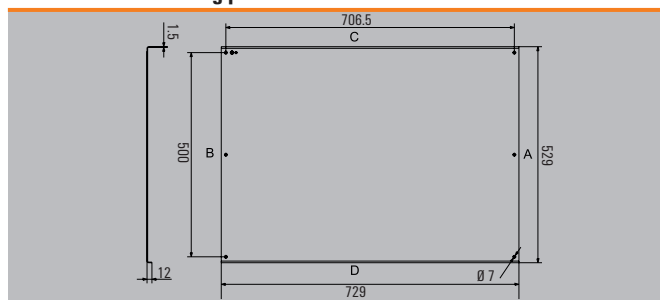
Guide value for max. number of cable entries

Cable entries	A / B	C / D
M12	165	222
M16	96	140
M20	64	88
M25	39	54
M32	33	45
M40	16	22
M50	14	18
M63	5	7
M75	4	5



Note Our IP 68 brass cable glands are used as the reference for these guideline values.

Dimensions of mounting plate





# Klippon® STB stainless and sheet steel enclosures

## Protection for industrial standard applications and potentially explosive atmospheres

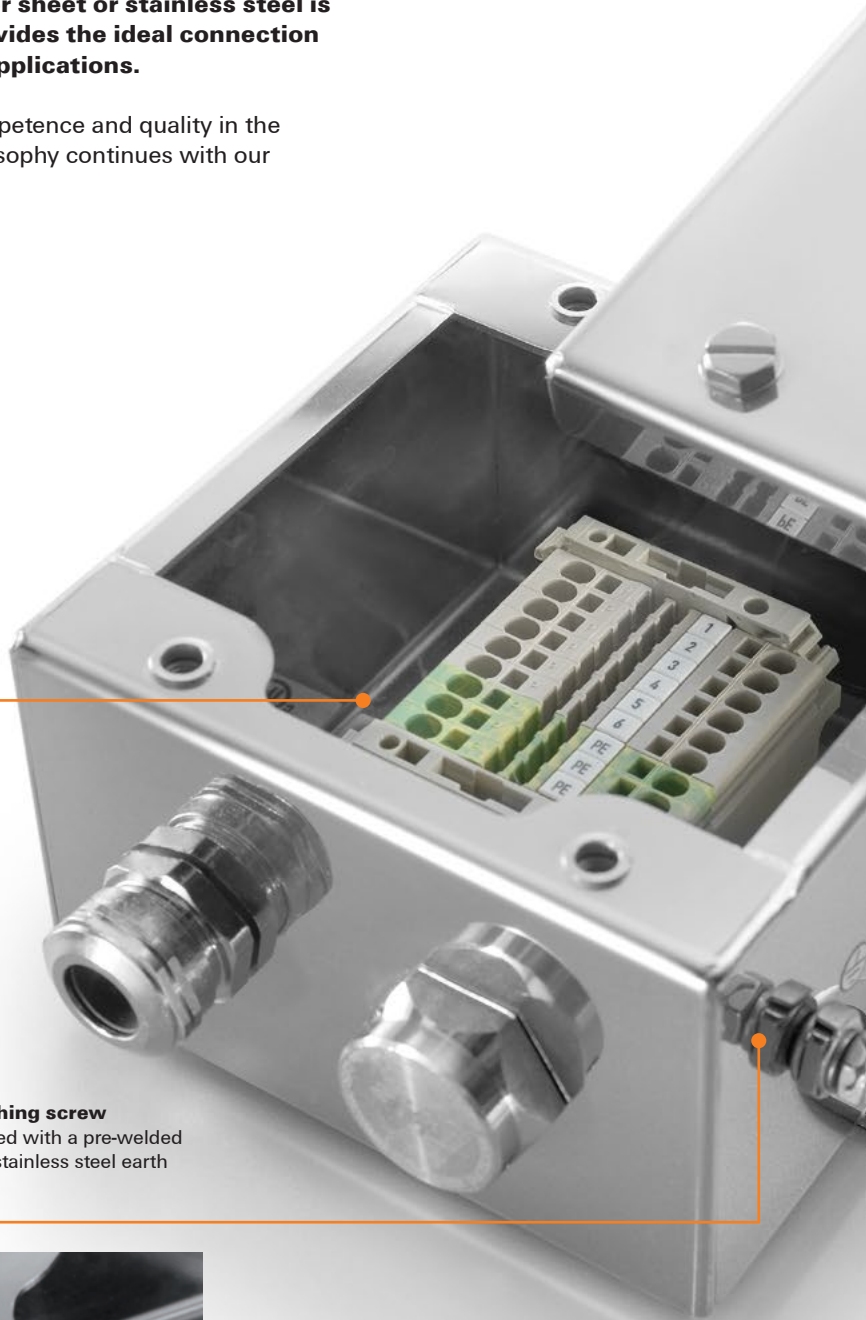
C

The Klippon® STB range manufactured from either sheet or stainless steel is the perfectly designed Small Terminal Box. It provides the ideal connection point for either industrial or harsh environment applications.

The name Klippon® has long been synonymous for competence and quality in the supply of enclosures and customer solutions. This philosophy continues with our Klippon® STB range of enclosures.

### Flexible, internal mounting options

Terminal rails can be installed on the industry standard mounting rails using the provided fixing set with welded C-profile (TAS 20). A maximum possible internal working area is provided while ensuring a stable and flexible area for the rail assembly.



### Internal / external earthing screw

The enclosures are supplied with a pre-welded internal and external M6 stainless steel earth stud.



**Approvals**

Klippon® STB enclosures have the latest international approvals.



**Enhanced sealing performance**

The new silicon seal has impressive thermal properties and can withstand temperatures from -60 °C to +120 °C. Compression protection ensures the complete functionality of the seal.



**Weidmüller**  
Klippon® Products  
TYPE Klippon STB  
Serial No. \_\_\_\_\_  
II 200 Exe II Ex (D, A, Z)  
IP66 & IP67 Temp. °C to \_\_\_\_\_ °C  
Riscocod: KATEXW11X  
W Amps \_\_\_\_\_  
Verbs \_\_\_\_\_  
MOP: Year of construction \_\_\_\_\_  
WEIDMÜLLER INTERFACE GmbH & Co. KG  
KILGENBERGSTRASSE 16, 32758 DETMOLD, GERMANY  
WARNING! DO NOT OPEN WHEN ENERGISED

**Mounting lugs**

Mounting lugs are pre-fitted as standard. They are vibration and shock resistant and designed to be secure in operation.



**Industries**

Klippon® STB enclosures can be used in a variety of applications. For example, they are ideal for use in standard applications such as machine construction or transportation. They can also be used in explosive risk zones in the process and petrochemical industry.



**Customised solutions**

Weidmüller delivers enclosures in the Klippon® STB series connection ready. With Klippon Services, Weidmüller offers extensive consultation, engineering and installation services for modified enclosures. Depending on the customer- and industry-specific application, the enclosures can be modified and, subject to international specifications and regulations, sent worldwide together with a wide range of accessories.



# Klippon® STB – Small Terminal Box

## Steel enclosures

Ideally suited for the energy and process industry and transportation, the Klippon® STB range is the perfect complement to our existing Klippon® enclosure product line. Enclosures of this range comply with international standards.

Some of the many advantages of these cases are:

- Available in stainless steel or in steel sheet
- Higher temperature resistant seals than the standard
- Flexible options when mounting the internal rail
- The gasket is protected against compression; this ensures that a permanent and secure seal is maintained.
- Earth studs in the lid and in the enclosure base
- Lasered welding seams offer improved quality
- Delivered with welded mounting feet to ensure an sturdy enclosure installation

Weidmüller can manufacture and supply this enclosure to match customer specifications and fitted with all necessary terminals and cable glands.



Use our online catalogue to find additional product details, technical information and additional services:

[www.weidmueller.com/KlipponSTB](http://www.weidmueller.com/KlipponSTB)

## Overview of enclosures

### Ordering data

Description	Height x width x depth in mm	Mirror-polish	Electropolished	Powder-coated (RAL7032)
Klippon® STB 1	120 x 120 x 80	1002690000	1058810000	1024970000
Klippon® STB 1.1	150 x 120 x 80	1002750000	1058820000	1024980000
Klippon® STB 2	150 x 150 x 90	1002740000	1058830000	1024990000
Klippon® STB 2.1	190 x 150 x 90	1002730000	1058840000	1025010000
Klippon® STB 3	190 x 190 x 100	1002720000	1058850000	1025020000
Klippon® STB 4	250 x 250 x 120	1002710000	1058860000	1025030000
Klippon® STB 5	160 x 380 x 120	1002700000	1058880000	1025040000
Klippon® STB 6	250 x 400 x 130	1002760000	1058870000	1025050000

Note



## Technical Overview

### Features

- Mirror-polished or electropolished stainless steel 1.4404 (316L) or powder coated steel sheet 1.0330
- Fitted with a welded, internal C-profile rail (TAS 20) and mounting feet
- Laser cut weld seams
- Approved according to the latest international standards

**Note** We deliver enclosures through our assembly service which are ready to be connected and suitable for every application

### Technical data

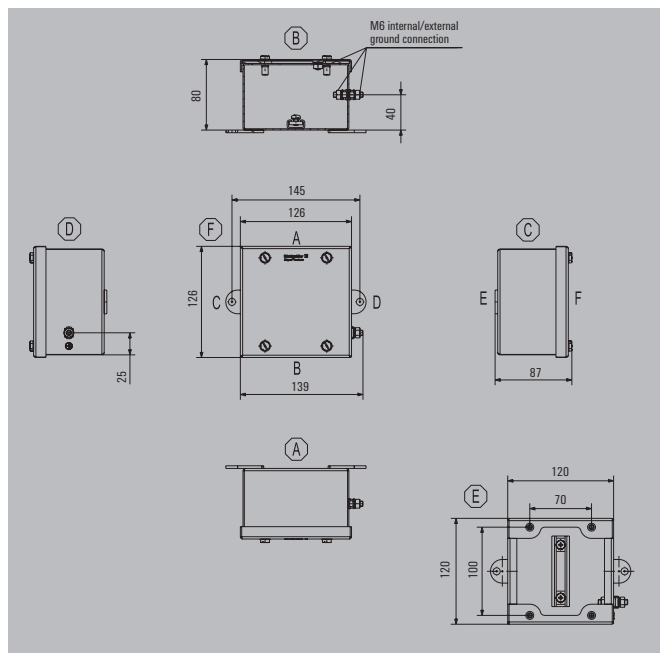
	Stainless steel	Sheet steel
Enclosure material	Stainless steel 1.4404 (316L) in 1.50 mm	Steel sheet 1.0330 in 1.50 mm
Surface finish	Mirror-polished, electropolished	Powder-coated RAL 7032
IP protection class	IP 66	IP 66
NEMA Rating	4, 4x	
Earthing	Enclosure base part: internal / external M6 stainless steel Lid: M6 x 10 stainless steel	Enclosure base part: internal / external M6 stainless steel Lid: M6 x 10 stainless steel
Installation mounting	Welded C-profile rail	Welded C-profile rail
Enclosure attachment	2 external mounting feet with 8 mm holes	2 external mounting feet with 8 mm holes
Lid opening	Completely removable lid with 4 x M5 screws	Completely removable lid with 4 x M5 screws
Impact resistance	7J in accordance with IEC 60079-0	10J industrial version in accordance with DIN EN 50102
Gasket material	Silicone -60 °C...+100 °C *	Silicone -60 °C...+120 °C
Lid screws, torque	2.5 Nm	2.5 Nm
<b>Note</b>	* +120 °C only for industrial applications	

### Approvals for empty enclosures

	Stainless steel	Sheet steel
ATEX certificate	IBExU07ATEX1147 U	
ATEX marking	Ⓜ II 2G Ex eb IIC Gb , Ⓜ II 1G Ex ia IIC Ga, Ⓜ II 2D Ex tb IIIC Db	
IECEX certificate	IECEX IBE 09.0018U	
IECEX marking	Ex eb IIC Gb, Ex ia IIC Ga, Ex tb IIIC Db	
AEx	E223792	
cULus	E197061 and E256877	
Lloyds Register	08/20032	08/20032
DNV GL	59 358 - 08 HH	
Russian Maritime Register	15.40041.250	15.40041.250
INMETRO	IEEx 13.0002U	
EAC	RUC-DE.BE02.B.00173	
<b>Note</b>	This enclosure range is component certified. If other electrical components are inserted into the case, additional certification is required.	

### Approvals for control and distribution box

	Stainless steel		
ATEX certificate	IBExU07ATEX1148	INMETRO certificate	IEEx 13.0003
ATEX marking	Ⓜ II 2G Ex eb IIC T6/T5/T4 Gb Ⓜ II 2(1)G Ex eb ia [Ga] IIC T6/T5/T4 Gb Ⓜ II 1G Ex ia IIC T6/T5/T4 Ga Ⓜ II 2D Ex tb IIIC T80°C/T95°C/T100°C Db -60°C ≤ Ta ≤ +40/+55/+60 °C	INMETRO marking	Ex eb IIC T6/T5/T4 Gb Ex e [ia Ga] IIC T6/T5/T4 Gb Ex ia IIC T6/T5/T4 Ga Ex tb IIIC T80°C/95°C/120°C Db IP66
IECEX certificate	IECEX IBE 09.0019	EAC certificate	RUC-DE.08.B.01328
IECEX marking	Ex eb IIC T6/T5/T4 Gb Ex eb ia [Ga] IIC T6/T5/T4 Gb Ex ia IIC T6/T5/T4 Ga Ex tb IIIC T80°C/T95°C/T100°C Db -60°C ≤ Ta ≤ +40/+55/+60 °C	EAC marking	II 2 G Ex e IIC T6...T4 Gb, II 2(1) G Ex e [ia Ga] IIC T6...T4 Gb, II 1 G Ex ia IIC T6...T4 Ga, II 2 D Ex tb IIIC T80°C...T130°C Db
KOSHA certificate	16-AV4B0-247X	AEx certificate	E223792
KOSHA marking	Ex eb IIC T6/T5/T4 Gb Ex eb ia [Ga] IIC T6/T5/T4 Gb Ex ia IIC T6/T5/T4 Ga Ex tb IIIC T80°C/T95°C/T100°C Db -60°C ≤ Ta ≤ +40/+55/+60 °C	AEx marking	Class I, Zone 1, AEx e IIC Gb T6..T4 Class I, Zone 2, AEx e IIC Gc T6..T4 Class I Div.2 Group A,B,C,D T6...T4 Class II Div.2 Group F,G Zone 21, AEx tb IIC Db
<b>Note</b>	If you have specific requirements for equipment operating in explosive hazard areas, please contact us at Weidmüller to receive a full copy of the certification. For details of power dissipation, please contact your Weidmüller representative.		



Height / Width / Depth 120 / 120 / 80 mm

**Ordering data**

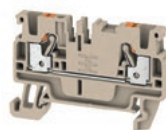
Stainless steel 1.4404 (316L)		Order No.
	mirror-polished	1002690000
	electro-polished	1058810000
Sheet steel, powder-coated (RAL 7032)		
	powder-coated	1024970000
<b>Note</b>	The colours of painted enclosures may vary under certain circumstances.	

**Accessories**

Mounting rails, TS35x7.5		Order No.
	Vertical	8683740000
Sliding fixing nut with screw		
	M5	0433500000
Pressure compensation elements		
	Polyamide 6, M12	1868570000
	Stainless steel 1.4305, M12	1868550000
Pressure compensating element with drainage function		
	M20, stainless steel 1.4404 (316L)	2519550000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
	2.5 mm <sup>2</sup>	1x17
	4 mm <sup>2</sup>	1x14
	6 mm <sup>2</sup>	1x11
	10 mm <sup>2</sup>	1x8
	16 mm <sup>2</sup>	1x7



**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Recommended order: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
	M12	10
	M16	6
	M20	6
	M25	3
	M32	2
	M40	2
	M50	
	M63	

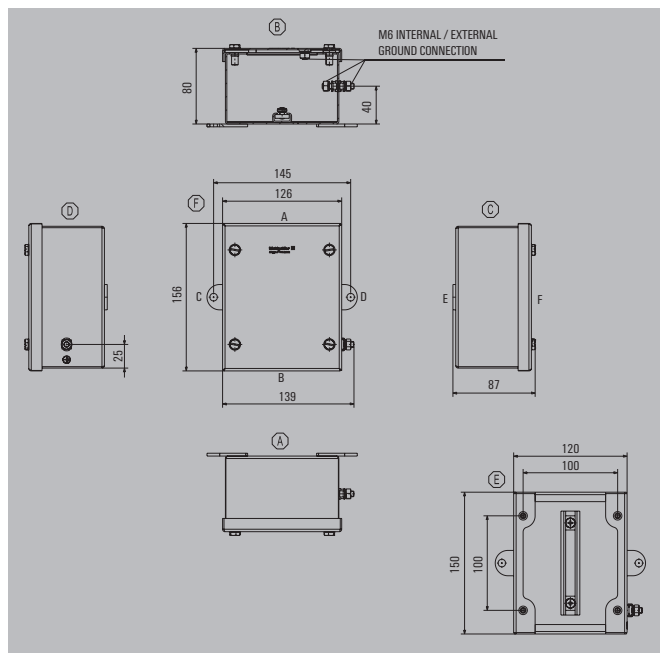


**Note**

**Note** The enclosure is supplied with a set of sliding fixing nuts, washer, screws M5, to fix the mounting rail TS 35 or TS 32 into the C-Profile.

Klippon® STB 1.1

Depth **80 mm**



Height / Width / Depth 150 / 120 / 80 mm

**Ordering data**

Stainless steel 1.4404 (316L)	Order No.
mirror-polished	1002750000
electro-polished	1058820000
Sheet steel, powder-coated (RAL 7032)	Order No.
powder-coated	1024980000

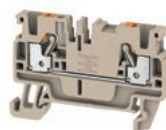
**Note** The colours of painted enclosures may vary under certain circumstances.

**Accessories**

Mounting rails, TS35x7.5	Order No.
Vertical	8683740000
Sliding fixing nut with screw	Order No.
M5	0433500000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Pressure compensating element with drainage function	Order No.
M20, stainless steel 1.4404 (316L)	2519550000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	1x23	
4 mm <sup>2</sup>	1x19	
6 mm <sup>2</sup>	1x14	
10 mm <sup>2</sup>	1x11	
16 mm <sup>2</sup>	1x9	



**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Recommended order: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

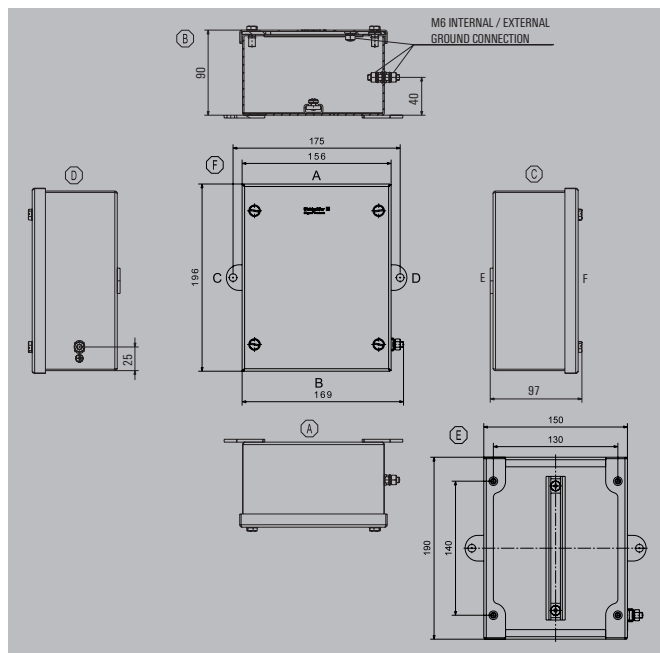
**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	10	10
M16	6	6
M20	6	6
M25	3	2
M32	2	2
M40	2	1
M50		
M63		



**Note**

**Note** The enclosure is supplied with a set of sliding fixing nuts, washer, screws M5, to fix the mounting rail TS 35 or TS 32 into the C-Profile.



Height / Width / Depth 150 / 150 / 90 mm

**Ordering data**

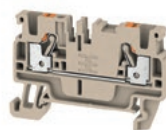
Stainless steel 1.4404 (316L)		Order No.
	mirror-polished	1002740000
	electro-polished	1058830000
Sheet steel, powder-coated (RAL 7032)		
	powder-coated	1024990000
<b>Note</b>	The colours of painted enclosures may vary under certain circumstances.	

**Accessories**

Mounting rails, TS35x7.5		Order No.
	Vertical	8683740000
Sliding fixing nut with screw		
	M5	0433500000
Pressure compensation elements		
	Polyamide 6, M12	1868570000
	Stainless steel 1.4305, M12	1868550000
Pressure compensating element with drainage function		
	M20, stainless steel 1.4404 (316L)	2519550000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
	2.5 mm <sup>2</sup>	1x23
	4 mm <sup>2</sup>	1x19
	6 mm <sup>2</sup>	1x14
	10 mm <sup>2</sup>	1x11
	16 mm <sup>2</sup>	1x9



**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Recommended order: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
	M12	15
	M16	10
	M20	8
	M25	6
	M32	3
	M40	2
	M50	1
	M63	1

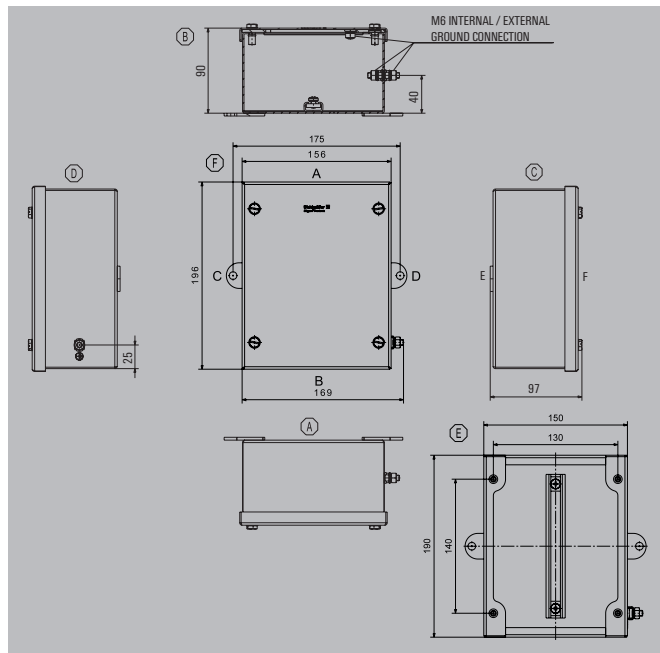


**Note**

**Note** The enclosure is supplied with a set of sliding fixing nuts, washer, screws M5, to fix the mounting rail TS 35 or TS 32 into the C-Profile.

Klippon® STB 2.1

Depth **90 mm**



Height / Width / Depth 190 / 150 / 90 mm

**Ordering data**

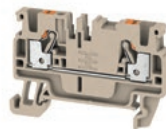
Stainless steel 1.4404 (316L)		Order No.
	mirror-polished	1002730000
	electro-polished	1058840000
Sheet steel, powder-coated (RAL 7032)		
	powder-coated	1025010000
<b>Note</b>	The colours of painted enclosures may vary under certain circumstances.	

**Accessories**

Mounting rails, TS35x7.5		Order No.
	Vertical	1567660000
Sliding fixing nut with screw		
	M5	0433500000
Pressure compensation elements		
	Polyamide 6, M12	1868570000
	Stainless steel 1.4305, M12	1868550000
Pressure compensating element with drainage function		
	M20, stainless steel 1.4404 (316L)	2519550000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
	2.5 mm <sup>2</sup>	1x30
	4 mm <sup>2</sup>	1x25
	6 mm <sup>2</sup>	1x20
	10 mm <sup>2</sup>	1x15
	16 mm <sup>2</sup>	1x13



**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Recommended order: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

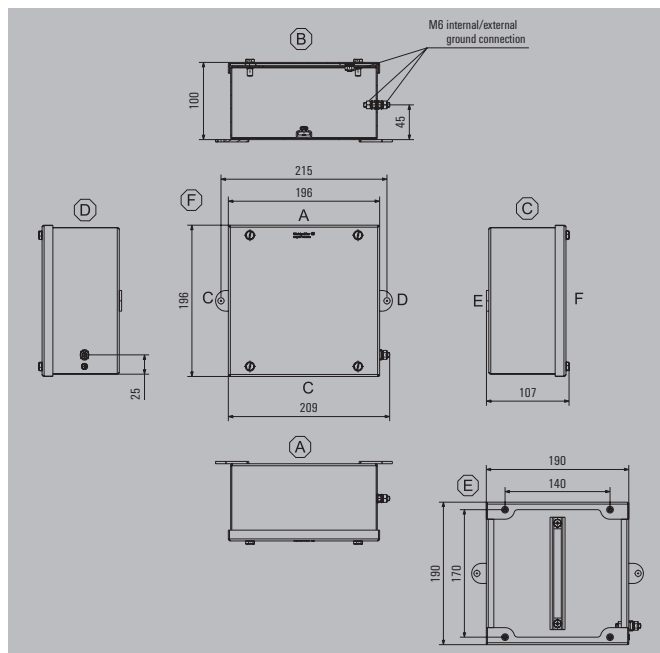
**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
	M12	15 / 18
	M16	10 / 10
	M20	8 / 10
	M25	3 / 3
	M32	3 / 3
	M40	2 / 2
	M50	1 / 1
	M63	



**Note**

**Note** The enclosure is supplied with a set of sliding fixing nuts, washer, screws M5, to fix the mounting rail TS 35 or TS 32 into the C-Profile.



Height / Width / Depth 190 / 190 / 100 mm

**Ordering data**

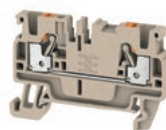
Stainless steel 1.4404 (316L)		Order No.
	mirror-polished	1002720000
	electro-polished	1058850000
Sheet steel, powder-coated (RAL 7032)		
	powder-coated	1025020000
<b>Note</b> The colours of painted enclosures may vary under certain circumstances.		

**Accessories**

Mounting rails, TS35x7.5		Order No.
	Vertical	1567660000
Sliding fixing nut with screw		
	M5	0433500000
Pressure compensation elements		
	Polyamide 6, M12	1868570000
	Stainless steel 1.4305, M12	1868550000
Pressure compensating element with drainage function		
	M20, stainless steel 1.4404 (316L)	2519550000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
	2.5 mm <sup>2</sup>	1x30
	4 mm <sup>2</sup>	1x25
	6 mm <sup>2</sup>	1x20
	10 mm <sup>2</sup>	1x15
	16 mm <sup>2</sup>	1x13



**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Recommended order: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
	M12	21
	M16	15
	M20	10
	M25	8
	M32	3
	M40	3
	M50	2
	M63	1

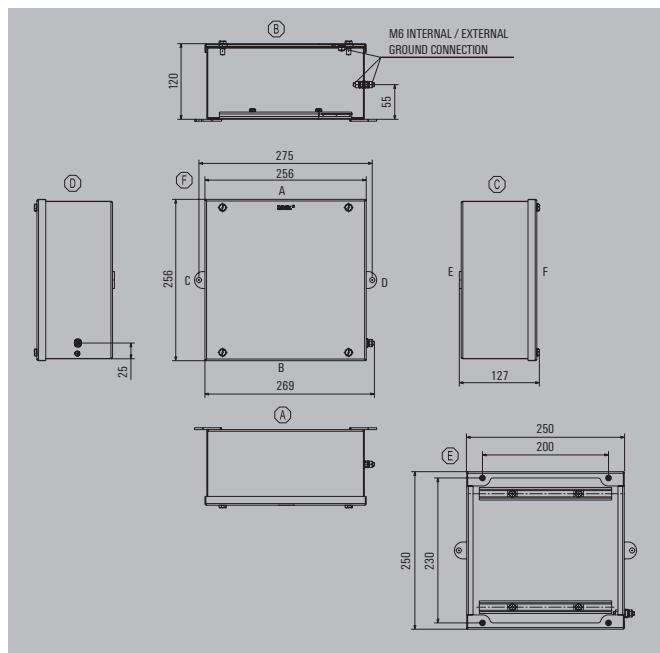


**Note**

**Note** The enclosure is supplied with a set of sliding fixing nuts, washer, screws M5, to fix the mounting rail TS 35 or TS 32 into the C-Profile.

Klippon® STB 4

Depth 120 mm



Height / Width / Depth 250 / 250 / 120 mm

**Ordering data**

Stainless steel 1.4404 (316L)		Order No.
	mirror-polished	1002710000
	electro-polished	1058860000
Sheet steel, powder-coated (RAL 7032)		
	powder-coated	1025030000
<b>Note</b> The colours of painted enclosures may vary under certain circumstances.		

**Accessories**

Mounting rails, TS35x7.5		Order No.
	Horizontally	8563410000
	Vertical	8803610000
Sliding fixing nut with screw		
	M5	0433500000
Pressure compensation elements		
	Polyamide 6, M12	1868570000
	Stainless steel 1.4305, M12	1868550000
Pressure compensating element with drainage function		
	M20, stainless steel 1.4404 (316L)	2519550000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
	2.5 mm <sup>2</sup>	2x42
	4 mm <sup>2</sup>	2x35
	6 mm <sup>2</sup>	2x27
	10 mm <sup>2</sup>	2x22
	16 mm <sup>2</sup>	2x18



**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Recommended order: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

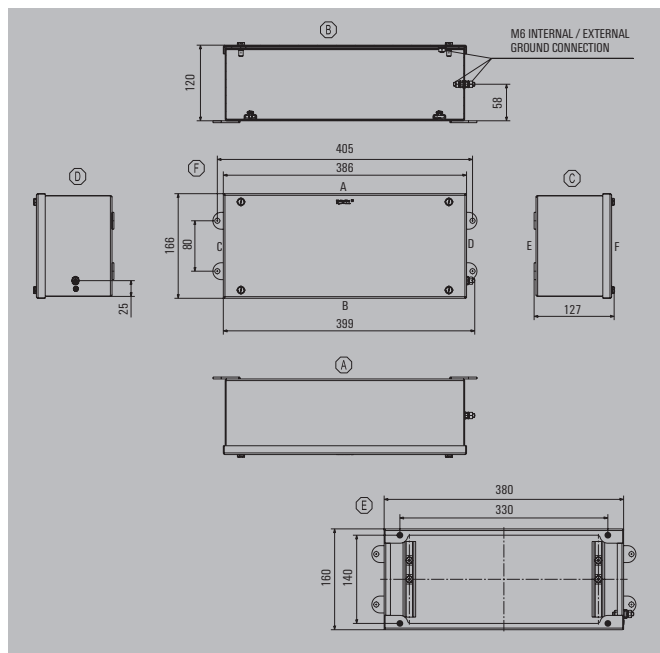
**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
	M12	24
	M16	21
	M20	12
	M25	10
	M32	8
	M40	3
	M50	3
	M63	2



**Note**

**Note** The enclosure is supplied with a set of sliding fixing nuts, washer, screws M5, to fix the mounting rail TS 35 or TS 32 into the C-Profile.



Height / Width / Depth 160 / 380 / 120 mm

**Ordering data**

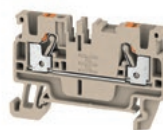
Stainless steel 1.4404 (316L)		Order No.
	mirror-polished	1002700000
	electro-polished	1058880000
Sheet steel, powder-coated (RAL 7032)		
	powder-coated	1025040000
<b>Note</b>	The colours of painted enclosures may vary under certain circumstances.	

**Accessories**

Mounting rails, TS35x7.5		Order No.
	Horizontally	8563410000
	Vertical	8803610000
Sliding fixing nut with screw		
	M5	0433500000
Pressure compensation elements		
	Polyamide 6, M12	1868570000
	Stainless steel 1.4305, M12	1868550000
Pressure compensating element with drainage function		
	M20, stainless steel 1.4404 (316L)	2519550000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	3x25	1x68
4 mm <sup>2</sup>	3x21	1x57
6 mm <sup>2</sup>	3x16	1x44
10 mm <sup>2</sup>	3x12	1x35
16 mm <sup>2</sup>	3x10	1x29



**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Recommended order: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	64	20
M16	33	12
M20	30	12
M25	16	6
M32	10	4
M40	6	2
M50	4	1
M63	2	1



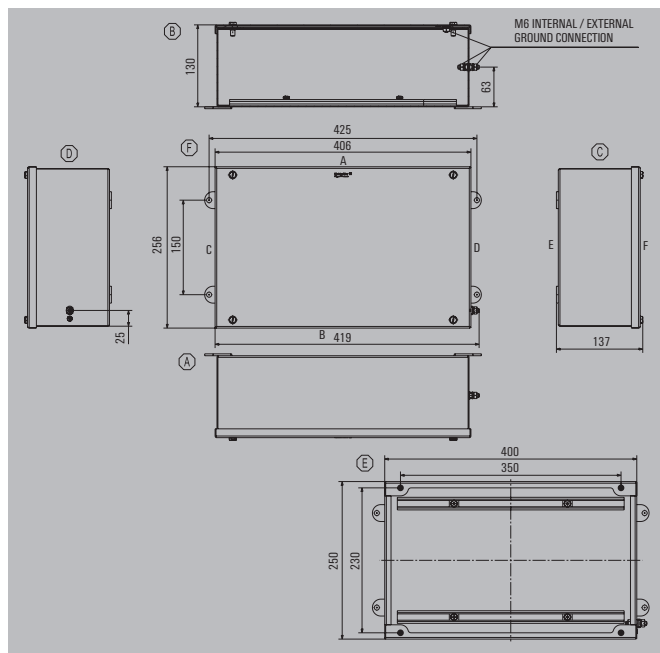
**Note**

**Note** The enclosure is supplied with a set of sliding fixing nuts, washer, screws M5, to fix the mounting rail TS 35 or TS 32 into the C-Profile.



Klippon® STB 6

Depth 130 mm



Height / Width / Depth 250 / 400 / 130 mm

**Ordering data**

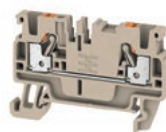
Stainless steel 1.4404 (316L)	Order No.
mirror-polished	1002760000
electro-polished	1058870000
Sheet steel, powder-coated (RAL 7032)	Order No.
powder-coated	1025050000
<b>Note</b> The colours of painted enclosures may vary under certain circumstances.	

**Accessories**

Mounting rails, TS35x7.5	Order No.
Vertical	8803610000
Horizontally	8563410000
Sliding fixing nut with screw	Order No.
M5	0433500000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Pressure compensating element with drainage function	Order No.
M20, stainless steel 1.4404 (316L)	2519550000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	3x42	2x72
4 mm <sup>2</sup>	3x35	2x60
6 mm <sup>2</sup>	3x27	2x46
10 mm <sup>2</sup>	3x22	2x37
16 mm <sup>2</sup>	3x18	2x30



**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Recommended order: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for terminal blocks, please refer to online catalogue

**Guide value for max. number of cable entries**

Cable entries	A / B	C / D
M12	64	36
M16	33	21
M20	30	18
M25	16	10
M32	10	8
M40	6	3
M50	4	2
M63	2	2



**Note**

**Note** The enclosure is supplied with a set of sliding fixing nuts, washer, screws M5, to fix the mounting rail TS 35 or TS 32 into the C-Profile.

Enclosures

C

# Klippon® Protect – Terminal Boxes – Product overview Steel enclosures

Various types of terminal boxes are available for installing signal / power supplies or distributors in explosive risk zones.

The terminal boxes are explosion-protected equipment approved for use in Ex areas in zones 0, 1, 2 and 20, 21, 22.

**C** They are certified in accordance with the latest international standards Ex e, Ex ia and Ex tb. Customer-specific configuration means these terminal boxes are the optimum solution for all applications. Use the product overview to find the right solution for you!

Combine the enclosure, with or without threaded holes, a suitable mounting rail or pre-fitted strip terminals.

We have put together a small selection for you, but we are happy to configure a bespoke solution for you.

**Features:**

- Available in a wide range of versions to meet customer requirements
- Additional international approvals alongside IECEx, ATEX and EAC also available
- Increased quality thanks to the use of established basic products in the Klippon® brand



**Overview of enclosures**

**Terminal boxes based on the Klippon® STB range of enclosures**

Description	Height x width x depth in mm	Marking	Approval	Order No.
STB 1 Exia	120 x 120 x 80	Ex ia IIC T4 Ga	IECEX, ATEX, EAC	8000028394
STB 2 Exe	150 x 150 x 90	Ex eb IIC T6 Gb	IECEX, ATEX, EAC	8000028395
STB 3 Exe	190 x 190 x 100	Ex eb IIC T6 Gb	IECEX, ATEX, EAC	8000028396
STB 4 Exe	250 x 250 x 120	Ex eb IIC T6 Gb	IECEX, ATEX, EAC	8000028397
<b>Note</b>				

## Technical Overview

### Technical data

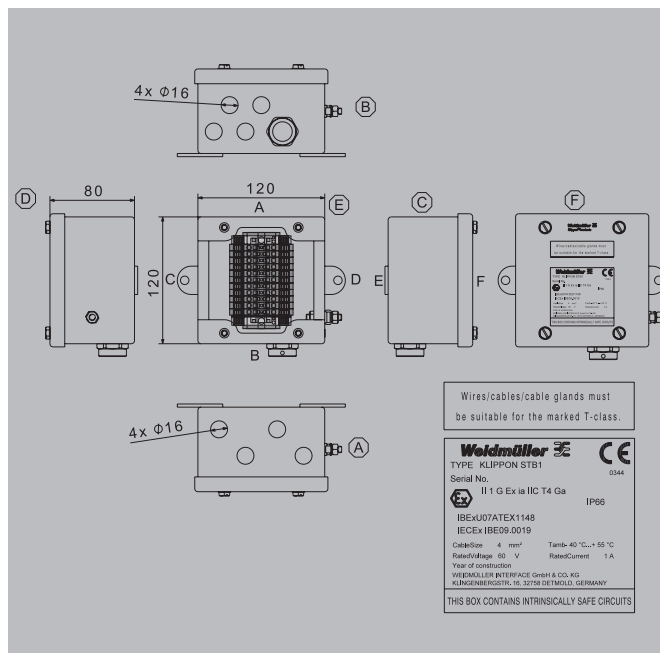
Enclosures	
Material	Stainless steel 1.4404 (316L) 1.5 mm
Surface finish	Mirror-polished (Klippon® STB)
IP protection class	IP66 to DIN EN 60529
Gasket material	Silicone
Terminal block	
Material	Wemid
Colour	beige, blue or green/yellow
Connection system	screw connection
Clampable wires (H05V/H07V)	solid, flexible and flexible with ferrule
<b>Note</b>	

### Approvals for Klippon® STB

ATEX certificate	IBExU07ATEX1148
IECEX certificate	IECEX IBE 09.0019
EAC certificate	RUC-DE.08.B.01328
<b>Note</b>	
Labelling depends on the application layout. For details of power dissipation, please contact your Weidmüller representative.	

Klippon® STB 1 Ex ia terminal box

Depth 80 mm



Height / Width / Depth	120 / 120 / 80 mm
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Ordering data

	Order No.
STB 1 EXIA	8000028394

<b>Note</b>	
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Technical data

Article - short description	Klippon® Klippon STB (Small Terminal Box)- Enclosures, Terminal Box
Identification	Ex ia IIC T4 Ga
Certificate no. assembled enclosure (ATEX)	IBEXU 07ATEX1148
Certificate no. assembled enclosure (IECEX)	IECEX IBE09.0019
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-11, IEC 60079-31, EN 60079-0, EN 60079-7, EN 60079-11, EN 60079-31
Ambient temperature	Tamb -40°C...+55°C
Type label material	Polyester coated with aluminium
Protection class	IP66
<b>Assembly</b>	
Modular terminal blocks	1x11
Rated cross-section	4 mm²
Rated voltage	60 V
Rated current	1.00 A
Drill holes side A	4 x M16
Drill holes side B	4 x M16, 1 x BDX
<b>Technical data, enclosure</b>	
Material	Stainless steel 1.4404 (316L)
Surface finish	Mirror polished
Material thickness	1.5 mm
Seal material	Silicone
Enclosure attachment	Welded-on mounting foot with 8-mm holes
Mounting dimension - height / -width	60 mm / 145 mm
Lid attachment	M5 hex-head slotted screws SW10
Access opening: width / Access opening: height	100 mm / 99.4 mm
Earth, enclosure, external	Welded-on M6 x 16 stainless-steel bolts
Earth, enclosure, internal	Welded-on M6 x 16 stainless-steel bolts

<b>Note</b>	
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Accessories

Pressure compensating element with drainage function	Order No.
M20, brass	2519520000
<b>Cable glands</b>	
Nickel-plated brass, Ex e, M16, 3-12 mm	1460040000
<b>Blanking plugs</b>	
Stainless steel 1.4404 (316L), Ex e, M16	1477820000
<b>Locknuts</b>	
Nickel-plated brass, M16	1736990000
<b>Grounding strap</b>	
green-yellow, 6 mm² for M6 bolt	2475490000

<b>Note</b>	
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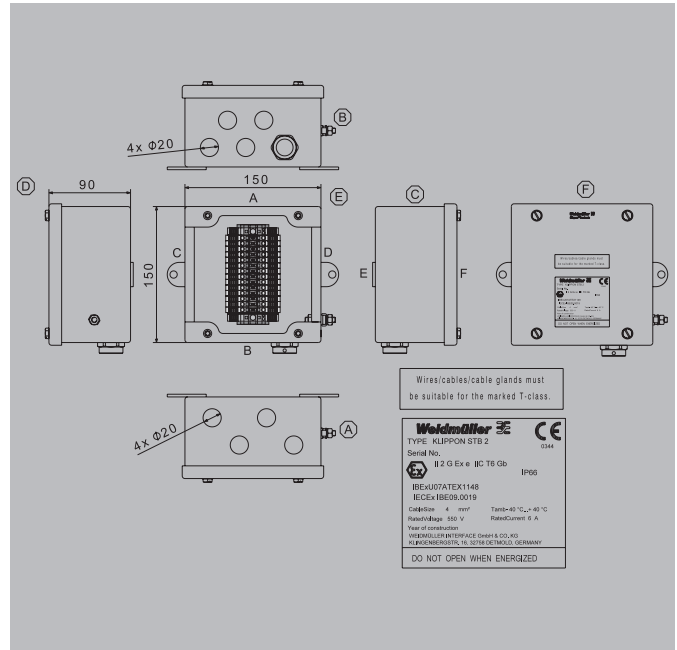
Reference products

	Order No.
KLIPPON STB 1 SS	1002690000
WDU 4 BL	1020180000
KLIPPON BDX M20 S	2519550000

<b>Note</b>	
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Klippon® STB 2 Ex e terminal box

Depth 90 mm



Height / Width / Depth 150 / 150 / 90 mm

Ordering data

	Order No.
STB 2 Ex e	8000028395

Note

Technical data

Article - short description	Klippon® Klippon STB (Small Terminal Box)- Enclosures, Terminal Box
Identification	Ex eb IIC T6 Gb
Certificate no. assembled enclosure (ATEX)	IBExU 07ATEX1148
Certificate no. assembled enclosure (IECEx)	IECEX IBE09.0019
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-11, IEC 60079-31, EN 60079-0, EN 60079-7, EN 60079-11, EN 60079-31
Ambient temperature	Tamb -40°C...+40°C
Type label material	Polyester coated with aluminium
Protection class	IP66
<b>Assembly</b>	
Modular terminal blocks	1x14
Rated cross-section	4 mm²
Rated voltage	550 V
Rated current	6.00 A
Drill holes side A	4 x M20
Drill holes side B	4 x M20, 1 x BDX
<b>Technical data, enclosure</b>	
Material	Stainless steel 1.4404 (316L)
Surface finish	Mirror polished
Material thickness	1.5 mm
Seal material	Silicone
Enclosure attachment	Welded-on mounting foot with 8-mm holes
Mounting dimension - height / -width	75 mm / 175 mm
Lid attachment	M5 hex-head slotted screws SW10
Access opening: width / Access opening: height	130 mm / 130 mm
Earth, enclosure, external	Welded-on M6 x 16 stainless-steel bolts
Earth, enclosure, internal	Welded-on M6 x 16 stainless-steel bolts

Note

Accessories

Pressure compensating element with drainage function	Order No.
M20, brass	2519520000
<b>Cable glands</b>	
Nickel-plated brass, Ex e, M20, 3-12 mm	1460050000
<b>Blanking plugs</b>	
Stainless steel 1.4404 (316L), Ex e, M20	1477840000
<b>Locknuts</b>	
Plastic, M20	1736930000
Nickel-plated brass, M20	1737000000
<b>Grounding strap</b>	
green-yellow, 6 mm² for M6 bolt	2475490000
<b>Note</b>	

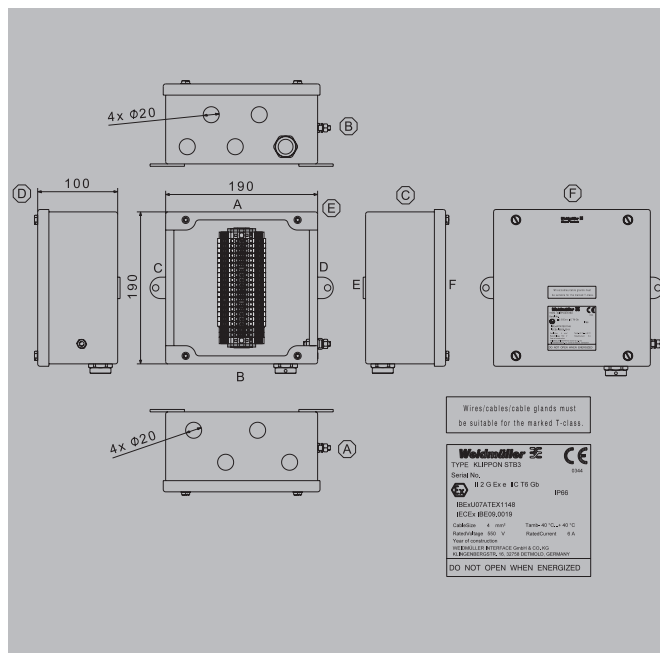
Reference products

	Order No.
KLIPPON STB 2 SS	1002740000
WDU 4	1020100000
KLIPPON BDX M20 S	2519550000

Note

Klippon® STB 3 Ex e terminal box

Depth 100 mm



Height / Width / Depth 190 / 190 / 100 mm

Ordering data

	Order No.
STB 3 Ex e	8000028396

Note

Technical data

Article - short description	Klippon® Klippon STB (Small Terminal Box)- Enclosures, Terminal Box
Identification	Ex eb IIC T6 Gb
Certificate no. assembled enclosure (ATEX)	IBEXU 07ATEX1148
Certificate no. assembled enclosure (IECEx)	IECEX IBE09.0019
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-11, IEC 60079-31, EN 60079-0, EN 60079-7, EN 60079-11, EN 60079-31
Ambient temperature	Tamb -40°C...+40°C
Type label material	Polyester coated with aluminium
Protection class	IP66
<b>Assembly</b>	
Modular terminal blocks	1x18, 2 x PE
Rated cross-section	4 mm²
Rated voltage	550 V
Rated current	6.00 A
Drill holes side A	4 x M20
Drill holes side B	4 x M20, 1 x BDX
<b>Technical data, enclosure</b>	
Material	Stainless steel 1.4404 (316L)
Surface finish	Mirror polished
Material thickness	1.5 mm
Seal material	Silicone
Enclosure attachment	Welded-on mounting foot with 8-mm holes
Mounting dimension - height / -width	95 mm / 215 mm
Lid attachment	M5 hex-head slotted screws SW10
Access opening: width / Access opening: height	170 mm / 170 mm
Earth, enclosure, external	Welded-on M6 x 16 stainless-steel bolts
Earth, enclosure, internal	Welded-on M6 x 16 stainless-steel bolts

Note

Accessories

Pressure compensating element with drainage function	Order No.
M20, brass	2519520000
<b>Cable glands</b>	
Nickel-plated brass, Ex e, M20, 3-12 mm	1460050000
<b>Blanking plugs</b>	
Stainless steel 1.4404 (316L), Ex e, M20	1477840000
<b>Locknuts</b>	
Plastic, M20	1736930000
Nickel-plated brass, M20	1737000000
<b>Grounding strap</b>	
green-yellow, 6 mm² for M6 bolt	2475490000
<b>Note</b>	

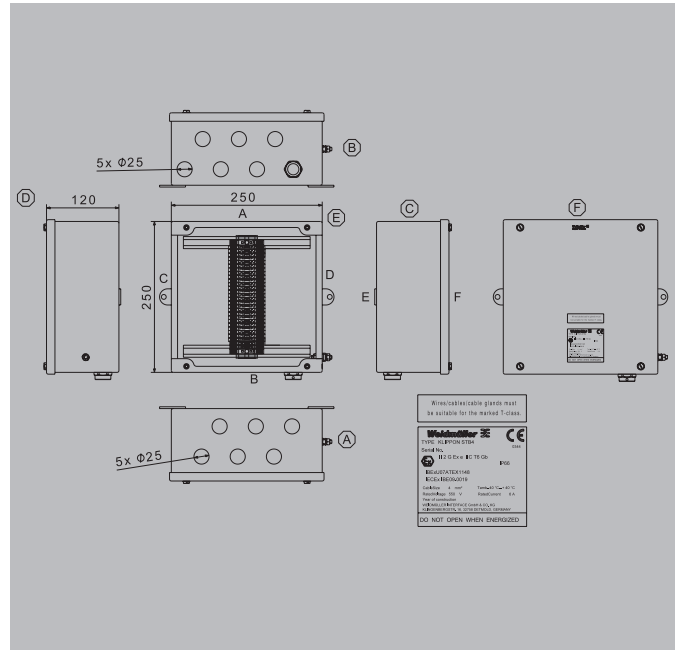
Reference products

	Order No.
KLIPPON STB 3 SS	1002720000
WDU 4	1020100000
WPE 4	1010100000
KLIPPON BDX M20 S	2519550000

Note

Klippon® STB 4 Ex e terminal box

Depth 120 mm



250 / 250 / 120 mm

Ordering data

	Order No.
STB 4 Ex e	8000028397

Note

Technical data

Article - short description	Klippon® Klippon STB (Small Terminal Box)- Enclosures, Terminal Box
Identification	Ex eb IIC T6 Gb
Certificate no. assembled enclosure (ATEX)	IBExU 07ATEX1148
Certificate no. assembled enclosure (IECEX)	IECEX IBE09.0019
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-11, IEC 60079-31, EN 60079-0, EN 60079-7, EN 60079-11, EN 60079-31
Ambient temperature	Tamb -40°C...+40°C
Type label material	Polyester coated with aluminium
Protection class	IP66
<b>Assembly</b>	
Modular terminal blocks	1x26, 2 x PE
Rated cross-section	4 mm²
Rated voltage	550 V
Rated current	6.00 A
Drill holes side A	6 x M25
Drill holes side B	6 x M25, 1 x BDX
<b>Technical data, enclosure</b>	
Material	Stainless steel 1.4404 (316L)
Surface finish	Mirror polished
Material thickness	1.5 mm
Seal material	Silicone
Enclosure attachment	Welded-on mounting foot with 8-mm holes
Mounting dimension - height / -width	125 mm / 275 mm
Lid attachment	M5 hex-head slotted screws SW10
Access opening: width / Access opening: height	230 mm / 230 mm
Earth, enclosure, external	Welded-on M6 x 16 stainless-steel bolts
Earth, enclosure, internal	Welded-on M6 x 16 stainless-steel bolts

Note

Accessories

Pressure compensating element with drainage function	Order No.
M20, brass	2519520000
<b>Cable glands</b>	
Nickel-plated brass, Ex e, M25, 10-18 mm	1460070000
<b>Blanking plugs</b>	
Stainless steel 1.4404 (316L), Ex e, M25	1477870000
<b>Locknuts</b>	
Plastic, M25	1736940000
Nickel-plated brass, M25	1737010000
<b>Grounding strap</b>	
green-yellow, 6 mm² for M6 bolt	2475490000

Note

Reference products

	Order No.
KLIPPON STB 4 SS	1002710000
WDU 4	1020100000
WPE 4	1010100000
KLIPPON BDX M20 S	2519550000

Note

## Safely control work processes in hazardous areas on site

### With certified enclosure solutions with control and display elements

C

Harsh industrial environments and hazardous areas, such as in the oil and gas industry, place extreme demands on the safety, the robustness and quality of products and devices.

We meet these challenges with the Klippon® Control Station, the addition to our range of customised enclosure solutions. More than 50 years of expertise have made us market leader in this area with global competence centres. The basis of our enclosure solutions is provided by the usual Weidmüller quality and comprehensive approvals for explosion hazard areas. Based on this, our sturdy “on-site control station” is available in two standard sizes and with up to four control and display elements and provides a flexible solution to meet your specific needs.

Order your distributor enclosure as well as control and signaling units from a single source and from one enclosure design – for reliable security and reduced storage costs for maintenance and repair operations.

#### **Your special advantages:**

##### **Ideal for urgent service calls**

We have prepared moduls of the proven Klippon® enclosure series STB available for you for further processing. This means we manufacture a control solution suitable for your application at short notice.



Predestined for emergency shutdown applications: Klippon® Control Stations score when it comes to the safe shutdown of plant sections, such as in the process industry



**Project solutions from a single source**

Obtain command/signaling units and distribution and control boxes as a complete solution – tailored to the individual requirements of your projects in hazardous areas.

**Customised assembly**

In addition to standard types from stock, you can obtain enclosure solutions from us that are completely assembled and equipped according to customer requirements.



**A variety of sizes and materials**

Enclosures in stainless steel, aluminium or polyester are available for different environmental conditions. Depending on the size of the enclosure, it provides space for the integration of up to four control and display elements.

**International certificates**

The Klippon® Control Station is tested and certified among others according to ATEX and IECEx.



## Durability for maximum requirements

# Klippon® Protect sets the highest standards with stainless steel enclosures

The enclosure ranges Klippon® TB and Klippon® STB are offered in stainless steel and boost market leading performance characteristics, which even allow them to meet the demanding requirements for use with the harshest environments. The enclosures are certified and comply with the latest international standards – including ATEX and IECEx.

### Additional features:

- Standard silicone seals for use in extreme temperature environments
- High Ingress Performance - IP66
- Welded-on mounting feet for wall mounting



### Technical data

Material	
Surface finish	
Colour	
IP protection class	
Ambient temperature	
Seal material of enclosure	
Seal material of command and signalling units	
Flammability rating	
Impact resistance IK	
Cable gland material	
Cable gland clamping area min. - max. in mm	
M20	
M25	
Max. rated cross-section	
Max. operating voltage with integrated illuminated pushbutton or light module	
Maximum operating current at 40 °C ambient temperature	
1.5 mm <sup>2</sup> - T6	
1.5 mm <sup>2</sup> - T5	
2.5 mm <sup>2</sup> - T6	
Maximum operating current at 55 °C ambient temperature	
1.5 mm <sup>2</sup> - T4	
1.5 mm <sup>2</sup> - T5	
2.5 mm <sup>2</sup> - T5	
Temperature class	
Type of mounting	
Earthing inside	
Lid attachment	
Lid screw torque	
Earthing torque	
Earthing outside	
Approvals	
Marking	
Mounting feet	

### Stainless steel

Stainless steel 1.4404 (316L) 1.50 mm
Mirror-polished
Natural
IP 54; IP 66
-55 °C to 55 °C
Silicone
EPDM
-
7 joules in acc. with IEC60079-0 4 joules in acc. with IEC60079-0 with integrated illuminated pushbutton or light module
Nickel-plated brass
3-12 mm
10-18 mm
2.5 mm <sup>2</sup>
400 V
250 V
10 A
16 A
16 A
16 A
10 A
16 A
T4, T5, T6
Wall mounting
M6x10 earthing studs integrated in the cover, stainless steel
Hexagonal slothead screws SW10
2.5 Nm
7.5 Nm
M6 earthing studs, stainless steel
IECExITA14.0013X TUEV14ATEX7606X MARITREG 15.40082.250
2G Ex e d IIC T* Gb 2G Ex ib d [ia] IIC T* Gb 2D Ex tb IIC T80/100 °C Db
2 welded-on mounting feet with 8 mm holes



	Number of built-in components			Emergency stop pushbutton	Key switch	Pushbutton		Illuminated push button		Light module		Dimensions with built-in components HxWxD in mm	Designation	Cable gland	Order number	
	•	••	•••	red	I – 0 – II	red	green	red	green	red	green					
Stainless steel	•			1								150x120x119	KLIPPON CS STB 1-1	VG M20	1537200000	
	•						1					150x120x95	KLIPPON CS STB 1-1	VG M20	1537210000	
	•				1							150x120x109	KLIPPON CS STB 1-1	VG M20	1537220000	
	•								1			150x120x96	KLIPPON CS STB 1-1	VG M20	1537230000	
	•			1								153x120x119	KLIPPON CS STB 1-2	VG M25	1537240000	
	•							1				153x120x95	KLIPPON CS STB 1-2	VG M25	1537250000	
	•				1							153x120x109	KLIPPON CS STB 1-2	VG M25	1537280000	
	•									1		153x120x96	KLIPPON CS STB 1-2	VG M25	1537290000	
	•	•					1	1				223x150x95	KLIPPON CS STB 2.1-2	VG M25	1537300000	
	•	•							1		1	223x150x103	KLIPPON CS STB 2.1-2	VG M25	1537310000	
	•	•		1							1	223x150x119	KLIPPON CS STB 2.1-2	VG M25	1537320000	
	•	•	•				1	2				223x150x95	KLIPPON CS STB 2.1-6	VG M25	1537330000	
	•	•	•				1	1		1		223x150x103	KLIPPON CS STB 2.1-7	VG M25	1537340000	
	•	•	•	1			1	1				220x150x119	KLIPPON CS STB 2.1-7	VG M20	1537370000	

**Klippon® CS STB 1-1**



**Klippon® CS STB 1-1**



**Technical data**

<b>Enclosure</b>	
Dimensions with installation (HxBxD)	
Material	
<b>General characteristics</b>	
Surface finish / Colour	
Protection class	
Ambient temperature	
Impact resistance	
Enclosure seal material	
Seal material of operating and display elements	
Type of mounting	
Internal earth	
External earth	
Lid attachment	
Torque for lid screws	
Earth stud torque	
<b>Electrical properties*</b>	
Wire connection cross section, finely stranded, max.	
Operating voltage, max.	
Temperature class	
<b>Enclosure assembly</b>	
1 Position in enclosure	
2 Position in enclosure	
3 Position in enclosure	
4 Position in enclosure	
Contact design	
Actuators	
Actuator colour	
Illumination module colour	
Illuminated button actuator colour	
<b>Cable entries</b>	
Drill holes side B	
Cable gland	
Clamping range min. / max.	
<b>Approval and Marking</b>	
Standards	
Certificate No. (IECEX)	
Certificate No. (ATEX)	
Certificate No. (EAC)	
Certificate No. (MARITREG)	
Marking	

Dimensions with installation (HxBxD)	150 / 120 / 119 mm
Material	Stainless steel 1.4404 (316L)
Surface finish / Colour	Mirror polished / Natural
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	7 joules in acc. with IEC 60079-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
Internal earth	M6 x 10 earthing studs integrated in the lid, stainless steel
External earth	M6 earthing studs, stainless steel
Lid attachment	M5 hexagonal screw with slot and 10mm distance across flats
Torque for lid screws	2.5 Nm
Earth stud torque	7.5 Nm
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>
Operating voltage, max.	400 V
Temperature class	T4, T5, T6
1 Position in enclosure	EMERGENCY-STOP pushbutton with yellow, contrasting label
2 Position in enclosure	
3 Position in enclosure	
4 Position in enclosure	
Contact design	2 NC contact, positive opening contacts
Actuators	EMERGENCY STOP pushbutton
Actuator colour	red
Illumination module colour	
Illuminated button actuator colour	
Drill holes side B	1 x M20
Cable gland	1460050000 - VG M20 EXE MS
Clamping range min. / max.	3 mm / 12 mm
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE.TB08.B.01838
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db

Dimensions with installation (HxBxD)	150 / 120 / 95 mm
Material	Stainless steel 1.4404 (316L)
Surface finish / Colour	Mirror polished / Natural
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	7 joules in acc. with IEC 60079-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
Internal earth	M6 x 10 earthing studs integrated in the lid, stainless steel
External earth	M6 earthing studs, stainless steel
Lid attachment	M5 hexagonal screw with slot and 10mm distance across flats
Torque for lid screws	2.5 Nm
Earth stud torque	7.5 Nm
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>
Operating voltage, max.	400 V
Temperature class	T4, T5, T6
1 Position in enclosure	Pushbutton - green
2 Position in enclosure	
3 Position in enclosure	
4 Position in enclosure	
Contact design	1 NC contact, 1 NO contacts
Actuators	Pushbutton
Actuator colour	green
Illumination module colour	
Illuminated button actuator colour	
Drill holes side B	1 x M20
Cable gland	1460050000 - VG M20 EXE MS
Clamping range min. / max.	3 mm / 12 mm
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE.BE02.B.00173
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db

<b>Note</b>	
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**Ordering data**

<b>Type</b>	<b>Qty.</b>	<b>Order No.</b>
KLIPPON CS STB 1-1	1	1537200000

<b>Type</b>	<b>Qty.</b>	<b>Order No.</b>
KLIPPON CS STB 1-1	1	1537210000

<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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**Klippon® CS STB 1-1**



150 / 120 / 109 mm
Stainless steel 1.4404 (316L)
Mirror polished / Natural
IP54, IP66
-55 °C...+55 °C
7 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
M6 x 10 earthing studs integrated in the lid, stainless steel
M6 earthing studs, stainless steel
M5 hexagonal screw with slot and 10mm distance across flats
2.5 Nm
7.5 Nm
2.5 mm <sup>2</sup>
400 V
T4, T5, T6
Key-operated switch
1 NC contact, 1 NO contacts
Key-operated switch, 3 switching positions, I - 0 - II, (I + II), latching, Key retractable
1 x M20
1460050000 - VG M20 EXE MS
3 mm / 12 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db

Type	Qty.	Order No.
KLIPPON CS STB 1-1	1	1537220000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

**Klippon® CS STB 1-1**



150 / 120 / 96 mm
Stainless steel 1.4404 (316L)
Mirror polished / Natural
IP54, IP66
-55 °C...+55 °C
4 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
M6 x 10 earthing studs integrated in the lid, stainless steel
M6 earthing studs, stainless steel
M5 hexagonal screw with slot and 10mm distance across flats
2.5 Nm
7.5 Nm
2.5 mm <sup>2</sup>
250 V
T4, T5, T6
Illuminated pushbutton - green
2 NO contacts
Pushbutton
green
green
1 x M20
1460050000 - VG M20 EXE MS
3 mm / 12 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db

Type	Qty.	Order No.
KLIPPON CS STB 1-1	1	1537230000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

**Klippon® CS STB 1-2**



153 / 120 / 119 mm
Stainless steel 1.4404 (316L)
Mirror polished / Natural
IP54, IP66
-55 °C...+55 °C
7 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
M6 x 10 earthing studs integrated in the lid, stainless steel
M6 earthing studs, stainless steel
M5 hexagonal screw with slot and 10mm distance across flats
2.5 Nm
7.5 Nm
2.5 mm <sup>2</sup>
400 V
T4, T5, T6
EMERGENCY-STOP pushbutton with yellow, contrasting label
2 NC contact, positive opening contacts
EMERGENCY STOP pushbutton
red
1 x M25
1460070000 - VG M25 EXE MS
10 mm / 18 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.TB08.B.01838
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db

Type	Qty.	Order No.
KLIPPON CS STB 1-2	1	1537240000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

**Klippon® CS STB 1-2**



**Klippon® CS STB 1-2**



**Technical data**

<b>Enclosure</b>	
Dimensions with installation (HxBxD)	
Material	
<b>General characteristics</b>	
Surface finish / Colour	
Protection class	
Ambient temperature	
Impact resistance	
Enclosure seal material	
Seal material of operating and display elements	
Type of mounting	
Internal earth	
External earth	
Lid attachment	
Torque for lid screws	
Earth stud torque	
<b>Electrical properties*</b>	
Wire connection cross section, finely stranded, max.	
Operating voltage, max.	
Temperature class	
<b>Enclosure assembly</b>	
1 Position in enclosure	
2 Position in enclosure	
3 Position in enclosure	
4 Position in enclosure	
Contact design	
Actuators	
Actuator colour	
Illumination module colour	
Illuminated button actuator colour	
<b>Cable entries</b>	
Drill holes side B	
Cable gland	
Clamping range min. / max.	
<b>Approval and Marking</b>	
Standards	
Certificate No. (IECEX)	
Certificate No. (ATEX)	
Certificate No. (EAC)	
Certificate No. (MARITREG)	
Marking	

Dimensions with installation (HxBxD)	153 / 120 / 95 mm
Material	Stainless steel 1.4404 (316L)
Surface finish / Colour	Mirror polished / Natural
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	7 joules in acc. with IEC 60079-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
Internal earth	M6 x 10 earthing studs integrated in the lid, stainless steel
External earth	M6 earthing studs, stainless steel
Lid attachment	M5 hexagonal screw with slot and 10mm distance across flats
Torque for lid screws	2.5 Nm
Earth stud torque	7.5 Nm
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>
Operating voltage, max.	400 V
Temperature class	T4, T5, T6
1 Position in enclosure	Pushbutton - green
2 Position in enclosure	
3 Position in enclosure	
4 Position in enclosure	
Contact design	1 NC contact, 1 NO contacts
Actuators	Pushbutton
Actuator colour	green
Illumination module colour	
Illuminated button actuator colour	
Drill holes side B	1 x M25
Cable gland	1460070000 - VG M25 EXE MS
Clamping range min. / max.	10 mm / 18 mm
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE.BE02.B.00173
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db

Dimensions with installation (HxBxD)	153 / 120 / 109 mm
Material	Stainless steel 1.4404 (316L)
Surface finish / Colour	Mirror polished / Natural
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	7 joules in acc. with IEC 60079-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
Internal earth	M6 x 10 earthing studs integrated in the lid, stainless steel
External earth	M6 earthing studs, stainless steel
Lid attachment	M5 hexagonal screw with slot and 10mm distance across flats
Torque for lid screws	2.5 Nm
Earth stud torque	7.5 Nm
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>
Operating voltage, max.	400 V
Temperature class	T4, T5, T6
1 Position in enclosure	Key-operated switch
2 Position in enclosure	
3 Position in enclosure	
4 Position in enclosure	
Contact design	1 NC contact, 1 NO contacts
Actuators	Key-operated switch, 3 switching positions, I - 0 - II, (I + II), latching, Key retractable
Actuator colour	
Illumination module colour	
Illuminated button actuator colour	
Drill holes side B	1 x M25
Cable gland	1460070000 - VG M25 EXE MS
Clamping range min. / max.	10 mm / 18 mm
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE.TB08.B.01838
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db

<b>Note</b>	
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**Ordering data**

<b>Type</b>	<b>Qty.</b>	<b>Order No.</b>
KLIPPON CS STB 1-2	1	1537250000

<b>Type</b>	<b>Qty.</b>	<b>Order No.</b>
KLIPPON CS STB 1-2	1	1537280000

<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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**Klippon® CS STB 1-2**



153 / 120 / 96 mm
Stainless steel 1.4404 (316L)
Mirror polished / Natural
IP54, IP66
-55 °C...+55 °C
4 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
M6 x 10 earthing studs integrated in the lid, stainless steel
M6 earthing studs, stainless steel
M5 hexagonal screw with slot and 10mm distance across flats
2.5 Nm
7.5 Nm
2.5 mm <sup>2</sup>
250 V
T4, T5, T6
Illuminated pushbutton - green
2 NO contacts
Pushbutton
green
green
1 x M25
1460070000 - VG M25 EXE MS
3 mm / 12 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db

Type	Qty.	Order No.
KLIPPON CS STB 1-2	1	1537290000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

**Klippon® CS STB 2.1-2**



223 / 150 / 95 mm
Stainless steel 1.4404 (316L)
Mirror polished / Natural
IP54, IP66
-55 °C...+55 °C
7 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
M6 x 10 earthing studs integrated in the lid, stainless steel
M6 earthing studs, stainless steel
M5 hexagonal screw with slot and 10mm distance across flats
2.5 Nm
7.5 Nm
2.5 mm <sup>2</sup>
400 V
T4, T5, T6
Pushbutton - red
Pushbutton - green
2 NC contact, 2 NO contacts
Pushbutton
red, green
green
1 x M25
1460070000 - VG M25 EXE MS
10 mm / 18 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db

Type	Qty.	Order No.
KLIPPON CS STB 2.1-2	1	1537300000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

**Klippon® CS STB 2.1-2**



223 / 150 / 103 mm
Stainless steel 1.4404 (316L)
Mirror polished / Natural
IP54, IP66
-55 °C...+55 °C
4 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
M6 x 10 earthing studs integrated in the lid, stainless steel
M6 earthing studs, stainless steel
M5 hexagonal screw with slot and 10mm distance across flats
2.5 Nm
7.5 Nm
2.5 mm <sup>2</sup>
250 V
T4, T5, T6
Light module - green
Pushbutton - green
1 NC contact, 1 NO contacts
Pushbutton
green
green
1 x M25
1460070000 - VG M25 EXE MS
10 mm / 18 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db

Type	Qty.	Order No.
KLIPPON CS STB 2.1-2	1	1537310000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

Klippon® CS STB 2.1-2



Klippon® CS STB 2.1-6



Technical data

<b>Enclosure</b>	
Dimensions with installation (HxBxD)	
Material	
<b>General characteristics</b>	
Surface finish / Colour	
Protection class	
Ambient temperature	
Impact resistance	
Enclosure seal material	
Seal material of operating and display elements	
Type of mounting	
Internal earth	
External earth	
Lid attachment	
Torque for lid screws	
Earth stud torque	
<b>Electrical properties*</b>	
Wire connection cross section, finely stranded, max.	
Operating voltage, max.	
Temperature class	
<b>Enclosure assembly</b>	
1 Position in enclosure	
2 Position in enclosure	
3 Position in enclosure	
4 Position in enclosure	
Contact design	
Actuators	
Actuator colour	
Illumination module colour	
Illuminated button actuator colour	
<b>Cable entries</b>	
Drill holes side B	
Cable gland	
Clamping range min. / max.	
<b>Approval and Marking</b>	
Standards	
Certificate No. (IECEX)	
Certificate No. (ATEX)	
Certificate No. (EAC)	
Certificate No. (MARITREG)	
Marking	

223 / 150 / 119 mm
Stainless steel 1.4404 (316L)
Mirror polished / Natural
IP54, IP66
-55 °C...+55 °C
4 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
M6 x 10 earthing studs integrated in the lid, stainless steel
M6 earthing studs, stainless steel
M5 hexagonal screw with slot and 10mm distance across flats
2.5 Nm
7.5 Nm
2.5 mm <sup>2</sup>
250 V
T4, T5, T6
Light module - red
EMERGENCY-STOP pushbutton with yellow, contrasting label
2 NC contact, positive opening contacts
EMERGENCY STOP pushbutton
red
1 x M25
1460070000 - VG M25 EXE MS
10 mm / 18 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.08.B.00472
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T*°C Db

223 / 150 / 95 mm
Stainless steel 1.4404 (316L)
Mirror polished / Natural
IP54, IP66
-55 °C...+55 °C
7 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
M6 x 10 earthing studs integrated in the lid, stainless steel
M6 earthing studs, stainless steel
M5 hexagonal screw with slot and 10mm distance across flats
2.5 Nm
7.5 Nm
2.5 mm <sup>2</sup>
400 V
T4, T5, T6
Pushbutton - green
Pushbutton - red
Pushbutton - green
3 NC contact, 3 NO contacts
Pushbutton
green, red
1 x M25
1460070000 - VG M25 EXE MS
10 mm / 18 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T*°C Db

Note
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Ordering data

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Type	Qty.	Order No.
KLIPPON CS STB 2.1-2	1	1537320000

Type	Qty.	Order No.
KLIPPON CS STB 2.1-6	1	1537330000

Note
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*Other temperature classes and connection values on request, or see "Notice to Installer".
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*Other temperature classes and connection values on request, or see "Notice to Installer".
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**Klippon® CS STB 2.1-7**



223 / 150 / 103 mm
Stainless steel 1.4404 (316L)
Mirror polished / Natural
IP54, IP66
-55 °C...+55 °C
4 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
M6 x 10 earthing studs integrated in the lid, stainless steel
M6 earthing studs, stainless steel
M5 hexagonal screw with slot and 10mm distance across flats
2.5 Nm
7.5 Nm
2.5 mm <sup>2</sup>
250 V
T4, T5, T6
Pushbutton - red
Light module - green
Pushbutton - green
2 NC contact, 2 NO contacts
Pushbutton
red, green
green
1 x M25
1460070000 - VG M25 EXE MS
10 mm / 18 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db

Type	Qty.	Order No.
KLIPPON CS STB 2.1-7	1	1537340000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

**Klippon® CS STB 2.1-7**



220 / 150 / 119 mm
Stainless steel 1.4404 (316L)
Mirror polished / Natural
IP54, IP66
-55 °C...+55 °C
7 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
M6 x 10 earthing studs integrated in the lid, stainless steel
M6 earthing studs, stainless steel
M5 hexagonal screw with slot and 10mm distance across flats
2.5 Nm
7.5 Nm
2.5 mm <sup>2</sup>
400 V
T4, T5, T6
Pushbutton - green
Pushbutton - red
EMERGENCY-STOP pushbutton with yellow, contrasting label
2 NO contacts, 2 NC contact, positive opening contacts
Pushbutton, EMERGENCY STOP pushbutton
green, red
2 x M20
1460050000 - VG M20 EXE MS
3 mm / 12 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db

Type	Qty.	Order No.
KLIPPON CS STB 2.1-7	1	1537370000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

# Klippon® K – aluminium enclosure

## Robust enclosure for industrial applications

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The aluminium Klippon® K enclosures are suitable for use in an extremely wide range of different areas. Various components can be installed inside the enclosures, and will benefit in particular from the high temperature resistance, the excellent IP protection and the good impact resistance.



### Standardised closure system

The cover is attached using captive Torx slotted screws. The highly functional screw connection with coated stainless steel screws allows for use even in corrosive atmospheres. Working with the enclosures requires just one single tool, as only Torx slotted screws are used.



### Earth studs

M6 brass earth studs and M10 stainless steel earth studs are available as accessories. Klippon® K Ex enclosures are fitted with an M4 earth stud as standard, and are available on request.



**High IP protection**

There are no glued areas on the moulded seal of the enclosure, which helps ensure optimal leak-tightness. The seal guarantees an IP protection of IP66 to IP68 (depending on the use).



**Mounting options**

The matching terminal rails or mounting plates are available as accessories and can be used to install a wide range of different components inside the enclosure.



**Versatile attachment options**

The enclosure can be attached directly using the designated attachment holes. Alternatively, it can be attached from the outside using the assembly feet that are available as accessories.



**Ex applications**

Klippon® K enclosures with explosion protection for use in explosive risk zones are optionally available.



**Customer-specific assembly**

Enjoy more flexibility in your project business with Klippon® Services. We combine reliable planning, professional engineering and production in the perfect quality to create your customised product.



# Klippon® K – Aluminium enclosures

Klippon® K-Series aluminium enclosures can be used in a variety of applications, e.g. for the assembly of modular terminal blocks, switches, power supplies, operational and display elements or electronic modules.

The extensive Klippon® K enclosure range has the following advantages:

- More flexibility – 19 different sizes
- Available in two surface finishes – powder-coated and natural
- Mounting holes not within the sealed area
- Fastening thread to attach mounting rails and plates
- Closed moulded gasket (no glue seam)

Weidmüller manufactures and supplies the enclosures to match customer specifications – fully fitted with terminals, electronics and cable glands.



**i** Use our online catalogue to find additional product details, technical information and additional services:  
[www.weidmuller.com/KlipponK](http://www.weidmuller.com/KlipponK)

## Overview of enclosures

### Ordering data

Description	Height x width x depth in mm	Powder-coated (RAL 7001)*			Unpainted		
		Standard		Ex enclosure**	Standard		Ex enclosure**
		CR moulded seal	Silicone moulded seal**	Silicone moulded seal	CR moulded seal	Silicone moulded seal**	Silicone moulded seal
Klippon® K 0	45 x 50 x 30	9529090000	1937920000		0573200000	1939760000	
Klippon® K 01	64 x 58 x 34	9529100000	1937850000		1565240000	1939540000	
Klippon® K 02	64 x 98 x 34	9529110000	1937840000		1565250000	1939550000	
Klippon® K 1	70 x 70 x 45	9529120000	1937630000	1329630000	0342000000	1939560000	9526840000
Klippon® K 11	80 x 75 x 57	9529130000	1937910000	1329640000	0573300000	1939570000	9526850000
Klippon® K 2	70 x 100 x 45	9529140000	1937930000	1329650000	0342100000	1939580000	9526860000
Klippon® K 21	80 x 125 x 57	9529150000	1937830000	1328120000	0573400000	1939590000	9526870000
Klippon® K 3	70 x 165 x 45	9529160000	1937900000	1329670000	0342200000	1939600000	9526880000
Klippon® K 31	80 x 175 x 57	9529170000	1937820000	1329680000	0573500000	1939610000	9526890000
Klippon® K 32	80 x 250 x 55	9529180000	1937810000	1329690000	1565260000	1939620000	9526900000
Klippon® K 4	82 x 130 x 72	9529190000	1937890000	1329700000	0342300000	1939630000	9526910000
Klippon® K 41	120 x 122 x 81	9529200000	1937800000	1329710000	1565270000	1939640000	9526920000
Klippon® K 5	130 x 170 x 90	9529210000	1937860000	1329720000	0342400000	1939650000	9526930000
Klippon® K 51	120 x 220 x 81	9529220000	1937750000	1328130000	1565280000	1939660000	9526940000
Klippon® K 52	160 x 160 x 91	9529230000	1937740000	1329730000	1565290000	1939670000	9526950000
Klippon® K 6	160 x 200 x 100	9529240000	1937870000	1329740000	0342500000	1939690000	9526960000
Klippon® K 61	160 x 260 x 91	9529250000	1937730000	1328140000	0573600000	1939700000	9526970000
Klippon® K 7	160 x 350 x 100	9529260000	1937880000	1329750000	0342600000	1939710000	9526980000
Klippon® K 71	230 x 280 x 111	9529270000	1937720000	1329770000	0573700000	1939730000	9526990000

**Note** \*Colour variations may occur under certain circumstances, \*\*Delivery time on request, Ex enclosures available on request

## Technical Overview

### Features

- Two surfaces: natural and powder-coated
- High IP protection up to IP68
- Moulded silicone gasket for applications with high temperatures
- A uniform Torx®-slotted screw head is used for over 19 different enclosure sizes.
- Alloy is resistant to salt water
- Approved according to the latest international standards

**Note** We deliver enclosures through our assembly service which are ready to be connected and suitable for every application

### Technical data

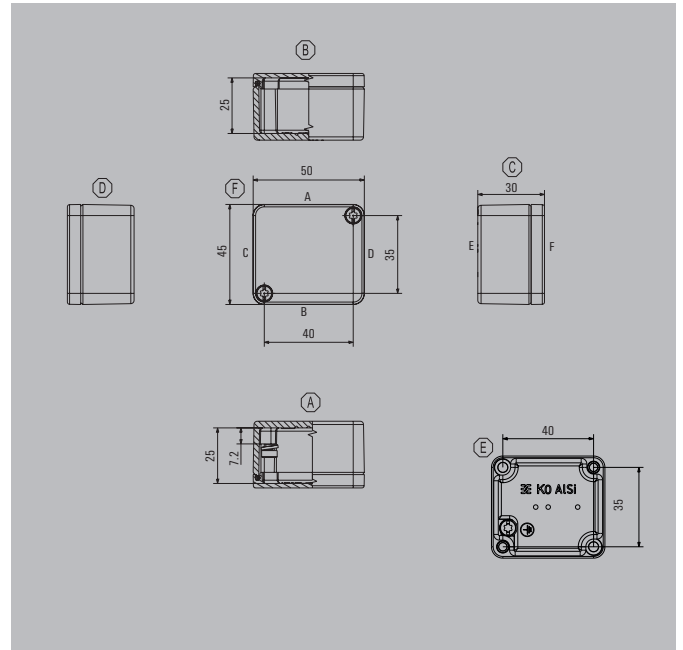
	Ex	Standard
Enclosure material	High quality aluminium alloy (Al-Si12)	High quality aluminium alloy (Al-Si12)
Surface, untreated	Smooth	Smooth
Surface, painted	Silver grey, textured, similar to RAL 7001	Silver grey, textured, similar to RAL 7001
Painting	50-90 µm paint thickness	50-90 µm paint thickness
IP protection class	IP66, IP67 to DIN EN 60529	IP66, IP67 and IP68* to DIN EN 60529
NEMA		4, 4x
Earthing outside	Earthing studs, M4	
Installation mounting	Flexible DIN rail mounting	Flexible DIN rail mounting
Enclosure mounting	Direct mounting with optional mounting brackets (from a size of 120 x 122 x 81 Klippon® K 41)	Direct mounting with optional mounting brackets (from a size of 120 x 122 x 81 Klippon® K 41)
Lid fixing	Captive stainless steel Torx® 20 or slotted screws.	Captive stainless steel Torx® 20 or slotted screws.
Impact resistance	7J to IEC 60079-0	IK 09 (10J) to DIN EN 50102
Gasket material	Silicone (VMQ)	Chloroprene / Silicone (VMQ)
Temperature range	-60 °C...+135 °C	-40 °C...+80 °C with chloroprene gasket / -60 °C...+135 °C with silicone gasket
Lid screws, torque**	2.5 Nm	2.5 Nm
<b>Note</b>	* (t=72h; h=1m) ** To secure the lid we recommend the use of our Torx® TH20 screwdriver (9009160000) Depending on the screw head size, our slotted screwdriver may also be used as an alternative, Ex enclosures available on request	

### Approvals for empty enclosures

	Ex	Standard
ATEX certificate	IBExU12ATEX1144 U	
ATEX marking	II 2G Ex e IIC Gb or II 2G Ex eb IIC II 2D Ex t IIIC Db or II 2D Ex tb IIIC	
IECEX certificate	IECEX IBE 13.0001U	
IECEX marking	Ex e IIC Gb or Ex eb IIC Ex tb IIIC Db or Ex tb IIIC	
EAC	E197061 (Ord.Loc.)	
cULus		E197061
Russian Maritime Register	19.00108.272	19.00108.272
DNV GL	TAE00002SM	TAE00002SM
Installation	The Klippon® K enclosure range can be pre-fitted in our customer specific production department according to your wishes.	
<b>Note</b>	This enclosure range is component certified. If other electrical components are inserted into the case, additional certification is required.	

### Approvals for control and distribution box

	Ex		
ATEX certificate	IBExU12ATEX1145 X	EAC certificate	RUC-DE.08.B.01328
ATEX marking	II 2G Ex e IIC T6...T4 Gb or II 2G Ex eb IIC T6...T4 II 2G Ex ia IIC T6...T4 Gb or II 2 Ex ia IIC T6...T4 II 2(1)G Ex e ia IIC T6...T4 Gb or II 2(1)G Ex eb ia IIC T6...T4 II 2D Ex t IIIC T85°C...135°C Db or II 2 D Ex tb IIIC T85°C...135°C	EAC marking	II 2 G Ex eb IIC T6... T4 II 2 G Ex e IIC T6... T4 Gb II 2 G Ex ia IIC T6... T4 II 2 G Ex ia IIC T6... T4 Gb II 2(1) G Ex eb ia IIC T6... T4 II 2(1) G Ex e ia IIC T6... T4 Gb II 2 D Ex tb IIIC T85°C...T135°C II 2 D Ex tb IIIC T85°C...T135°C Db
IECEX certificate	IECEX IBE 13.0002X		
IECEX marking	Ex e IIC T6...T4 Gb or Ex eb IIC T6...T4 Ex ia IIC T6...T4 Gb Ex e ia IIC T6...T4 Gb Ex tb IIIC T85°C...135°C Db or Ex tb IIIC T85°C...135°C		
<b>Note</b>	If you have specific requirements for equipment operating in explosive hazard areas, please contact us at Weidmüller to receive a full copy of the certification. For details of power dissipation, please contact your Weidmüller representative.		



Height / Width / Depth 45 / 50 / 30 mm

**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	9529090000
Standard (silicone seal)*	1937920000
unpainted	Order No.
Standard (CR seal)	0573200000
Standard (silicone seal)*	1939760000

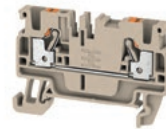
**Note** The colours of painted enclosures may vary under certain circumstances. \*Delivery time on request

**Accessories**

Torx® screw driver	Order No.
not insulated, Torx® TH20	9009160000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	1x1*	1x1*
4 mm <sup>2</sup>	1x1*	1x1*
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



**Note** \*Please refer to the Terminal Block catalogue or the SAK Series for more information about assembling the enclosures with terminal blocks. There are no prescribed possible attachment points in the enclosure.

**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	1	1
M16	1	1
M20		
M25		
M32		
M40		
M50		
M63		

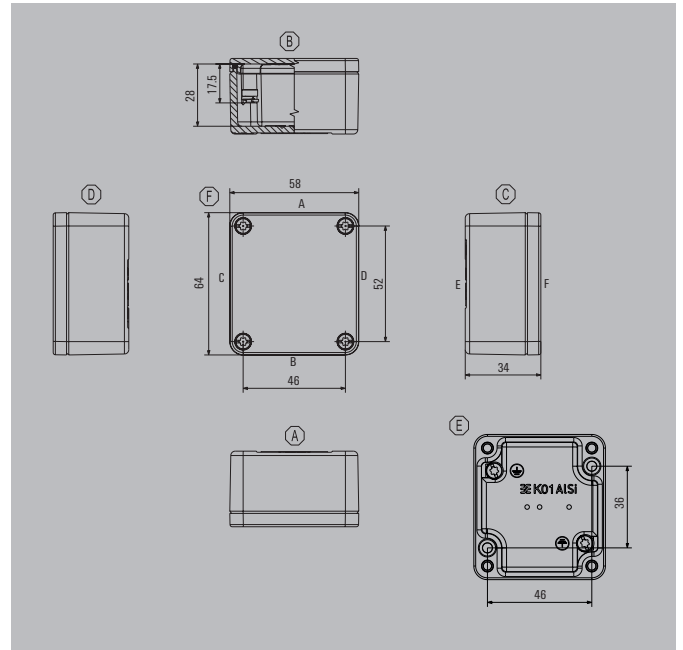


**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Note** Helicoil for outdoor applications, available ex-works.

Klippon® K 01

Depth **34 mm**



Height / Width / Depth 64 / 58 / 34 mm

**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	<b>9529100000</b>
Standard (silicone seal)*	<b>1937850000</b>
unpainted	Order No.
Standard (CR seal)	<b>1565240000</b>
Standard (silicone seal)*	<b>1939540000</b>

**Note** The colours of painted enclosures may vary under certain circumstances. \*Delivery time on request

**Accessories**

Torx® screw driver	Order No.
not insulated, Torx® TH20	<b>9009160000</b>
Pressure compensation elements	Order No.
Polyamide 6, M12	<b>1868570000</b>
Stainless steel 1.4305, M12	<b>1868550000</b>

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
	2.5 mm <sup>2</sup>	1x1*
	4 mm <sup>2</sup>	1x1*
	6 mm <sup>2</sup>	
	10 mm <sup>2</sup>	
	16 mm <sup>2</sup>	

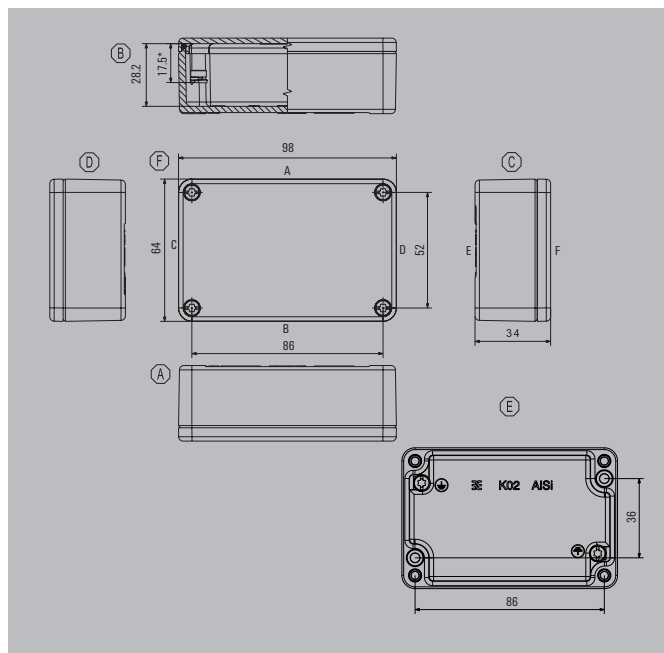
**Note** \*Please refer to the Terminal Block catalogue or the SAK Series for more information about assembling the enclosures with terminal blocks. There are no prescribed possible attachment points in the enclosure.

**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	1	1
M16	1	1
M20		
M25		
M32		
M40		
M50		
M63		

**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Note** Helicoil for outdoor applications, available ex-works.



Height / Width / Depth 64 / 98 / 34 mm

**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	<b>9529110000</b>
Standard (silicone seal)*	<b>1937840000</b>
unpainted	Order No.
Standard (CR seal)	<b>1565250000</b>
Standard (silicone seal)*	<b>1939550000</b>

**Note** The colours of painted enclosures may vary under certain circumstances. \*Delivery time on request

**Accessories**

Torx® screw driver	Order No.
not insulated, Torx® TH20	<b>9009160000</b>
Pressure compensation elements	Order No.
Polyamide 6, M12	<b>1868570000</b>
Stainless steel 1.4305, M12	<b>1868550000</b>

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	1x1*	1x1*
4 mm <sup>2</sup>	1x1*	1x1*
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



**Note** \*Please refer to the Terminal Block catalogue or the SAK Series for more information about assembling the enclosures with terminal blocks. There are no prescribed possible attachment points in the enclosure.

**Guide value for max. number of cable entries**

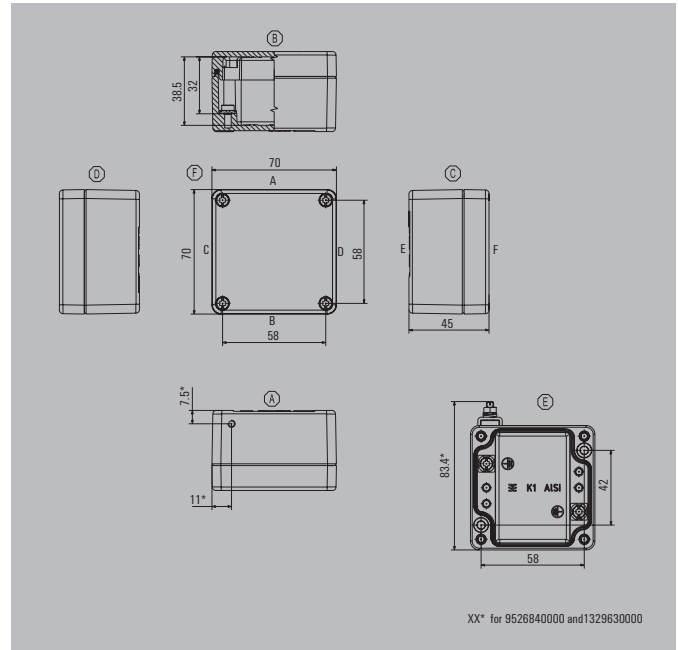
Guide value for max. number of cable entries	A / B	C / D
M12	3	1
M16	3	1
M20	2	
M25		
M32		
M40		
M50		
M63		



**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Note** Helicoil for outdoor applications, available ex-works.





Height / Width / Depth 70 / 70 / 45 mm

**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	9529120000
Standard (silicone seal)*	1937630000
unpainted	Order No.
Standard (CR seal)	0342000000
Standard (silicone seal)*	1939560000

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

**Accessories**

Terminal rail, Set	Order No.
15 mm width	1909980000
Mounting plate	Order No.
Steel sheet, zinc plated	1905280000
Torx® screw driver	Order No.
not insulated, Torx® TH20	9009160000
Earthing stud	Order No.
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	1x1*	1x5
4 mm <sup>2</sup>	1x1*	1x1*
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



**Note** \*Please refer to the Terminal Block Catalogue or the SAK Series for more information about populating the enclosures with terminal blocks. For vertical installations, we recommend using not more than one BK 4 or BK 4 CRN (0625120000). For horizontal installations with 2.5mm<sup>2</sup> 1x5 AKZ terminal blocks (only possible on a TS 15) for 4mm<sup>2</sup>, use not more than one BK 4. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

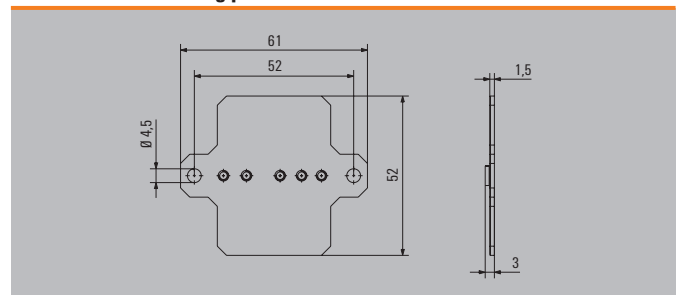
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	2	1
M16	2	1
M20	1	
M25		
M32		
M40		
M50		
M63		

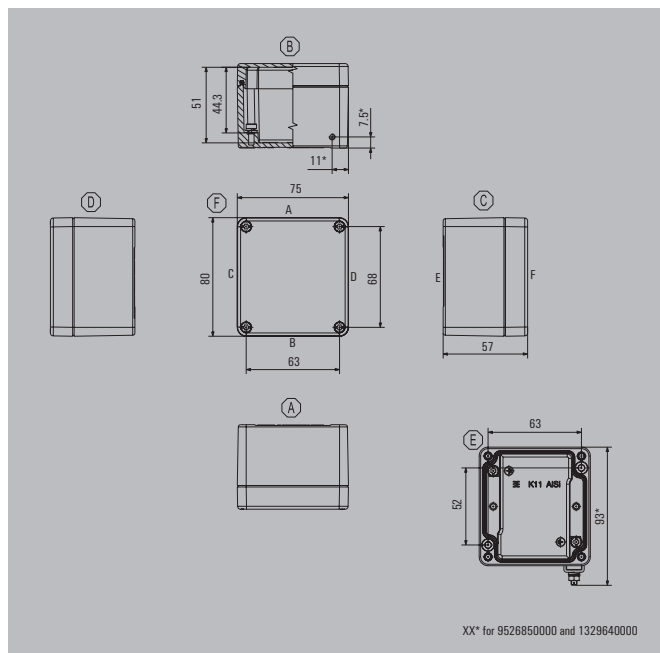


**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note** The accessory sets contain the necessary mounting materials. Helicoil for outdoor applications, available ex-works.



XX\* for 9526850000 and 1329640000

Height / Width / Depth	80 / 75 / 57 mm
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**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	<b>9529130000</b>
Standard (silicone seal)*	<b>1937910000</b>
unpainted	Order No.
Standard (CR seal)	<b>0573300000</b>
Standard (silicone seal)*	<b>1939570000</b>

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

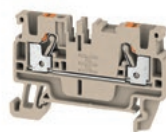
**Accessories**

Terminal rail, Set	Order No.
15 mm width	<b>1909990000</b>
Mounting plate	Order No.
Steel sheet, zinc plated	<b>3073000000</b>
Hinge, diecast zinc, Set	Order No.
	<b>1580360000</b>
Torx® screw driver	Order No.
not insulated, Torx® TH20	<b>9009160000</b>
Earthing stud	Order No.
Brass, M6	<b>1277250000</b>
Stainless steel 1.4404, M6	<b>1283430000</b>
Pressure compensation elements	Order No.
Polyamide 6, M12	<b>1868570000</b>
Stainless steel 1.4305, M12	<b>1868550000</b>

**Note** The accessory sets contain the necessary mounting materials. Necessary on use of 1 hinge per longitudinal side. Helicoil for outdoor applications, available ex-works.

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	1x1*	1x5
4 mm <sup>2</sup>	1x1*	1x4
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



**Note** \*Please refer to the Terminal Block Catalogue or the SAK Series for more information about populating the enclosures with terminal blocks. We recommend at most one BK 6 or BK 6 CRN (0625220000) in vertical installations. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

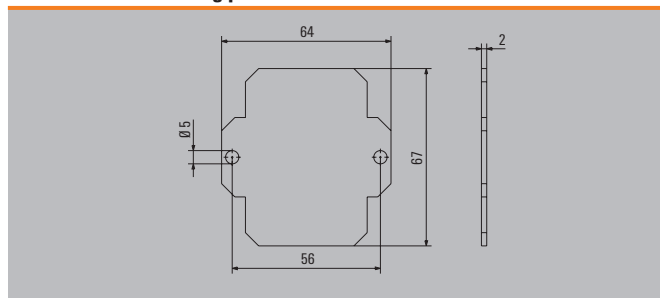
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	2	2
M16	2	2
M20	1	1
M25	1	
M32		
M40		
M50		
M63		



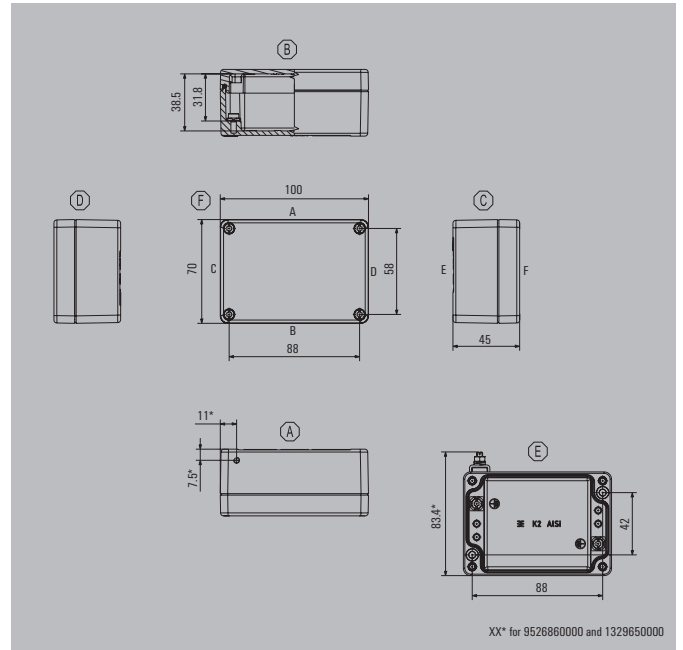
**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



Klippon® K 2

Depth 45 mm



Height / Width / Depth 70 / 100 / 45 mm

Ordering data

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	9529140000
Standard (silicone seal)*	1937930000
unpainted	Order No.
Standard (CR seal)	0342100000
Standard (silicone seal)*	1939580000

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

Accessories

Terminal rail, Set	Order No.
15 mm width	1910010000
Mounting plate	Order No.
Steel sheet, zinc plated	1905270000
Torx® screw driver	Order No.
not insulated, Torx® TH20	9009160000
Earthing stud	Order No.
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000

Guide value for max. number of terminals (industry)

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x10
4 mm <sup>2</sup>	*	
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



**Note** \*Please refer to the Terminal Block Catalogue or the SAK Series for more information about populating the enclosures with terminal blocks. We recommend at most one BK 6 or BK 6 CRN (0625220000) for vertical installations. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

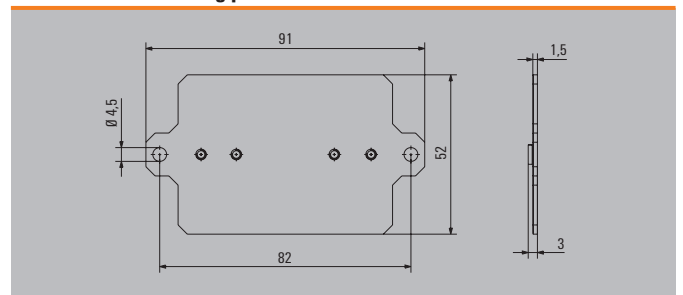
Guide value for max. number of cable entries

Guide value for max. number of cable entries	A / B	C / D
M12	3	1
M16	3	1
M20	2	
M25		
M32		
M40		
M50		
M63		

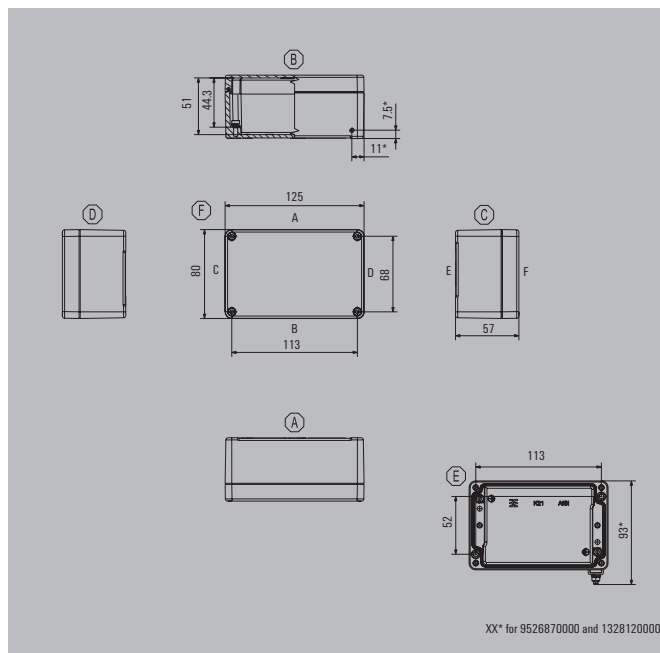


**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

Dimensions of mounting plate



**Note** The accessory sets contain the necessary mounting materials. Helicoil for outdoor applications, available ex-works.



Height / Width / Depth 80 / 125 / 57 mm

**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	9529150000
Standard (silicone seal)*	1937830000
unpainted	Order No.
Standard (CR seal)	0573400000
Standard (silicone seal)*	1939590000

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

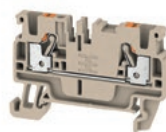
**Accessories**

Terminal rail, Set	Order No.
15 mm width	1910020000
Mounting plate	Order No.
Steel sheet, zinc plated	3073020000
Hinge, diecast zinc, Set	Order No.
	1580360000
Torx®screw driver	Order No.
not insulated, Torx® TH20	9009160000
Earthing stud	Order No.
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Stainless steel 1.4305, M12	1868550000
Polyamide 6, M12	1868570000

**Note** The accessory sets contain the necessary mounting materials. Necessary on use of 1 hinge per longitudinal side. Helicoil for outdoor applications, available ex-works.

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x15
4 mm <sup>2</sup>	*	1x12
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



**Note** \*Please refer to the Terminal Block Catalogue or the SAK Series for more information about populating the enclosures with terminal blocks. We recommend BK 6 or BK 6 CRN (0625220000) for vertical installations. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

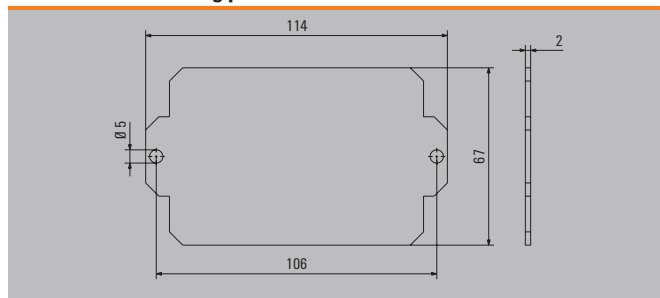
**Guide value for max. number of cable entries**

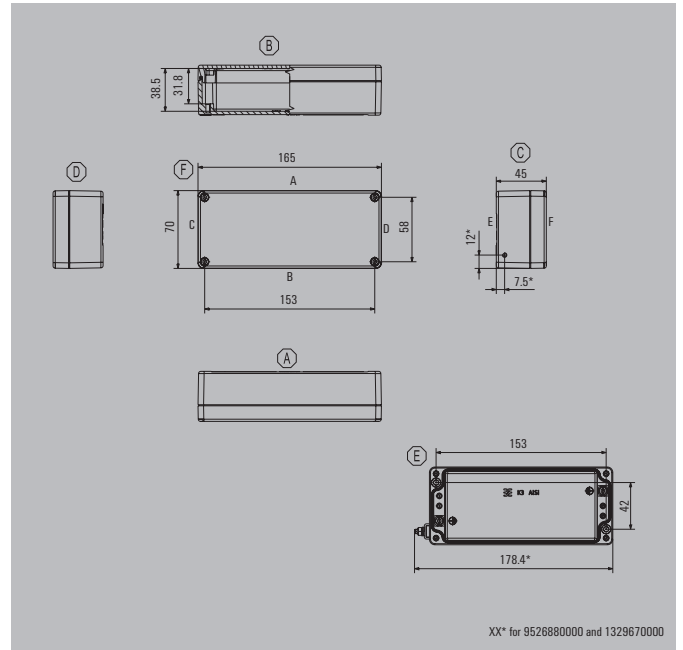
Guide value for max. number of cable entries	A / B	C / D
M12	6	2
M16	4	2
M20	3	1
M25	2	
M32		
M40		
M50		
M63		



**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**





Height / Width / Depth 70 / 165 / 45 mm

**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	9529160000
Standard (silicone seal)*	1937900000
unpainted	Order No.
Standard (CR seal)	0342200000
Standard (silicone seal)*	1939600000

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

**Accessories**

<b>Terminal rail, Set</b>	Order No.
15 mm width	1910030000
<b>Mounting plate</b>	Order No.
Steel sheet, zinc plated	1898210000
<b>Torx® screw driver</b>	Order No.
not insulated, Torx® TH20	9009160000
<b>Earthing stud</b>	Order No.
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
<b>Pressure compensation elements</b>	Order No.
Stainless steel 1.4305, M12	1868550000
Polyamide 6, M12	1868570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x22
4 mm <sup>2</sup>	*	
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



**Note** \*Please refer to the Terminal Block Catalogue or the SAK Series for more information about populating the enclosures with terminal blocks. We recommend BK 6 or BK 6 CRN (0625220000) for vertical installations. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

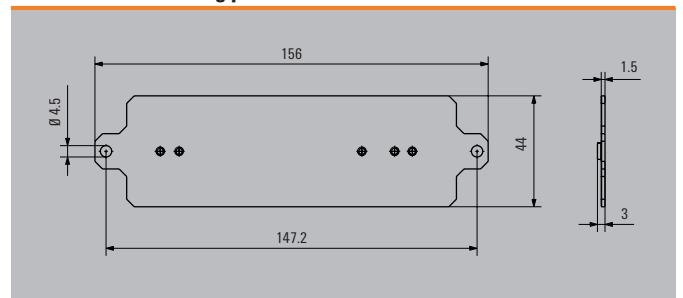
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	6	1
M16	5	1
M20	4	
M25		
M32		
M40		
M50		
M63		

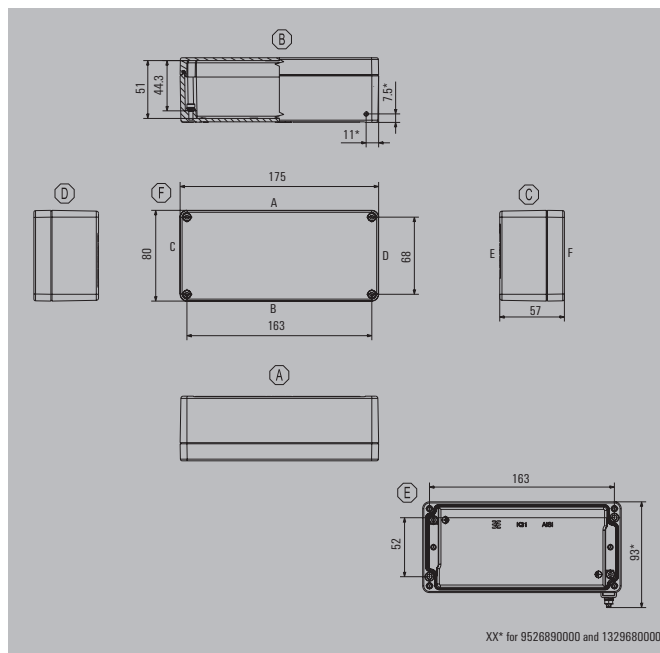


**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note** The accessory sets contain the necessary mounting materials. Helicoil for outdoor applications, available ex-works.



Height / Width / Depth 80 / 175 / 57 mm

**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	9529170000
Standard (silicone seal)*	1937820000
unpainted	Order No.
Standard (CR seal)	0573500000
Standard (silicone seal)*	1939610000

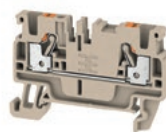
**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

**Accessories**

<b>Terminal rail, Set</b>	Order No.
15 mm width	1910040000
<b>Mounting plate</b>	Order No.
Steel sheet, zinc plated	3073040000
<b>Hinge, diecast zinc, Set</b>	1580360000
<b>Torx®screw driver</b>	Order No.
not insulated, Torx® TH20	9009160000
<b>Earthing stud</b>	Order No.
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
<b>Pressure compensation elements</b>	Order No.
Stainless steel 1.4305, M12	1868550000
Polyamide 6, M12	1868570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x23
4 mm <sup>2</sup>	*	1x19
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



**Note** \*Please refer to the Terminal Block Catalogue or the SAK Series for more information about populating the enclosures with terminal blocks. We recommend BK 6 or BK 6 CRN (0625220000) for vertical installations. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

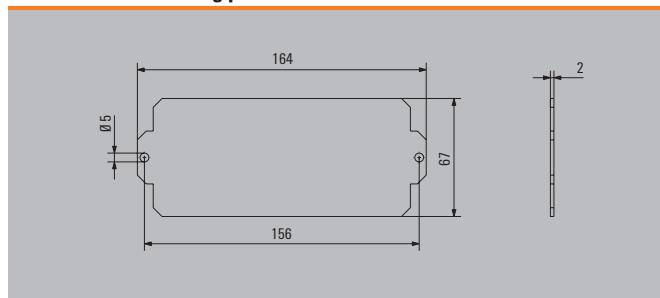
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	9	2
M16	6	2
M20	4	1
M25	3	
M32		
M40		
M50		
M63		



**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note** The accessory sets contain the necessary mounting materials. Necessary on use of 1 hinge per longitudinal side. Helicoil for outdoor applications, available ex-works.

Klippon® K 32

Depth 55 mm



Height / Width / Depth 80 / 250 / 55 mm

Ordering data

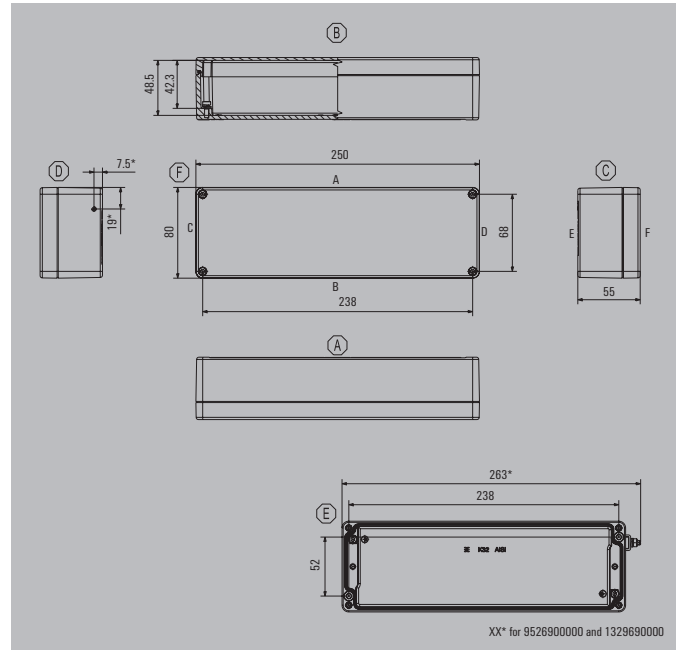
powder-coated (RAL 7001)		Order No.
	Standard (CR seal)	9529180000
	Standard (silicone seal)*	1937810000
unpainted		
	Standard (CR seal)	1565260000
	Standard (silicone seal)*	1939620000

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

Accessories

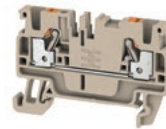
Mounting plate		Order No.
	Steel sheet, zinc plated	3073050000
Torx® screw driver		
	not insulated, Torx® TH20	9009160000
Earthing stud		
	Brass, M6	1277250000
	Stainless steel 1.4404, M6	1283430000
Pressure compensation elements		
	Stainless steel 1.4305, M12	1868550000
	Polyamide 6, M12	1868570000

**Note** The accessory sets contain the necessary mounting materials. Helicoil for outdoor applications, available ex-works.



Guide value for max. number of terminals (industry)

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x38
4 mm <sup>2</sup>	*	1x32
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



Note

\*Please refer to the Terminal Block Catalogue or the SAK Series for more information about populating the enclosures with terminal blocks. We recommend BK 6 or BK 6 CRN (0625220000) for vertical installations. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

Guide value for max. number of cable entries

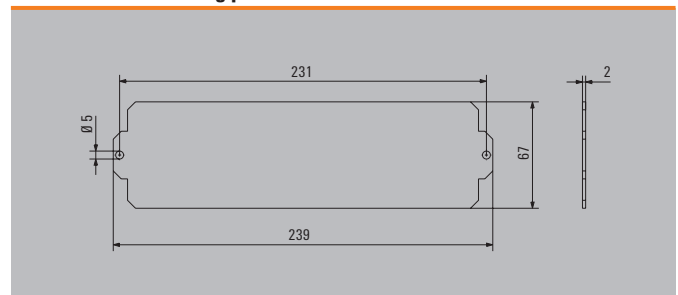
Guide value for max. number of cable entries	A / B	C / D
M12	15	2
M16	9	2
M20	7	1
M25	6	
M32		
M40		
M50		
M63		

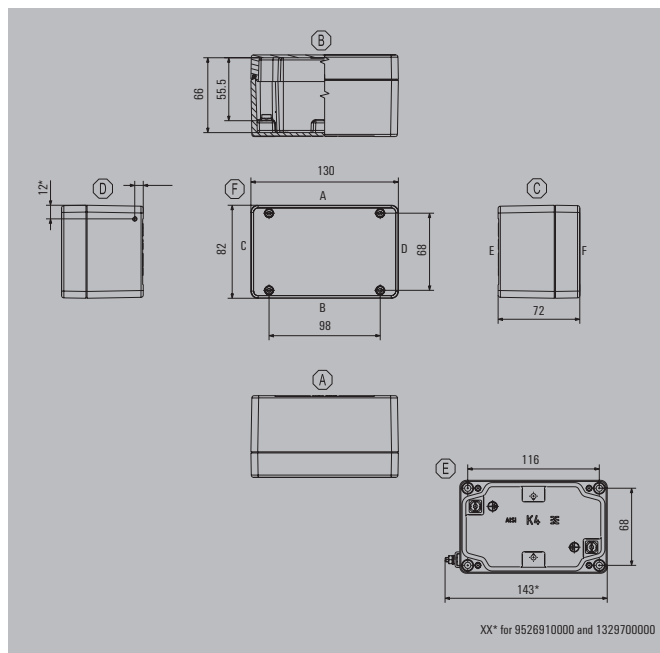


Note

Our IP68 brass cable glands are used as the reference for these guideline values.

Dimensions of mounting plate





Height / Width / Depth 82 / 130 / 72 mm

**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	9529190000
Standard (silicone seal)*	1937890000
unpainted	Order No.
Standard (CR seal)	0342300000
Standard (silicone seal)*	1939630000

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

**Accessories**

<b>Terminal rail, Set</b>	Order No.
35 mm width	1910060000
<b>Mounting plate</b>	Order No.
Steel sheet, zinc plated	3073060000
<b>Hinge, diecast zinc, Set</b>	1580360000
<b>Torx®screw driver</b>	Order No.
not insulated, Torx® TH20	9009160000
<b>Earthing stud</b>	Order No.
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
<b>Pressure compensation elements</b>	Order No.
Stainless steel 1.4305, M12	1868550000
Polyamide 6, M12	1868570000

**Note** Sets also contain the mounting material, if necessary. 1 hinge per longitudinal side. Helicoil for outdoor applications, available ex-works.

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	1x5	*
4 mm <sup>2</sup>	1x4	*
6 mm <sup>2</sup>	1x3	
10 mm <sup>2</sup>	1x2	
16 mm <sup>2</sup>		

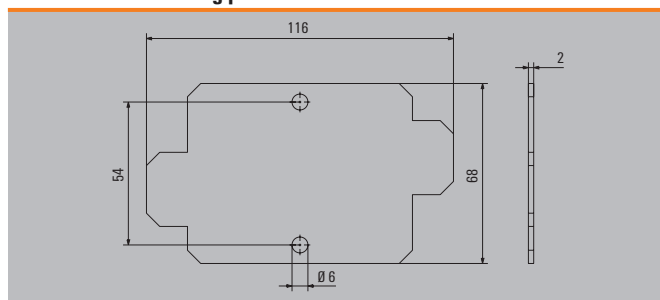
**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Ordering recommendations: TS 35 mounting rail (screw-type terminals) WDU 2.5 1020000000 / (tension clamp terminals) ZDU 2.5 1608510000 \*For fitting the enclosures with terminal blocks, please refer to the Terminal block catalogue or the SAK series. We recommend BK 6 or BK 6 CRN (0825220000) for horizontal installations. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a horizontal position.

**Guide value for max. number of cable entries**

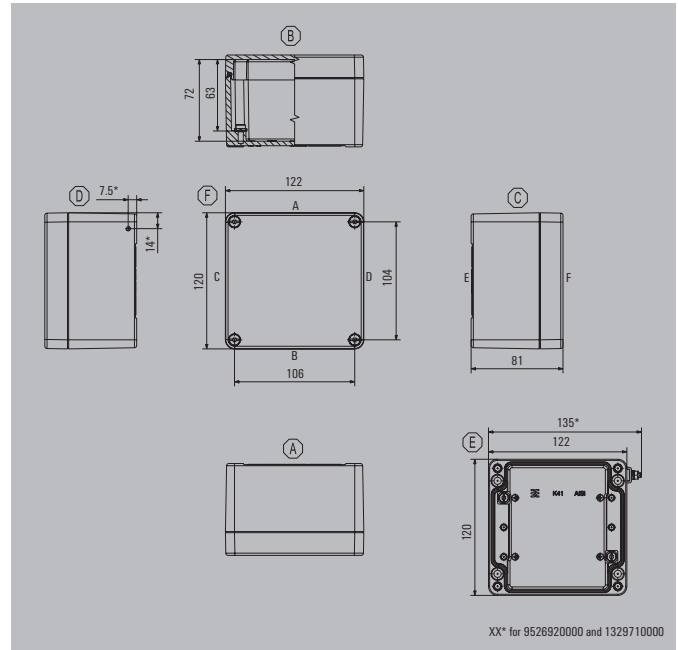
Guide value for max. number of cable entries	A / B	C / D
M12	5	2
M16	3	2
M20	2	1
M25	2	1
M32		1
M40		
M50		
M63		

**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**







Height / Width / Depth 120 / 122 / 81 mm

**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	9529200000
Standard (silicone seal)*	1937800000
unpainted	Order No.
Standard (CR seal)	1565270000
Standard (silicone seal)*	1939640000

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

**Accessories**

<b>Terminal rail, Set</b>	Order No.
35 mm width	1910070000
<b>Mounting plate</b>	Order No.
Steel sheet, zinc plated	3073070000
<b>Hinge, diecast zinc, Set</b>	1580360000
<b>External mounting feet, set of 4</b>	Order No.
Stainless steel 1.4301 natural	9527590000
<b>Torx® screw driver</b>	Order No.
not insulated, Torx® TH20	9009160000
<b>Earthing stud</b>	Order No.
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
<b>Pressure compensation elements</b>	Order No.
Stainless steel 1.4305, M12	1868550000
Polyamide 6, M12	1868570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x13
4 mm <sup>2</sup>	*	1x11
6 mm <sup>2</sup>		1x8
10 mm <sup>2</sup>		1x6
16 mm <sup>2</sup>		

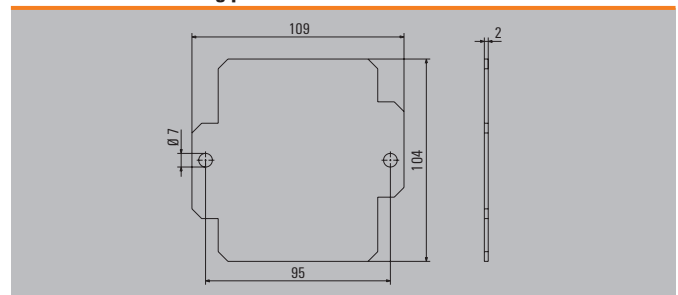
**Note** \*Please refer to the Terminal Block Catalogue or the SAK Series for more information about populating the enclosures with terminal blocks. We recommend BK 6 or BK 6 CRN (0625220000) for vertical installations. There are no specified mounting options available for mounting the enclosure in a vertical position. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

**Guide value for max. number of cable entries**

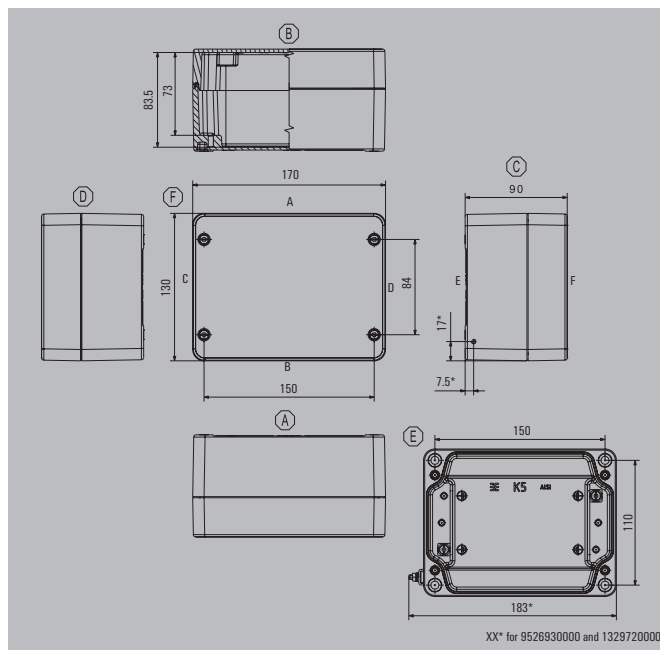
Guide value for max. number of cable entries	A / B	C / D
M12	6	4
M16	6	4
M20	3	2
M25	2	1
M32	1	1
M40		
M50		
M63		

**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note** The accessory sets contain the necessary mounting materials. Necessary on use of 1 hinge per longitudinal side. Helicoil for outdoor applications, available ex-works.



XX\* for 9526930000 and 1329720000

Height / Width / Depth 130 / 170 / 90 mm

**Ordering data**

powder-coated (RAL 7001)	Standard (CR seal)	Order No.
	Standard (silicone seal)*	1937860000
unpainted	Standard (CR seal)	0342400000
	Standard (silicone seal)*	1939650000

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

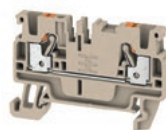
**Accessories**

<b>Terminal rail, Set</b>	35 mm width	Order No.	1910080000
<b>Mounting plate</b>	Steel sheet, zinc plated		3073080000
<b>Hinge, diecast zinc, Set</b>			1580360000
<b>External mounting feet, set of 4</b>	Stainless steel 1.4301 natural		9529080000
<b>Torx® screw driver</b>	not insulated, Torx® TH20		9009160000
<b>Earthing stud</b>	Brass, M6		1277250000
	Stainless steel 1.4404, M6		1283430000
	Brass, M10		1277220000
	Stainless steel 1.4404, M10		1283440000
<b>Pressure compensation elements</b>	Stainless steel 1.4305, M12		1868550000
	Polyamide 6, M12		1868570000

**Note** The accessory sets contain the necessary mounting materials. Necessary on use of 1 hinge per longitudinal side. Helicoil for outdoor applications, available ex-works.

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x20
4 mm <sup>2</sup>	*	1x17
6 mm <sup>2</sup>		1x12
10 mm <sup>2</sup>		1x10
16 mm <sup>2</sup>		1x8



**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Order recommendations: TS 35 mounting rail with WDU clamping yoke technology, ZDU spring-cage terminal block or A2C PUSH IN technology. Ordering information for the terminal blocks, please refer to the online catalogue. \*For fitting the enclosures with terminal blocks, please refer to the Terminal block catalogue or the SAK series. We recommend BK 6 or BK 6 CRN (0625220000) for vertical installations. There are no specified mounting options available for mounting the enclosure in a vertical position. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

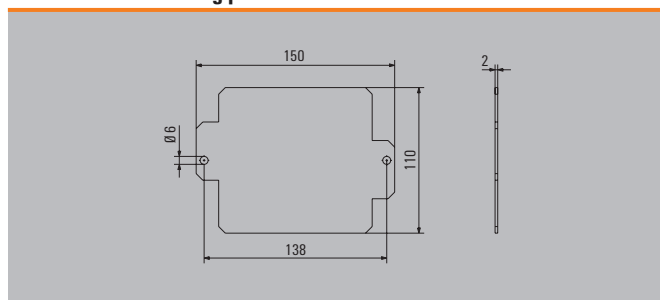
**Guide value for max. number of cable entries**

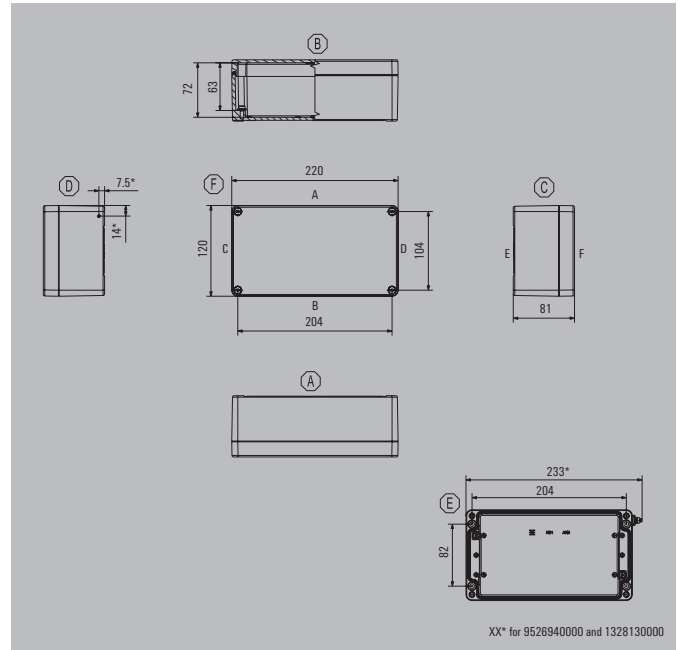
Guide value for max. number of cable entries	A / B	C / D
M12	11	4
M16	8	2
M20	4	1
M25	3	1
M32	2	1
M40		
M50		
M63		



**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**





Height / Width / Depth 120 / 220 / 81 mm

**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	9529220000
Standard (silicone seal)*	1937750000
unpainted	Order No.
Standard (CR seal)	1565280000
Standard (silicone seal)*	1939660000

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

**Accessories**

<b>Terminal rail, Set</b>	Order No.
35 mm width	1910090000
<b>Mounting plate</b>	Order No.
Steel sheet, zinc plated	3073090000
<b>Hinge, diecast zinc, Set</b>	1580360000
<b>External mounting feet, set of 4</b>	Order No.
Stainless steel 1.4301 natural	9527590000
<b>Torx® screw driver</b>	Order No.
not insulated, Torx® TH20	9009160000
<b>Earthing stud</b>	Order No.
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
<b>Pressure compensation elements</b>	Order No.
Stainless steel 1.4305, M12	1868550000
Polyamide 6, M12	1868570000

**Note** The accessory sets contain the necessary mounting materials. Necessary on use of 2 hinges per longitudinal side. Helicoil for outdoor applications, available ex-works.

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x31
4 mm <sup>2</sup>	*	1x26
6 mm <sup>2</sup>		1x19
10 mm <sup>2</sup>		1x16
16 mm <sup>2</sup>		

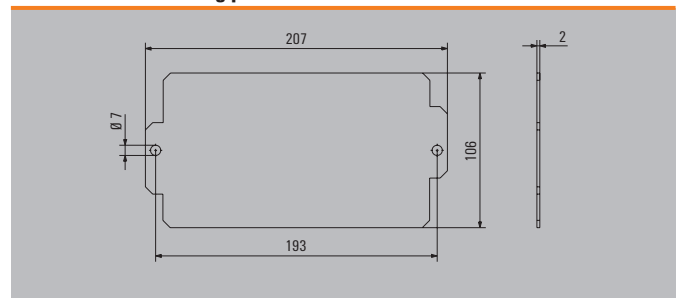
**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Order recommendations: TS 35 mounting rail with WDU clamping yoke technology, ZDU spring-cage terminal block or A2C PUSH IN technology. Ordering information for the terminal blocks, please refer to the online catalogue. \*For fitting the enclosures with terminal blocks, please refer to the Terminal block catalogue or the SAK series. We recommend BK 6 or BK 6 CRN (0625220000) for vertical installations. There are no specified mounting options available for mounting the enclosure in a vertical position. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

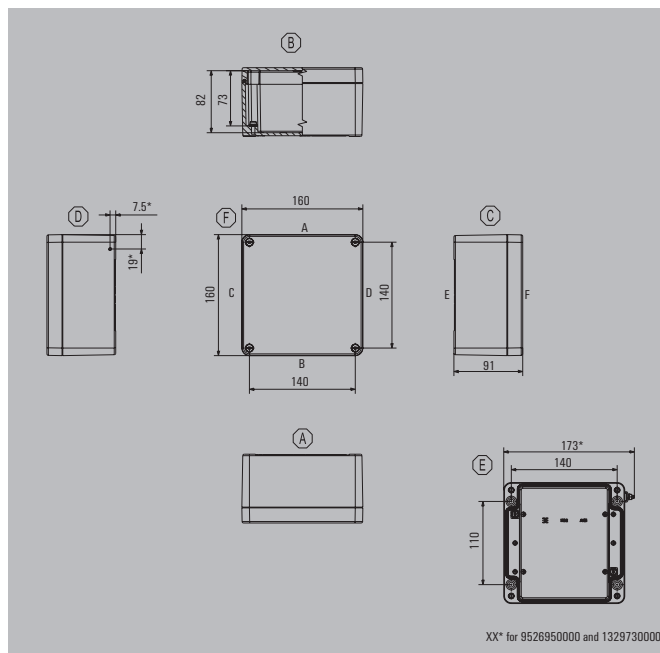
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	23	6
M16	14	3
M20	8	2
M25	5	1
M32	3	1
M40	3	
M50		
M63		

**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**





Height / Width / Depth	160 / 160 / 91 mm
------------------------	-------------------

**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	9529230000
Standard (silicone seal)*	1937740000
unpainted	Order No.
Standard (CR seal)	1565290000
Standard (silicone seal)*	1939670000

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

**Accessories**

Terminal rail, Set	Order No.
35 mm width	1910100000
Mounting plate	Order No.
Steel sheet, zinc plated	3073100000
Hinge, diecast zinc, Set	Order No.
	1580360000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9527590000
Torx® screw driver	Order No.
not insulated, Torx® TH20	9009160000
Earthing stud	Order No.
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Pressure compensation elements	Order No.
Stainless steel 1.4305, M12	1868550000
Polyamide 6, M12	1868570000

**Note** The accessory sets contain the necessary mounting materials. Necessary on use of 1 hinge per longitudinal side. Helicoil for outdoor applications, available ex-works.

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x16
4 mm <sup>2</sup>	*	1x13
6 mm <sup>2</sup>		1x10
10 mm <sup>2</sup>		1x8
16 mm <sup>2</sup>		1x6

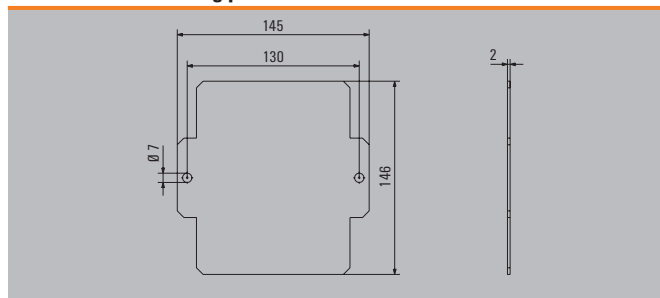
**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Order recommendations: TS 35 mounting rail with WDU clamping yoke technology, ZDU spring-cage terminal block or A2C PUSH IN technology. Ordering information for the terminal blocks, please refer to the online catalogue. \*For fitting the enclosures with terminal blocks, please refer to the Terminal block catalogue or the SAK series. We recommend BK 6 or BK 6 CRN (0625220000) for vertical installations. There are no specified mounting options available for mounting the enclosure in a vertical position. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

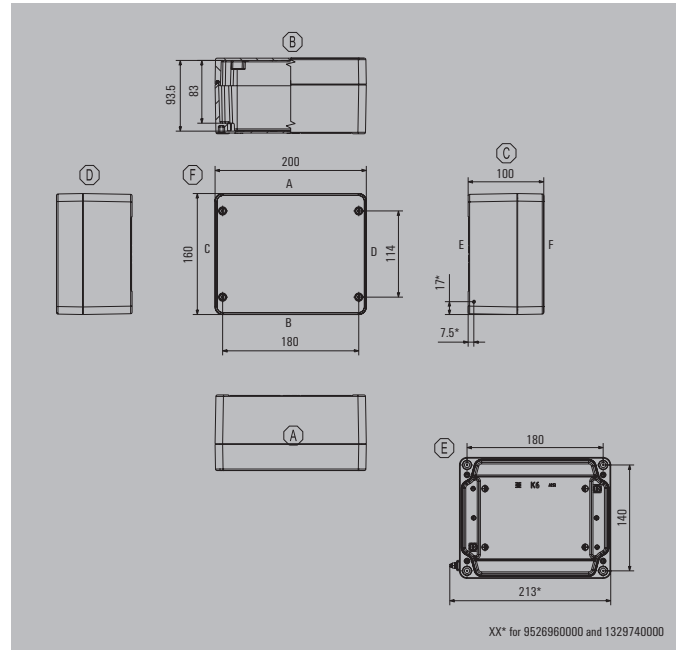
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	14	8
M16	8	5
M20	5	3
M25	3	2
M32	2	1
M40	1	
M50		
M63		

**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**





Height / Width / Depth 160 / 200 / 100 mm

**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	9529240000
Standard (silicone seal)*	1937870000
unpainted	Order No.
Standard (CR seal)	0342500000
Standard (silicone seal)*	1939690000

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

**Accessories**

<b>Terminal rail, Set</b>	Order No.
35 mm width	1910110000
<b>Mounting plate</b>	Order No.
Steel sheet, zinc plated	3073110000
<b>Hinge, diecast zinc, Set</b>	1580360000
<b>External mounting feet, set of 4</b>	Order No.
Stainless steel 1.4301 natural	9529080000
<b>Torx® screw driver</b>	Order No.
not insulated, Torx® TH20	9009160000
<b>Earthing stud</b>	Order No.
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
<b>Pressure compensation elements</b>	Order No.
Stainless steel 1.4305, M12	1868550000
Polyamide 6, M12	1868570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x25
4 mm <sup>2</sup>	*	1x21
6 mm <sup>2</sup>		1x16
10 mm <sup>2</sup>		1x12
16 mm <sup>2</sup>		1x10

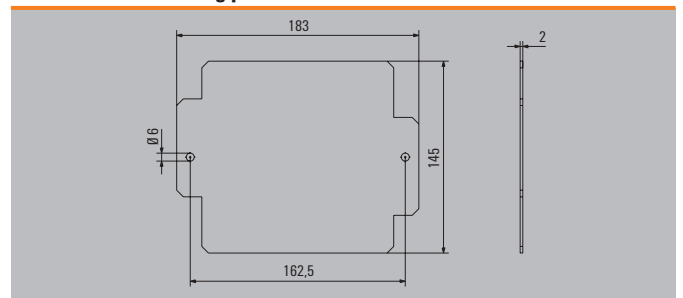
**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Order recommendations: TS 35 mounting rail with WDU clamping yoke technology, ZDU spring-cage terminal block or A2C PUSH IN technology. Ordering information for the terminal blocks, please refer to the online catalogue. \*For fitting the enclosures with terminal blocks, please refer to the Terminal block catalogue or the SAK series. We recommend BK 6 or BK 6 CRN (0625220000) for vertical installations. There are no specified mounting options available for mounting the enclosure in a vertical position. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

**Guide value for max. number of cable entries**

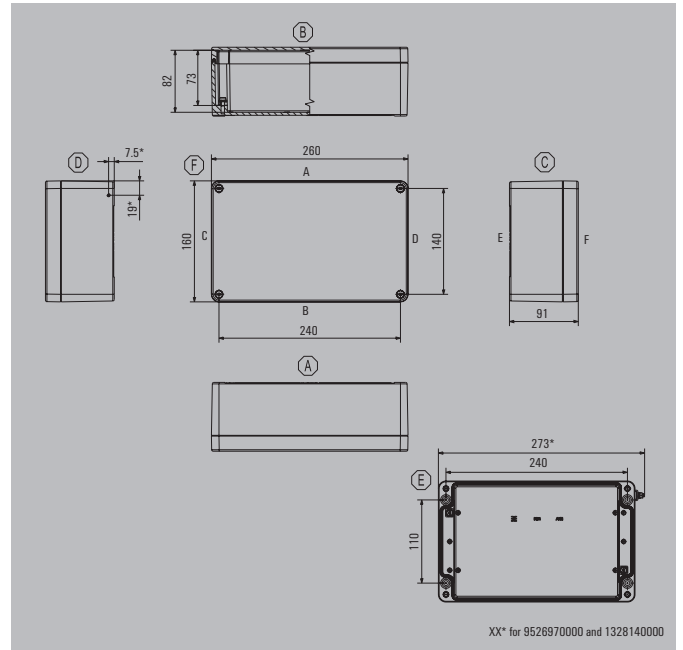
Guide value for max. number of cable entries	A / B	C / D
M12	17	6
M16	12	6
M20	7	3
M25	4	2
M32	3	2
M40	2	1
M50		
M63		

**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note** The accessory sets contain the necessary mounting materials. Necessary on use of 2 hinges per longitudinal side. Helicoil for outdoor applications, available ex-works.



Height / Width / Depth 160 / 260 / 91 mm

**Ordering data**

powder-coated (RAL 7001)	Order No.
Standard (CR seal)	9529250000
Standard (silicone seal)*	1937730000
unpainted	Order No.
Standard (CR seal)	0573600000
Standard (silicone seal)*	1939700000

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

**Accessories**

<b>Terminal rail, Set</b>	Order No.
35 mm width	1910120000
<b>Mounting plate</b>	Order No.
Steel sheet, zinc plated	3073120000
<b>Hinge, diecast zinc, Set</b>	1580360000
<b>External mounting feet, set of 4</b>	Order No.
Stainless steel 1.4301 natural	9527590000
<b>Torx® screw driver</b>	Order No.
not insulated, Torx® TH20	9009160000
<b>Earthing stud</b>	Order No.
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
<b>Pressure compensation elements</b>	Order No.
Stainless steel 1.4305, M12	1868550000
Polyamide 6, M12	1868570000

**Note** The accessory sets contain the necessary mounting materials. Necessary on use of 2 hinges per longitudinal side. Helicoil for outdoor applications, available ex-works.

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x39
4 mm <sup>2</sup>	*	1x33
6 mm <sup>2</sup>		1x24
10 mm <sup>2</sup>		1x20
16 mm <sup>2</sup>		1x16

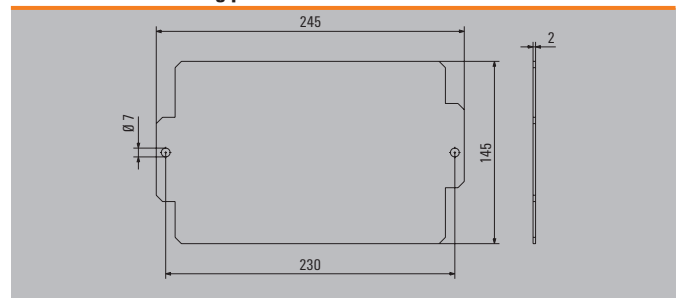
**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Order recommendations: TS 35 mounting rail with WDU clamping yoke technology, ZDU spring-cage terminal block or A2C PUSH IN technology. Ordering information for the terminal blocks, please refer to the online catalogue. \*For fitting the enclosures with terminal blocks, please refer to the Terminal block catalogue or the SAK series. We recommend BK 6 or BK 6 CRN (0625220000) for vertical installations. There are no specified mounting options available for mounting the enclosure in a vertical position. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

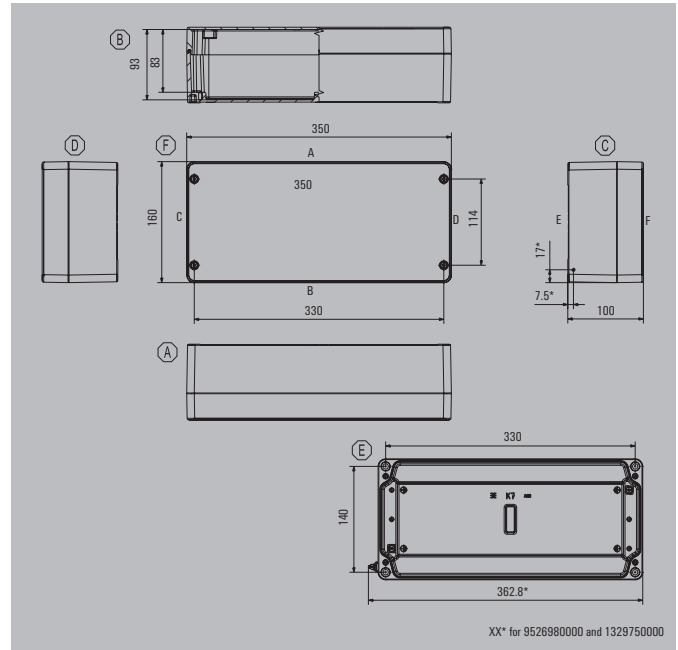
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	27	8
M16	23	6
M20	13	3
M25	8	2
M32	4	1
M40	3	1
M50		
M63		

**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**





Height / Width / Depth 160 / 350 / 100 mm

**Ordering data**

powder-coated (RAL 7001)	Standard (CR seal)	Order No.
	Standard (silicone seal)*	9529260000
		1937880000
unpainted	Standard (CR seal)	0342600000
	Standard (silicone seal)*	1939710000

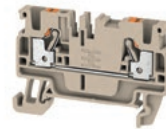
**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

**Accessories**

Terminal rail, Set	35 mm width	Order No.
		1910130000
Mounting plate	Steel sheet, zinc plated	3073130000
Hinge, diecast zinc, Set		1580360000
External mounting feet, set of 4	Stainless steel 1.4301 natural	9529080000
Torx® screw driver	not insulated, Torx® TH20	9009160000
Earthing stud	Brass, M6	1277250000
	Stainless steel 1.4404, M6	1283430000
	Brass, M10	1277220000
Pressure compensation elements	Stainless steel 1.4404, M10	1283440000
	Stainless steel 1.4305, M12	1868550000
	Polyamide 6, M12	1868570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
	2.5 mm <sup>2</sup>	* 1x55
	4 mm <sup>2</sup>	* 1x46
	6 mm <sup>2</sup>	1x34
	10 mm <sup>2</sup>	1x28
	16 mm <sup>2</sup>	1x23



**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Order recommendations: TS 35 mounting rail with WDU clamping yoke technology, ZDU spring-cage terminal block or A2C PUSH IN technology. Ordering information for the terminal blocks, please refer to the online catalogue. \*For fitting the enclosures with terminal blocks, please refer to the Terminal block catalogue or the SAK series. We recommend BK 6 or BK 6 CRN (0625220000) for vertical installations. There are no specified mounting options available for mounting the enclosure in a vertical position. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

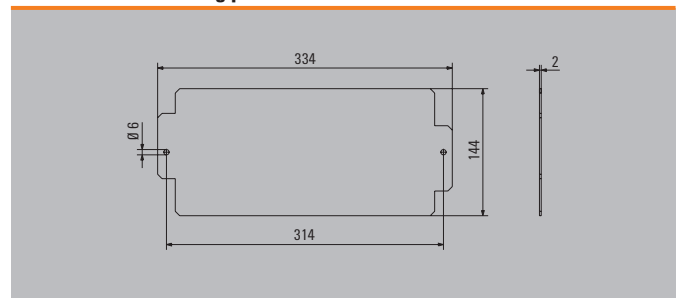
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
	M12	42
	M16	26
	M20	17
	M25	10
	M32	6
	M40	5
	M50	
	M63	



**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note** The accessory sets contain the necessary mounting materials. Necessary on use of 2 hinges per longitudinal side. Helicoil for outdoor applications, available ex-works.



230 / 280 / 111 mm

**Ordering data**

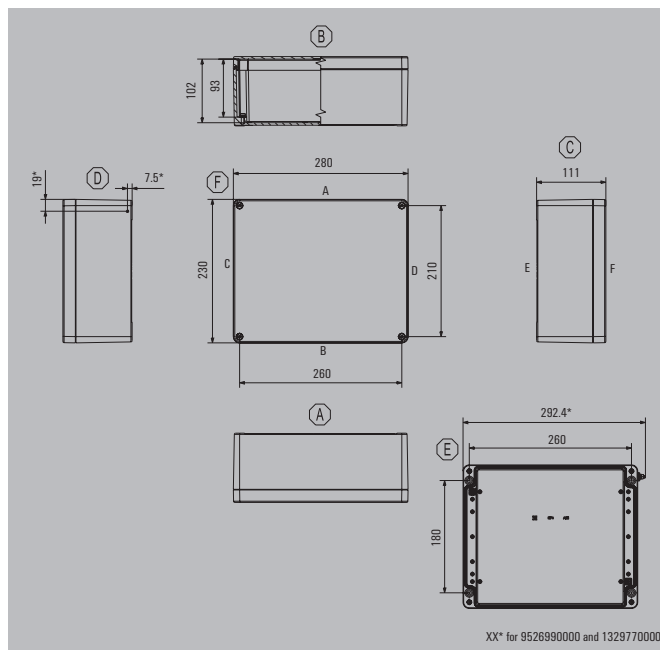
powder-coated (RAL 7001)	Order No.
Standard (CR seal)	9529270000
Standard (silicone seal)*	1937720000
unpainted	Order No.
Standard (CR seal)	0573700000
Standard (silicone seal)*	1939730000

**Note** The colours of painted enclosures may vary under certain circumstances. Ex-enclosures are available on request. \*Delivery time on request

**Accessories**

Terminal rail, Set	Order No.
35 mm width	1910140000
Mounting plate	Order No.
Steel sheet, zinc plated	3073140000
Hinge, diecast zinc, Set	Order No.
	1580360000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9527590000
Torx® screw driver	Order No.
not insulated, Torx® TH20	9009160000
Earthing stud	Order No.
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Pressure compensation elements	Order No.
Stainless steel 1.4305, M12	1868550000
Polyamide 6, M12	1868570000

**Note** The accessory sets contain the necessary mounting materials. Necessary on use of 2 hinges per longitudinal side. Helicoil for outdoor applications, available ex-works.



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	2x43
4 mm <sup>2</sup>	*	2x36
6 mm <sup>2</sup>		2x26
10 mm <sup>2</sup>		2x21
16 mm <sup>2</sup>		2x17

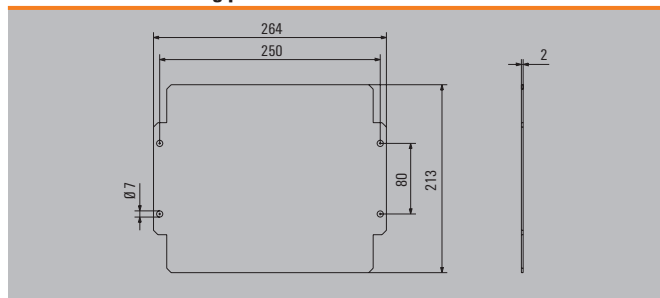
**Note** The mounting rails are designed to be installed directly. Assembly with terminals provides for 10 mm clearance to the ends of the mounting rail. Order recommendations: TS 35 mounting rail with WDU clamping yoke technology, ZDU spring-cage terminal block or A2C PUSH IN technology. Ordering information for the terminal blocks, please refer to the online catalogue. \*For fitting the enclosures with terminal blocks, please refer to the Terminal block catalogue or the SAK series. We recommend BK 6 or BK 6 CRN (0625220000) for vertical installations. There are no specified mounting options available for mounting the enclosure in a vertical position. There are no pre-defined mounting points set within this enclosure for installing internal equipment in a vertical position.

**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	42	28
M16	30	18
M20	21	10
M25	12	8
M32	10	3
M40	4	2
M50	3	2
M63		

**Note** Our IP68 brass cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**


















# Klippon® Protect – Terminal Boxes – Product overview: Aluminium enclosure

Use the product overview to find the right solution for you! Combine your own industrial version consisting of an enclosure, with or without threaded holes, a suitable mounting rail or pre-fitted terminal strips. The compatible components are always shown in a row.

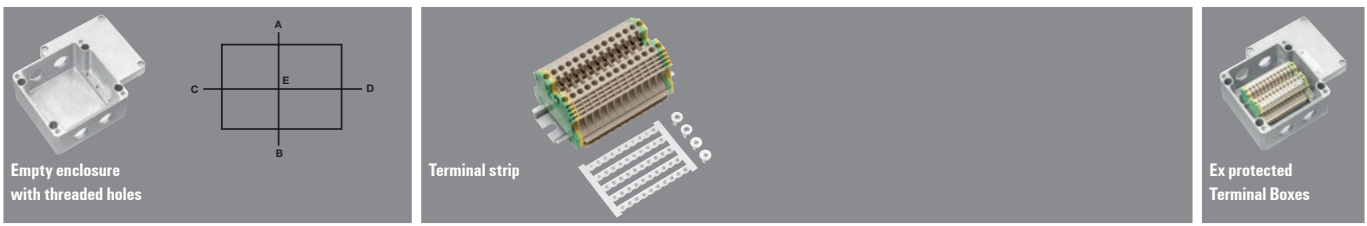
Klippon Protect enclosures with explosion protection for use in explosive risk zones are available on request.

C

## Aluminium enclosure, uncoated

Dimensions of the enclosure height x width x depth in mm	Enclosure type	Empty enclosure without threaded holes		Mounting rail (TS) Mounting plate (MOPL)			Order No.	Qty.
		Order No.	Qty.	Type	Length in mm	Rail mounting slot dimensions in mm		
<b>Aluminium, uncoated</b>								
64 x 58 x 34 	Klippon® K01	1565240000	10	-	-	-	-	-
70 x 70 x 45 	Klippon® K1	0342000000	10	TS15	60	4.5 x 20	1909980000	1
80 x 75 x 57 	Klippon® K11	0573300000	10	TS15	64	4.5 x 20	1909990000	1
70 x 100 x 45 	Klippon® K2	0342100000	10	TS15	90	4.5 x 20	1910010000	1
80 x 125 x 57 	Klippon® K21	0573400000	5	TS15	114	4.5 x 20	1910020000	1
70 x 165 x 45 	Klippon® K3	0342200000	5	TS15	155	4.5 x 20	1910030000	1
80 x 175 x 57 	Klippon® K31	0573500000	5	MOPL	154	4.2 x 14	8000004497	1
82 x 130 x 72 	Klippon® K4	0342300000	1	TS15	164	4.5 x 20	1910040000	1
120 x 122 x 81 	Klippon® K41	1565270000	1	TS35	64	5.5 x 20	1910060000	1
130 x 170 x 90 	Klippon® K5	0342400000	1	TS35	105	6.3 x 20	1910070000	1
160 x 160 x 91 	Klippon® K52	1565290000	1	TS35	148	5.5 x 20	1910080000	1
		protection class IP 66		suitable for the enclosures of the respective line				

<sup>1)</sup> Multi-pole terminal strip (terminal block BK 4, BK 6 or BK 12), mounted on mounting plate  
<sup>2)</sup> Space for further threaded holes up to M40



Threaded hole Side A	Threaded hole Side B	Order No.	Qty.	Connection technology	Cross-section mm <sup>2</sup>	Number of DU*	Number of PE*	Order No.	Qty.	Order No.
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1x M16	1x M16	8000004184	1	Screw connection		4	4	0	7906080000	100	-
1x M16	2x M16	8000004147	1	Screw connection		4	4	0	8000004129 <sup>1)</sup>	1	8000004202
1x M20	1x M20	8000004148	1								8000004203
2x M16	2x M16	8000004149	1								8000004207
2x M20	2x M20	8000004150	1	Tension clamp connection		2.5	5	1	8000004130	1	8000004208
2x M16	2x M16			Tension clamp connection		2.5	5	1			8000004204
2x M20	2x M20			Screw connection		4	5	2			8000004209
2x M20	2x M20	8000004151	1	Screw connection		4	6	0	8000004132 <sup>1)</sup>	1	8000004210
3x M16	3x M16	8000004152	1	Screw connection		4	13	2	8000004134	1	8000004212
3x M16	3x M16			Tension clamp connection		2.5	14	2	8000004133	1	8000004211
4x M20	4x M20	8000004153	1	Screw connection		4	12	0	8000004135 <sup>1)</sup>	1	8000004213
4x M20	4x M20	8000004154	1	Screw connection		4	21	2	8000004137	1	
4x M20	4x M20			Tension clamp connection		2.5	24	2	8000004136	1	8000004214
2x M20	2x M20	8000004155	1	Screw connection		4	5	2	8000004138	1	
2x M20	2x M20			Tension clamp connection		4	4	1	8000004139	1	
2x M25	2x M25	8000003446	1	Screw connection		4	12	2	8000003444	1	8000003589
3x M20	3x M20	8000003447	1								
2x M25	2x M25										
3x M20	3x M20										8000003591
4x M20	4x M20	8000004158	1	Screw connection		4	17	2	8000004140	1	8000004218
4x M20	4x M20			Tension clamp connection		4	15	2		1	8000004219
4x M20	4x M20		1	Screw connection		4	16	2	8000004142	1	8000004220
4x M20	4x M20			Tension clamp connection		2.5	19	2	8000004143	1	8000004221

suitable for the enclosure of the respective line  
 \*DU = feed-through terminals, PE = PE terminals

Ex-enclosure with threaded holes and terminal strip according to the respective line

## Safely control work processes in harsh environments on site

### With certified enclosure solutions with control and display elements

C

Harsh industrial environments, such as those in the water treatment industry, place extreme demands on the safety, robustness and quality of products and devices.

We meet these challenges with the Klippon® Control Station, the addition to our range of customised enclosure solutions. More than 50 years of expertise have made us market leader in this area with global competence centres. The basis of our enclosure solutions is provided by the usual Weidmüller quality and comprehensive approvals for explosion hazard areas. Based on this, our sturdy “on-site control station” is available in two standard sizes and with up to four control and display elements and provides a flexible solution to meet your specific needs.

Order your distributor enclosure as well as control and signaling units from a single source and from one enclosure design – for reliable security and reduced storage costs for maintenance and repair operations.

#### **Your special advantages: Ideal for urgent service calls**

We have prepared modules of the proven Klippon® enclosure series K available for you for further processing. This means we manufacture a control solution suitable for your application at short notice.



Predestined for emergency shutdown applications: Klippon® Control Stations score when it comes to the safe shutdown of plant sections, such as in the process industry

**Project solutions from a single source**

Obtain command/signaling units and distribution and control boxes as a complete solution – tailored to the individual requirements of your projects in hazardous areas.



**Customised assembly**

In addition to standard types from stock, you can obtain enclosure solutions from us that are completely assembled and equipped according to customer requirements.

**A variety of sizes and materials**

Enclosures in stainless steel, aluminium or polyester are available for different environmental conditions. Depending on the size of the enclosure, it provides space for the integration of up to four control and display elements.

**International certificates**

The Klippon® Control Station is tested and certified among others according to ATEX and IECEx.



# Reliable stability for all applications

## Klippon® Protect – convincing with impact-resistant aluminium enclosures

Aluminium enclosures (Klippon® K) can be used with a wide range of applications and are ideally suited for the assembly of terminal blocks, switches, power supplies, operating and display elements or electronic modules. Available in aluminium alloy and powder coated RAL 7001. The mounting holes are located outside the sealing area, while a corresponding thread enables mounting rails and mounting plates to be affixed.

### Additional features:

- Standardised enclosure with integrated threaded holes
- Cover attachment with corrosion-resistant Torx slothead screws
- Fastening by means of mounting feet or internal mounting holes
- Splice-free seals for optimum ingress protection up to IP 66



### Technical data

Technical data	Aluminium
Material	Aluminium alloy (AL-Si12)
Surface finish	Powder-coated
Colour	RAL 7001
IP protection class	IP 54; IP 66
Ambient temperature	-55 °C to 55 °C
Seal material of enclosure	Silicone (VMQ)
Seal material of command and signalling units	EPDM
Flammability rating	-
Impact resistance IK	7 joules in acc. with IEC60079-0 4 joules in acc. with IEC60079-0 with integrated illuminated pushbutton or light module
Cable gland material	Nickel-plated brass
Cable gland clamping area min. - max. in mm	
M20	3-12 mm
M25	10-18 mm
Max. rated cross-section	2.5 mm <sup>2</sup>
Max. operating voltage with integrated illuminated pushbutton or light module	400 V
Maximum operating current at 40 °C ambient temperature	250 V
1.5 mm <sup>2</sup> - T6	10 A
1.5 mm <sup>2</sup> - T5	16 A
2.5 mm <sup>2</sup> - T6	16 A
Maximum operating current at 55 °C ambient temperature	
1.5 mm <sup>2</sup> - T4	16 A
1.5 mm <sup>2</sup> - T5	10 A
2.5 mm <sup>2</sup> - T5	16 A
Temperature class	T4, T5, T6
Type of mounting	Wall mounting
Earthing inside	Earth terminal
Lid attachment	Torx® 20 slothead screws
Lid screw torque	2.5 Nm
Earthing torque	2.5 Nm
Earthing outside	M4 earthing studs, stainless steel
Approvals	IECEXITA14.0013X TUEV14ATEX7606X MARITREG 15.40082.250
Marking	2G Ex e d IIC T* Gb 2G Ex ib d [ia] IIC T* Gb 2D Ex tb IIC T80/100 °C Db
Mounting feet	9527590000



	Number of built-in components				Emergency stop pushbutton red	Key switch I – 0 – II	Pushbutton		Illuminated pushbutton		Light module		Dimensions with built-in components HxWxD in mm	Designation	Cable gland	Order number	
	•	•	•	•			red	green	red	green	red	green					
Aluminium	•				1								149x120x119	KLIPPON CS K41-1	VG M20	1537470000	
	•						1						149x120x94	KLIPPON CS K41-1	VG M20	1537480000	
	•					1							149x120x108	KLIPPON CS K41-1	VG M20	1537490000	
	•									1			149x120x96	KLIPPON CS K41-1	VG M20	1537500000	
	•							1	1				152x120x119	KLIPPON CS K41-4	VG M25	1537510000	
	•								1		1		152x120x103	KLIPPON CS K41-4	VG M25	1537520000	
	•				1							1	152x120x119	KLIPPON CS K41-4	VG M25	1537530000	
		•						1	1			1	250x120x103	KLIPPON CS K51-2	VG M25	1537540000	
			•					1	2				250x120x94	KLIPPON CS K51-2	VG M25	1537550000	
				•	1			1	1				250x120x119	KLIPPON CS K51-2	VG M25	1537570000	
								1	1		1	1	250x120x103	KLIPPON CS K51-4	VG M25	1537580000	

**Klippon® CS K41-1**



**Klippon® CS K41-1**



**Technical data**

<b>Enclosure</b>	
Dimensions with installation (HxBxD)	149 / 120 / 119 mm
Material	Aluminium AlSi12
<b>General characteristics</b>	
Surface finish / Colour	Powder-coated / Silver grey
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	7 joules in acc. with IEC 60079-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
Internal earth	Earth terminal
External earth	M4 earthing studs, stainless steel
Lid attachment	Torx®-20 slothead screws
Torque for lid screws	2.5 Nm
Earth stud torque	2.5 Nm
<b>Electrical properties*</b>	
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>
Operating voltage, max.	400 V
Temperature class	T4, T5, T6
<b>Enclosure assembly</b>	
1 Position in enclosure	EMERGENCY-STOP pushbutton with yellow, contrasting label
2 Position in enclosure	
3 Position in enclosure	
4 Position in enclosure	
Contact design	2 NC contact, positive opening contacts
Actuators	EMERGENCY STOP pushbutton
Actuator colour	red
Illumination module colour	
Illuminated button actuator colour	
<b>Cable entries</b>	
Drill holes side B	1 x M20
Cable gland	1460050000 - VG M20 EXE MS
Clamping range min. / max.	3 mm / 12 mm
<b>Approval and Marking</b>	
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE.BE02.B.00173
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db
<b>Accessories</b>	
Mounting feet	9527590000 - KLIPPON K MF KIT 25

<b>Enclosure</b>		
Dimensions with installation (HxBxD)	149 / 120 / 94 mm	
Material	Aluminium AlSi12	
<b>General characteristics</b>		
Surface finish / Colour	Powder-coated / Silver grey	
Protection class	IP54, IP66	
Ambient temperature	-55 °C...+55 °C	
Impact resistance	7 joules in acc. with IEC 60079-0	
Enclosure seal material	Silicone (VMQ)	
Seal material of operating and display elements	EPDM	
Type of mounting	Wall mounting	
Internal earth	Earth terminal	
External earth	M4 earthing studs, stainless steel	
Lid attachment	Torx®-20 slothead screws	
Torque for lid screws	2.5 Nm	
Earth stud torque	2.5 Nm	
<b>Electrical properties*</b>		
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>	
Operating voltage, max.	400 V	
Temperature class	T4, T5, T6	
<b>Enclosure assembly</b>		
1 Position in enclosure	Pushbutton - green	
2 Position in enclosure		
3 Position in enclosure		
4 Position in enclosure		
Contact design	1 NC contact, 1 NO contacts	
Actuators	Pushbutton	
Actuator colour	green	
Illumination module colour		
Illuminated button actuator colour		
<b>Cable entries</b>		
Drill holes side B	1 x M20	
Cable gland	1460050000 - VG M20 EXE MS	
Clamping range min. / max.	3 mm / 12 mm	
<b>Approval and Marking</b>		
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31	
Certificate No. (IECEX)	IECEXITA14.0013X	
Certificate No. (ATEX)	TUEV14ATEX7606X	
Certificate No. (EAC)	RUC-DE.TB08.B.01838	
Certificate No. (MARITREG)	15.40082.250	
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db	
<b>Accessories</b>		
Mounting feet	9527590000 - KLIPPON K MF KIT 25	

<b>Enclosure</b>		
Dimensions with installation (HxBxD)	149 / 120 / 94 mm	
Material	Aluminium AlSi12	
<b>General characteristics</b>		
Surface finish / Colour	Powder-coated / Silver grey	
Protection class	IP54, IP66	
Ambient temperature	-55 °C...+55 °C	
Impact resistance	7 joules in acc. with IEC 60079-0	
Enclosure seal material	Silicone (VMQ)	
Seal material of operating and display elements	EPDM	
Type of mounting	Wall mounting	
Internal earth	Earth terminal	
External earth	M4 earthing studs, stainless steel	
Lid attachment	Torx®-20 slothead screws	
Torque for lid screws	2.5 Nm	
Earth stud torque	2.5 Nm	
<b>Electrical properties*</b>		
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>	
Operating voltage, max.	400 V	
Temperature class	T4, T5, T6	
<b>Enclosure assembly</b>		
1 Position in enclosure	Pushbutton - green	
2 Position in enclosure		
3 Position in enclosure		
4 Position in enclosure		
Contact design	1 NC contact, 1 NO contacts	
Actuators	Pushbutton	
Actuator colour	green	
Illumination module colour		
Illuminated button actuator colour		
<b>Cable entries</b>		
Drill holes side B	1 x M20	
Cable gland	1460050000 - VG M20 EXE MS	
Clamping range min. / max.	3 mm / 12 mm	
<b>Approval and Marking</b>		
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31	
Certificate No. (IECEX)	IECEXITA14.0013X	
Certificate No. (ATEX)	TUEV14ATEX7606X	
Certificate No. (EAC)	RUC-DE.TB08.B.01838	
Certificate No. (MARITREG)	15.40082.250	
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db	
<b>Accessories</b>		
Mounting feet	9527590000 - KLIPPON K MF KIT 25	

<b>Note</b>	
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**Ordering data**

<b>Type</b>	<b>Qty.</b>	<b>Order No.</b>
KLIPPON CS K41-1	1	1537470000

<b>Type</b>	<b>Qty.</b>	<b>Order No.</b>
KLIPPON CS K41-1	1	1537480000

<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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Klippon® CS K41-1



149 / 120 / 108 mm
Aluminium AlSi12
Powder-coated / Silver grey
IP54, IP66
-55 °C...+55 °C
7 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
Earth terminal
M4 earthing studs, stainless steel
Torx®-20 slothead screws
2.5 Nm
2.5 Nm
2.5 mm <sup>2</sup>
400 V
T4, T5, T6
Key-operated switch
1 NC contact, 1 NO contacts
Key-operated switch, 3 switching positions, I - O - II, (I + II), latching, Key retractable
1 x M20
1460050000 - VG M20 EXE MS
3 mm / 12 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db
9527590000 - KLIPPON K MF KIT 25

Klippon® CS K41-1



149 / 120 / 96 mm
Aluminium AlSi12
Powder-coated / Silver grey
IP54, IP66
-55 °C...+55 °C
4 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
Earth terminal
M4 earthing studs, stainless steel
Torx®-20 slothead screws
2.5 Nm
2.5 Nm
2.5 mm <sup>2</sup>
250 V
T4, T5, T6
Illuminated pushbutton - green
2 NO contacts
Pushbutton
green
green
1 x M20
1460050000 - VG M20 EXE MS
3 mm / 12 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db
9527590000 - KLIPPON K MF KIT 25

Klippon® CS K41-4



152 / 120 / 119 mm
Aluminium AlSi12
Powder-coated / Silver grey
IP54, IP66
-55 °C...+55 °C
7 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
Earth terminal
M4 earthing studs, stainless steel
Torx®-20 slothead screws
2.5 Nm
2.5 Nm
2.5 mm <sup>2</sup>
400 V
T4, T5, T6
Pushbutton - red
Pushbutton - green
2 NC contact, 2 NO contacts
Pushbutton
red, green
1 x M25
1460070000 - VG M25 EXE MS
10 mm / 18 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db
9527590000 - KLIPPON K MF KIT 25

Type	Qty.	Order No.
KLIPPON CS K41-1	1	1537490000

Type	Qty.	Order No.
KLIPPON CS K41-1	1	1537500000

Type	Qty.	Order No.
KLIPPON CS K41-4	1	1537510000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

\*Other temperature classes and connection values on request, or see "Notice to Installer".

\*Other temperature classes and connection values on request, or see "Notice to Installer".

**Klippon® CS K41-4**



**Klippon® CS K41-4**



**Technical data**

<b>Enclosure</b>	
Dimensions with installation (HxBxD)	152 / 120 / 103 mm
Material	Aluminium AlSi12
<b>General characteristics</b>	
Surface finish / Colour	Powder-coated / Silver grey
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	4 joules in acc. with IEC 60079-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
Internal earth	Earth terminal
External earth	M4 earthing studs, stainless steel
Lid attachment	Torx®-20 slothead screws
Torque for lid screws	2.5 Nm
Earth stud torque	2.5 Nm
<b>Electrical properties*</b>	
Wire connection cross section, finely stranded, max.	2.5 mm²
Operating voltage, max.	250 V
Temperature class	T4, T5, T6
<b>Enclosure assembly</b>	
1 Position in enclosure	Light module - green
2 Position in enclosure	Pushbutton - green
3 Position in enclosure	
4 Position in enclosure	
Contact design	1 NC contact, 1 NO contacts
Actuators	Pushbutton
Actuator colour	green
Illumination module colour	green
Illuminated button actuator colour	
<b>Cable entries</b>	
Drill holes side B	1 x M25
Cable gland	1460070000 - VG M25 EXE MS
Clamping range min. / max.	10 mm / 18 mm
<b>Approval and Marking</b>	
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE-BE02.B.00173
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db
<b>Accessories</b>	
Mounting feet	9527590000 - KLIPPON K MF KIT 25

<b>Enclosure</b>	
Dimensions with installation (HxBxD)	152 / 120 / 103 mm
Material	Aluminium AlSi12
<b>General characteristics</b>	
Surface finish / Colour	Powder-coated / Silver grey
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	4 joules in acc. with IEC 60079-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
Internal earth	Earth terminal
External earth	M4 earthing studs, stainless steel
Lid attachment	Torx®-20 slothead screws
Torque for lid screws	2.5 Nm
Earth stud torque	2.5 Nm
<b>Electrical properties*</b>	
Wire connection cross section, finely stranded, max.	2.5 mm²
Operating voltage, max.	250 V
Temperature class	T4, T5, T6
<b>Enclosure assembly</b>	
1 Position in enclosure	Light module - green
2 Position in enclosure	Pushbutton - green
3 Position in enclosure	
4 Position in enclosure	
Contact design	1 NC contact, 1 NO contacts
Actuators	Pushbutton
Actuator colour	green
Illumination module colour	green
Illuminated button actuator colour	
<b>Cable entries</b>	
Drill holes side B	1 x M25
Cable gland	1460070000 - VG M25 EXE MS
Clamping range min. / max.	10 mm / 18 mm
<b>Approval and Marking</b>	
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE-BE02.B.00173
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db
<b>Accessories</b>	
Mounting feet	9527590000 - KLIPPON K MF KIT 25

<b>Enclosure</b>	
Dimensions with installation (HxBxD)	152 / 120 / 119 mm
Material	Aluminium AlSi12
<b>General characteristics</b>	
Surface finish / Colour	Powder-coated / Silver grey
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	4 joules in acc. with IEC 60079-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
Internal earth	Earth terminal
External earth	M4 earthing studs, stainless steel
Lid attachment	Torx®-20 slothead screws
Torque for lid screws	2.5 Nm
Earth stud torque	2.5 Nm
<b>Electrical properties*</b>	
Wire connection cross section, finely stranded, max.	2.5 mm²
Operating voltage, max.	250 V
Temperature class	T4, T5, T6
<b>Enclosure assembly</b>	
1 Position in enclosure	Light module - red
2 Position in enclosure	EMERGENCY-STOP pushbutton with yellow, contrasting label
3 Position in enclosure	
4 Position in enclosure	
Contact design	2 NC contact, positive opening contacts
Actuators	EMERGENCY STOP pushbutton
Actuator colour	red
Illumination module colour	
Illuminated button actuator colour	
<b>Cable entries</b>	
Drill holes side B	1 x M25
Cable gland	1460070000 - VG M25 EXE MS
Clamping range min. / max.	10 mm / 18 mm
<b>Approval and Marking</b>	
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE-BE02.B.00173
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db
<b>Accessories</b>	
Mounting feet	9527590000 - KLIPPON K MF KIT 25

<b>Note</b>	
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**Ordering data**

<b>Type</b>	<b>Qty.</b>	<b>Order No.</b>
KLIPPON CS K41-4	1	1537520000

<b>Type</b>	<b>Qty.</b>	<b>Order No.</b>
KLIPPON CS K41-4	1	1537530000

<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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Klippon® CS K51-2



250 / 120 / 103 mm
Aluminium AISI12
Powder-coated / Silver grey
IP54, IP66
-55 °C...+55 °C
4 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
Earth terminal
M4 earthing studs, stainless steel
Torx®-20 slothead screws
2.5 Nm
2.5 Nm
2.5 mm <sup>2</sup>
250 V
T4, T5, T6
Pushbutton - red
Light module - green
Pushbutton - green
2 NC contact, 2 NO contacts
Pushbutton
red, green
green
1 x M25
1460070000 - VG M25 EXE MS
10 mm / 18 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db
9527590000 - KLIPPON K MF KIT 25

Klippon® CS K51-2



250 / 120 / 94 mm
Aluminium AISI12
Powder-coated / Silver grey
IP54, IP66
-55 °C...+55 °C
7 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
Earth terminal
M4 earthing studs, stainless steel
Torx®-20 slothead screws
2.5 Nm
2.5 Nm
2.5 mm <sup>2</sup>
400 V
T4, T5, T6
Pushbutton - green
Pushbutton - red
Pushbutton - green
3 NC contact, 3 NO contacts
Pushbutton
green, red
1 x M25
1460070000 - VG M25 EXE MS
10 mm / 18 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db
9527590000 - KLIPPON K MF KIT 25

Klippon® CS K51-2



250 / 120 / 119 mm
Aluminium AISI12
Powder-coated / Silver grey
IP54, IP66
-55 °C...+55 °C
7 joules in acc. with IEC 60079-0
Silicone (VMQ)
EPDM
Wall mounting
Earth terminal
M4 earthing studs, stainless steel
Torx®-20 slothead screws
2.5 Nm
2.5 Nm
2.5 mm <sup>2</sup>
400 V
T4, T5, T6
Pushbutton - green
Pushbutton - red
EMERGENCY-STOP pushbutton with yellow, contrasting label
2 NO contacts, 2 NC contact, positive opening contacts
Pushbutton, EMERGENCY STOP pushbutton
green, red
1 x M25
1460070000 - VG M25 EXE MS
10 mm / 18 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.TB08.B.01838
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T**C Db
9527590000 - KLIPPON K MF KIT 25

Type	Qty.	Order No.
KLIPPON CS K51-2	1	1537540000

Type	Qty.	Order No.
KLIPPON CS K51-2	1	1537550000

Type	Qty.	Order No.
KLIPPON CS K51-2	1	1537570000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

\*Other temperature classes and connection values on request, or see "Notice to Installer".

\*Other temperature classes and connection values on request, or see "Notice to Installer".

Klippon® CS K51-4



Technical data

<b>Enclosure</b>	
Dimensions with installation (HxBxD)	250 / 120 / 103 mm
Material	Aluminium AlSi12
<b>General characteristics</b>	
Surface finish / Colour	Powder-coated / Silver grey
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	4 joules in acc. with IEC 60079-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
Internal earth	Earth terminal
External earth	M4 earthing studs, stainless steel
Lid attachment	Torx®-20 s槽head screws
Torque for lid screws	2.5 Nm
Earth stud torque	2.5 Nm
<b>Electrical properties*</b>	
Wire connection cross section, finely stranded, max.	2.5 mm²
Operating voltage, max.	250 V
Temperature class	T4, T5, T6
<b>Enclosure assembly</b>	
1 Position in enclosure	Light module - red
2 Position in enclosure	Pushbutton - red
3 Position in enclosure	Light module - green
4 Position in enclosure	Pushbutton - green
Contact design	2 NC contact, 2 NO contacts
Actuators	Pushbutton
Actuator colour	green, red
Illumination module colour	red, green
Illuminated button actuator colour	
<b>Cable entries</b>	
Drill holes side B	1 x M25
Cable gland	1460070000 - VG M25 EXE MS
Clamping range min. / max.	10 mm / 18 mm
<b>Approval and Marking</b>	
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE-BED2.B.00173
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T+ Gb II 2 D Ex tb IIC T+°C Db
<b>Accessories</b>	
Mounting feet	9527590000 - KLIPPON K MF KIT 25

<b>Note</b>	
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Ordering data

Type	Qty.	Order No.
KLIPPON CS K51-4	1	1537580000

<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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## Klippon® POK – Polyester Enclosures

Universal terminal boxes for standard industrial applications and for potentially explosive atmospheres in Zones 1 and 2, 21 and 22

### C

The Klippon® POK enclosure range is made from a high-quality glass fibre reinforced polyester and is ideal for applications and environments where corrosion resistance, impact resistance and a high IP protection class is a requirement.

Key Features:

- Manufactured from glass fibre reinforced polyester
- Available in 17 sizes
- Two standard finishes (colours)
  - Grey, similar to RAL 7001 (industrial use)
  - Black, similar to RAL 9011 (harsh environments, Ex)
- Captive lid fixing screws are stainless steel
- Fixing holes are located outside of the lid sealing area to ensure high ingress protection of IP66
- Threaded holes for internal component mounting
- Silicone sealing for extreme temperature environments
- Impact resistance up to 7 Joules
- Approved to the latest international standards, including EN 62208 and IEC EN 60079

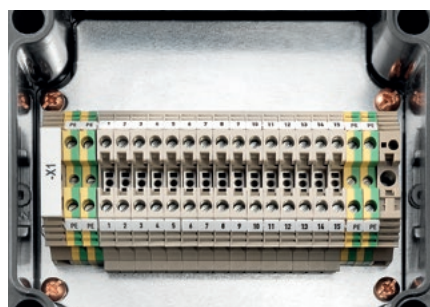
#### Cross-head screws

The enclosure lid is secured with stainless steel captive cross-head screws. Handling the enclosure is made simple. A single tool is the only requirement for quick and easy installation.



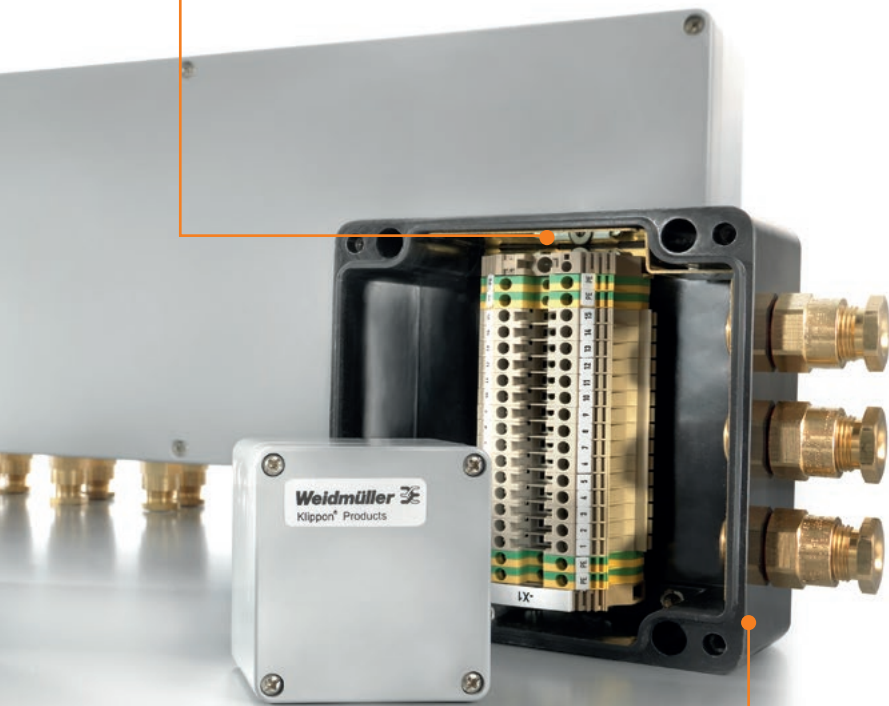
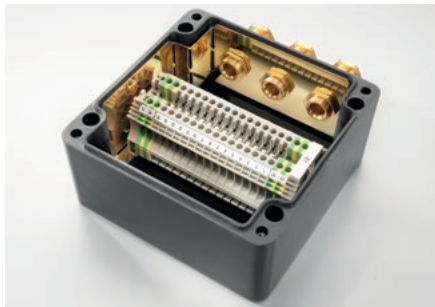
#### Mounting plates

Internal mounting plates for the installation of terminal rails, terminal blocks or other equipment are available.



**Brass Earth Continuity Plate**

An angled design made to complement the Klippon® POK enclosures installed in potentially explosive atmospheres. The brass earth continuity plate is available as an optional accessory.



**Earth kit**

The Klippon® POK Ex enclosures are designed for applications installed in potentially explosive atmospheres. An M6 or M10 internal/external earth kit is available as an optional accessory.



**Other Colour**

Grey, similar to RAL7001  
 Black, similar to RAL 9011  
 Other colours are available on request (subject to a minimum order quantity).



**Enclosure wall fixing (direct or via mounting lugs)**

The fixing positions of each enclosure are located outside of the sealing area. The enclosure can be fastened directly via fixing holes found on the rear side of the enclosure or alternatively, it is possible to secure the enclosure from the outside by means of mounting lugs that are separately available.



**Closed moulded sealing**

Robust and secure sealing increases the performance of each enclosure with enhanced ingress protection.

The Klippon® POK enclosures are supplied as standard with a removable and replaceable moulded gasket. Available in either silicone or chloroprene material and depending upon the enclosure type they are adapted to the contour of each enclosure to ensure ingress performance is maintained.



# Klippon® POK – Polyester enclosures

The Klippon® POK range of polyester enclosures are designed to protect and integrate with general purpose electrical and electronic equipment as well as control components in harsh environments or potentially explosive atmospheres.

Designed to meet the rigorous demands of industrial automation or process control and energy industries and with signal and component protection in mind, the Klippon POK enclosure range is designed to meet the customers' application needs.

Our customer specific assembly service can provide a fully customised enclosure solution, designed to meet the customer requirements.

**Features:**

- For use in potentially explosive atmospheres and industrial applications
- Extremely robust with a high impact resistance
- Approved to the latest international standards
- M4 or M6 mounting elements integrated into enclosure body for installation of mounting plates, mounting rails, printed circuit boards etc.

**Note:** The enclosure range Klippon® POK can be assembled with terminals or other approved equipment by our locally available Application-Specific Solutions service. Please ask us for more details.



Use our online catalogue to find additional product details, technical information and additional services:

[www.weidmueller.com/KlipponPOK](http://www.weidmueller.com/KlipponPOK)

**Overview of enclosures**

**Ordering data**

Description	Hight x width x depth in mm	Standard (grey finish)	Ex Enclosures (black finish)	Reference product
Klippon® POK 080806	75 x 80 x 55	1305810000	1306000000	Klippon® POK 1
Klippon® POK 081106	75 x 110 x 56	1305820000	1306010000	Klippon® POK 2
Klippon® POK 081606	75 x 160 x 56	1305830000	1306020000	Klippon® POK 3
Klippon® POK 081906	75 x 190 x 55	1305840000	1306030000	Klippon® POK 31
Klippon® POK 082306	75 x 230 x 56	1305850000	1306040000	Klippon® POK 32
Klippon® POK 121209	120 x 122 x 90	1305870000	1306050000	Klippon® POK 4
Klippon® POK 122209	120 x 220 x 90	1305880000	1306070000	Klippon® POK 5
Klippon® POK 161609	160 x 160 x 90	1305890000	1306080000	Klippon® POK 51
Klippon® POK 162609	160 x 260 x 90	1305900000	1306090000	Klippon® POK 6
Klippon® POK 163609	160 x 360 x 90	1305910000	1306100000	Klippon® POK 7
Klippon® POK 165609	160 x 560 x 90	1305920000	1306110000	Klippon® POK 71
Klippon® POK 252512	250 x 255 x 120	1305930000	1306120000	Klippon® POK 8
Klippon® POK 252516	250 x 255 x 160.5	1305980000	1306170000	Klippon® POK 9
Klippon® POK 254012	250 x 400 x 120	1305940000	1306130000	Klippon® POK 91
Klippon® POK 254016	250 x 400 x 160.5	1305990000	1306180000	Klippon® POK 10
Klippon® POK 256012	250 x 600 x 120	1305950000	1306140000	Klippon® POK 11
Klippon® POK 404012	405 x 400 x 120	1305970000	1306150000	Klippon® POK 12

Hinweis



## Technical Overview

### Technical data

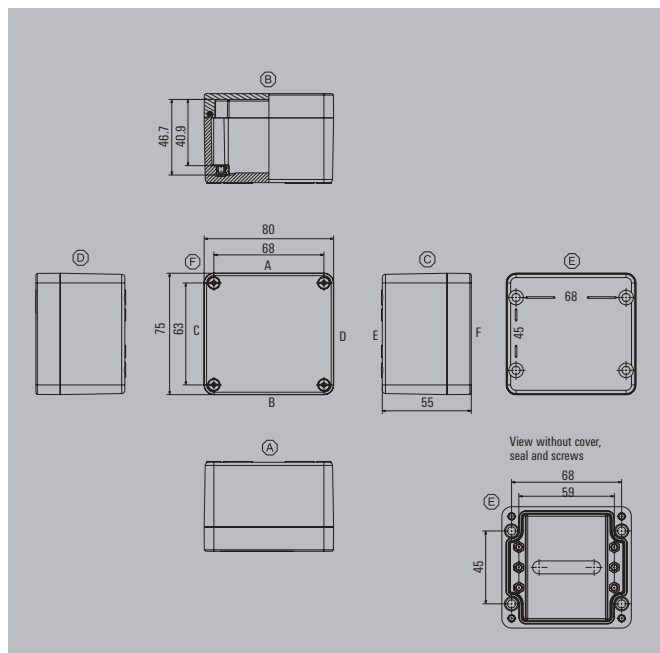
	Ex	Standard
Enclosure material	Glass fibre-reinforced polyester to DIN 16913 with added graphite	Glass fibre-reinforced polyester to DIN 16913
Surface	Black, similar to RAL 9011	Grey, similar to RAL7001
IP Rating	IP 66 to DIN EN 60529	IP 66 to DIN EN 60529
NEMA Rating	4, 4x	4, 4x
Equipment mounting	M4 to M6 threaded bushes	M4 to M6 threaded bushes
Enclosure mounting	4 holes for M4 to M6 screw	4 holes for M4 to M6 screw
Lid fixing	M4/M6 slothead / crosshead screws from stainless steel	M4/M6 slothead / crosshead screws from stainless steel
Impact Resistance	7J to IEC 60029-0	IK08 (5J) to DIN EN 50102
Gasket material	Silicone (VMQ)	Chloroprene
Temperature range	-55 °C...+100 °C	-40 °C...+100 °C
Torque screws of lid M4	2.0 - 2.5 Nm	2.0 - 2.5 Nm
Torque screws of lid M6	2.5 - 3.0 Nm	2.5 - 3.0 Nm
Surface resistance (in ohms)	< 10 <sup>9</sup> Ohm	10 <sup>12</sup> Ohm
Flammability	UL 94 V0, self extinguishing	UL 94 V0, self extinguishing
Toxicity	Halogen and cadmium-free	Halogen and cadmium-free
<b>Note</b>		

### Approvals for empty enclosures

	Ex	Standard
ATEX certificate	IBExU13ATEX1003 U	
ATEX marking	⊕ II 2G Ex e IIC Gb or ⊕ II 2G Ex eb IIC ⊕ II 2D Ex tb IIIC Db or ⊕ II 2D Ex tb IIIC	
IECEx certificate	IECEx IBE 13.0003U	
IECEx marking	Ex e IIC Gb or Ex eb IIC Ex tb IIIC Db or Ex tb IIIC	
EAC	RUC-DE.08.B.00472	RUC-DE.08.B.00472
cULus	E 256877	E 256877
Lloyd's Register	14/20001	14/20001
Russian Maritime Register	19.00109.272	
DNV GL	TAE00002R2	TAE00002R2
AEx	E223792	
<b>Note</b>		

### Approvals terminal enclosures

ATEX certificate	IBExU13ATEX1004 X		
ATEX marking	⊕ II 2G Ex e IIC T6...T5 Gb or ⊕ II 2G Ex eb IIC T6...T5 ⊕ II 1G Ex ia IIC T6...T5 Ga or ⊕ II 1G Ex ia IIC T6...T5 ⊕ II 2(1)G Ex e ia IIC T6...T5 Gb or ⊕ II 2(1)G Ex eb ia IIC T6...T5 ⊕ II 2D Ex tb IIIC T 85 °C...100 °C Db or ⊕ II 2D Ex tb IIIC T 85 °C...100 °C		
IECEx certificate	IECEx IBE 13.0004X		
IECEx marking	Ex e IIC T6...T5 Gb or Ex eb IIC T6...T5 Ex ia IIC T6...T5 Ga or Ex ia IIC T6...T5 Ex e ia IIC T6...T5 Gb or Ex eb ia IIC T6...T5 Ex tb IIIC T 85 °C...100 °C Db or Ex tb IIIC T 85 °C...100 °C		
EAC certificate	RUC-DE.08.B.01328	AEx certificate	E223792
EAC marking	II 2 G Ex eb IIC T6/T5 II 2 G Ex e IIC T6/T5 Gb II 1 G Ex ia IIC T6/T5 II 1 G Ex ia IIC T6/T5 Ga II 2(1) G Ex eb ia IIC T6/T5 II 2(1) G Ex e ia IIC T6/T5 Gb II 2 D Ex tb IIIC T 85 °C...100 °C II 2 D Ex tb IIIC T 85 °C...100 °C Db	AEx marking	Class I, Zone 1, AEx e IIC Gb T6..T4 Class I, Zone 2, AEx e IIC Gc T6..T4 Class I Div.2 Group A,B,C,D T6...T4 Class II Div.2 Group F,G Zone 21, AEx tb IIIC Db
KOSHA certificate	16-AV4B0-246X		
KOSHA marking	Ex e IIC T6...T5 Gb or Ex eb IIC T6...T5 Ex ia IIC T6...T5 Ga or Ex ia IIC T6...T5 Ex e ia IIC T6...T5 Gb or Ex eb ia IIC T6...T5 Ex tb IIIC T 85 °C...100 °C Db or Ex tb IIIC T 85 °C...100 °C		
<b>Note</b>	If you have specific requirements for installations within potentially explosive atmospheres, please contact Weidmüller for a copy of the approval certificates. For details of power dissipation, please contact your Weidmüller representative.		



Height / Width / Depth 75 / 80 / 55 mm

Ordering data

RAL 7001	Standard	Order No.
		1305810000
RAL 9011	Ex enclosure	Order No.
		1306000000

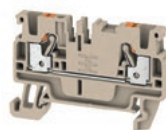
**Note** The overview page lists the ambient temperatures.

Accessories

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	9510570000
Steel sheet, galvanized for applications with earthing plate	1534280000
Fastening screws for mounting plates	0642600000
Mounting rails, TS15x5	Order No.
Horizontally	8000003889
Brass Earth Continuity Plate	Order No.
Brass	1390910000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510900000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

Guide value for max. number of terminals (industry)

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	1x1*	1x5
4 mm <sup>2</sup>	1x1*	1x4
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



**Note** \* Please refer to the Terminal Block catalogue or the SAK Series for more information about assembling the enclosures with terminal blocks. We recommend a maximum of one BK 6, e.g. BK 6 CRN (0625220000), for vertical installation. There are no specified mounting options available for mounting the enclosure in a vertical position.  
Order recommendations:  
TS 35 mounting rail with WDU clamping yoke technology, ZDU spring-cage terminal block or A2C PUSH IN technology  
TS 32 mounting rail with clamping yoke technology SAK  
TS 15 mounting rail with clamping yoke technology AKZ  
Ordering information for the terminal blocks, please refer to the online catalogue.

Guide value for max. number of cable entries

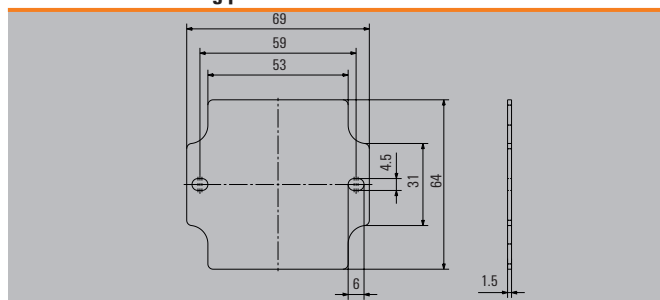
Guide value for max. number of cable entries	A / B	C / D
M12	4	1
M16	2	1
M20	1	1
M25	1	
M32		
M40		
M50		
M63		

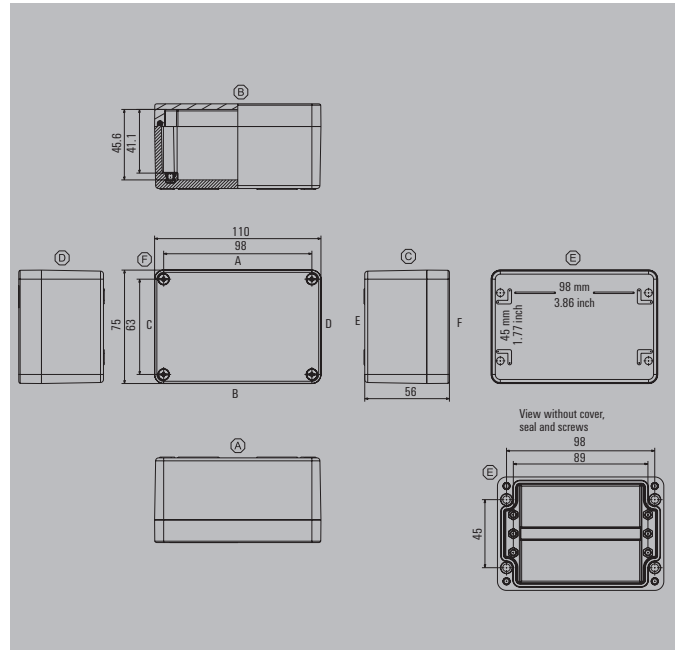


**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Note**

Dimensions of mounting plate





Height / Width / Depth 75 / 110 / 56 mm

**Ordering data**

RAL 7001	Standard	Order No.
		1305820000
RAL 9011	Ex enclosure	Order No.
		1306010000
Note	The overview page lists the ambient temperatures.	

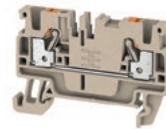
**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	9510580000
Steel sheet, galvanized for applications with earthing plate	1534290000
Fastening screws for mounting plates	0642600000
Mounting rails, TS15x5	Order No.
Horizontally	8000003890
Brass Earth Continuity Plate	Order No.
Brass	1390920000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510900000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

**Note**

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	1x1*	1x10
4 mm <sup>2</sup>	1x1*	1x9
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



**Note** \* Please refer to the Terminal Block catalogue or the SAK Series for more information about assembling the enclosures with terminal blocks. We recommend a maximum of one BK 6, e.g. BK 6 CRN (0625220000), for vertical installation. There are no specified mounting options available for mounting the enclosure in a vertical position.  
Order recommendations:  
TS 35 mounting rail with WDU clamping yoke technology, ZDU spring-cage terminal block or A2C PUSH IN technology  
TS 32 mounting rail with clamping yoke technology SAK  
TS 15 mounting rail with clamping yoke technology AKZ  
Ordering information for the terminal blocks, please refer to the online catalogue.

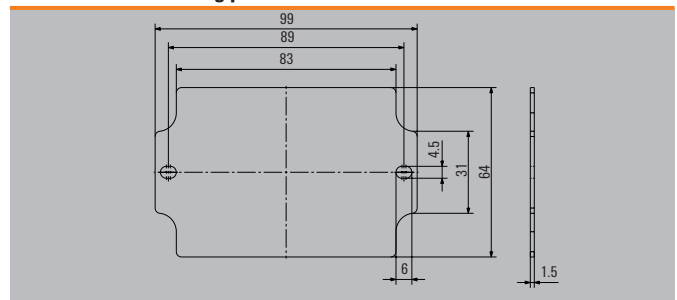
**Guide value for max. number of cable entries**

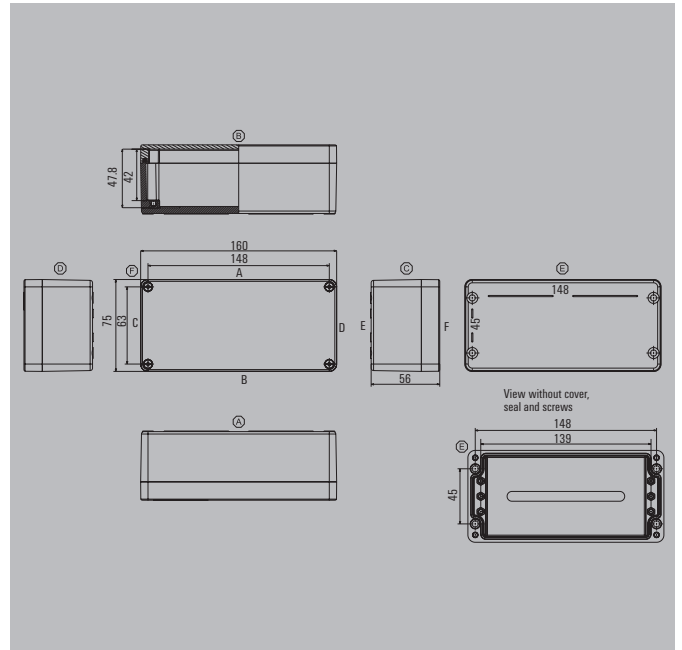
Guide value for max. number of cable entries	A / B	C / D
M12	7	1
M16	3	1
M20	2	1
M25	2	
M32		
M40		
M50		
M63		



**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**





Height / Width / Depth 75 / 160 / 56 mm

**Ordering data**

RAL 7001	Standard	Order No.
		1305830000
RAL 9011	Ex enclosure	Order No.
		1306020000

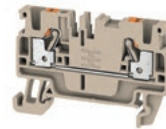
**Note** The overview page lists the ambient temperatures.

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	9510680000
Steel sheet, galvanized for applications with earthing plate	1534310000
Fastening screws for mounting plates	0642600000
Mounting rails, TS15x5	Order No.
Horizontally	8000003891
Brass Earth Continuity Plate	Order No.
Brass	1390930000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510900000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x20
4 mm <sup>2</sup>	*	1x17
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



**Note** \* Please refer to the Terminal Block catalogue or the SAK Series for more information about assembling the enclosures with terminal blocks. We recommend a maximum of one BK 6, e.g. BK 6 CRN (0625220000), for vertical installation. There are no specified mounting options available for mounting the enclosure in a vertical position.  
 Order recommendations:  
 TS 35 mounting rail with WDU clamping yoke technology, ZDU spring-cage terminal block or A2C PUSH IN technology  
 TS 32 mounting rail with clamping yoke technology SAK  
 TS 15 mounting rail with clamping yoke technology AKZ  
 Ordering information for the terminal blocks, please refer to the online catalogue.

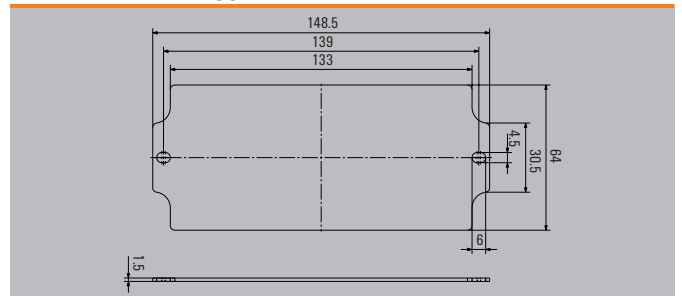
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	11	1
M16	5	1
M20	4	1
M25	3	
M32		
M40		
M50		
M63		



**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

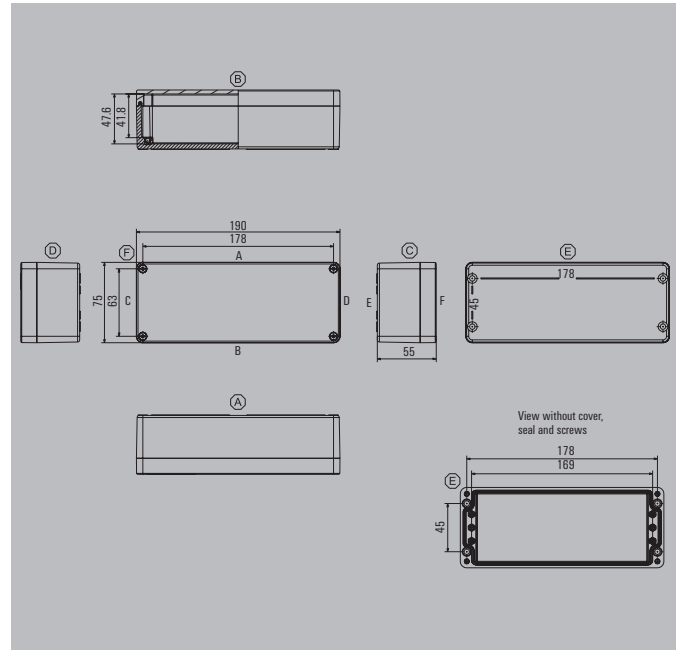
**Dimensions of mounting plate**



**Note**

Klippon® POK 081906

Depth 55 mm



Height / Width / Depth 75 / 190 / 55 mm

**Ordering data**

RAL 7001	Standard	Order No.
		1305840000
RAL 9011	Ex enclosure	Order No.
		1306030000

**Note** The overview page lists the ambient temperatures.

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	9510690000
Steel sheet, galvanized for applications with earthing plate	1534320000
Fastening screws for mounting plates	0642600000
Mounting rails, TS15x5	Order No.
Horizontally	8000003892
Brass Earth Continuity Plate	Order No.
Brass	1390940000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510900000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x26
4 mm <sup>2</sup>	*	1x22
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



**Note** \* Please refer to the Terminal Block catalogue or the SAK Series for more information about assembling the enclosures with terminal blocks. We recommend a maximum of one BK 6, e.g. BK 6 CRN (0625220000), for vertical installation. There are no specified mounting options available for mounting the enclosure in a vertical position.  
 Order recommendations:  
 TS 35 mounting rail with WDU clamping yoke technology, ZDU spring-cage terminal block or A2C PUSH IN technology  
 TS 32 mounting rail with clamping yoke technology SAK  
 TS 15 mounting rail with clamping yoke technology AKZ  
 Ordering information for the terminal blocks, please refer to the online catalogue.

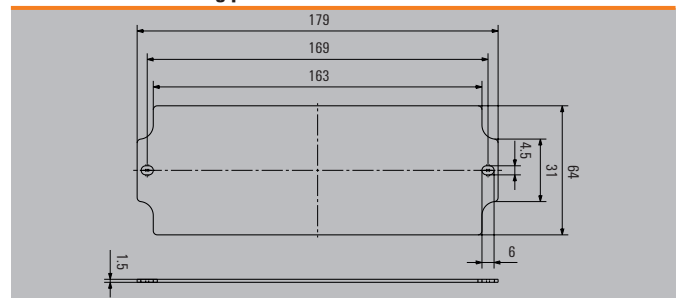
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	14	1
M16	6	1
M20	5	1
M25	4	
M32		
M40		
M50		
M63		

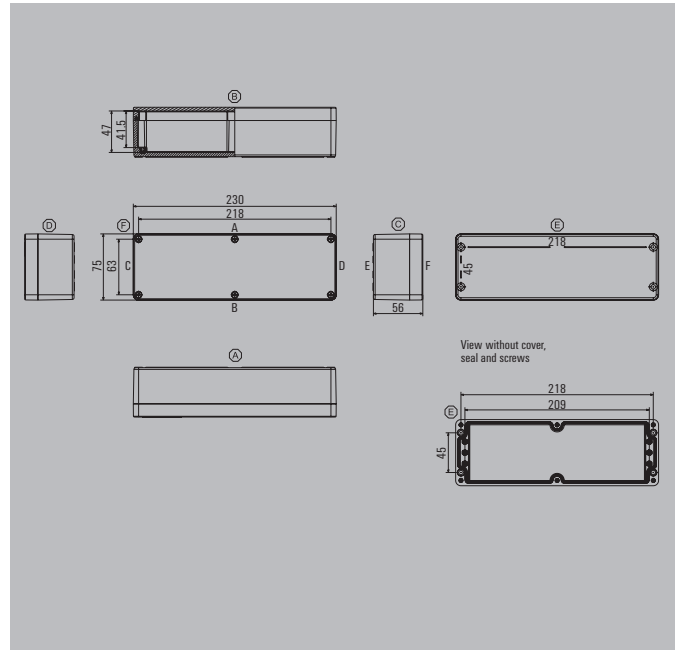


**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note**



Height / Width / Depth 75 / 230 / 56 mm

**Ordering data**

RAL 7001	Standard	Order No.
		1305850000
RAL 9011	Ex enclosure	Order No.
		1306040000

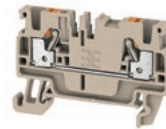
**Note** The overview page lists the ambient temperatures.

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, galvanized for applications with earthing plate	1534330000
Fastening screws for mounting plates	0642600000
Mounting rails, TS15x5	Order No.
Horizontally	8000032382
Brass Earth Continuity Plate	Order No.
Brass	1390950000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510900000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x33
4 mm <sup>2</sup>	*	1x28
6 mm <sup>2</sup>		
10 mm <sup>2</sup>		
16 mm <sup>2</sup>		



**Note** \* Please refer to the Terminal Block catalogue or the SAK Series for more information about assembling the enclosures with terminal blocks. We recommend a maximum of one BK 6, e.g. BK 6 CRN (0625220000), for vertical installation. There are no specified mounting options available for mounting the enclosure in a vertical position.  
 Order recommendations:  
 TS 35 mounting rail with WDU clamping yoke technology, ZDU spring-cage terminal block or A2C PUSH IN technology  
 TS 32 mounting rail with clamping yoke technology SAK  
 TS 15 mounting rail with clamping yoke technology AKZ  
 Ordering information for the terminal blocks, please refer to the online catalogue.

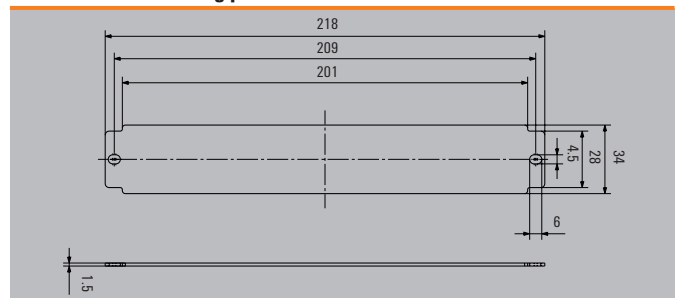
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	16	1
M16	6	1
M20	6	1
M25	4	
M32		
M40		
M50		
M63		

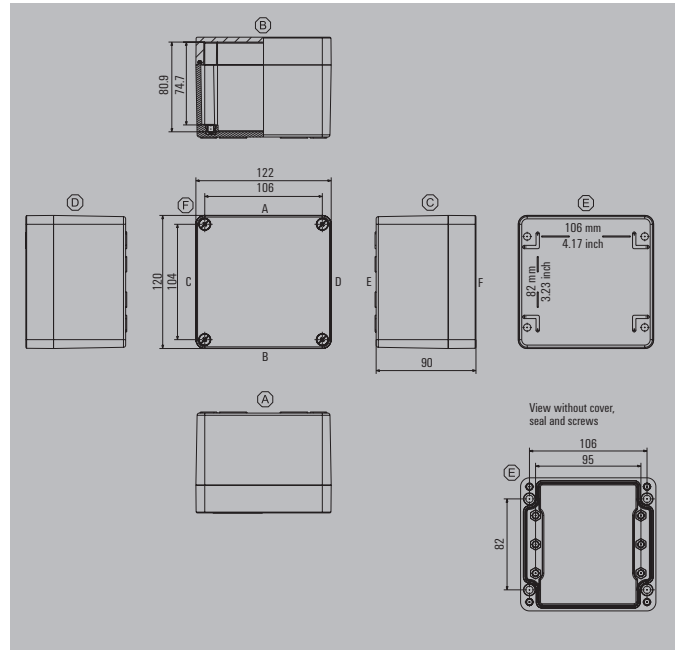


**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note**



Height / Width / Depth 120 / 122 / 90 mm

**Ordering data**

RAL 7001	Standard	Order No.
		<b>1305870000</b>
RAL 9011	Ex enclosure	Order No.
		<b>1306050000</b>

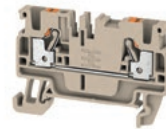
**Note** The overview page lists the ambient temperatures.

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	<b>9510590000</b>
Steel sheet, galvanized for applications with earthing plate	<b>1534340000</b>
Fastening screws for mounting plates	<b>0642600000</b>
Mounting rails, TS15x5	Order No.
Horizontally	<b>8000003890</b>
Brass Earth Continuity Plate	Order No.
Brass	<b>1390970000</b>
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	<b>9510910000</b>
Earthing stud	Order No.
Brass, M10	<b>1277220000</b>
Stainless steel 1.4404, M10	<b>1283440000</b>
Brass, M6	<b>1277250000</b>
Stainless steel 1.4404, M6	<b>1283430000</b>
Pressure compensation elements	Order No.
Polyamide 6, M12	<b>1868570000</b>
Stainless steel 1.4305, M12	<b>1868550000</b>
Stainless steel 1.4404, M20 for Ex applications	<b>2519570000</b>

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x12
4 mm <sup>2</sup>	*	1x10
6 mm <sup>2</sup>		1x7
10 mm <sup>2</sup>		1x6
16 mm <sup>2</sup>		1x5



**Note** The assembly with terminal rails is designed for direct mounting. The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Recommendations for ordering: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal block ZDU or PUSH IN technology AZC TS 32 Mounting rail with clamping yoke technology SAK TS 15 Mounting rail with clamping yoke technology AKZ Order information for rail-mounted terminal blocks, please refer to the online catalogue \*There are no specified mounting options available for vertical mounting in the enclosure.

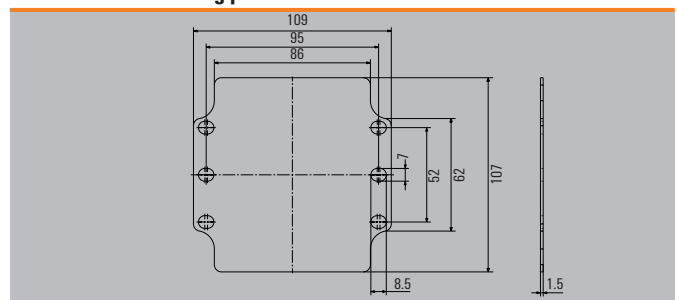
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	12	8
M16	6	4
M20	4	3
M25	2	1
M32	1	1
M40		
M50		
M63		

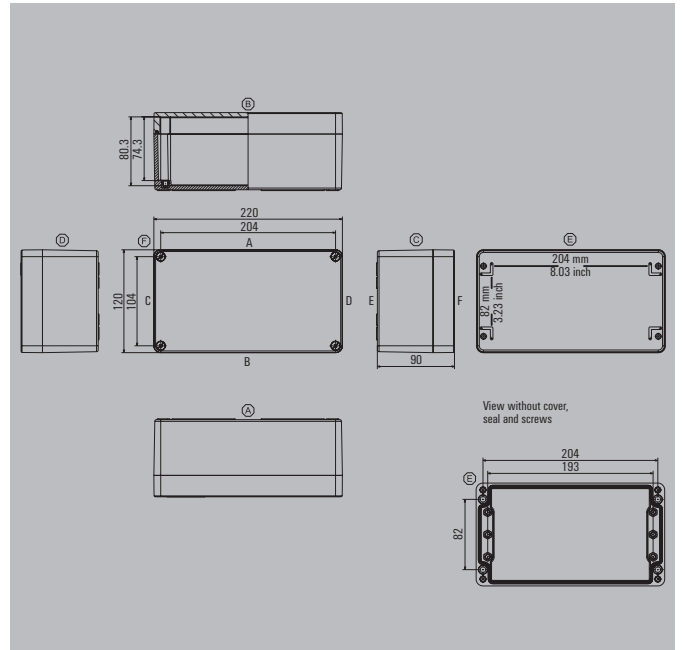


**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note**



Height / Width / Depth 120 / 220 / 90 mm

**Ordering data**

RAL 7001	Standard	Order No.
		1305880000
RAL 9011	Ex enclosure	Order No.
		1306070000
<b>Note</b>	The overview page lists the ambient temperatures.	

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	9510600000
Steel sheet, galvanized for applications with earthing plate	1534350000
Fastening screws for mounting plates	0642600000
Mounting rails, TS35x7.5	Order No.
Horizontally	8000037568
Brass Earth Continuity Plate	Order No.
Brass	1390980000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510910000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x31
4 mm <sup>2</sup>	*	1x26
6 mm <sup>2</sup>		1x19
10 mm <sup>2</sup>		1x15
16 mm <sup>2</sup>		1x13

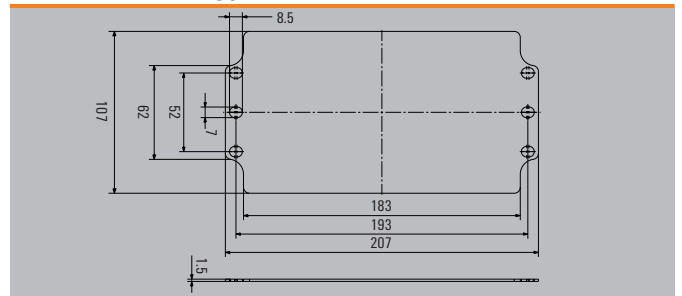
**Note**  
 The assembly with terminal rails is designed for direct mounting. The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail.  
 Recommendations for ordering:  
 TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC  
 Order information for rail-mounted terminal blocks, please refer to the online catalogue  
 \*There are no specified mounting options available for vertical mounting in the enclosure.

**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	24	8
M16	14	4
M20	12	3
M25	5	1
M32	4	1
M40	3	
M50		
M63		

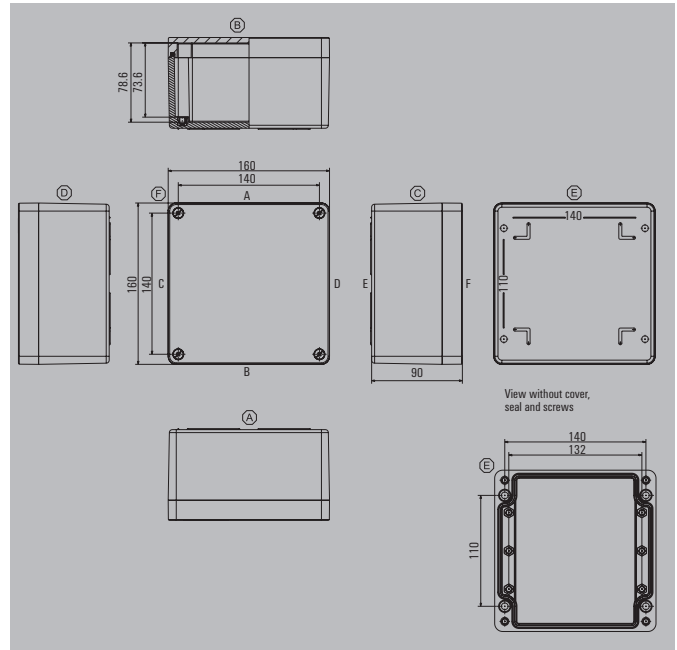
**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note**





Height / Width / Depth 160 / 160 / 90 mm

**Ordering data**

RAL 7001	Standard	Order No.
		1305890000
RAL 9011	Ex enclosure	Order No.
		1306080000

**Note** The overview page lists the ambient temperatures.

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	9510610000
Steel sheet, galvanized for applications with earthing plate	1534360000
Fastening screws for mounting plates	0642600000
Mounting rails, TS35x7.5	Order No.
Horizontally	8000003908
Brass Earth Continuity Plate	Order No.
Brass	1390990000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510910000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x17
4 mm <sup>2</sup>	*	1x14
6 mm <sup>2</sup>		1x11
10 mm <sup>2</sup>		1x9
16 mm <sup>2</sup>		1x7



**Note** The assembly with terminal rails is designed for direct mounting. The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Recommendations for ordering: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC. Order information for rail-mounted terminal blocks, please refer to the online catalogue. \*There are no specified mounting options available for vertical mounting in the enclosure.

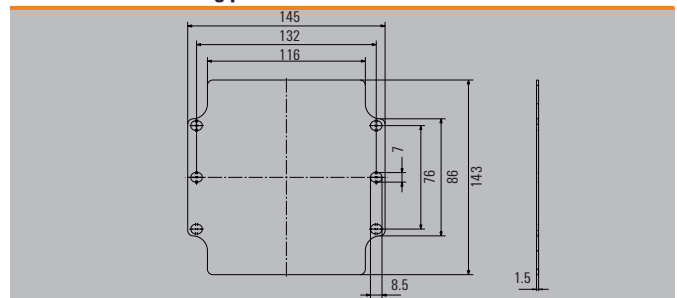
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	15	11
M16	12	6
M20	6	4
M25	3	2
M32	2	2
M40	2	1
M50		
M63		

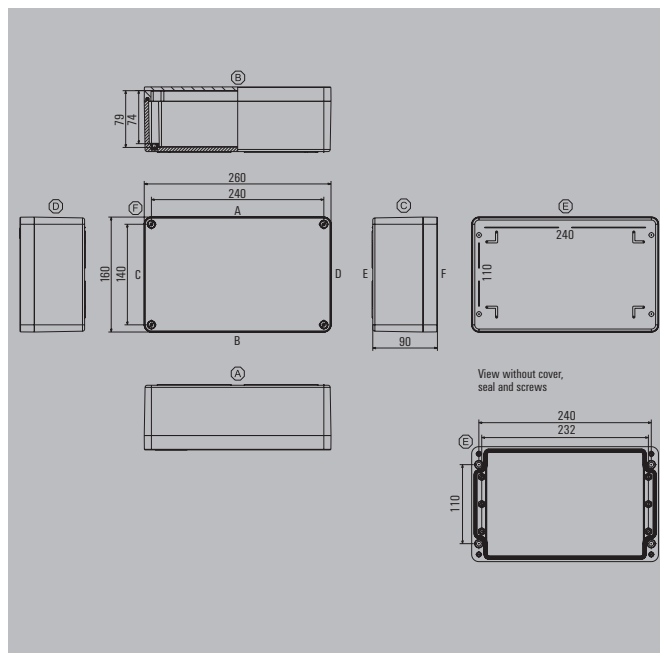


**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note**



Height / Width / Depth 160 / 260 / 90 mm

**Ordering data**

RAL 7001	Standard	Order No.
		1305900000
RAL 9011	Ex enclosure	Order No.
		1306090000

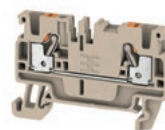
**Note** The overview page lists the ambient temperatures.

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	9510620000
Steel sheet, galvanized for applications with earthing plate	1534370000
Fastening screws for mounting plates	0642600000
Mounting rails, TS35x7.5	Order No.
Horizontally	8000003909
Brass Earth Continuity Plate	Order No.
Brass	1391000000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510910000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x36
4 mm <sup>2</sup>	*	1x30
6 mm <sup>2</sup>		1x23
10 mm <sup>2</sup>		1x16
16 mm <sup>2</sup>		1x16



**Note** The assembly with terminal rails is designed for direct mounting. The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Recommendations for ordering: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC. Order information for rail-mounted terminal blocks, please refer to the online catalogue. \*There are no specified mounting options available for vertical mounting in the enclosure.

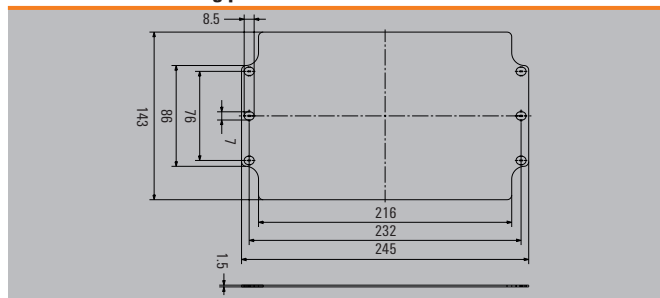
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	30	11
M16	24	6
M20	14	4
M25	5	2
M32	4	2
M40	3	1
M50		
M63		

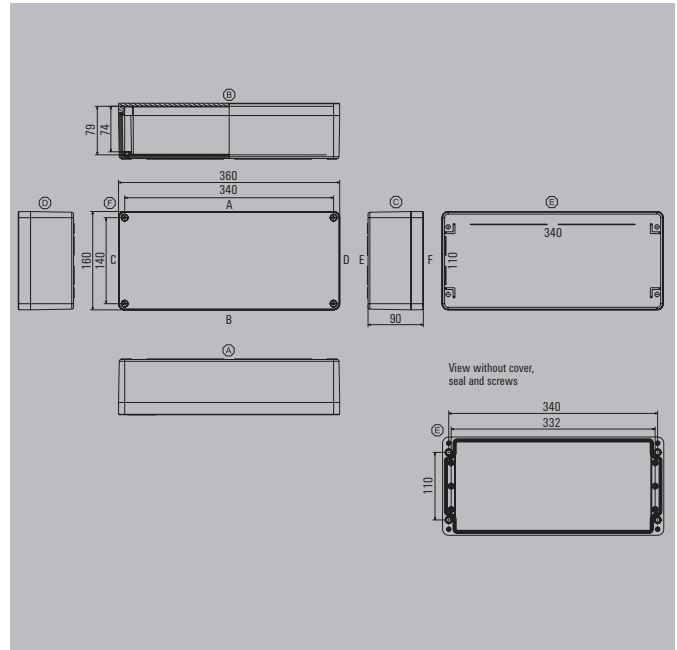


**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note**



Height / Width / Depth 160 / 360 / 90 mm

**Ordering data**

RAL 7001	Standard	Order No.
		<b>1305910000</b>
RAL 9011	Ex enclosure	Order No.
		<b>1306100000</b>

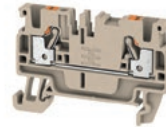
**Note** The overview page lists the ambient temperatures.

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	<b>9510630000</b>
Steel sheet, galvanized for applications with earthing plate	<b>1534380000</b>
Fastening screws for mounting plates	<b>0642600000</b>
Mounting rails, TS35x7.5	Order No.
Horizontally	<b>8000003910</b>
Brass Earth Continuity Plate	Order No.
Brass	<b>1391010000</b>
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	<b>9510910000</b>
Earthing stud	Order No.
Brass, M10	<b>1277220000</b>
Stainless steel 1.4404, M10	<b>1283440000</b>
Brass, M6	<b>1277250000</b>
Stainless steel 1.4404, M6	<b>1283430000</b>
Pressure compensation elements	Order No.
Polyamide 6, M12	<b>1868570000</b>
Stainless steel 1.4305, M12	<b>1868550000</b>
Stainless steel 1.4404, M20 for Ex applications	<b>2519570000</b>

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x56
4 mm <sup>2</sup>	*	1x47
6 mm <sup>2</sup>		1x36
10 mm <sup>2</sup>		1x29
16 mm <sup>2</sup>		1x24



**Note**

The assembly with terminal rails is designed for direct mounting. The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Recommendations for ordering: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC. Order information for rail-mounted terminal blocks, please refer to the online catalogue. \*There are no specified mounting options available for vertical mounting in the enclosure.

**Guide value for max. number of cable entries**

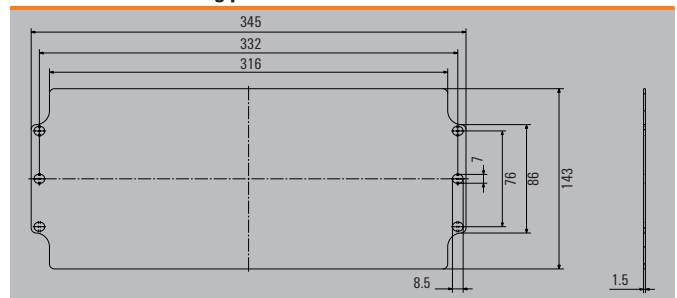
Guide value for max. number of cable entries	A / B	C / D
M12	45	11
M16	36	6
M20	20	4
M25	8	2
M32	6	2
M40	5	1
M50		
M63		



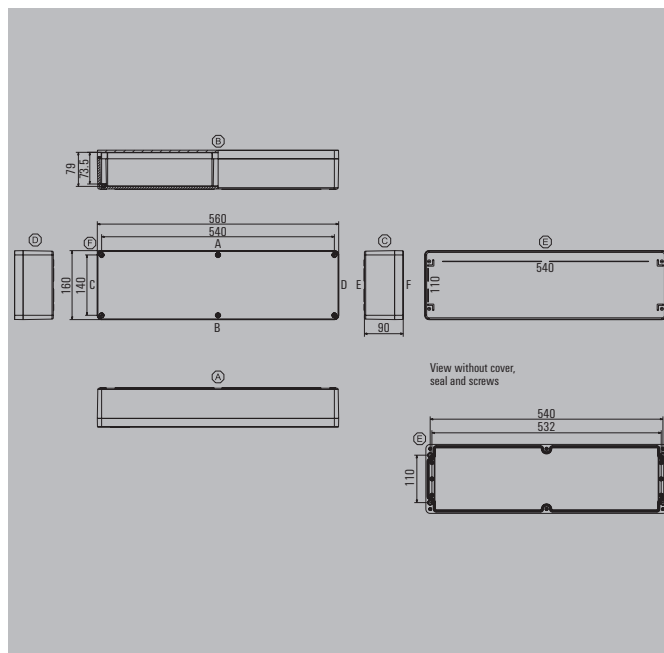
**Note**

\*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note**



Height / Width / Depth 160 / 560 / 90 mm

**Ordering data**

RAL 7001	Standard	Order No.
		1305920000
RAL 9011	Ex enclosure	Order No.
		1306110000

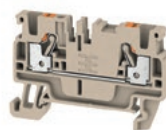
**Note** The overview page lists the ambient temperatures.

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	9510710000
Steel sheet, galvanized for applications with earthing plate	1534390000
Fastening screws for mounting plates	0642600000
Mounting rails, TS35x7.5	Order No.
Horizontally	8000003911
Brass Earth Continuity Plate	Order No.
Brass	1391020000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510910000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	1x94
4 mm <sup>2</sup>	*	1x79
6 mm <sup>2</sup>		1x60
10 mm <sup>2</sup>		1x49
16 mm <sup>2</sup>		1x41



**Note** The assembly with terminal rails is designed for direct mounting. The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Recommendations for ordering: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC. Order information for rail-mounted terminal blocks, please refer to the online catalogue. \*There are no specified mounting options available for vertical mounting in the enclosure.

**Guide value for max. number of cable entries**

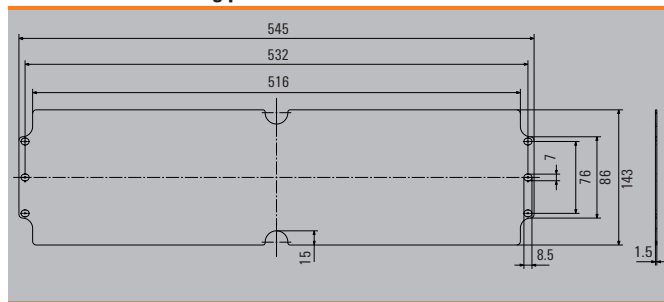
Guide value for max. number of cable entries	A / B	C / D
M12	66	11
M16	58	6
M20	32	4
M25	12	2
M32	10	2
M40	8	1
M50		
M63		

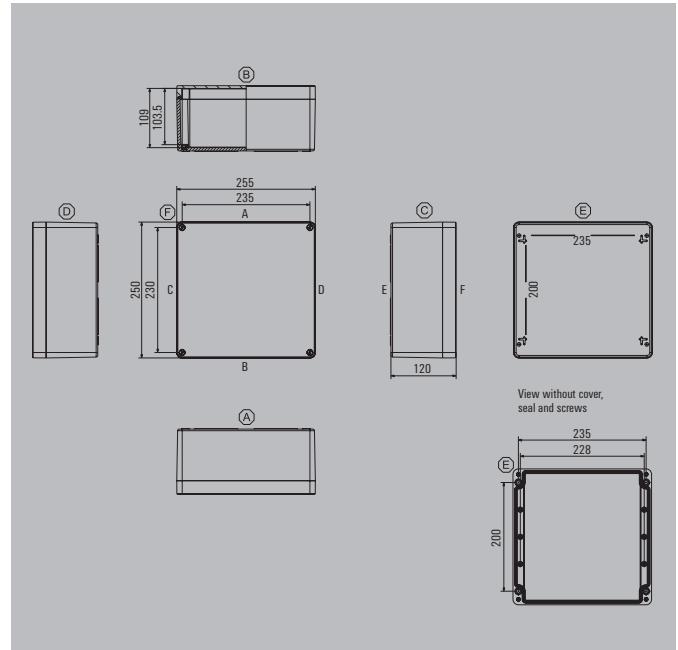


**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Note**

**Dimensions of mounting plate**





Height / Width / Depth 250 / 255 / 120 mm

**Ordering data**

RAL 7001	Standard	Order No.
		1305930000
RAL 9011	Ex enclosure	Order No.
		1306120000

**Note** The overview page lists the ambient temperatures.

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	9510640000
Steel sheet, galvanized for applications with earthing plate	1534410000
Fastening screws for mounting plates	0642600000
Mounting rails, TS35x7.5	Order No.
Horizontally	8000003912
Brass Earth Continuity Plate	Order No.
Brass	1391030000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510910000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	2x38
4 mm <sup>2</sup>	*	2x31
6 mm <sup>2</sup>		2x23
10 mm <sup>2</sup>		2x19
16 mm <sup>2</sup>		2x15



**Note** The assembly with terminal rails is designed for direct mounting. The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Recommendations for ordering: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC. Order information for rail-mounted terminal blocks, please refer to the online catalogue. \*There are no specified mounting options available for vertical mounting in the enclosure.

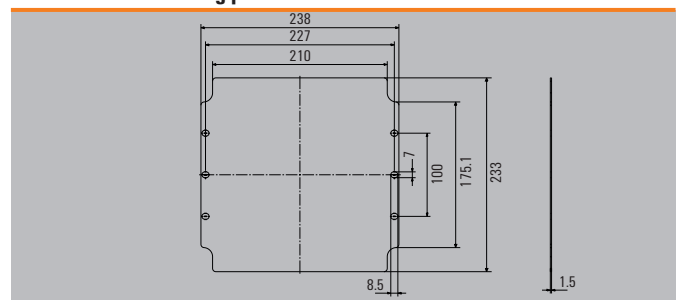
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	36	32
M16	32	21
M20	10	15
M25	10	8
M32	8	3
M40	3	3
M50	2	2
M63		

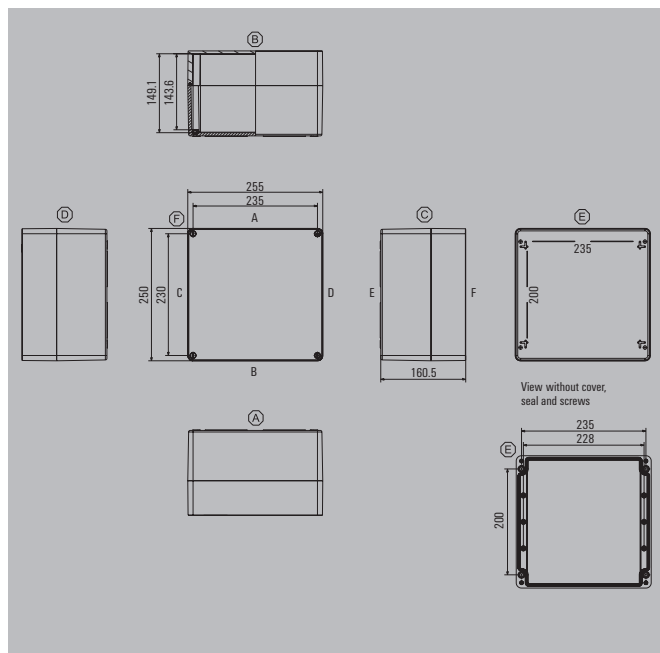


**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note**



Height / Width / Depth 250 / 255 / 160.5 mm

**Ordering data**

RAL 7001	Standard	Order No.
		1305980000
RAL 9011	Ex enclosure	Order No.
		1306170000

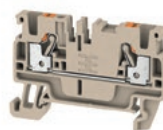
**Note** The overview page lists the ambient temperatures.

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	9510640000
Steel sheet, galvanized for applications with earthing plate	1534410000
Fastening screws for mounting plates	0642600000
Mounting rails, TS35x7.5	Order No.
Horizontally	8000003912
Brass Earth Continuity Plate	Order No.
Brass	1391030000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510910000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	2x38
4 mm <sup>2</sup>	*	2x31
6 mm <sup>2</sup>		2x23
10 mm <sup>2</sup>		2x19
16 mm <sup>2</sup>		2x15



**Note** The assembly with terminal rails is designed for direct mounting. The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Recommendations for ordering: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC. Order information for rail-mounted terminal blocks, please refer to the online catalogue. \*There are no specified mounting options available for vertical mounting in the enclosure.

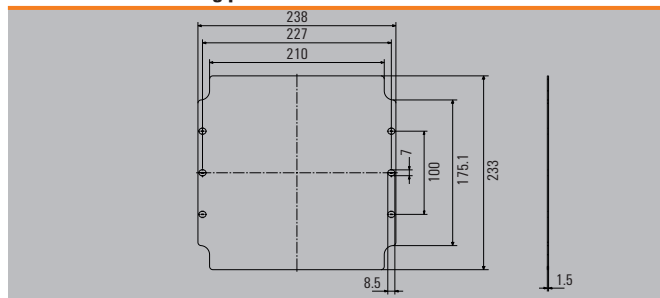
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	36	32
M16	32	21
M20	18	15
M25	10	8
M32	8	3
M40	3	3
M50	2	2
M63		



**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

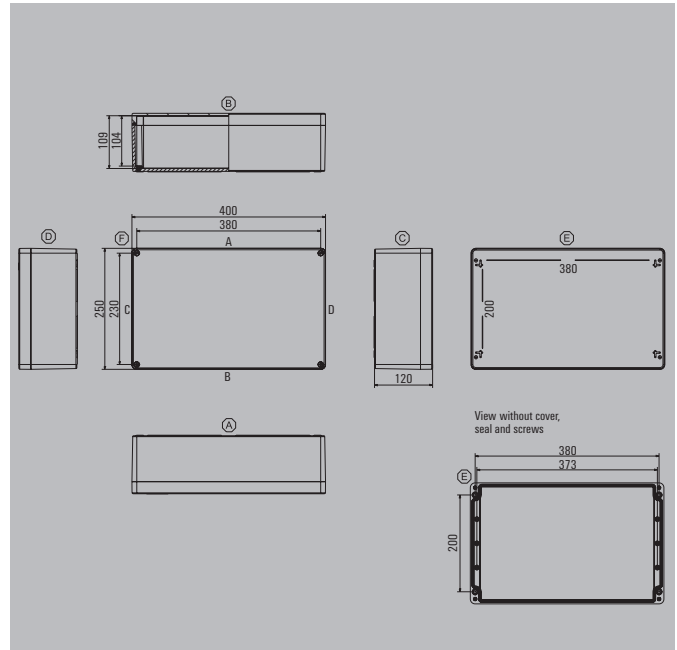
**Dimensions of mounting plate**



**Note**

Klippon® POK 254012

Depth 120 mm



Height / Width / Depth 250 / 400 / 120 mm

**Ordering data**

RAL 7001	Standard	Order No.
		1305940000
RAL 9011	Ex enclosure	Order No.
		1306130000

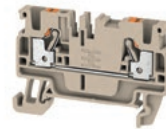
**Note** The overview page lists the ambient temperatures.

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	9510650000
Steel sheet, galvanized for applications with earthing plate	1534420000
Fastening screws for mounting plates	0642600000
Mounting rails, TS35x7.5	Order No.
Horizontally	8000003913
Brass Earth Continuity Plate	Order No.
Brass	1391040000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510910000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	2x67
4 mm <sup>2</sup>	*	2x55
6 mm <sup>2</sup>		2x41
10 mm <sup>2</sup>		2x33
16 mm <sup>2</sup>		2x27



**Note** The assembly with terminal rails is designed for direct mounting. The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Recommendations for ordering: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC. Order information for rail-mounted terminal blocks, please refer to the online catalogue. \*There are no specified mounting options available for vertical mounting in the enclosure.

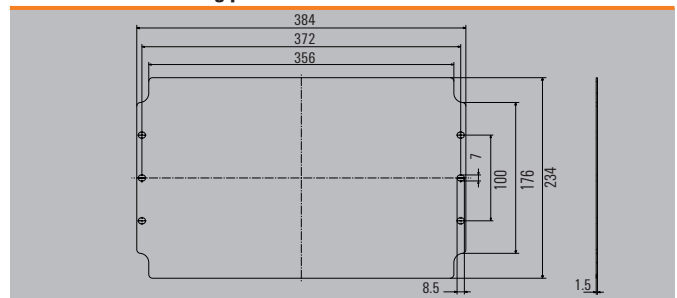
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	62	32
M16	54	21
M20	33	15
M25	18	8
M32	14	3
M40	6	3
M50	4	2
M63		

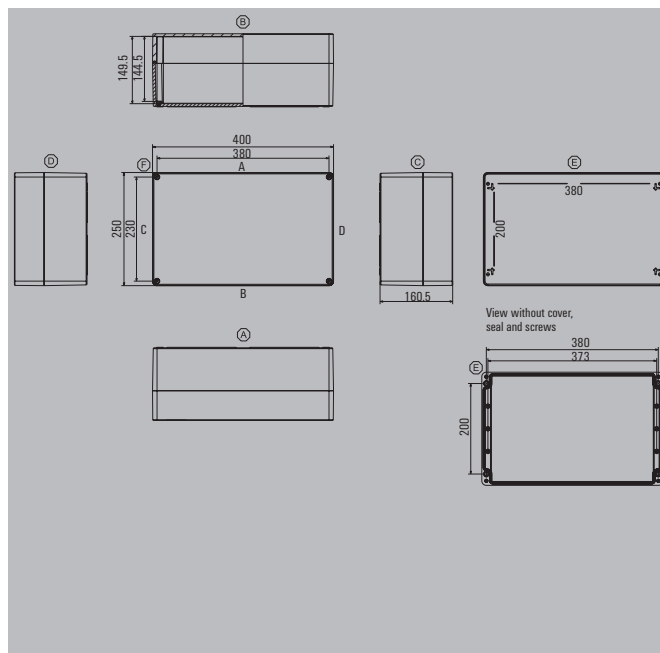


**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note**



Height / Width / Depth 250 / 400 / 160.5 mm

**Ordering data**

RAL 7001	Standard	Order No.
		1305990000
RAL 9011	Ex enclosure	Order No.
		1306180000

**Note** The overview page lists the ambient temperatures.

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	9510650000
Steel sheet, galvanized for applications with earthing plate	1534420000
Fastening screws for mounting plates	0642600000
Mounting rails, TS35x7.5	Order No.
Horizontally	8000003913
Brass Earth Continuity Plate	Order No.
Brass	1391040000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510910000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	2x67
4 mm <sup>2</sup>	*	2x55
6 mm <sup>2</sup>		2x41
10 mm <sup>2</sup>		2x33
16 mm <sup>2</sup>		2x27



**Note** The assembly with terminal rails is designed for direct mounting. The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Recommendations for ordering: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC. Order information for rail-mounted terminal blocks, please refer to the online catalogue. \*There are no specified mounting options available for vertical mounting in the enclosure.

**Guide value for max. number of cable entries**

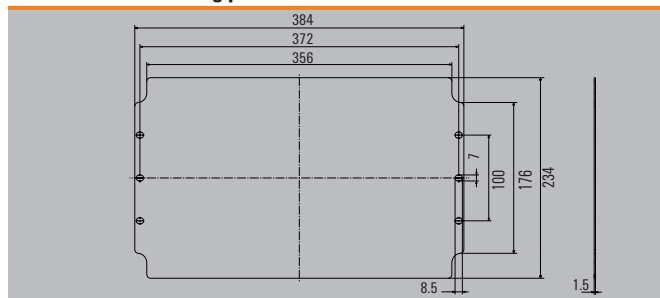
Guide value for max. number of cable entries	A / B	C / D
M12	62	32
M16	54	21
M20	33	15
M25	18	8
M32	14	3
M40	6	3
M50	4	2
M63		



**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Note**

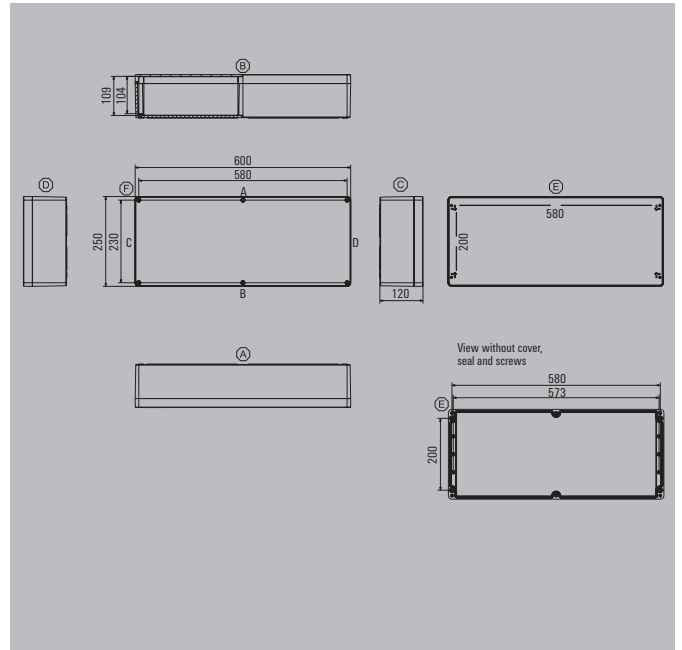
**Dimensions of mounting plate**





Klippon® POK 256012

Depth 120 mm



Height / Width / Depth 250 / 600 / 120 mm

**Ordering data**

RAL 7001	Standard	Order No.
		1305950000
RAL 9011	Ex enclosure	Order No.
		1306140000

**Note** The overview page lists the ambient temperatures.

**Accessories**

Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	9510660000
Steel sheet, galvanized for applications with earthing plate	1534430000
Fastening screws for mounting plates	0642600000
Mounting rails, TS35x7.5	Order No.
Horizontally	8000003914
Brass Earth Continuity Plate	Order No.
Brass	1391050000
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	9510910000
Earthing stud	Order No.
Brass, M10	1277220000
Stainless steel 1.4404, M10	1283440000
Brass, M6	1277250000
Stainless steel 1.4404, M6	1283430000
Pressure compensation elements	Order No.
Polyamide 6, M12	1868570000
Stainless steel 1.4305, M12	1868550000
Stainless steel 1.4404, M20 for Ex applications	2519570000

**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	2x107
4 mm <sup>2</sup>	*	2x89
6 mm <sup>2</sup>		2x66
10 mm <sup>2</sup>		2x53
16 mm <sup>2</sup>		2x44



**Note** The assembly with terminal rails is designed for direct mounting. The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC. Order information for rail-mounted terminal blocks, please refer to the online catalogue. \*There are no specified mounting options available for vertical mounting in the enclosure.

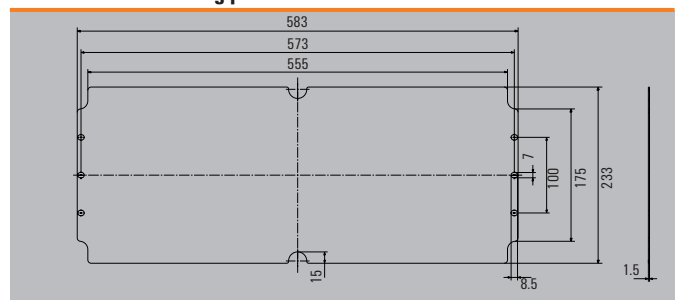
**Guide value for max. number of cable entries**

Guide value for max. number of cable entries	A / B	C / D
M12	96	32
M16	80	21
M20	24	15
M25	20	8
M32	20	3
M40	8	3
M50	6	2
M63		



**Note** \*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**



**Note**



405 / 400 / 120 mm

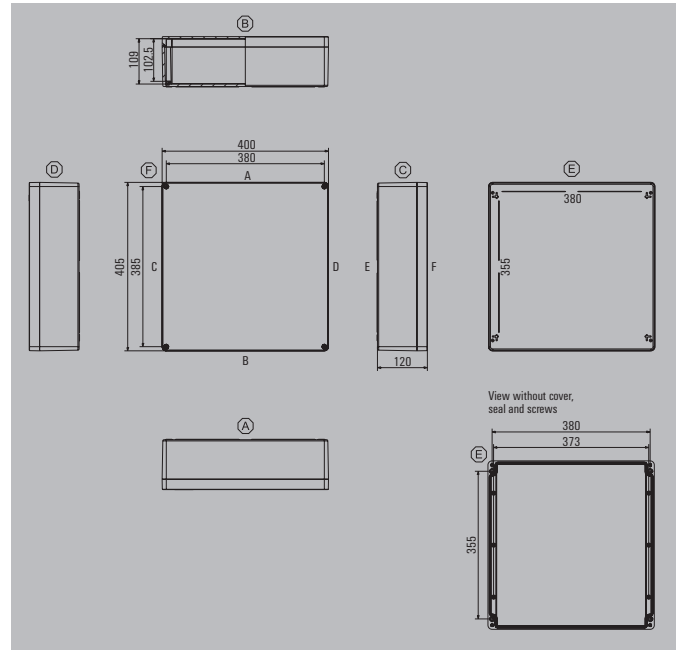
**Ordering data**

RAL 7001	Standard	Order No.
		<b>1305970000</b>
RAL 9011	Ex enclosure	Order No.
		<b>1306150000</b>
Note	The overview page lists the ambient temperatures.	

**Accessories**

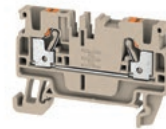
Mounting plates and fastening screws	Order No.
Steel sheet, zinc plated	<b>9510670000</b>
Steel sheet, galvanized for applications with earthing plate	<b>1534440000</b>
Fastening screws for mounting plates	<b>0642600000</b>
Mounting rails, TS35x7.5	Order No.
Horizontally	<b>8000003913</b>
Brass Earth Continuity Plate	Order No.
Brass	<b>1391070000</b>
External mounting feet, set of 4	Order No.
Stainless steel 1.4301 natural	<b>9510910000</b>
Earthing stud	Order No.
Brass, M10	<b>1277220000</b>
Stainless steel 1.4404, M10	<b>1283440000</b>
Brass, M6	<b>1277250000</b>
Stainless steel 1.4404, M6	<b>1283430000</b>
Pressure compensation elements	Order No.
Polyamide 6, M12	<b>1868570000</b>
Stainless steel 1.4305, M12	<b>1868550000</b>
Stainless steel 1.4404, M20 for Ex applications	<b>2519570000</b>

Note



**Guide value for max. number of terminals (industry)**

Assembly with terminal	vertical	horizontal
2.5 mm <sup>2</sup>	*	3x67
4 mm <sup>2</sup>	*	3x55
6 mm <sup>2</sup>		3x41
10 mm <sup>2</sup>		3x33
16 mm <sup>2</sup>		3x27



**Note**

The assembly with terminal rails is designed for direct mounting. The assembly with modular terminals gives consideration to a distance of 10 mm from the end of each mounting rail. Recommendations for ordering: TS 35 Mounting rail with clamping yoke technology WDU, spring-cage terminal ZDU or PUSH IN technology AZC. Order information for rail-mounted terminal blocks, please refer to the online catalogue. \*There are no specified mounting options available for vertical mounting in the enclosure.

**Guide value for max. number of cable entries**

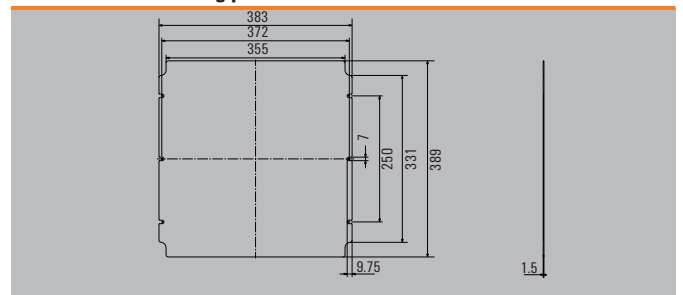
Guide value for max. number of cable entries	A / B	C / D
M12	62	60
M16	54	39
M20	33	30
M25	18	18
M32	14	7
M40	6	5
M50	4	4
M63		



**Note**

\*\* Our IP 68 plastic cable glands are used as the reference for these guideline values.

**Dimensions of mounting plate**










# Klippon® Protect Terminal Boxes – Product overview: Polyester enclosure

Use the product overview to find the right solution for you! Combine your own industrial version consisting of an enclosure, with or without threaded holes, a suitable mounting rail or pre-fitted terminal strips. The compatible components are always shown in a row.

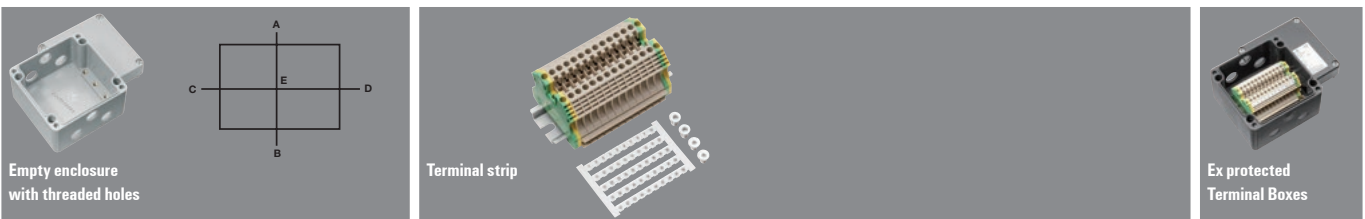
Klippon® Protect offers you approved Terminal Boxes with for use in explosive areas can be found in the last column. They come with threaded holes and are already equipped with a terminal strip.

C

## Polyester enclosure

Dimensions of the enclosure height x width x depth mm	Enclosure type	Empty enclosure without threaded holes		Mounting rail (TS) Mounting plate (MOPL)			Order No.	Qty.
		Order No.	Qty.	Type	Length mm	Rail mounting slot dimensions mm		
<b>Polyester, RAL 7001</b>								
75 x 80 x 55 	Klippon® 080806	1305810000	1	TS 15	68	4.5 x 20	1928060000	1
75 x 110 x 56 	Klippon® 081106	1305820000	1	TS 15	98	4.5 x 20	1928070000	1
75 x 160 x 56 	Klippon® 081606	1305830000	1	TS 15	147	4.5 x 20	1928080000	1
120 x 122 x 90 	Klippon® 121209	1305870000	1	TS 35	105	6.3 x 20	1910070000	1
160 x 160 x 90 	Klippon® 161609	1305890000	1	TS 35	140	6.3 x 20	1910100000	1
		protection class IP 66		suitable for the enclosure of the respective line				

<sup>1)</sup> Multi-pole terminal blocks (block terminals BK 4, BK 6 or BK 12) can be directly fitted  
<sup>2)</sup> Space for further threaded holes up to M32



Threaded hole Side A	Threaded hole Side B	Order No.	Qty.	Connection technology	Cross-section mm <sup>2</sup>	Number of DU*	Number of PE*	Order No.	Qty.	Order No.
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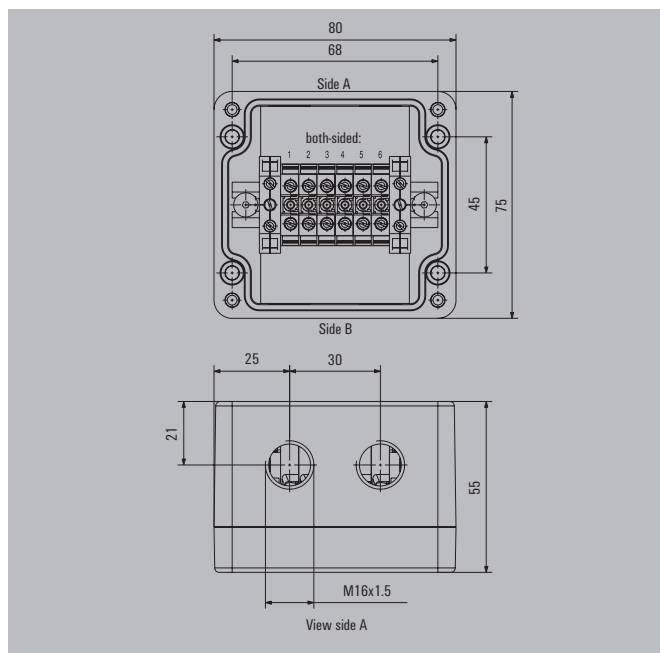
2x M16	2x M16	8000004160	1	Screw connection	4	4	0	8000004365 <sup>1)</sup>	1	8000004222
2x M16	2x M16			Screw connection	4	6	2	8000004144	1	8000004223
2x M20	2x M20	8000004161	1	Screw connection	4	6	0	8000004366 <sup>1)</sup>	1	8000004224
2x M20	2x M20			Screw connection	4	10	2	8000004145	1	8000004225
4x M20	4x M20	8000004162	1	Screw connection	4	12	0	8000004367 <sup>1)</sup>	1	8000004226
4x M20	4x M20			Screw connection	4	18	2	8000004146	1	8000004228
3x M20	3x M20	8000003448	1	Screw connection	4	12	2	8000003444	1	8000003593
3x M20	3x M20								1	8000003594
4x M20	4x M20	8000004164 <sup>2)</sup>	1	Screw connection	4	16	2	8000004142	1	8000004229
4x M20	4x M20			Tension clamp connection	2.5	19	2	8000004143	1	8000004230

suitable for the enclosures of the respective line  
 \*DU = feed-through terminals, PE = PE terminals

Ex enclosure with an external earthing connection, holes and strip terminals in each row



Height / Width / Depth 75 / 80 / 55 mm



Empty enclosure with tapped holes

Drill holes side A	Drill holes side B	Order No.
2 x M16x1.5	2 x M16x1.5	800004160



Note

Accessories

Cable glands	Order No.
VG M16 EXE 5-8 SI7J G4	2722080000
VG M16 EXE 6-10 SI7J G4	2722090000
Stopping plugs	Order No.
VP M16 EX SI 7J	2066720000

Terminal block, suitable for empty enclosure

Type	Type of connection	Conductor can be clamped	Rated cross-section	No. of DU*	No. of PE*	Order No.
BK 4/E	Screw connection	Solid / stranded	0.5...4 mm <sup>2</sup> / 1.5...4 mm <sup>2</sup>	4	0	800004365
		Flexible / flexible with wire-end ferrule	0.5...4 mm <sup>2</sup> / 0.5...4 mm <sup>2</sup>			
AKZ 4	Screw connection	Solid / stranded	0.5...6 mm <sup>2</sup> / 1.5...4 mm <sup>2</sup>	6	2	800004144
		Flexible / flexible with wire-end ferrule	0.5...4 mm <sup>2</sup> / 0.5...2.5 mm <sup>2</sup>			

Note Markers numbered 1-50 (horizontal text) and mounting screws are included in the delivery.  
\*DU = feed-through terminals, PE = PE terminals

Note

Distribution box with ATEX II 2GD T85°C Ex e II T6

Drill holes side A	Drill holes side B	No. of DU*	No. of PE*	Order No.
2 x M16x1.5	2 x M16x1.5	6	2	800004223
2 x M16x1.5	2 x M16x1.5	6	2	800004222

Terminal rail / mounting plate set

Product type	Type	Length	Order No.
Rail	TS15 68 Klippon POK1 CSS	68 mm	1928060000



Note Enclosures are delivered in RAL 9011.  
\*DU = feed-through terminals, PE = PE terminals

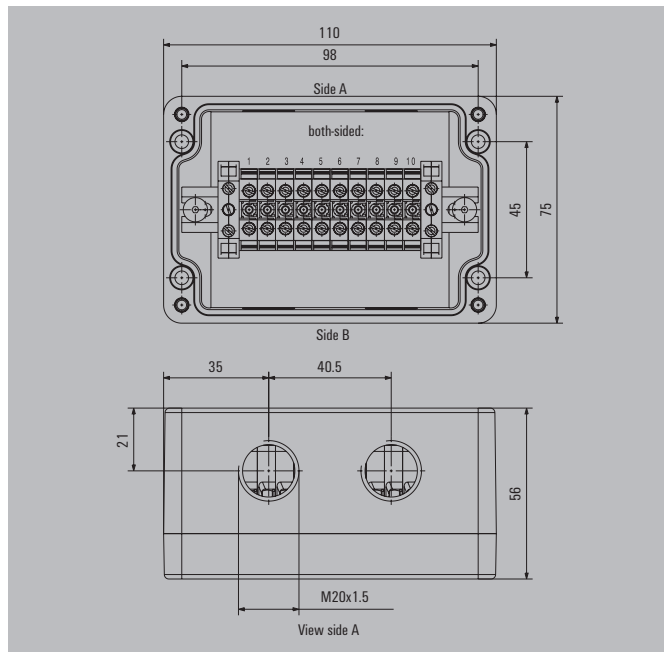
Note

Klippon® POK 081106

56 mm



Height / Width / Depth 75 / 110 / 56 mm



**Empty enclosure with tapped holes**

Drill holes side A	Drill holes side B	Order No.
2 x M20x1.5	2 x M20x1.5	800004161



Note

**Accessories**

Cable glands	Order No.
VG M20 EXE 7-13 SI7J G4	2722110000
VG M20 EXE 11-14 SI7J G4	2722120000
Stopping plugs	Order No.
VP M20 EX SI 7J	2066730000
Gauge rings	Order No.
ADAP EX M20-M16	1737560000

Note

**Terminal block, suitable for empty enclosure**

Type	Type of connection	Conductor can be clamped	Rated cross-section	No. of DU*	No. of PE*	Order No.
BK 6/E	Screw connection	Solid / stranded	0.5...4 mm <sup>2</sup> / 1.5...4 mm <sup>2</sup>	6	0	800004366
		Flexible / flexible with wire-end ferrule	0.5...4 mm <sup>2</sup> / 0.5...4 mm <sup>2</sup>			
AKZ 4	Screw connection	Solid / stranded	0.5...6 mm <sup>2</sup> / 1.5...4 mm <sup>2</sup>	10	2	800004145
		Flexible / flexible with wire-end ferrule	0.5...4 mm <sup>2</sup> / 0.5...2.5 mm <sup>2</sup>			

Note Markers numbered 1-50 (horizontal text) and mounting screws are included in the delivery. \*DU = feed-through terminals, PE = PE terminals

**Distribution box with ATEX II 2GD T85°C Ex e II T6**

Drill holes side A	Drill holes side B	No. of DU*	No. of PE*	Order No.
2 x M20x1.5	2 x M20x1.5	10	2	800004225
2 x M20x1.5	2 x M20x1.5	6	0	800004224



Note Enclosures are delivered in RAL 9011. \*DU = feed-through terminals, PE = PE terminals

**Terminal rail / mounting plate set**

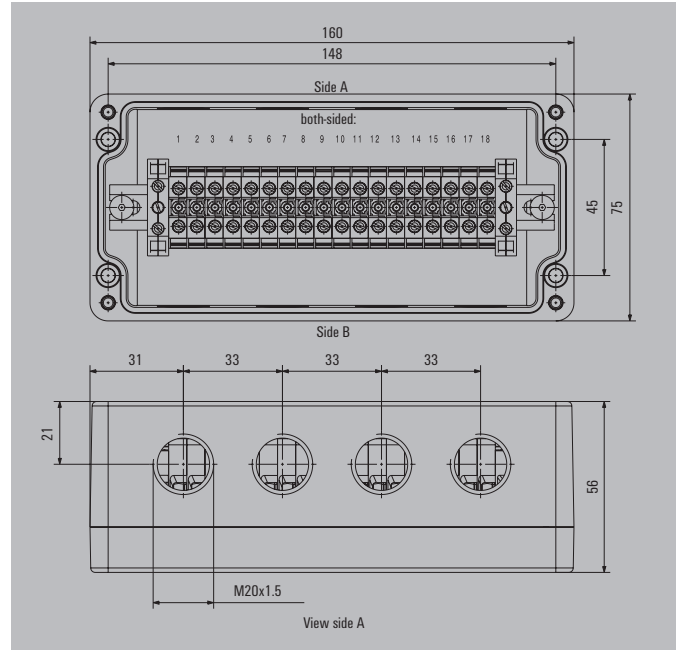
Product type	Type	Length	Order No.
Rail	TS15 98 Klippon POK2 CSS	98 mm	1928070000



Note



Height / Width / Depth 75 / 160 / 56 mm



Empty enclosure with tapped holes

Drill holes side A	Drill holes side B	Order No.
4 x M20x1.5	4 x M20x1.5	800004162



Note

Accessories

Cable glands	Order No.
VG M20 EXE 7-13 SI7J G4	2722110000
VG M20 EXE 11-14 SI7J G4	2722120000
Stopping plugs	Order No.
VP M20 EX SI 7J	2066730000
Gauge rings	Order No.
ADAP EX M20-M16	1737560000

Note

Terminal block, suitable for empty enclosure

Type	Type of connection	Conductor can be clamped	Rated cross-section	No. of DU*	No. of PE*	Order No.
BK 12/E	Screw connection	Solid / stranded	0.5...4 mm <sup>2</sup> / 1.5...4 mm <sup>2</sup>	12	0	800004367
		Flexible / flexible with wire-end ferrule	0.5...4 mm <sup>2</sup> / 0.5...4 mm <sup>2</sup>			
AKZ 4	Screw connection	Solid / stranded	0.5...6 mm <sup>2</sup> / 1.5...4 mm <sup>2</sup>	18	2	800004146
		Flexible / flexible with wire-end ferrule	0.5...4 mm <sup>2</sup> / 0.5...2.5 mm <sup>2</sup>			

Note Markers numbered 1-50 (horizontal text) and mounting screws are included in the delivery. \*DU = feed-through terminals, PE = PE terminals

Distribution box with ATEX II 2GD T85°C Ex e II T6

Drill holes side A	Drill holes side B	No. of DU*	No. of PE*	Order No.
4 x M20x1.5	4 x M20x1.5	18	2	800004228
4 x M20x1.5	4 x M20x1.5	12	0	800004226

Terminal rail / mounting plate set

Product type	Type	Length	Order No.
Rail	TS15 147 Klippon POK3 CSS	147 mm	1928080000



Note

Note Enclosures are delivered in RAL 9011. \*DU = feed-through terminals, PE = PE terminals



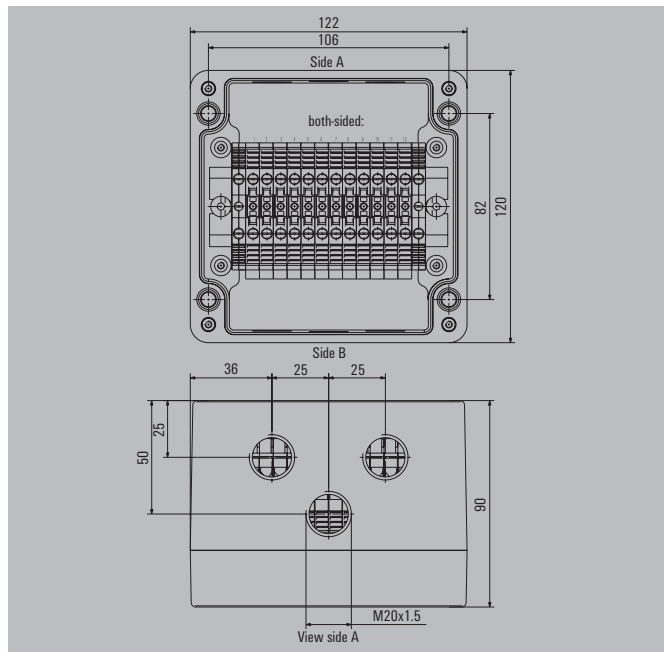


Klippon® POK 121209

90 mm



Height / Width / Depth 120 / 122 / 90 mm



**Empty enclosure with tapped holes**

Drill holes side A	Drill holes side B	Order No.
3 x M20x1.5	3 x M20x1.5	800003448



Note

**Accessories**

Cable glands	Order No.
VG M20 EXE 7-13 SI7J G4	2722110000
VG M20 EXE 11-14 SI7J G4	2722120000
Stopping plugs	Order No.
VP M20 EX SI 7J	2066730000
Gauge rings	Order No.
ADAP EX M20-M16	1737560000

Note

**Terminal block, suitable for empty enclosure**

Type	Type of connection	Conductor can be clamped	Rated cross-section	No. of DU*	No. of PE*	Order No.
WDU 4	Screw connection	Solid/stranded	0.5..6 mm <sup>2</sup> / 1.5..6 mm <sup>2</sup>	12	2	800003444
		Flexible / flexible with wire-end ferrule	0.5..6 mm <sup>2</sup> / 0.5..4 mm <sup>2</sup>			



Note Markers numbered 1-50 (horizontal text) and mounting screws are included in the delivery. \*DU = feed-through terminals, PE = PE terminals

**Distribution box with ATEX II 2GD T85°C Ex e II T6**

Drill holes side A	Drill holes side B	No. of DU*	No. of PE*	Order No.
3 x M20x1.5	3 x M20x1.5	12	2	800003593
3 x M20x1.5	3 x M20x1.5	9	2	800003594



Note Enclosures are delivered in RAL 9011. \*DU = feed-through terminals, PE = PE terminals

**Terminal rail / mounting plate set**

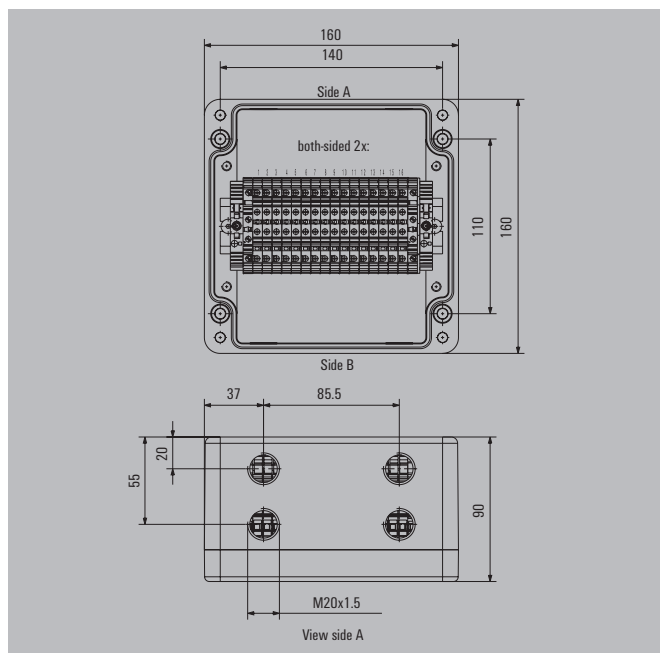
Product type	Type	Length	Order No.
Rail	TS35 105 Klippon K41/POK4	105 mm	1910070000



Note



Height / Width / Depth 160 / 160 / 90 mm



Empty enclosure with tapped holes

Drill holes side A	Drill holes side B	Order No.
4 x M20x1.5	4 x M20x1.5	800004164



Note

Accessories

Cable glands	Order No.
VG M20 EXE 7-13 SI7J G4	2722110000
VG M20 EXE 11-14 SI7J G4	2722120000
Stopping plugs	Order No.
VP M20 EX SI 7J	2066730000
Gauge rings	Order No.
ADAP EX M20-M16	1737560000

Note

Terminal block, suitable for empty enclosure

Type	Type of connection	Conductor can be clamped	Rated cross-section	No. of DU*	No. of PE*	Order No.
ZDK 2.5	Tension-clamp connection	Double-level terminal	0.5...2.5 mm <sup>2</sup> / ... 0.5...2.5 mm <sup>2</sup> / 0.5...2.5 mm <sup>2</sup>	19	2	800004143
WDK 4N	Screw connection	Solid/stranded Flexible / flexible with wire-end ferrule	0.5...6 mm <sup>2</sup> / 1.5...6 mm <sup>2</sup> 0.5...4 mm <sup>2</sup> / 0.5...4 mm <sup>2</sup>	16	2	800004142

Note Markers numbered 1-50 (horizontal text) and mounting screws are included in the delivery.  
\*DU = feed-through terminals, PE = PE terminals

Distribution box with ATEX II 2GD T85°C Ex e II T6

Drill holes side A	Drill holes side B	No. of DU*	No. of PE*	Order No.
4 x M20x1.5	4 x M20x1.5	16	2	800004229
4 x M20x1.5	4 x M20x1.5	19	2	800004230



Note Enclosures are delivered in RAL 9011.  
\*DU = feed-through terminals, PE = PE terminals

Terminal rail / mounting plate set

Product type	Type	Length	Order No.
Rail	TS35/140 Klippon K52 POK51	140 mm	1910100000



Note



## Safely control work processes in hazardous areas on site

### With certified enclosure solutions with control and display elements

C

Harsh industrial environments and hazardous areas, such as in the oil and gas industry, place extreme demands on the safety, the robustness and quality of products and devices.

We meet these challenges with the Klippon® Control Station, the addition to our range of customised enclosure solutions. More than 50 years of expertise have made us market leader in this area with global competence centres. The basis of our enclosure solutions is provided by the usual Weidmüller quality and comprehensive approvals for explosion hazard areas. Based on this, our sturdy “on-site control station” is available in two standard sizes and with up to four control and display elements and provides a flexible solution to meet your specific needs.

Order your distributor enclosure as well as control and signaling units from a single source and from one enclosure design – for reliable security and reduced storage costs for maintenance and repair operations.

#### **Your special advantages: Ideal for urgent service calls**

We have prepared modules of the proven Klippon® enclosures POK available for you for further processing. This means we manufacture a control solution suitable for your application at short notice.



Predestined for emergency shutdown applications: Klippon® Control Stations score when it comes to the safe shutdown of plant sections, such as in the process industry

**Customised assembly**

In addition to standard types from stock, you can obtain enclosure solutions from us that are completely assembled and equipped according to customer requirements.

**Project solutions from a single source**

Obtain command/signaling units and distribution and control boxes as a complete solution – tailored to the individual requirements of your projects in hazardous areas.



**A variety of sizes and materials**

Enclosures in stainless steel, aluminium or polyester are available for different environmental conditions. Depending on the size of the enclosure, it provides space for the integration of up to four control and display elements.

**International certificates**

The Klippon® Control Station is tested and certified among others according to ATEX and IECEx.



# Robust solutions for demanding environments

## Klippon® Protect provides high-quality polyester enclosures

Our enclosures made of high-quality polyester (Klippon® POK) are the ideal solutions for demanding electrical connectivity applications. They are particularly suitable for applications that demand corrosion resistance, impact resistance and a high protection class. Suitable for use within hazardous environments.

### Additional features:

- Extremely robust, weather-proof and impact-resistant up to 7 joules
- Simple fastening of mounting rails
- High ingress protection IP66



### Technical data

Material	
Surface finish	
Colour	
IP protection class	IP 54; IP 66
Ambient temperature	-55 °C to 55 °C
Seal material of enclosure	Silicone (VMQ)
Seal material of command and signalling units	EPDM
Flammability rating	-
Impact resistance IK	7 joules in acc. with IEC60079-0 4 joules in acc. with IEC60079-0 with integrated illuminated pushbutton or light module
Cable gland material	Polyamide
Cable gland clamping area min. - max. in mm	
M20	Available on request
M25	6-12 mm
Max. rated cross-section	2.5 mm <sup>2</sup>
Max. operating voltage with integrated illuminated pushbutton or lighting module	400 V
Maximum operating current at 40 °C ambient temperature	250 V
1.5 mm <sup>2</sup> - T6	10 A
1.5 mm <sup>2</sup> - T5	16 A
2.5 mm <sup>2</sup> - T6	16 A
Maximum operating current at 55 °C ambient temperature	
1.5 mm <sup>2</sup> - T4	16 A
1.5 mm <sup>2</sup> - T5	10 A
2.5 mm <sup>2</sup> - T5	16 A
Temperature class	T4, T5, T6
Type of mounting	Wall mounting
Earthing inside	Earth terminal
Lid attachment	Crosshead screws, stainless steel
Lid screw torque	2.5-3.0 Nm
Earthing torque	-
Earthing outside	Available on request
Approvals	IECEXITA14.0013X TUEV14ATEX7606X MARITREG 15.40082.250
Marking	2G Ex e d IIC T* Gb 2G Ex ib d [ia] IIC T* Gb 2D Ex tb IIC T80/100 °C Db
Mounting feet	9510910000

### Polyester enclosures

Glass-fibre reinforced polyester with graphite mixture
Natural, black
Similar to RAL 9011
IP 54; IP 66
-55 °C to 55 °C
Silicone (VMQ)
EPDM
-
7 joules in acc. with IEC60079-0 4 joules in acc. with IEC60079-0 with integrated illuminated pushbutton or light module
Polyamide
Available on request
6-12 mm
2.5 mm <sup>2</sup>
400 V
250 V
10 A
16 A
16 A
16 A
10 A
10 A
16 A
T4, T5, T6
Wall mounting
Earth terminal
Crosshead screws, stainless steel
2.5-3.0 Nm
-
Available on request
IECEXITA14.0013X TUEV14ATEX7606X MARITREG 15.40082.250
2G Ex e d IIC T* Gb 2G Ex ib d [ia] IIC T* Gb 2D Ex tb IIC T80/100 °C Db
9510910000



	Number of built-in components				Emergency stop pushbutton red	Key switch I – 0 – II	Pushbutton		Illuminated pushbutton		Light module		Dimensions with built-in components HxWxD in mm	Designation	Cable gland	Order number		
	•	•	•	•			red	green	red	green	red	green						
Polyester	•				1								152x120x128	KLIPPON CS POK 121209-2	VG M25	1537070000		
	•							1					152x120x103	KLIPPON CS POK 121209-2	VG M25	1537080000		
	•					1							152x120x117	KLIPPON CS POK 121209-2	VG M25	1537090000		
	•									1			152x120x105	KLIPPON CS POK 121209-2	VG M25	1537100000		
	•							1	1				152x120x103	KLIPPON CS POK 121209-4	VG M25	1537110000		
	•								1		1		152x120x112	KLIPPON CS POK 121209-4	VG M25	1537120000		
	•				1							1	152x120x128	KLIPPON CS POK 121209-4	VG M25	1537130000		
		•						1	1				1	250x120x112	KLIPPON CS POK 122209-2	VG M25	1537140000	
			•					1	2					250x120x103	KLIPPON CS POK 122209-2	VG M25	1537150000	
				•	1			1	1					250x120x128	KLIPPON CS POK 122209-2	VG M25	1537170000	
								1	1			1	1	250x120x112	KLIPPON CS POK 122209-4	VG M25	1537180000	

**Klippon® CS POK 121209-2**



**Klippon® CS POK 121209-2**



**Technical data**

<b>Enclosure</b>	
Dimensions with installation (HxBxD)	
Material	
<b>General characteristics</b>	
Surface finish / Colour	
Protection class	
Ambient temperature	
Impact resistance	
UL 94 flammability rating	
Enclosure seal material	
Seal material of operating and display elements	
Type of mounting	
External earth	
Lid attachment	
Torque for lid screws	
<b>Electrical properties*</b>	
Wire connection cross section, finely stranded, max.	
Operating voltage, max.	
Temperature class	
<b>Enclosure assembly</b>	
1 Position in enclosure	
2 Position in enclosure	
3 Position in enclosure	
4 Position in enclosure	
Contact design	
Actuators	
Actuator colour	
Illumination module colour	
Illuminated button actuator colour	
<b>Cable entries</b>	
Drill holes side B	
Cable gland	
Clamping range min. / max.	
<b>Approval and Marking</b>	
Standards	
Certificate No. (IECEX)	
Certificate No. (ATEX)	
Certificate No. (EAC)	
Certificate No. (MARITREG)	
Marking	
<b>Accessories</b>	
Mounting feet	

Dimensions with installation (HxBxD)	152 / 120 / 128 mm
Material	Glass-fibre reinforced polyester with graphite mixture
Surface finish / Colour	untreated / graphite black
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	7 joules in acc. with IEC 60079-0
UL 94 flammability rating	V-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
External earth	Available on request
Lid attachment	Crosshead screws, stainless steel
Torque for lid screws	2.5 Nm
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>
Operating voltage, max.	400 V
Temperature class	T4, T5, T6
1 Position in enclosure	EMERGENCY-STOP pushbutton with yellow, contrasting label
2 Position in enclosure	
3 Position in enclosure	
4 Position in enclosure	
Contact design	2 NC contact, positive opening contacts
Actuators	EMERGENCY STOP pushbutton
Actuator colour	red
Illumination module colour	
Illuminated button actuator colour	
Drill holes side B	1 x M25
Cable gland	2721990000 - VG M25 EXE 12-17 CR7J G4
Clamping range min. / max.	12 mm / 17 mm
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE.BE02.B.00173
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db
Mounting feet	9510910000 - MF POK BIG

Dimensions with installation (HxBxD)	152 / 120 / 103 mm
Material	Glass-fibre reinforced polyester with graphite mixture
Surface finish / Colour	untreated / graphite black
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	7 joules in acc. with IEC 60079-0
UL 94 flammability rating	V-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
External earth	Available on request
Lid attachment	Crosshead screws, stainless steel
Torque for lid screws	2.5 Nm
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>
Operating voltage, max.	400 V
Temperature class	T4, T5, T6
1 Position in enclosure	Pushbutton - green
2 Position in enclosure	
3 Position in enclosure	
4 Position in enclosure	
Contact design	1 NC contact, 1 NO contacts
Actuators	Pushbutton
Actuator colour	green
Illumination module colour	
Illuminated button actuator colour	
Drill holes side B	1 x M25
Cable gland	2721990000 - VG M25 EXE 12-17 CR7J G4
Clamping range min. / max.	12 mm / 17 mm
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE.BE02.B.00173
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db
Mounting feet	9510910000 - MF POK BIG

<b>Note</b>	
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**Ordering data**

<b>Type</b>	<b>Qty.</b>	<b>Order No.</b>
KLIPPON CS POK 121209-2	1	1537070000

<b>Type</b>	<b>Qty.</b>	<b>Order No.</b>
KLIPPON CS POK 121209-2	1	1537080000

<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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Klippon® CS POK 121209-2



152 / 120 / 117 mm
Glass-fibre reinforced polyester with graphite mixture
untreated / graphite black
IP54, IP66
-55 °C...+55 °C
7 joules in acc. with IEC 60079-0
V-0
Silicone (VMQ)
EPDM
Wall mounting
Available on request
Crosshead screws, stainless steel
2.5 Nm
2.5 mm <sup>2</sup>
400 V
T4, T5, T6

Key-operated switch

1 NC contact, 1 NO contacts  
Key-operated switch, 3 switching positions, I - 0 - II, (I + II), latching, Key retractable

1 x M25  
2721990000 - VG M25 EXE 12-17 CR7J G4  
12 mm / 17 mm

IEC 60079-0, IEC 60079-7, IEC 60079-31  
IECEXITA14.0013X  
TUEV14ATEX7606X  
RUC-DE.TB08.B.01838  
15.40082.250  
II 2 G Ex d e IIC T\* Gb  
II 2 D Ex tb IIIC T\*°C Db

9510910000 - MF POK BIG

Klippon® CS POK 121209-2



152 / 120 / 105 mm
Glass-fibre reinforced polyester with graphite mixture
untreated / graphite black
IP54, IP66
-55 °C...+55 °C
4 joules in acc. with IEC 60079-0
V-0
Silicone (VMQ)
EPDM
Wall mounting
Available on request
Crosshead screws, stainless steel
2.5 Nm
2.5 mm <sup>2</sup>
250 V
T4, T5, T6

Illuminated pushbutton - green

2 NO contacts  
Pushbutton

green

green

1 x M25  
2721990000 - VG M25 EXE 12-17 CR7J G4  
12 mm / 17 mm

IEC 60079-0, IEC 60079-7, IEC 60079-31  
IECEXITA14.0013X  
TUEV14ATEX7606X  
RUC-DE.BE02.B.00173  
15.40082.250  
II 2 G Ex d e IIC T\* Gb  
II 2 D Ex tb IIIC T\*°C Db

9510910000 - MF POK BIG

Klippon® CS POK 121209-4



152 / 120 / 103 mm
Glass-fibre reinforced polyester with graphite mixture
untreated / graphite black
IP54, IP66
-55 °C...+55 °C
7 joules in acc. with IEC 60079-0
V-0
Silicone (VMQ)
EPDM
Wall mounting
Available on request
Crosshead screws, stainless steel
2.5 Nm
2.5 mm <sup>2</sup>
400 V
T4, T5, T6

Pushbutton - red  
Pushbutton - green

2 NC contact, 2 NO contacts  
Pushbutton

red, green

1 x M25  
2721990000 - VG M25 EXE 12-17 CR7J G4  
12 mm / 17 mm

IEC 60079-0, IEC 60079-7, IEC 60079-31  
IECEXITA14.0013X  
TUEV14ATEX7606X  
RUC-DE.BE02.B.00173  
15.40082.250  
II 2 G Ex d e IIC T\* Gb  
II 2 D Ex tb IIIC T\*°C Db

9510910000 - MF POK BIG

Type	Qty.	Order No.
KLIPPON CS POK 121209-2	1	1537090000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

Type	Qty.	Order No.
KLIPPON CS POK 121209-2	1	1537100000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

Type	Qty.	Order No.
KLIPPON CS POK 121209-4	1	1537110000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

**Klippon® CS POK 121209-4**



**Klippon® CS POK 121209-4**



**Technical data**

<b>Enclosure</b>	
Dimensions with installation (HxBxD)	152 / 120 / 112 mm
Material	Glass-fibre reinforced polyester with graphite mixture
<b>General characteristics</b>	
Surface finish / Colour	untreated / graphite black
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	4 joules in acc. with IEC 60079-0
UL 94 flammability rating	V-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
External earth	Available on request
Lid attachment	Crosshead screws, stainless steel
Torque for lid screws	2.5 Nm
<b>Electrical properties*</b>	
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>
Operating voltage, max.	250 V
Temperature class	T4, T5, T6
<b>Enclosure assembly</b>	
1 Position in enclosure	Light module - green
2 Position in enclosure	Pushbutton - green
3 Position in enclosure	
4 Position in enclosure	
Contact design	1 NC contact, 1 NO contacts
Actuators	Pushbutton
Actuator colour	green
Illumination module colour	green
Illuminated button actuator colour	
<b>Cable entries</b>	
Drill holes side B	1 x M25
Cable gland	2721990000 - VG M25 EXE 12-17 CR7J G4
Clamping range min. / max.	12 mm / 17 mm
<b>Approval and Marking</b>	
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE.BE02.B.00173
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db
<b>Accessories</b>	
Mounting feet	9510910000 - MF POK BIG

<b>Enclosure</b>	
Dimensions with installation (HxBxD)	152 / 120 / 112 mm
Material	Glass-fibre reinforced polyester with graphite mixture
<b>General characteristics</b>	
Surface finish / Colour	untreated / graphite black
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	4 joules in acc. with IEC 60079-0
UL 94 flammability rating	V-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
External earth	Available on request
Lid attachment	Crosshead screws, stainless steel
Torque for lid screws	2.5 Nm
<b>Electrical properties*</b>	
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>
Operating voltage, max.	250 V
Temperature class	T4, T5, T6
<b>Enclosure assembly</b>	
1 Position in enclosure	Light module - green
2 Position in enclosure	Pushbutton - green
3 Position in enclosure	
4 Position in enclosure	
Contact design	1 NC contact, 1 NO contacts
Actuators	Pushbutton
Actuator colour	green
Illumination module colour	green
Illuminated button actuator colour	
<b>Cable entries</b>	
Drill holes side B	1 x M25
Cable gland	2721990000 - VG M25 EXE 12-17 CR7J G4
Clamping range min. / max.	12 mm / 17 mm
<b>Approval and Marking</b>	
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE.BE02.B.00173
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db
<b>Accessories</b>	
Mounting feet	9510910000 - MF POK BIG

<b>Enclosure</b>	
Dimensions with installation (HxBxD)	152 / 120 / 128 mm
Material	Glass-fibre reinforced polyester with graphite mixture
<b>General characteristics</b>	
Surface finish / Colour	untreated / graphite black
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	4 joules in acc. with IEC 60079-0
UL 94 flammability rating	V-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
External earth	Available on request
Lid attachment	Crosshead screws, stainless steel
Torque for lid screws	2.5 Nm
<b>Electrical properties*</b>	
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>
Operating voltage, max.	250 V
Temperature class	T4, T5, T6
<b>Enclosure assembly</b>	
1 Position in enclosure	Light module - red
2 Position in enclosure	EMERGENCY-STOP pushbutton with yellow, contrasting label
3 Position in enclosure	
4 Position in enclosure	
Contact design	2 NC contact, positive opening contacts
Actuators	EMERGENCY STOP pushbutton
Actuator colour	red
Illumination module colour	red
Illuminated button actuator colour	
<b>Cable entries</b>	
Drill holes side B	1 x M25
Cable gland	2721990000 - VG M25 EXE 12-17 CR7J G4
Clamping range min. / max.	12 mm / 17 mm
<b>Approval and Marking</b>	
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE.TB08.B.01838
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db
<b>Accessories</b>	
Mounting feet	9510910000 - MF POK BIG

<b>Note</b>	
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**Ordering data**

Type	Qty.	Order No.
KLIPPON CS POK 121209-4	1	1537120000

Type	Qty.	Order No.
KLIPPON CS POK 121209-4	1	1537130000

<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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Klippon® CS POK 122209-2



250 / 120 / 112 mm
Glass-fibre reinforced polyester with graphite mixture
untreated / graphite black
IP54, IP66
-55 °C...+55 °C
4 joules in acc. with IEC 60079-0
V-0
Silicone (VMQ)
EPDM
Wall mounting
Available on request
Crosshead screws, stainless steel
2.5 Nm
2.5 mm <sup>2</sup>
250 V
T4, T5, T6
Pushbutton - red
Light module - green
Pushbutton - green
2 NC contact, 2 NO contacts
Pushbutton
red, green
green
1 x M25
2721990000 - VG M25 EXE 12-17 CR7J G4
12 mm / 17 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T*°C Db
9510910000 - MF POK BIG

Klippon® CS POK 122209-2



250 / 120 / 103 mm
Glass-fibre reinforced polyester with graphite mixture
untreated / graphite black
IP54, IP66
-55 °C...+55 °C
7 joules in acc. with IEC 60079-0
V-0
Silicone (VMQ)
EPDM
Wall mounting
Available on request
Crosshead screws, stainless steel
2.5 Nm
2.5 mm <sup>2</sup>
400 V
T4, T5, T6
Pushbutton - green
Pushbutton - red
Pushbutton - green
3 NC contact, 3 NO contacts
Pushbutton
green, red
1 x M25
2721990000 - VG M25 EXE 12-17 CR7J G4
12 mm / 17 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.TB08.B.01838
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T*°C Db
9510910000 - MF POK BIG

Klippon® CS POK 122209-2



250 / 120 / 128 mm
Glass-fibre reinforced polyester with graphite mixture
untreated / graphite black
IP54, IP66
-55 °C...+55 °C
7 joules in acc. with IEC 60079-0
V-0
Silicone (VMQ)
EPDM
Wall mounting
Available on request
Crosshead screws, stainless steel
2.5 Nm
2.5 mm <sup>2</sup>
400 V
T4, T5, T6
Pushbutton - green
Pushbutton - red
EMERGENCY-STOP pushbutton with yellow, contrasting label
2 NO contacts, 2 NC contact, positive opening contacts
Pushbutton, EMERGENCY STOP pushbutton
green, red
1 x M25
2721990000 - VG M25 EXE 12-17 CR7J G4
12 mm / 17 mm
IEC 60079-0, IEC 60079-7, IEC 60079-31
IECEXITA14.0013X
TUEV14ATEX7606X
RUC-DE.BE02.B.00173
15.40082.250
II 2 G Ex d e IIC T* Gb
II 2 D Ex tb IIIC T*°C Db
9510910000 - MF POK BIG

Type	Qty.	Order No.
KLIPPON CS POK 122209-2	1	1537140000

Type	Qty.	Order No.
KLIPPON CS POK 122209-2	1	1537150000

Type	Qty.	Order No.
KLIPPON CS POK 122209-2	1	1537170000

\*Other temperature classes and connection values on request, or see "Notice to Installer".

\*Other temperature classes and connection values on request, or see "Notice to Installer".

\*Other temperature classes and connection values on request, or see "Notice to Installer".

Klippon® CS POK 122209-4



Technical data

<b>Enclosure</b>	
Dimensions with installation (HxBxD)	250 / 120 / 112 mm
Material	Glass-fibre reinforced polyester with graphite mixture
<b>General characteristics</b>	
Surface finish / Colour	untreated / graphite black
Protection class	IP54, IP66
Ambient temperature	-55 °C...+55 °C
Impact resistance	4 joules in acc. with IEC 60079-0
UL 94 flammability rating	V-0
Enclosure seal material	Silicone (VMQ)
Seal material of operating and display elements	EPDM
Type of mounting	Wall mounting
External earth	Available on request
Lid attachment	Crosshead screws, stainless steel
Torque for lid screws	2.5 Nm
<b>Electrical properties*</b>	
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>
Operating voltage, max.	250 V
Temperature class	T4, T5, T6
<b>Enclosure assembly</b>	
1 Position in enclosure	Light module - red
2 Position in enclosure	Pushbutton - red
3 Position in enclosure	Light module - green
4 Position in enclosure	Pushbutton - green
Contact design	2 NC contact, 2 NO contacts
Actuators	Pushbutton
Actuator colour	green, red
Illumination module colour	red, green
Illuminated button actuator colour	
<b>Cable entries</b>	
Drill holes side B	1 x M25
Cable gland	2721990000 - VG M25 EXE 12-17 CR7J G4
Clamping range min. / max.	12 mm / 17 mm
<b>Approval and Marking</b>	
Standards	IEC 60079-0, IEC 60079-7, IEC 60079-31
Certificate No. (IECEX)	IECEXITA14.0013X
Certificate No. (ATEX)	TUEV14ATEX7606X
Certificate No. (EAC)	RUC-DE.BE02.B.00173
Certificate No. (MARITREG)	15.40082.250
Marking	II 2 G Ex d e IIC T* Gb II 2 D Ex tb IIIC T*°C Db
<b>Accessories</b>	
Mounting feet	9510910000 - MF POK BIG

<b>Note</b>	
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Ordering data

Type	Qty.	Order No.
KLIPPON CS POK 122209-4	1	1537180000

<b>Note</b>	*Other temperature classes and connection values on request, or see "Notice to Installer".
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## TBF – Large polyester enclosures

The enclosures in the TBF range are made from sturdy glass-fibre reinforced polyester. They offer a universal solution for protection of components such as controllers, measuring instruments, valves and other devices. Suitable applications include photovoltaics and energy distribution.

Key features of this product range include:

- Available in 9 sizes, with grey or transparent lids
- The lid has nylon screws fitted
- Mounting holes are outside the sealed area
- Thread for fitting to terminal rails and mounting plates
- High Ingress Protection (IP 66 and IP 67)

Weidmüller manufactures and supplies the enclosures to match customer specifications – fully fitted with terminals, electronics and cable glands.



Use our online catalogue to find additional product details, technical information and additional services:

[www.weidmueller.com/TBF](http://www.weidmueller.com/TBF)

### Overview of enclosures

#### Ordering data

Description	Dimensions in mm	Grey lid	Transparent lid
TBF 19/15	186 x 151 x 140	0360100000	0500500000
TBF 30/19	302 x 186 x 175	0360200000	0500600000
TBF 30/30	302 x 302 x 175	0360300000	0500700000
TBF 37/30	372 x 302 x 175	0360400000	0500800000
TBF 49/30	488 x 302 x 175 / 210	9502800000	9502840000
TBF 56/30	558 x 302 x 175 / 210	9502810000	9502850000
TBF 60/30	603 x 302 x 175 / 210	0360500000	0500900000
TBF 60/37	603 x 372 x 175 / 210	9502820000	9502860000
TBF 60/60	603 x 603 x 175 / 210	9502830000	9502870000

Note

## Technical Overview

### Features

- Extremely tough and impact resistant thanks to the glass-fibre reinforced polyester
- Extremely weather resistant
- High IP rating
- Approved according to the latest international standards

**Note** We deliver enclosures through our assembly service which are ready to be connected and suitable for every application.

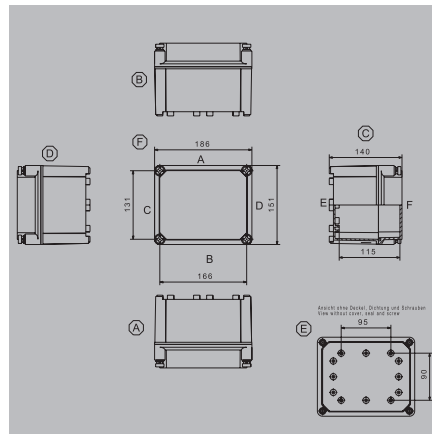
### Technical data

	Grey lid	Transparent lid
Enclosure material	Base and lid made of glass-fibre reinforced polyester (GRP)	Base made of glass-fibre reinforced polyester (GRP) Lid is polycarbonate (PC)
Surface finish	grey, similar to RAL 7035	
IP protection class	IP66 and IP67	IP 66
Installation mounting	4 or 6 M4 clamping screws	4 or 6 M4 clamping screws
Enclosure mounting	4 holes of 7 mm diameter or with external fastening lugs, see accessories	4 holes of 7 mm diameter or with external fastening lugs, see accessories
Lid fixing	4, 6 or 8 captive cross-headed nylon screws	4, 6 or 8 captive cross-headed nylon screws
Impact resistance	IK08 to IEC 62208 IK10 to EN/IEC 62262	IK08 to IEC 62208 IK10 to EN/IEC 62262
Gasket material	Polyurethane	Polyurethane
Temperature range	-50 °C...+130 °C (permanent temperature max. 70°C)	-35 °C...+120 °C (permanent temperature max. 70°C)
Flammability characteristics	UL 94 HB	V2
Toxicity	Free from halogens	Free from halogens
<b>Note</b>	For details of power dissipation, please contact your Weidmüller representative.	



TBF 19/15

140 mm

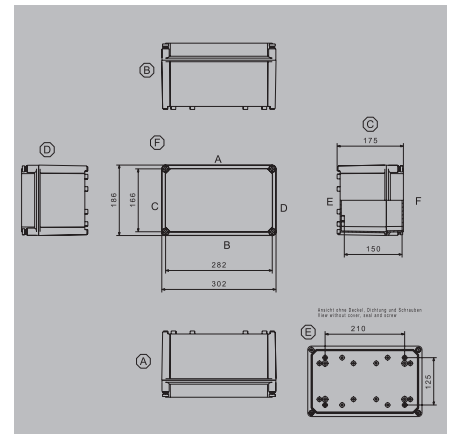


Height / Width / Depth

186 / 151 / 140 mm

TBF 30/19

175 mm



Height / Width / Depth

302 / 186 / 175 mm

Technical data

Assembly with terminal
2.5 mm <sup>2</sup>
4 mm <sup>2</sup>
6 mm <sup>2</sup>
10 mm <sup>2</sup>
16 mm <sup>2</sup>
35 mm <sup>2</sup>
Guide value for max. number of cable entries
M12
M16
M20
M25
M32
M40
M50
M63
M75
Note

	vertical	horizontal
	1x11	1x18
	1x9	1x15
	1x7	1x7
	1x6	1x9
	1x4	1x6
	1x3	1x5
	A / B	C / D
	11	11
	6	6
	2	2
	2	2
	1	1
	1	1
Note		

	vertical	horizontal
	2x22	1x44
	2x18	1x37
	2x14	2x14
	2x11	1x22
	2x8	1x16
	2x7	1x14
	A / B	C / D
	28	53
	14	30
	11	22
	6	10
	3	5
	3	3
	1	3
	1	2
Note		

Ordering data

Enclosure with grey lid	
Enclosure with transparent lid	
Note	

Type	Qty.	Order No.
TBF 19/15/14 7035	1	0360100000
TBF 19/15/14 TRSP	1	0500500000
Note		

Type	Qty.	Order No.
TBF 30/19/18 7035	1	0360200000
TBF 30/19/18 TRSP	1	0500600000
Note		

Accessories

Mounting plates and fastening screws
Steel sheet, zinc plated
M4 screw
External mounting lug, set of 4
Polyamide
Earthing stud
Brass, M6
Stainless steel 1.4404, M6
Brass, M10
Stainless steel 1.4404, M10
Pressure compensation elements
Polyamide 6, M12
Stainless steel 1.4305, M12
Note

Type	Qty.	Order No.
MP TBF 19/15	1	9502720000
FKSC M4X6 D8/SW2	100	1567480000
MF TBF	1	0360800000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000
Note		

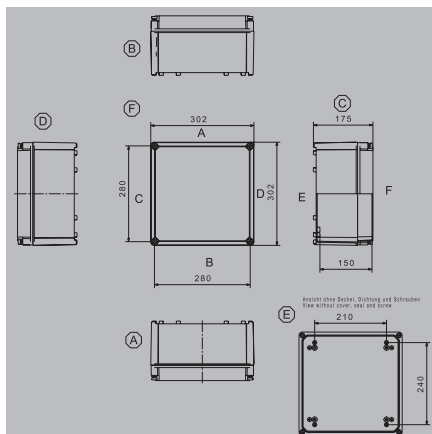
Type	Qty.	Order No.
MP TBF 30/19	1	3018950000
FKSC M4X6 D8/SW2	100	1567480000
MF TBF	1	0360800000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000
Note		





**TBF 30/30**

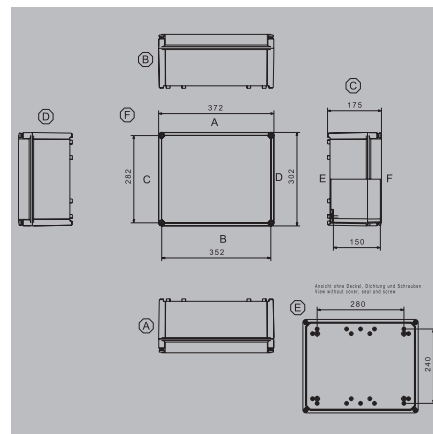
**175 mm**



302 / 302 / 175 mm

**TBF 37/30**

**175 mm**



372 / 302 / 175 mm

Height / Width / Depth

**Technical data**

Assembly with terminal
2.5 mm <sup>2</sup>
4 mm <sup>2</sup>
6 mm <sup>2</sup>
10 mm <sup>2</sup>
16 mm <sup>2</sup>
35 mm <sup>2</sup>
Guide value for max. number of cable entries
M12
M16
M20
M25
M32
M40
M50
M63
M75
Note

vertical	horizontal
2x44	1x44
2x37	1x37
2x28	2x28
2x22	1x22
2x16	1x16
2x14	1x14
A / B	C / D
44	44
24	24
20	20
10	10
4	4
3	3
3	3
2	2
Note	

vertical	horizontal
2x57	2x44
2x48	2x37
2x36	2x36
2x29	2x22
2x21	2x16
2x18	2x14
A / B	C / D
44	56
24	30
20	27
10	12
4	5
3	4
3	4
2	3
Note	

**Ordering data**

Type	Qty.	Order No.
TBF 30/30/18 7035	1	0360300000
TBF 30/30/18 TRSP	1	0500700000
Note	Enclosure with grey lid	Enclosure with transparent lid

Type	Qty.	Order No.
TBF 37/30/18 7035	1	0360400000
TBF 37/30/18 TRSP	1	0500800000
Note	Enclosure with grey lid	Enclosure with transparent lid

**Accessories**

Type	Qty.	Order No.
MP TBF 30/30	1	9502730000
FKSC M4X6 D8/SW2	100	1567480000
MF TBF	1	0360800000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000
Note	Steel sheet, zinc plated	M4 screw
External mounting lug, set of 4	Polyamide	
Earthing stud	Brass, M6	Stainless steel 1.4404, M6
	Brass, M10	Stainless steel 1.4404, M10
Pressure compensation elements	Polyamide 6, M12	Stainless steel 1.4305, M12

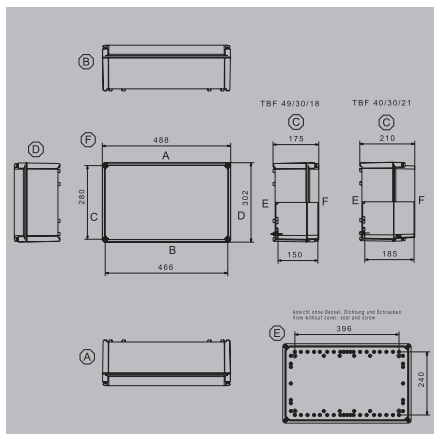
Type	Qty.	Order No.
MP TBF 37/30	1	9502740000
FKSC M4X6 D8/SW2	100	1567480000
MF TBF	1	0360800000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000
Note	Steel sheet, zinc plated	M4 screw
External mounting lug, set of 4	Polyamide	
Earthing stud	Brass, M6	Stainless steel 1.4404, M6
	Brass, M10	Stainless steel 1.4404, M10
Pressure compensation elements	Polyamide 6, M12	Stainless steel 1.4305, M12

Note



TBF 49/30

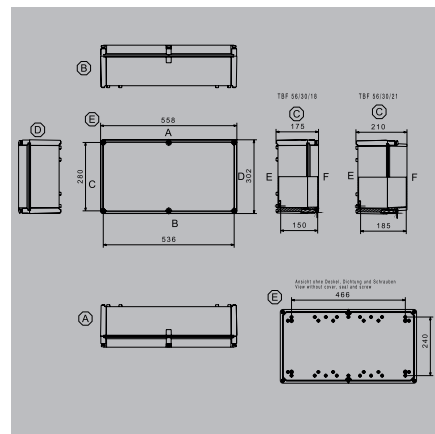
175 mm



488 / 302 / 175 mm

TBF 56/30

175 mm



558 / 302 / 175 mm

Height / Width / Depth

Technical data

Assembly with terminal

- 2.5 mm<sup>2</sup>
- 4 mm<sup>2</sup>
- 6 mm<sup>2</sup>
- 10 mm<sup>2</sup>
- 16 mm<sup>2</sup>
- 35 mm<sup>2</sup>

Guide value for max. number of cable entries

- M12
- M16
- M20
- M25
- M32
- M40
- M50
- M63
- M75

Note

Ordering data

- Enclosure with grey lid
- Enclosure with transparent lid

Note

Accessories

Mounting plates and fastening screws

- Steel sheet, zinc plated
- M4 screw

External mounting lug, set of 4

- Polyamide

Earthing stud

- Brass, M6
- Stainless steel 1.4404, M6
- Brass, M10
- Stainless steel 1.4404, M10

Pressure compensation elements

- Polyamide 6, M12
- Stainless steel 1.4305, M12

Note

	vertical	horizontal
	2x80	3x44
	2x67	3x37
	2x51	2x51
	2x41	3x22
	2x29	3x16
	2x25	3x14
	A / B	C / D
	44	42
	24	42
	20	36
	10	18
	4	7
	3	5
	3	5
	2	4

Type	Qty.	Order No.
TBF 49/30/18 7035	1	9502800000
TBF 49/30/21 TRSP	1	9502840000

Grey lid: 130 mm internal height, 175 mm total height  
Transparent lid: 160 mm internal height, 210 mm total height

Type	Qty.	Order No.
MP TBF 49/30	1	9500960000
FKSC M4X6 D8/SW2	100	1567480000
MF TBF	1	0360800000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

	vertical	horizontal
	2x94	4x44
	2x79	4x37
	2x59	2x59
	2x48	4x22
	2x34	4x16
	2x30	4x14
	A / B	C / D
	44	80
	24	46
	20	40
	10	18
	4	8
	3	6
	3	4
	2	4

Type	Qty.	Order No.
TBF 56/30/18 7035	1	9502810000
TBF 56/30/21 TRSP	1	9502850000

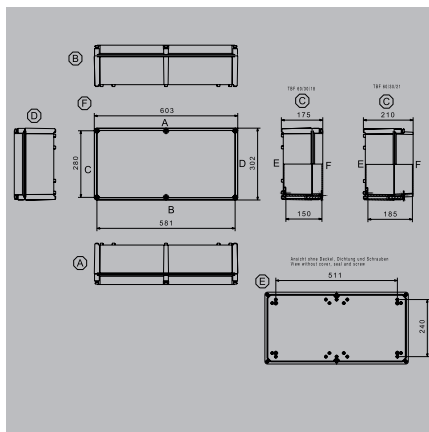
Grey lid: 130 mm internal height, 175 mm total height  
Transparent lid: 160 mm internal height, 210 mm total height

Type	Qty.	Order No.
MP TBF 56/30	1	9500950000
FKSC M4X6 D8/SW2	100	1567480000
MF TBF	1	0360800000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

Note

TBF 60/30

175 mm



Height / Width / Depth

603 / 302 / 175 mm

Technical data

Assembly with terminal

- 2.5 mm<sup>2</sup>
- 4 mm<sup>2</sup>
- 6 mm<sup>2</sup>
- 10 mm<sup>2</sup>
- 16 mm<sup>2</sup>
- 35 mm<sup>2</sup>

Guide value for max. number of cable entries

- M12
- M16
- M20
- M25
- M32
- M40
- M50
- M63
- M75

Note

	vertical	horizontal
	5x44	1x101
	5x37	1x85
	5x28	5x28
	5x22	1x51
	5x16	1x37
	5x14	1x32
	A / B	C / D
	44	88
	24	48
	20	40
	10	20
	4	8
	3	6
	3	6
	2	4

Ordering data

- Enclosure with grey lid
- Enclosure with transparent lid

Note

Type	Qty.	Order No.
TBF 60/30/18 7035	1	0360500000
TBF 60/30/21 TRSP	1	0500900000

Grey lid: 130 mm internal height, 175 mm total height  
Transparent lid: 160 mm internal height, 210 mm total height

Accessories

Mounting plates and fastening screws

- Steel sheet, zinc plated
- M4 screw

External mounting lug, set of 4

Polyamide

Earthing stud

- Brass, M6
- Stainless steel 1.4404, M6
- Brass, M10
- Stainless steel 1.4404, M10

Pressure compensation elements

- Polyamide 6, M12
- Stainless steel 1.4305, M12

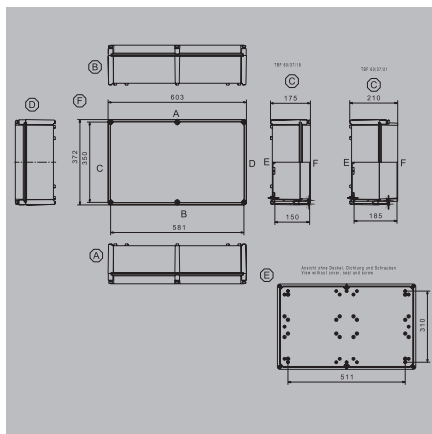
Type	Qty.	Order No.
MP TBF 60/30	1	9502750000
FKSC M4X6 D8/SW2	100	1567480000
MF TBF	1	0360800000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

Note



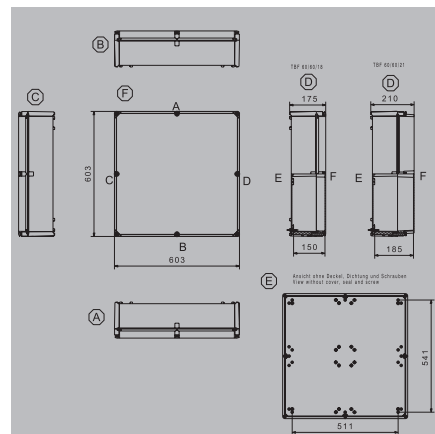
TBF 60/37

175 mm



TBF 60/60

175 mm



Height / Width / Depth

603 / 372 / 175 mm

603 / 605 / 175 mm

Technical data

Assembly with terminal
2.5 mm <sup>2</sup>
4 mm <sup>2</sup>
6 mm <sup>2</sup>
10 mm <sup>2</sup>
16 mm <sup>2</sup>
35 mm <sup>2</sup>
Guide value for max. number of cable entries
M12
M16
M20
M25
M32
M40
M50
M63
M75
Note

	vertical	horizontal
	5x57	2x101
	5x48	2x85
	5x36	5x36
	5x29	2x51
	5x21	2x37
	5x18	2x32
	A / B	C / D
	52	88
	30	48
	26	40
	12	20
	5	8
	4	6
	4	6
	3	4
Note		

	vertical	horizontal
	5x101	4x101
	5x85	4x85
	5x64	5x64
	5x51	4x51
	5x37	4x37
	5x32	4x32
	A / B	C / D
	88	88
	48	48
	40	40
	20	20
	8	8
	6	6
	6	6
	4	4
Note		

Ordering data

Type	Qty.	Order No.
TBF 60/37/18 7035	1	9502820000
TBF 60/37/21 TRSP	1	9502860000
Note		

Type	Qty.	Order No.
TBF 60/37/18 7035	1	9502820000
TBF 60/37/21 TRSP	1	9502860000
Grey lid: 130 mm internal height, 175 mm total height		
Transparent lid: 160 mm internal height, 210 mm total height		
Note		

Type	Qty.	Order No.
TBF 60/60/18 7035	1	9502830000
TBF 60/60/21 TRSP	1	9502870000
Grey lid: 130 mm internal height, 175 mm total height		
Transparent lid: 160 mm internal height, 210 mm total height		
Note		

Accessories

Type	Qty.	Order No.
MP TBF 60/37	1	9502910000
FKSC M4X6 D8/SW2	100	1567480000
MF TBF	1	0360800000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000
Note		

Type	Qty.	Order No.
MP TBF 60/60	1	9502920000
FKSC M4X6 D8/SW2	100	1567480000
MF TBF	1	0360800000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000
Note		

Type	Qty.	Order No.
MP TBF 60/60	1	9502920000
FKSC M4X6 D8/SW2	100	1567480000
MF TBF	1	0360800000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000
Note		



## MPC – Small polycarbonate enclosures

The polycarbonate enclosures of the MPC range are ideal for enclosing electrical, electro-mechanical and pneumatic devices as well as PCBs. The enclosures are used in situations with extreme mechanical and chemical conditions.

The characteristics of the enclosures are:

- Available in 17 sizes, with grey or transparent lids
- Lid fixing screws equipped with sealing holes
- Fixing holes outside the sealed area
- Thread for fitting to terminal rails, mounting plates and PCBs

Weidmüller manufactures and supplies the enclosures to match customer specifications – fully fitted with terminals, electronics and cable glands.



Use our online catalogue to find additional product details, technical information and additional services:

[www.weidmueller.com/MPC](http://www.weidmueller.com/MPC)

### Overview of enclosures

#### Ordering data

Description	Dimensions in mm	Grey lid	Transparent lid
MPC 07/12/07	75 x 125 x 75	9535170000	9535180000
MPC 07/12/10	75 x 125 x 100	9535190000	9535200000
MPC 07/12/12	75 x 125 x 120	9535210000	9535220000
MPC 12/12/07	120 x 120 x 75	9535230000	9535240000
MPC 12/12/10	120 x 120 x 100	9535250000	9535260000
MPC 12/12/12	120 x 120 x 120	9535270000	9535280000
MPC 12/17/07	120 x 175 x 75	9535290000	9535300000
MPC 12/17/10	120 x 175 x 100	9535310000	9535320000
MPC 12/17/12	120 x 175 x 120	9535330000	9535340000
MPC 12/17/15	120 x 175 x 150	9535350000	9535360000
MPC 17/17/07	175 x 175 x 75	9535370000	9535380000
MPC 17/17/10	175 x 175 x 100	9535390000	9535400000
MPC 17/17/12	175 x 175 x 120	9535410000	
MPC 17/17/15	175 x 175 x 150	9535430000	9535440000
MPC 17/25/07	175 x 250 x 75	9535450000	
MPC 17/25/10	175 x 250 x 100	9535470000	9535480000
MPC 17/25/15	175 x 250 x 150	9535490000	9535500000

Note

## Technical Overview

### Features

- High thermal stability thanks to the polycarbonate
- Extremely tough and impact resistant thanks to the high fibre-glass content.
- Good IP rating, due to use of polyurethane (PUR) gasket material
- Approved according to the latest international standards

**Note** We deliver enclosures through our assembly service which are ready to be connected and suitable for every application.

### Technical data

	Grey lid	Transparent lid
Enclosure material	Base and lid made of glass-fibre reinforced polycarbonate	Base made of glass-fibre reinforced polycarbonate, ABS lid
Cover	Grey	Transparent
Surface finish	Grey, similar to RAL 7035	Grey, similar to RAL 7035
IP protection class	IP 66, IP 67	IP 66, IP 67
Installation mounting	Self-tapping screws	Self-tapping screws
Enclosure mounting	4 holes (4.5 mm diameter) or external mounting brackets (optional)	4 holes (4.5 mm diameter) or external mounting brackets (optional)
Lid fixing	4 cross-head screws (polyamide)	4 cross-head screws (polyamide)
Gasket material	Polyurethane foam	Polyurethane foam
Temperature range	-50 °C...+100 °C	-40 °C...+60 °C
Impact resistance	IK 08	IK 06
<b>Note</b>	For details of power dissipation, please contact your Weidmüller representative.	



Height / Width / Depth

**Technical data**

**Assembly with terminal**

- 2.5 mm<sup>2</sup>
- 4 mm<sup>2</sup>
- 6 mm<sup>2</sup>
- 10 mm<sup>2</sup>
- 16 mm<sup>2</sup>
- 35 mm<sup>2</sup>

**Guide value for max. number of cable entries**

- M12
- M16
- M20
- M25
- M32
- M40
- M50
- M63
- M75

**Note**

**Ordering data**

- Enclosure with grey lid
- Enclosure with transparent lid

**Note**

**Accessories**

**Mounting plates and fastening screws**

- Steel sheet, zinc plated
- M4 screw

**Mounting rails, TS15x5**

- Vertical
- Horizontally

**Mounting rails, TS35x7.5**

- Horizontally
- Vertical

**External mounting lug, set of 4**

**Hinge, set of 2**

**Earthing stud**

- Brass, M6
- Stainless steel 1.4404, M6
- Brass, M10
- Stainless steel 1.4404, M10

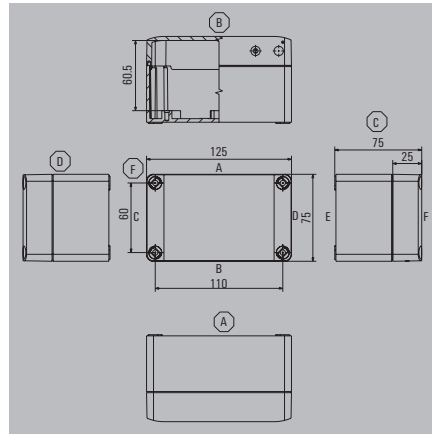
**Pressure compensation elements**

- Polyamide 6, M12
- Stainless steel 1.4305, M12

**Note**

**MPC 07/12/07**

**75 mm**



75 / 125 / 75 mm

vertical	horizontal
1x13	1x13
1x11	1x11
1x8	1x8
1x6	1x6

A / B	C / D
1	4
1	3
1	3

Type	Qty.	Order No.
MPC 07/12/07 7035	1	9535170000
MPC 07/12/07 TRSP	1	9535180000

Type	Qty.	Order No.
MP MPC 07/12	10	9535540000
FKSC M4X6 D8/SW2	100	1567480000
TS15X5 ST MPC1217 VER	20	8000037598
TS15X5 ST MPC0712 VER	20	8000037599

Type	Qty.	Order No.
TS 35x105_MPC_12	20	8000037603

Type	Qty.	Order No.
MF MPC	1	9535600000

Type	Qty.	Order No.
HG MPC	1	9535590000

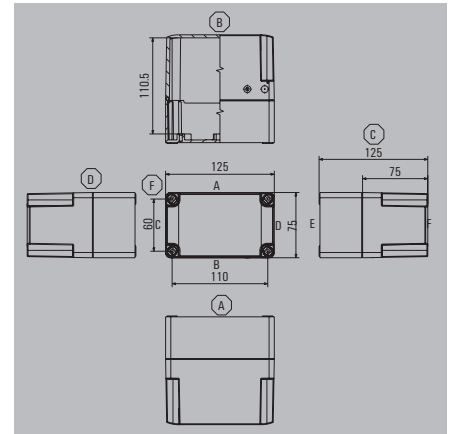
Type	Qty.	Order No.
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000

Type	Qty.	Order No.
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

**Note**

**MPC 07/12/12**

**125 mm**



75 / 125 / 125 mm

vertical	horizontal
1x13	1x13
1x11	1x11
1x8	1x8
1x6	1x6
1x5	1x1
1x4	1x1

A / B	C / D
1	4
1	3
1	3

Type	Qty.	Order No.
MPC 07/12/12 7035	1	9535210000
MPC 07/12/12 TRSP	1	9535220000

Type	Qty.	Order No.
MP MPC 07/12	10	9535540000
FKSC M4X6 D8/SW2	100	1567480000
TS15X5 MPC1217 VER	20	8000037598
TS15X5 MPC0712 VER	20	8000037599

Type	Qty.	Order No.
TS 35x105_MPC_12	20	8000037603

Type	Qty.	Order No.
MF MPC	1	9535600000

Type	Qty.	Order No.
HG MPC	1	9535590000

Type	Qty.	Order No.
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000

Type	Qty.	Order No.
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

**Note**





Height / Width / Depth

**Technical data**

**Assembly with terminal**

- 2.5 mm<sup>2</sup>
- 4 mm<sup>2</sup>
- 6 mm<sup>2</sup>
- 10 mm<sup>2</sup>
- 16 mm<sup>2</sup>
- 35 mm<sup>2</sup>

**Guide value for max. number of cable entries**

- M12
- M16
- M20
- M25
- M32
- M40
- M50
- M63
- M75

**Note**

**Ordering data**

- Enclosure with grey lid
- Enclosure with transparent lid

**Note**

**Accessories**

**Mounting plates and fastening screws**

- Steel sheet, zinc plated
- M4 screw

**Mounting rails, TS15x5**

- Vertical
- Horizontally

**Mounting rails, TS35x7.5**

- Horizontally
- Vertical

**External mounting lug, set of 4**

**Hinge, set of 2**

**Earthing stud**

- Brass, M6
- Stainless steel 1.4404, M6
- Brass, M10
- Stainless steel 1.4404, M10

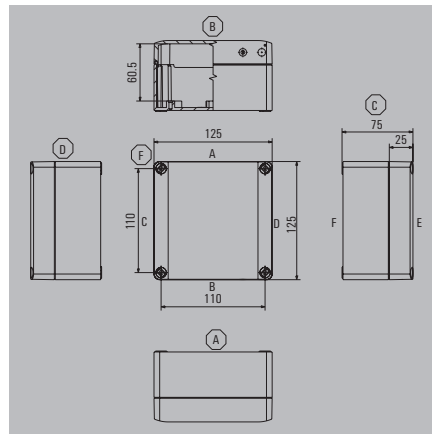
**Pressure compensation elements**

- Polyamide 6, M12
- Stainless steel 1.4305, M12

**Note**

**MPC 12/12/07**

**75 mm**



125 / 125 / 75 mm

vertical	horizontal
1x13	1x13
1x11	1x11
1x8	1x8
1x6	1x6

A / B	C / D
4	4
3	3
3	

**Note**

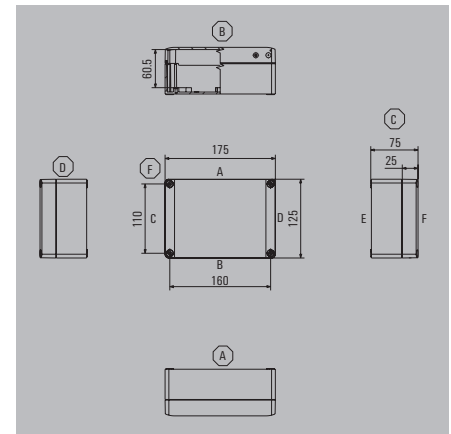
Type	Qty.	Order No.
MPC 12/12/07 7035	1	9535230000
MPC 12/12/07 TRSP	1	9535240000

Type	Qty.	Order No.
MP MPC 12/12	10	9535550000
FKSC M4X6 D8/SW2	100	1567480000
TS15X5 ST MPC1217 VER	20	8000037598
TS 35x105_MPC_12	20	8000037603
TS35 MPC 1717 VER	20	8000037605
MF MPC	1	9535600000
HG MPC	1	9535590000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

**Note**

**MPC 12/17/07**

**75 mm**



125 / 175 / 75 mm

vertical	horizontal
1x22	1x22
1x19	1x19
1x14	1x14
1x11	1x11

A / B	C / D
4	6
3	4
3	4

**Note**

Type	Qty.	Order No.
MPC 12/17/07 7035	1	9535290000
MPC 12/17/07 TRSP	1	9535300000

Type	Qty.	Order No.
MP MPC 12/17	1	9535560000
FKSC M4X6 D8/SW2	100	1567480000
TS 35x105_MPC_12	20	8000037603
TS35 MPC 1717 VER	20	8000037605
MF MPC	1	9535600000
HG MPC	1	9535590000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

**Note**



Height / Width / Depth

**Technical data**

**Assembly with terminal**

- 2.5 mm<sup>2</sup>
- 4 mm<sup>2</sup>
- 6 mm<sup>2</sup>
- 10 mm<sup>2</sup>
- 16 mm<sup>2</sup>
- 35 mm<sup>2</sup>

**Guide value for max. number of cable entries**

- M12
- M16
- M20
- M25
- M32
- M40
- M50
- M63
- M75

**Note**

**Ordering data**

- Enclosure with grey lid
- Enclosure with transparent lid

**Note**

**Accessories**

**Mounting plates and fastening screws**

- Steel sheet, zinc plated
- M4 screw

**Mounting rails, TS15x5**

- Vertical
- Horizontally

**Mounting rails, TS35x7.5**

- Horizontally
- Vertical

**External mounting lug, set of 4**

**Hinge, set of 2**

**Earthing stud**

- Brass, M6
- Stainless steel 1.4404, M6
- Brass, M10
- Stainless steel 1.4404, M10

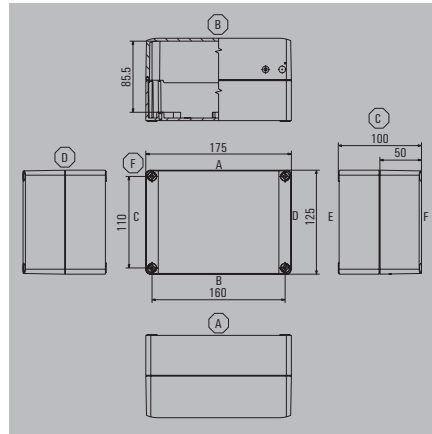
**Pressure compensation elements**

- Polyamide 6, M12
- Stainless steel 1.4305, M12

**Note**

**MPC 12/17/10**

**100 mm**



125 / 175 / 100 mm

	vertical	horizontal
	1x22	1x22
	1x19	1x19
	1x14	1x14
	1x11	1x11
	1x9	1x5
	1x7	1x4
	A / B	C / D
	4	6
	3	4
	3	4

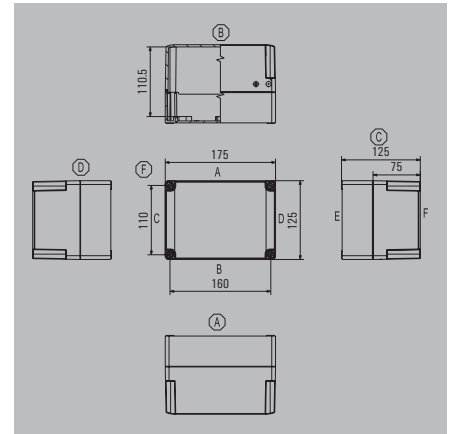
Type	Qty.	Order No.
MPC 12/17/10 7035	1	9535310000
MPC 12/17/10 TRSP	1	9535320000

Type	Qty.	Order No.
MP MPC 12/17	1	9535560000
FKSC M4X6 D8/SW2	100	1567480000
TS15X5 ST MPC1217 VER	20	8000037598
TS35 MPC 1717 VER	20	8000037605
MF MPC	1	9535600000
HG MPC	1	9535590000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

**Note**

**MPC 12/17/12**

**125 mm**



125 / 175 / 125 mm

	vertical	horizontal
	1x13	1x22
	1x11	1x19
	1x8	1x8
	1x6	1x11
	1x5	1x5
	1x4	1x4
	A / B	C / D
	4	6
	3	4
	3	4

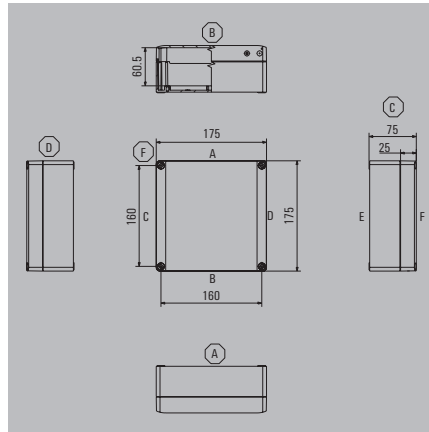
Type	Qty.	Order No.
MPC 12/17/12 7035	1	9535330000
MPC 12/17/12 TRSP	1	9535340000

Type	Qty.	Order No.
MP MPC 12/17	1	9535560000
FKSC M4X6 D8/SW2	100	1567480000
TS15X5 MPC1217 VER	20	8000037598
TS35 MPC 1717 VER	20	8000037605
MF MPC	1	9535600000
HG MPC	1	9535590000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

**Note**

MPC 17/17/07

75 mm



Height / Width / Depth

175 / 175 / 75 mm

Technical data

Assembly with terminal

- 2.5 mm<sup>2</sup>
- 4 mm<sup>2</sup>
- 6 mm<sup>2</sup>
- 10 mm<sup>2</sup>
- 16 mm<sup>2</sup>
- 35 mm<sup>2</sup>

Guide value for max. number of cable entries

- M12
- M16
- M20
- M25
- M32
- M40
- M50
- M63
- M75

Note

vertical	horizontal
1x22	1x22
1x19	1x19
1x14	1x14
1x11	1x11

A / B	C / D
6	6
4	4
4	

Ordering data

- Enclosure with grey lid
- Enclosure with transparent lid

Note

Type	Qty.	Order No.
MPC 17/17/07 7035	1	9535370000
MPC 17/17/07 TRSP	1	9535380000

Accessories

Mounting plates and fastening screws

- Steel sheet, zinc plated
- M4 screw

Mounting rails, TS15x5

- Vertical
- Horizontally

Mounting rails, TS35x7.5

- Horizontally
- Vertical

External mounting lug, set of 4

Hinge, set of 2

Earthing stud

- Brass, M6
- Stainless steel 1.4404, M6
- Brass, M10
- Stainless steel 1.4404, M10

Pressure compensation elements

- Polyamide 6, M12
- Stainless steel 1.4305, M12

Note

Type	Qty.	Order No.
MP MPC 17/17	1	9535570000
FKSC M4X6 D8/SW2	100	1567480000
TS 35x105_MPC_12	20	8000037603
TS35 MPC 1717 VER	20	8000037605
MF MPC	1	9535600000
HG MPC	1	9535590000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000



Height / Width / Depth

**Technical data**

**Assembly with terminal**

- 2.5 mm<sup>2</sup>
- 4 mm<sup>2</sup>
- 6 mm<sup>2</sup>
- 10 mm<sup>2</sup>
- 16 mm<sup>2</sup>
- 35 mm<sup>2</sup>

**Guide value for max. number of cable entries**

- M12
- M16
- M20
- M25
- M32
- M40
- M50
- M63
- M75

**Note**

**Ordering data**

- Enclosure with grey lid
- Enclosure with transparent lid

**Note**

**Accessories**

**Mounting plates and fastening screws**

- Steel sheet, zinc plated
- M4 screw

**Mounting rails, TS15x5**

- Vertical
- Horizontally

**Mounting rails, TS35x7.5**

- Horizontally
- Vertical

**External mounting lug, set of 4**

**Hinge, set of 2**

**Earthing stud**

- Brass, M6
- Stainless steel 1.4404, M6
- Brass, M10
- Stainless steel 1.4404, M10

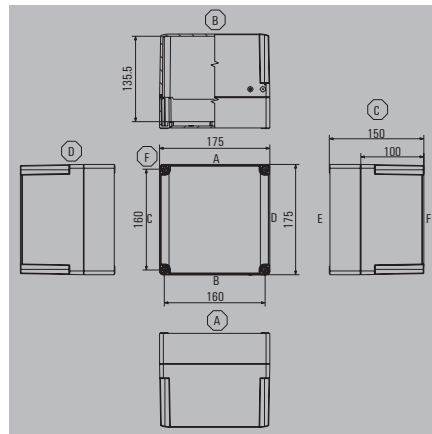
**Pressure compensation elements**

- Polyamide 6, M12
- Stainless steel 1.4305, M12

**Note**

**MPC 17/17/15**

150 mm



175 / 175 / 150 mm

vertical	horizontal
1x22	1x22
1x19	1x19
1x14	1x14
1x11	1x11
1x9	1x9
1x7	1x7
A / B	C / D
6	6
4	4
4	

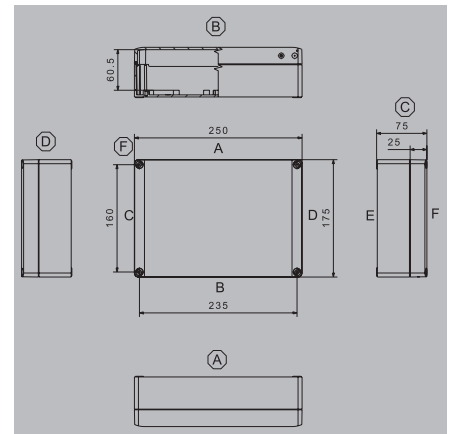
Type	Qty.	Order No.
MPC 17/17/15 7035	1	9535430000
MPC 17/17/15 TRSP	4	9535440000

Type	Qty.	Order No.
MP MPC 17/17	1	9535570000
FKSC M4X6 D8/SW2	100	1567480000
TS35X7.5 ST MPC1725 VER	20	8000037600
MF MPC	1	9535600000
HG MPC	1	9535590000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

**Note**

**MPC 17/25/07**

75 mm



250 / 175 / 75 mm

vertical	horizontal
A / B	C / D

Type	Qty.	Order No.
MPC 17/25/07 7035	1	9535450000

Type	Qty.	Order No.
MP MPC 17/25	1	9535580000
FKSC M4X6 D8/SW2	100	1567480000
TS35X7.5 MPC1725 HOR	20	8000037601
TS35X7.5 MPC1725 VER	20	8000037600
MF MPC	1	9535600000
HG MPC	1	9535590000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

**Note**



## FPC – Medium-sized polycarbonate enclosures

The FPC enclosure range is the next generation of the MPC range. The enclosures have the same technical characteristics and are ideal for enclosing electrical, electro-mechanical and pneumatic devices and PCBs. The enclosures are used in situations where extreme mechanical and chemical conditions exist.

The characteristics of the enclosures are:

- Available in 6 sizes, with grey or transparent lids
- Lid fixing screws equipped with sealing holes
- Fixing holes outside the sealed area
- Thread for fitting to terminal rails, mounting plates and PCBs

Weidmüller manufactures and supplies the enclosures to match customer specifications – fully fitted with terminals, electronics and cable glands.



Use our online catalogue to find additional product details, technical information and additional services:

[www.weidmueller.com/FPC](http://www.weidmueller.com/FPC)

### Overview of enclosures

#### Ordering data

Description	Dimensions in mm	Grey lid	Transparent lid
FPC 20/20/13	200 x 200 x 132	9535690000	9535680000
FPC 20/30/13	200 x 300 x 132	9535710000	9535700000
FPC 20/40/13	200 x 400 x 132	9535730000	9535720000
FPC 30/30/13	300 x 300 x 132	9535750000	9535740000
FPC 30/40/13	300 x 400 x 132	9535770000	9535760000
FPC 40/60/13	400 x 600 x 132	9535810000	9535820000

#### Note

#### Technical data

	Grey lid	Transparent lid
Enclosure material	Base and lid made of glass-fibre reinforced polycarbonate	Base made of glass-fibre reinforced polycarbonate, ABS lid
Cover	Grey	Transparent
Surface finish	Grey, similar to RAL 7035	Grey, similar to RAL 7035
IP protection class	IP 66, IP 67	IP 66, IP 67
Installation mounting	Self-tapping screws	Self-tapping screws
Enclosure mounting	4 holes (7.5 mm diameter) or external mounting brackets (optional)	4 holes (7.5 mm diameter) or external mounting brackets (optional)
Lid fixing	4 or 6 cross-head screws (polyamide)	4 or 6 cross-head screws (polyamide)
Gasket material	Polyurethane foam	Polyurethane foam
Temperature range	-50 °C...+100 °C	-40 °C...+60 °C
Impact resistance	IK 08	IK 06

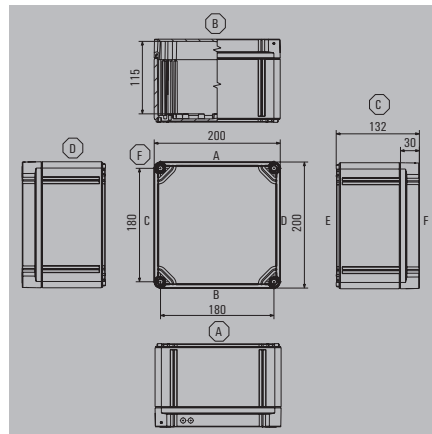
#### Note

For details of power dissipation, please contact your Weidmüller representative.



**FPC 20/20/13**

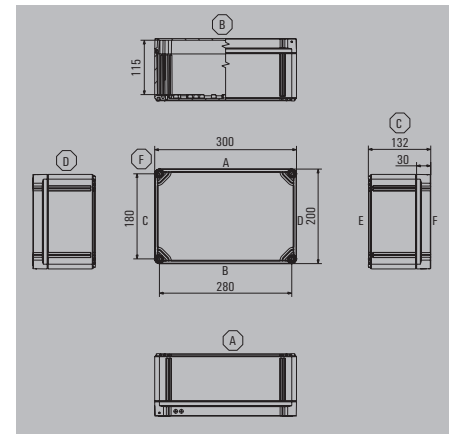
**132 mm**



200 / 200 / 132 mm

**FPC 20/30/13**

**132 mm**



200 / 300 / 132 mm

Height / Width / Depth

**Technical data**

**Assembly with terminal**

- 2.5 mm<sup>2</sup>
- 4 mm<sup>2</sup>
- 6 mm<sup>2</sup>
- 10 mm<sup>2</sup>
- 16 mm<sup>2</sup>
- 35 mm<sup>2</sup>

**Guide value for max. number of cable entries**

- M12
- M16
- M20
- M25
- M32
- M40
- M50
- M63
- M75

**Note**

**Ordering data**

- Enclosure with grey lid
- Enclosure with transparent lid

**Note**

**Accessories**

**Mounting plates and fastening screws**

- Steel sheet, zinc plated
- M4 screw

**Mounting rails, TS15x5**

Vertical

**Mounting rails, TS35x7.5**

- Horizontally
- Vertical

**External mounting lug, set of 4**

**Hinge, set of 2**

**Earthing stud**

- Brass, M6
- Stainless steel 1.4404, M6
- Brass, M10
- Stainless steel 1.4404, M10

**Pressure compensation elements**

- Polyamide 6, M12
- Stainless steel 1.4305, M12

**Note**

	vertical	horizontal
	1x17	1x17
	1x14	1x14
	1x10	1x10
	1x8	1x8
	1x7	1x7
	1x5	1x5
	A / B	C / D
	20	20
	11	11
	6	6
	4	4
	2	2
	1	1
	1	1
	1	1

	vertical	horizontal
	2x20	1x40
	2x17	1x33
	2x13	2x13
	2x10	1x20
	2x8	1x17
	2x6	1x12
	A / B	C / D
	38	20
	21	11
	12	6
	8	4
	3	2
	3	1
	2	1
	2	1

Type	Qty.	Order No.
FPC 20/20/13 7035	1	9535690000
FPC 20/20/13 TRSP	1	9535680000

Type	Qty.	Order No.
FPC 20/30/13 7035	1	9535710000
FPC 20/30/13 TRSP	1	9535700000

Type	Qty.	Order No.
MP FPC 20/20	1	9535920000
FKSC M4X6 D8/SW2	100	1567480000
TS15X5 ST FPC 20 VER	20	8000037604
TS35X7.5 ST FPC 20 HOR	20	8000037557
TS35X7.5 ST FPC 20 VER	20	8000037558
MF FPC	1	9536040000
HG FPC	1	9535990000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

Type	Qty.	Order No.
MP FPC 20/30	1	9535930000
FKSC M4X6 D8/SW2	100	1567480000
TS15X5 FPC 20 VER	20	8000037604
TS35X7.5 FPC 30 HOR	20	8000037559
TS35X7.5 FPC 20 VER	20	8000037558
MF FPC	1	9536040000
HG FPC	1	9535990000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000



Height / Width / Depth

**Technical data**

**Assembly with terminal**

- 2.5 mm<sup>2</sup>
- 4 mm<sup>2</sup>
- 6 mm<sup>2</sup>
- 10 mm<sup>2</sup>
- 16 mm<sup>2</sup>
- 35 mm<sup>2</sup>

**Guide value for max. number of cable entries**

- M12
- M16
- M20
- M25
- M32
- M40
- M50
- M63
- M75

**Note**

**Ordering data**

- Enclosure with grey lid
- Enclosure with transparent lid

**Note**

**Accessories**

**Mounting plates and fastening screws**

- Steel sheet, zinc plated
- M4 screw

**Mounting rails, TS15x5**

Vertical

**Mounting rails, TS35x7.5**

- Horizontally
- Vertical

**External mounting lug, set of 4**

**Hinge, set of 2**

**Earthing stud**

- Brass, M6
- Stainless steel 1.4404, M6
- Brass, M10
- Stainless steel 1.4404, M10

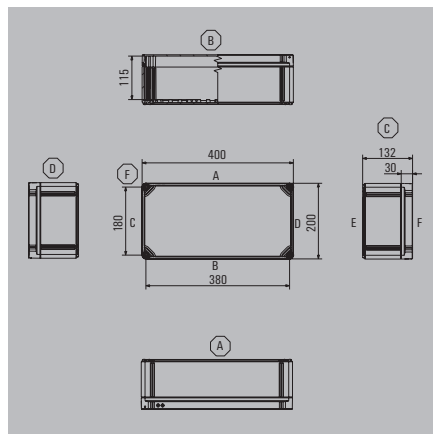
**Pressure compensation elements**

- Polyamide 6, M12
- Stainless steel 1.4305, M12

**Note**

**FPC 20/40/13**

**132 mm**



200 / 400 / 132 mm

	vertical	horizontal
	3x20	1x59
	3x17	1x49
	3x13	3x13
	3x10	1x30
	3x8	1x25
	3x6	1x19
	A / B	C / D
M12	56	20
M16	30	11
M20	18	6
M25	12	4
M32	5	2
M40	4	1
M50	4	1
M63	3	1

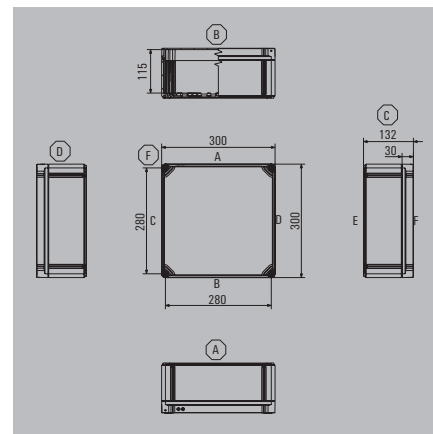
Type	Qty.	Order No.
FPC 20/40/13 7035	1	9535730000
FPC 20/40/13 TRSP	1	9535720000

Type	Qty.	Order No.
MP FPC 20/40	1	9535940000
FKSC M4X6 D8/SW2	100	1567480000
TS15X5 ST FPC 20 VER	20	8000037604
TS35X7.5 ST FPC 40 HOR	20	8000037560
TS35X7.5 ST FPC 20 VER	20	8000037558
MF FPC	1	9536040000
HG FPC	1	9535990000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

**Note**

**FPC 30/30/13**

**132 mm**



300 / 300 / 132 mm

	vertical	horizontal
	2x40	1x40
	2x33	1x33
	2x25	2x25
	2x20	1x20
	2x17	1x17
	2x12	1x12
	A / B	C / D
M12	38	38
M16	21	21
M20	12	12
M25	8	8
M32	3	3
M40	3	3
M50	2	2
M63	2	2

Type	Qty.	Order No.
FPC 30/30/13 7035	1	9535750000
FPC 30/30/13 TRSP	1	9535740000

Type	Qty.	Order No.
MP FPC 30/30	1	9535950000
FKSC M4X6 D8/SW2	100	1567480000
TS15X5 FPC 20 VER	20	8000037604
TS35X7.5 FPC 40 HOR	20	8000037560
TS35X7.5 FPC 20 VER	20	8000037558
MF FPC	1	9536040000
HG FPC	1	9535990000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

**Note**

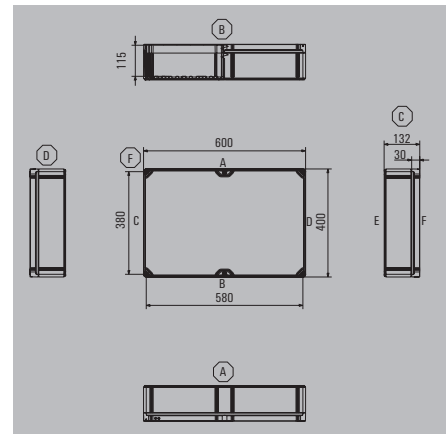
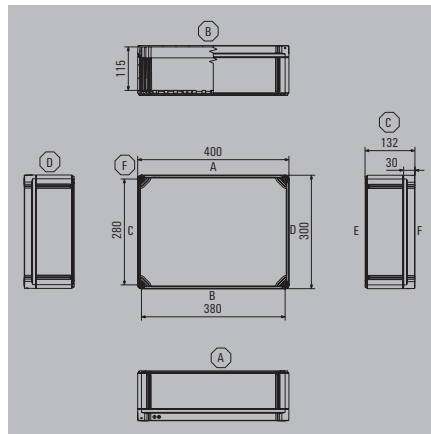


**FPC 30/40/13**

**132 mm**

**FPC 40/60/13**

**132 mm**



Height / Width / Depth

300 / 400 / 132 mm

400 / 600 / 132 mm

**Technical data**

**Assembly with terminal**

- 2.5 mm<sup>2</sup>
- 4 mm<sup>2</sup>
- 6 mm<sup>2</sup>
- 10 mm<sup>2</sup>
- 16 mm<sup>2</sup>
- 35 mm<sup>2</sup>

**Guide value for max. number of cable entries**

- M12
- M16
- M20
- M25
- M32
- M40
- M50
- M63
- M75

**Note**

	vertical	horizontal
	3x40	1x59
	3x33	1x49
	3x25	3x25
	3x20	1x30
	3x17	1x25
	3x12	1x19
	A / B	C / D
M12	56	38
M16	30	21
M20	18	12
M25	12	8
M32	5	3
M40	4	3
M50	4	2
M63	3	2

	vertical	horizontal
	5x59	2x97
	5x49	2x81
	5x37	5x37
	5x30	2x49
	5x25	2x41
	5x19	2x31
	A / B	C / D
M12	76	56
M16	42	30
M20	24	18
M25	16	12
M32	6	5
M40	6	4
M50	4	4
M63	4	3

**Ordering data**

- Enclosure with grey lid
- Enclosure with transparent lid

**Note**

Type	Qty.	Order No.
FPC 30/40/13 7035	1	9535770000
FPC 30/40/13 TRSP	1	9535760000

Type	Qty.	Order No.
FPC 40/60/13 7035	1	9535810000
FPC 40/60/13 TRSP	1	9535820000

**Accessories**

**Mounting plates and fastening screws**

- Steel sheet, zinc plated
- M4 screw

**Mounting rails, TS15x5**

Vertical

**Mounting rails, TS35x7.5**

- Horizontally
- Vertically

**External mounting lug, set of 4**

**Hinge, set of 2**

**Earthing stud**

- Brass, M6
- Stainless steel 1.4404, M6
- Brass, M10
- Stainless steel 1.4404, M10

**Pressure compensation elements**

- Polyamide 6, M12
- Stainless steel 1.4305, M12

**Note**

Type	Qty.	Order No.
MP FPC 30/40	1	9535960000
FKSC M4X6 D8/SW2	100	1567480000
TS35X7.5 ST FPC 40 HOR	20	8000037560
TS35X7.5 ST FPC 30 VER	20	8000037561
MF FPC	1	9536040000
HG FPC	1	9535990000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000

Type	Qty.	Order No.
MP FPC 40/60	1	9535980000
FKSC M4X6 D8/SW2	100	1567480000
TS35X7.5 FPC 60 HOR	20	8000037563
TS35X7.5 FPC 40 VER	20	8000037562
MF FPC	1	9536040000
HG FPC	1	9535990000
PEBZ M6 BR SET	1	1277250000
PEBZ M6 S4 SET	1	1283430000
PEBZ M10 BR SET	1	1277220000
PEBZ M10 S4 SET	1	1283440000
DAE M12 PA LONG	10	1868570000
DAE M12 SS	10	1868550000



# Cable entries

<b>Cable entries</b>	Introduction	D.2
	Overview	D.4
	Standard cable glands - Plastic	D.6
	Standard cable glands - Brass	D.8
	EMC cable glands	D.11
	Standard cable glands - Stainless steel	D.13
	Standard cable glands	D.15
	Klippon® Cable Glands	D.16
	Ex-cable glands - Brass	D.27
	Ex-cable glands - Plastic	D.36
	Accessories - Lock nuts	D.40
	Accessories - Flat IP washer	D.45
	Accessories - Earthing rings	D.49
	Accessories - Shrouds	D.50
	Accessories - Washers	D.52
	Blanking plugs	D.53
	Ex-Blanking plugs	D.55
	Compensating elements	D.59
	Ex-Compensating elements	D.61

## Cable entries

Weidmüller offers a variety of add-on components for a multitude of purposes and applications in addition to its extensive Klippon® Protect range.

In addition to brass, plastic and stainless steel cable glands, there are also sealing plugs, pressure-equalising elements, adapters and relevant accessories – such as lock nuts, flat gaskets, flat washers and earthing rings – available.

To match the assembled enclosures, the cable glands meet the requirements of IP protection classes IP54 to IP69K and can be used as required in standard industrial applications, EMC applications or even explosive risk zones, plus they comply with the approvals required for this purpose.

The Ex-certified Klippon® cable glands also allow for the connection of cables and conductors with different reinforcements with and without lead sheathing, as well as the connection of steel wire and steel tape cables. They can withstand temperatures ranging from -60°C to +180°C.

Depending on the cable gland variants and application, the cable glands, sealing plugs, adaptors, pressure-equalising elements, and accessories are manufactured and certified according to the following standards:

- IEC/EN 62444 (Construction and design)
- IEC/EN 60529 (IP protection class testing)
- IEC/EN 60079-0 (General Ex requirements)
- IEC/EN 60079-1 (Ex d Ex standard)
- IEC/EN 60079-7 (Ex e Ex standard)
- IEC/EN 60079-11 (Ex i Ex standard)
- IEC/EN 60423 (Metric thread)
- DIN 40430 (PG and NPT threads)

The range of cable glands, sealing plugs and pressure-equalising elements is available in metric (M) and high-strength (PG) threads in sizes ranging from M12 to M75 and PG7 to PG48. When choosing cable glands and sealing plugs, please refer to the table with the sealing characteristics of the O-rings, flat gaskets and seal inserts. The O-Ring or flat gasket is always intended for sealing the connecting thread on an enclosure, for example, while the seal insert of each cable gland is intended for actually sealing and crushing the connecting cable.



You should always observe the maximum drill-hole diameter when installing a cable gland, sealing plug, adaptor, or pressure compensation element (e.g. onto the gland plate of an enclosure). These must not exceed the following specified maximum values / tolerances so that the protection degree of the whole enclosure can be guaranteed. Please also refer to the instruction manual; deviating information is possible.

#### Through-hole information

M thread	Through-hole, in mm
M 12	12.2
M 16	16.2
M 20	20.2
M 25	25.2
M 32	32.2
M 40	40.2
M 50	50.2
M 63	63.2
M 75	75.2
PG thread	Through-hole, in mm
PG 7	12.4
PG 9	15.1
PG 11	18.5
PG 13.5	20.4
PG 16	22.5
PG 21	28.3
PG 29	37.4
PG 36	47.2
PG 42	54.2
PG 48	59.5

#### Overview of sealing materials for O-rings, flat gaskets as well as seal inserts

Abbreviation	Material	Trade name	Temperature range	Chemical resistance	Fire resistant	Shore	Free from halogens	UV resistance
TPE	Thermo-plastic elastomer	Santoprene	-40 °C to +130 °C	Hydrocarbons, oils, acids	UL94, HB	64	Yes	very good
CR	Chloroprene rubber	Neoprene	-40 °C to +130 °C	Mineral oils, greases, fuels	very good	40 - 90	No	very good
NBR	Nitrile rubber	Perbunan, Nitrile	-40 °C to +130 °C	Hydrocarbons, oils, acids, aliphatic solvents, greases, fuels	weak	40 - 90	No	good
EPDM	Ethylene-propylene-diene rubber	Keltan	-50 °C to +130 °C	Weather-, grease-, mineral oil-, chlorine-, and ozone resistant, hydrocarbons	weak	20 - 90		very good
FPM	Fluoro-rubber	Viton	-25 °C to +200 °C	ozone, oxygen, mineral oils, synthetic hydraulic fluids, fuels, aromatics, many organic solvents and chemicals	weak	65 - 95		good

**Note:** The data refer only to the sealing material, not to the entire component.

#### Abbreviations - technical data

A, L	Length in mm
L1	Length of thread in mm
D	Diameter in mm
S	Thickness in mm
S1, S2	Depth in mm
SW, SW1, SW2	Distance across flats in mm
KB	Clamping range in mm
KB ZE	Clamping range strain relief in mm
Thread	External thread
SUHB	Shroud / Protective cap
DR	Tightening torque in Nm
HM	Cap nut / pressure screw
Qty.	Packing unit in pieces

#### Product designation

VG	Cable gland
VP	Sealing plugs
KDSU	Klippon® Double Seal Universal
KDSW	Klippon® Double Seal for SWA
KDSX	Klippon® Double Seal for SWB/STA
KSG	Klippon® Standard Gland
KUB	Klippon® Universal Barrier
KSPA	Klippon® Stopping Plug Type A
KSPMH	Klippon® Stopping Plug Mushroom
KSWN	Klippon® Sealing Washer Nylon
KSWF	Klippon® Sealing Washer Red Fibre
KSP	Klippon® Shroud PVC/Silicone
SKMU	Hexagon nut
DAE	Pressure compensation element
BD	Breather drain (compensation element)
SZS	Serrated Star Washers
ZE	Strain relief
EMV	Electromagnetic compatibility
EA	Earthing ring
SKS	Spiral kink protection
GWDR	Threaded sealing ring or IP washer

# Glands and accessories

The tables below provide an overview of the Weidmüller cable glands and the recommended accessories.

## Standard cable glands

Material/Type	Approvals				Thread sealing rings			Locknuts				
	IP class of protection without seal	IP class of protection with seal	Ex	EMC	Armouring	CSM GWDR PO	CR GWDR...NP	O-Ring	grey SKMU...K GR	black SKMU...KSW	brass SKMU...MS	MS EMC SKMU EMV...
<b>Plastic</b>												
VG ... K68	IP68 / 5 bar								•			
VG ... K68 SKS	IP68 / 5 bar								•			
<b>Nickel-plated brass</b>												
VG ... MS68	IP54, IP66, IP68 / 5 bar, IP69k							included			•	
VGM...MS68...BG	IP68							included			•	
VG ... MS54-ZE	IP54										•	
VG ... EMV-4	IP66, IP68 / 5 bar, IP69k			•				included				•
VGM...EMC...SET	IP68			•				included				•
<b>Stainless steel</b>												
VG...SS68	IP54, IP66, IP68 / 5 bar, IP69k							included			•	
VGM...SS68...BG	IP68							included			•	






## Cable glands HQ

Material/Type	Approvals				Thread sealing rings			Locknuts				
	IP class of protection without seal	IP class of protection with seal	Ex	EMC	Armouring	CSM GWDR PO	CR GWDR...NP	O-Ring	grey SKMU...K GR	black SKMU...KSW	brass SKMU...MS	MS EMC SKMU EMV...
<b>Nickel-plated brass, Ex</b>												
VG ... K68 ...	IP65											
<b>Brass Ex</b>												
VG ... MS68 ...	IP65											
VG ... EMV68 ...	IP65			•								







## Cable glands Ex

Material/Type	Approvals				Thread sealing rings			Locknuts				
	IP class of protection without seal	IP class of protection with seal	Ex	EMC	Armouring	KSWN	CR GWDR...NP	O-Ring	grey SKMU...K GR	black SKMU...KSW	brass SKMU...MS	MS EMC SKMU EMV...
<b>Nickel-plated brass, Ex</b>												
KDSU...BN/BS O NII	IP66, IP68 / 2.5 bar		Ex e/d		•			included			•	
KUB...BS O NI *	IP66, IP68 / 10 bar		Ex e/d		•			included			•	
KDSW...BN/BS O/L NI	IP54	IP54, IP66, IP68 / 2.5 bar	Ex e/d		•	optional					•	
KDSX...BS O NI	IP54	IP54, IP66, IP68 / 2.5 bar	Ex e/d		•	optional					•	
KSG...BN/BS O NI	IP66, IP68 / 2.5 bar		Ex e/d					included			•	
<b>Plastic Ex</b>												
VG...EXI...7J	IP54, IP66, IP68 / 5 bar		Ex e					included		•		
VG...EXE...7J	IP54, IP66, IP68 / 5 bar		Ex i					included		•		
<b>Note:</b>	* Available on request. Ex - Stainless steel glands on request											

## Adaptor

Material/Type	Approvals		Thread sealing rings			Locknuts			
	IP class of protection with seal	Ex	GWDR PO	CR GWDR...NP	O-Ring	grey SKMU...K GR	black SKMU...K SW	brass SKMU...MS	MS EMC SKMU EMV...
<b>Plastic</b>									
 DAE M12 PA	IP66, IP68, IP69K				included				
 DAE M12 PA long	IP66, IP68, IP69K				included		•		
<b>Stainless steel</b>									
 DAE M12 SS	IP66, IP68, IP69K				included			•	•
<b>Brass Ex</b>									
 KLIPPON BDx ... B	IP66				included				
<b>Stainless steel Ex</b>									
 KLIPPON BDx ... S	IP66				included				

## Stopping plugs

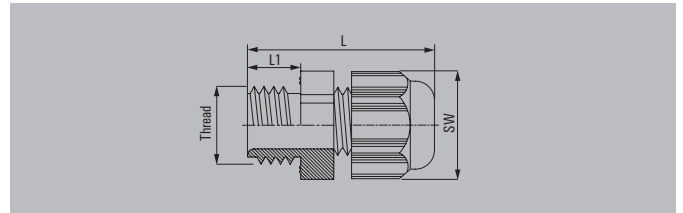
Material/Type	Approvals		Thread sealing rings			Locknuts				
	IP class of protection without seal	IP class of protection with seal	Ex	GWDR PO	CR GWDR...NR	O-Ring	grey SKMU...K GR	black SKMU...K SW	brass SKMU...MS	MS EMC SKMU EMV...
<b>Plastic</b>										
 VP ... K54	IP54	IP65					•			
<b>Nickel-plated brass</b>										
 VP ... MS65		IP68			included				•	
<b>Stainless steel</b>										
 KSPMH...SSC		IP66, IP68	Ex e/d			included			•	
<b>Plastic Ex</b>										
 VP...Ex SW	IP54, IP66	IP66, IP68	Ex e		optional		•			
<b>Nickel-plated brass, Ex</b>										
 VP...Ex MS		IP54, IP64, IP68	Ex e/d			included			•	
<b>Brass Ex</b>										
 KSPMH...BSC		IP66, IP68	Ex e/d			included			•	

## Standard cable glands – Plastic

## Cable glands – Plastic – IP68



Cable gland made of plastic with integrated strain relief for industrial applications where IP67 or IP68 protection is required. Tested and approved according to EN 62444 and UL514B.



## Technical data

Material / Colour	Polyamide 6 / Light Grey / RAL 7035
Seal insert	CR
Temperature range	-40 °C...100 °C
Protection class	IP67, IP68 - 5 bar (30 min.)
Flammability rating	V-2
<b>Note</b>	Version with moulded sealing lip. Length L varies depending on the cable diameter used.

## Ordering data

Type	Thread	KB	L/L1	SW	Qty.	Order No.
<b>metric</b>						
VG M12-1/K68	M 12	3-6.5	30.5 / 8	15	100	1772280000
VG M16-1/K68	M 16	4-8	34.5 / 8	19	50	1909860000
VG M16 - K 68	M 16	5-10	40 / 10	22	50	1772290000
VG M20-1/K68	M 20	6-12	39.5 / 10	24	50	1772300000
VG M25-1/K68	M 25	11-17	43 / 8	29	50	1909870000
VG M25 - K 68	M 25	13-18	47 / 10	33	25	1772310000
VG M32-1/K68	M 32	15-21	52 / 10	36	20	1909880000
VG M32 - K 68	M 32	18-25	56 / 15	42	20	1772320000
VG M40-1/K68	M 40	19-28	57 / 10	46	10	1909890000
VG M40 - K 68	M 40	22-32	69.5 / 18	53	10	1772330000
VG M50 - K 68	M 50	30-38	71 / 18	60	10	1772340000
VG M63-1/K68	M 63	34-44	71 / 18	65	10	1772350000
<b>PG</b>						
VG 7-K68	PG 7	3-6.5	30 / 8	15	100	1568970000
VG 9-K68	PG 9	4-8	34.5 / 8	19	50	1568980000
VG 11-K68	PG 11	5-10	37 / 8	22	50	1568990000
VG 13.5-K68	PG 13.5	6-12	39 / 10	24	50	1569000000
VG 16-K68	PG 16	10-14	41 / 10	27	50	1569010000
VG 21-K68	PG 21	13-18	48 / 11	33	25	1569020000
VG 29-K68	PG 29	18-25	52 / 11	42	20	1569030000
VG 36-K68	PG 36	22-32	64.5 / 13	53	10	1569040000
VG 42-K68	PG 42	30-38	66.5 / 13	60	10	1569050000
VG 48-K68	PG 48	34-44	67.5 / 14	65	10	1718770000

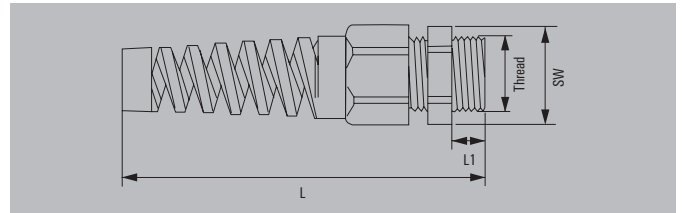
**Note** Long-thread version on request, halogen-free without sealing ring.  
Installation specifications and tightening torques can be found in the installation instructions.  
For further information please use our online catalogue: [catalog.weidmueller.com](http://catalog.weidmueller.com).



## Cable glands – Plastic – SKS



Cable gland made of plastic with spiral bending protection and integrated strain relief, specially suited for moving connections. It prevents cables from bending at acute angles.



## Technical data

Material / Colour	Polyamide 6 / Light Grey / RAL 7035
Seal insert	CR
Temperature range	-20 °C...100 °C
Protection class	IP68 - 5 bar (30 min.)
Flammability rating	V-2
<b>Note</b>	Version with moulded sealing lip Length L varies depending on the cable diameter used.

## Ordering data

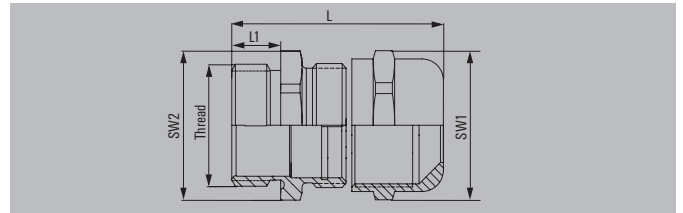
Type	Thread	KB	L/L1	SW	Qty.	Order No.
<b>metric</b>						
VG M12-K68 SKS	M 12	3-6.5	63.5 / 8	15	100	1776700000
VG M16-K68 SKS	M 16	5-10	94.5 / 15	22	50	1776710000
VG M20-K68 SKS 6-12	M 20	6-12	101.5 / 11	24	50	1778860000
VG M20-K68 SKS 10-14	M 20	10-14	116 / 15	27	25	1776720000
VG M25-K68 SKS	M 25	13-18	132.5 / 15	33	25	1776730000
<b>PG</b>						
VG 7-K68 SKS	PG 7	3-6.5	63 / 8	15	50	1720470000
VG 9-K68 SKS	PG 9	4-8	74 / 8	19	50	1720480000
VG 11-K68 SKS	PG 11	5-10	87 / 8	22	100	1720490000
VG 13.5-K68 SKS	PG 13.5	6-12	98 / 9	24	50	1720500000
VG 16-K68 SKS	PG 16	10-14	112 / 10	27	25	1720510000
VG 21-K68 SKS	PG 21	13-18	130 / 11	33	20	1720520000
<b>Note</b>	Long-thread version on request, halogen-free without sealing ring. Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: <a href="http://catalog.weidmueller.com">catalog.weidmueller.com</a> .					

## Standard cable glands – Brass

## Cable glands – Brass – IP68



Cable gland made of brass for industrial applications where IP68 or IP69K protection is required.



## Technical data

Material	Brass, nickel-plated
O-ring / Seal insert	NBR / CR
Temperature range	-40 °C...100 °C
Clamp insert	Polyamide
Protection degree with GWDR	IP54, IP66, IP67, IP68 - 5 bar (30 min.), IP69K
<b>Note</b>	Length "L" varies depending on the cable diameter used; IP69K protection applies to all metric cable glands; the following thread sizes are excluded from IP69K: PG29, PG36, PG42 and PG48.

## Ordering data

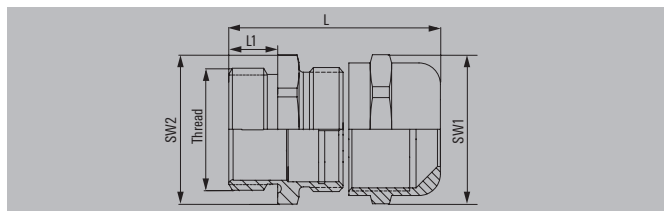
Type	Thread	KB	L/L1	SW1/SW2	Qty.	Order No.
<b>metric</b>						
VG M12 - MS 68	M 12	3-6.5	28 / 6	14 / 14	50	1772200000
VG M16 - MS 68	M 16	4-8	30 / 7	17 / 18	50	1772210000
VG M16-1/MS68	M 16	5-10	35.5 / 7	20 / 20	50	1909910000
VG M20 - MS 68	M 20	6-12	34.5 / 8	22 / 22	50	1772220000
VG M25 - MS 68	M 25	10-14	35.7 / 8	24 / 27	25	1772230000
VG M25-1/MS68	M 25	11-17	40.5 / 8	27 / 27	25	1909920000
VG M32 - MS 68	M 32	13-18	42 / 9	30 / 34	10	1772240000
VG M32-1/MS68	M 32	15-21	44 / 8	34 / 34	10	1909930000
VG M40 - MS 68	M 40	18-25	47 / 9	40 / 43	10	1772250000
VG M40-1/MS68	M 40	19-28	52.5 / 9	43 / 43	10	1909940000
VG M50 - MS 68	M 50	22-32	57 / 9	50 / 55	5	1772260000
VG M50-1/MS68	M 50	27-38	61 / 9	58 / 58	5	1909950000
VG M63 - MS 68	M 63	34-44	67 / 14	64 / 68	5	1772270000
<b>PG (IP69K)</b>						
VG 7-MS68	PG 7	3-6.5	28 / 6	14 / 14	50	1569060000
VG 9-MS68	PG 9	4-8	29.5 / 6	17 / 17	50	1569070000
VG 11-MS68	PG 11	5-10	32 / 6	20 / 20	50	1569080000
VG 13.5-MS68	PG 13.5	6-12	31 / 6.5	22 / 22	50	1569090000
VG 16-MS68	PG 16	10-14	34.5 / 6.5	24 / 24	25	1569100000
VG 21-MS68	PG 21	13-18	39.7 / 7.2	30 / 30	25	1569110000
<b>PG (IP68)</b>						
VG 29-MS68	PG 29	18-25	46.5 / 8	40 / 40	10	1569120000
VG 36-MS68	PG 36	22-32	57 / 9	50 / 50	5	1569130000
VG 42-MS68	PG 42	30-38	60.5 / 12	58 / 58	5	1569140000
VG 48-MS68	PG 48	34-44	69 / 14	64 / 64	5	1718790000

**Note** Long-thread version on request  
VDE for metric version  
Installation specifications and tightening torques can be found in the installation instructions.  
For further information please use our online catalogue: [catalog.weidmueller.com](http://catalog.weidmueller.com).

Cable glands - Brass - IP68



Cable gland made of brass with spherical sealing insert which squeezes the cable gently over a large area. This cable gland is suitable for railway applications; its sealing material conforms to the requirements of EN 45545.



Technical data

Material	Brass, nickel-plated
O-Ring / Seal insert	NBR / T80s
Temperature range	-40 °C ... 130 °C
Protection class	IP68 - 15 bar
<b>Note</b>	

Ordering data

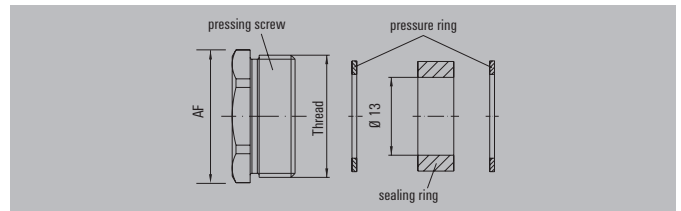
Type	Thread	KB	L/L1	SW	Qty.	Order No.
VGM25-MS68 11-20 BG	M 25	11-20	36.5 / 7.5	30	50	1193600000
VGM32-MS68 15-25 BG	M 32	15-25	40 / 8	36	25	1193610000
VGM40-MS68 20-32 BG	M 40	20-32	43 / 8	45	10	1193620000
VGM40/1-MS68 20-32 BG	M 40	20-32	82 / 8	45	10	1205890000
<b>Note</b>						
When using mounting covers with 3 X M 40 cable input threads, the elongated version must be used for the cable gland in the middle. Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: <a href="http://catalog.weidmueller.com">catalog.weidmueller.com</a>						

## Standard cable glands – Brass

## Clamping screws – Brass – IP65



The special cable glands (clamping screws) are designed for use in HDC RockStar® base enclosures. The seal insert used contains several removable or separable inlets.



## Technical data

Clamping screw material	Brass, nickel-plated
Sealing ring material	SBR/NBR
Pressure ring material	Polyamide
Temperature range	-20 °C...60 °C
Protection class	IP65
<b>Note</b>	

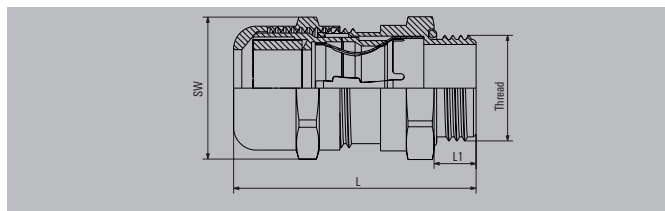
## Ordering data

Type	Thread	Inserts in mm	SW	Qty.	Order No.
<b>metric</b>					
VG H M20 MS	M 20	4 / 7 / 10 / 13	20	50	1921720000
VG H M25 MS	M 25	8.5 / 11.5 / 14.5 / 18	25	25	1921740000
VG H M32 MS	M 32	16 / 19 / 22 / 25	32	20	1921760000
VG H M40 MS	M 40	23 / 26 / 29 / 32	40	10	1921770000
<b>PG</b>					
KV 11-M	PG 11	7.5 / 10 / 12.5	10	10	1656390000
KV 13-M	PG 13	7.5 / 10 / 12.5	10	10	1656400000
KV 16-M	PG 16	7.5 / 10 / 12.5 / 15	10	10	1656410000
KV 21-M	PG 21	10 / 13 / 16 / 19	10	10	1656420000
KV 29-M	PG 29	18 / 21 / 24 / 27	10	10	1656430000
<b>Note</b>					

## Cable glands – Brass – EMC-4



Cable gland made of brass with EMC contact system for the particularly time-saving installation of shielded cables. It is characterised by the following features: very low installation effort, vibration-resistant and patented active contact system.



## Technical data

Material	Brass, nickel-plated
O-Ring / Seal insert	NBR / CR
Temperature range	-40 °C...100 °C
Protection class	IP66, IP68 - 5 bar (30 min.), IP69K
Clamp insert	Polyamide
<b>Note</b>	

## Ordering data

Type	Thread	KB	Shield Ø	L/L1	SW	Qty.	Order No.
VG M12 EMV-4 MS 3-6.5	M 12	3-6.5	2.00-5.00	34 / 6	14	50	2435070000
VG M16 EMV-4 MS 5-10	M 16	5-10	3.50-8.00	39 / 6	20	50	2435140000
VG M20 EMV-4 MS 6-12	M 20	6-12	4.50-10.00	38 / 6	22	50	2435150000
VG M20 EMV-4 MS 8-14	M 20	7.5-14	5.50-11.50	48 / 8	24	50	2435160000
VG M25 EMV-4 MS 10-18	M 25	10-18	7.00-14.00	51 / 8	30	25	2435170000
VG M32 EMV-4 MS 16-25	M 32	16-25	12.00-20.00	62 / 9	40	10	2435180000
VG M40 EMV-4 MS 22-32	M 40	22-32	18.00-27.00	69.5 / 9	50	5	2435190000
VG M50 EMV-4 MS 30-38	M 50	30-38	26.00-34.00	62 / 9	58	5	2435200000
VG M63 EMV-4 MS 34-44	M 63	34-44	30.00-40.00	73 / 14	68	5	2435210000

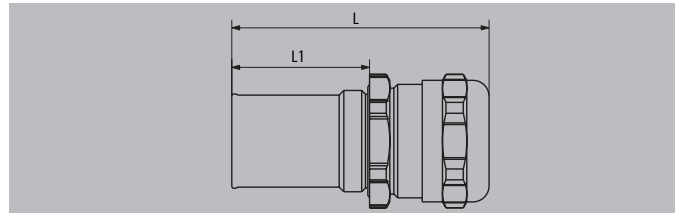
**Note** Installation specifications and tightening torques can be found in the installation instructions.  
For further information please use our online catalogue: [catalog.weidmueller.com](http://catalog.weidmueller.com).

## EMC cable glands

## Cable glands – Brass – EMC SET



Cable gland made of brass for internal shield connection or potential equalisation; easy-to-use, permanent, secure shield connection. This cable gland is suitable for railway applications; its sealing material meets the requirements of EN 45545.



### D

#### Technical data

Material	Brass, nickel-plated
O-Ring / Seal insert	NBR / T80s
Temperature range	-40 °C ... 130 °C
Protection class	IP68 - 15 bar

#### Note

#### Ordering data

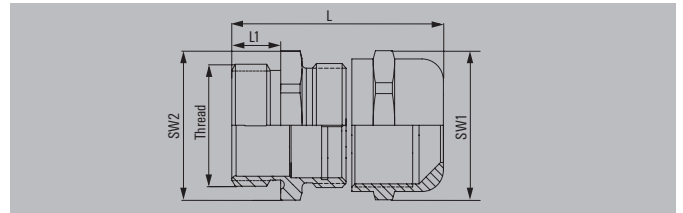
Type	Thread	KB	L/L1	SW	Qty.	Order No.
VGM25-MS68 EMC 11-20SET	M 25	11-20	63.5 / 34	30	1	1463720000
VGM32-MS68 EMC 15-25SET	M 32	15-25	66.5 / 34	36	1	1463730000

**Note** Installation specifications and tightening torques can be found in the installation instructions.  
For further information please use our online catalogue: [catalog.weidmueller.com](http://catalog.weidmueller.com).

## Cable glands – Stainless steel – IP68



Cable gland made of stainless steel for standard industrial applications that require a high degree of protection (IP68 or IP69K). These cable glands – with their resistance to impact and sea water – are also suitable for use in applications under extreme environmental conditions.



## Technical data

Material	Stainless steel 1.4305 (303)
O-Ring / Seal insert	NBR / CR
Temperature range	-40 °C...100 °C
Protection class	IP54, IP66, IP67, IP68 - 5 bar (30 min.), IP69K
<b>Note</b>	

## Ordering data

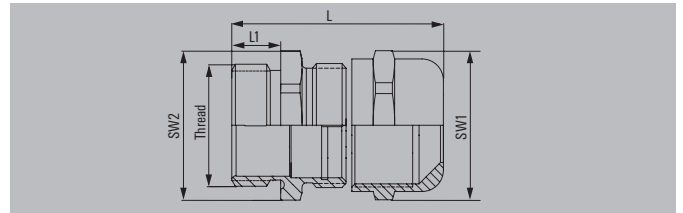
Type	Thread	KB	L/L1	SW1/SW2	Qty.	Order No.
<b>metric</b>						
VGM12-SS 68 KB 3-6.5	M 12	3-6.5	28 / 6	14 / 14	50	1009840000
VGM16-SS 68 KB 4-8	M 16	4-8	30 / 7	17 / 19	50	1009850000
VGM20-SS 68 KB 6-12	M 20	6-12	32 / 8	22 / 22	50	1009860000
VGM25-SS 68 KB 10-14	M 25	10-14	35.5 / 8	24 / 27	25	1009870000
VGM32-SS 68 KB 13-18	M 32	13-18	41.5 / 9	30 / 36	20	1009880000
VGM40-SS 68 KB 18-25	M 40	18-25	49.6 / 9	41 / 46	20	1009890000
VGM50-SS 68 KB 22-32	M 50	22-32	55 / 9	50 / 55	5	1009900000
VGM63-SS 68 KB 34-44	M 63	34-44	67 / 14	65 / 70	5	1009910000
<b>PG</b>						
VG 7-SS 68 KB 3-6.5	PG 7	3-6.5	28 / 6	14 / 14	50	1009740000
VG 9-SS 68 KB 4-8	PG 9	4-8	29 / 6	17 / 17	50	1009750000
VG 11-SS 68 KB 5-10	PG 11	5-10	31.5 / 6	22 / 22	50	1009760000
VG 16-SS 68 KB 10-14	PG 16	10-14	34 / 6.5	24 / 24	25	1009780000
VG 21-SS 68 KB 13-18	PG 21	13-18	39.7 / 7.2	30 / 30	25	1009790000
VG 29-SS 68 KB 18-25	PG 29	18-25	46.5 / 8	41 / 41	20	1009800000
VG 36-SS 68 KB 22-32	PG 36	22-32	55 / 9	50 / 50	15	1009810000
<b>Note</b>	1.4404 (316L) on request. Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: <a href="http://catalog.weidmueller.com">catalog.weidmueller.com</a> .					

## Standard cable glands – Stainless steel

## Cable gland – Stainless steel – IP68



Cable gland with spherical seal insert that squeezes the cable gently over a large area. This cable gland is suitable for railway applications; its sealing material meets the requirements of EN 45545.



## D

### Technical data

Material	Stainless steel 1.4305 (303)
O-Ring / Seal insert	Silicone / T80s
Temperature range	-40 °C ... 130 °C
Protection class	IP68 - 15 bar

#### Note

### Ordering data

Type	Thread	KB	L/L1	SW	Qty.	Order No.
VGM25-SS68 11-20 BG	M 25	11-20	36.5 / 7.5	30	50	1193570000
VGM32-SS68 15-25 BG	M 32	15-25	40 / 8	36	25	1193580000
VGM40-SS68 20-32 BG	M 40	20-32	43 / 8	45	10	1193590000
VGM40/1-SS68 20-32 BG	M 40	20-32	82 / 8	45	10	1205920000

#### Note

When using mounting covers with 3 X M 40 cable input threads, the elongated version must be used for the cable gland in the middle.  
Installation specifications and tightening torques can be found in the installation instructions.  
For further information please use our online catalogue: [catalog.weidmueller.com](http://catalog.weidmueller.com)



## HQ cable glands



Cable gland especially for heavy-duty connectors of the HQ series, available in plastic, brass and as brass EMC version.

### Technical data

Material	Polyamide 6
Seal insert	TPE
Temperature range	-40 °C ... 130 °C
Protection class	IP68
<b>Note</b>	

### Ordering data

Type	Thread	KB	SW	Qty.	Order No.
<b>Plastic</b>					
VG 16 HQ K68 4-6.5	PG 16	4-6.5	27	1	2715990000
VG 16 HQ K68 6.5-9.5	PG 16	6.5-9.5	27	1	1273890000
VG 16 HQ K68 9-13	PG 16	9-13	27	1	1016070000
VG 16 HQ K68 11.5-15.5	PG 16	11.5-15.5	27	1	1016080000
<b>brass</b>					
VG 21 HQ MS68 9-13	PG 21	9-13	30	1	1016090000
VG 21 HQ MS68 11.5-15.5	PG 21	11.5-15.5	30	1	1016100000
VG 21 HQ MS68 14-18	PG 21	14-18	30	1	1016110000
<b>EMC</b>					
VG 21 HQ EMV68 11-15.5	PG 21	11-15.5	30	1	1016120000
VG 21 HQ EMV68 14-18	PG 21	14-18	30	1	1016130000
<b>only for angled HQ base enclosure (order number 1003110000)</b>					
VG16 HQ K68 9-12SH	PG 16	9-12	30	1	1045530000
VG16 HQ K68 11.5-15.5SH	PG 16	11.5-15.5	30	1	1045540000

**Note** Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: [catalog.weidmueller.com](http://catalog.weidmueller.com).

# Overview: Klippon® cable glands and selection tool

## ATEX / IECEx certified cable glands

Cable Gland Type	Outer Elastomeric Seal	Inner Elastomeric Seal	Lead Option	Armour Clamp	Certification	IP Rating	Page No.
KDSU	YES	YES	NO	Universal	Ex d / Ex e	IP66, IP68	D.27
KDSW	YES	YES	YES	Steel wire	Ex d / Ex e	IP66, IP68	D.29
KDSX	YES	YES	NO	Braided	Ex d / Ex e	IP66, IP68	D.32
KUB	YES	Compound	NO	Universal	Ex d	IP66, IP68	On request
KSG	YES	NO	NO	No	Ex d / Ex e	IP66, IP68	D.33

## D

## General

### Health & Safety

When Weidmüller cable glands and the accessories are used and installed as prescribed within the data sheet provided, they will not cause any danger or hazard to the health or safety of persons, animals or property. The products should be installed by suitably trained/skilled personnel and in full accordance with the relevant legislative regulations and the accepted code of practice for the industry concerned.

### Warning

Weidmüller cable glands and accessories should not be used within any application other than those specified for each product, unless Weidmüller issue a statement in writing that the product is suitable for the specified application. For further information on each product, we refer you to the specific Assembly Instructions and General Arrangement drawings, which are available on request. Weidmüller takes no responsibility for any damage, injury or other consequential loss caused where the glands are not installed or used according to our Assembly Instructions.

### Installation in hazardous area applications

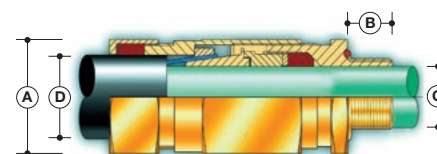
If cable glands and accessories are installed in hazardous area applications, international and national standards of the Explosion Protection have to be considered.

The KDSU type glands provide a universal armour clamp for steel wire, steel tape, screened or braided cables. An electrical bond between the cable armour and the gland is ensured. The gland can also be used to terminate un-armoured cables. In addition, the gland is fitted with two separate seals to seal the outer and inner cable insulation.

When choosing the gland with a neoprene sealing a temperature range from -35 °C to +90 °C will be achieved. Whereas the gland with silicone sealing ensures a temperature range from -60 °C to +180 °C. With both sealing materials an IP rating of IP68 to 25 metres (30 min. at 2.5 bar) is maintained. The KDSU is approved for explosion protection type of pressure-resistant encapsulation Ex d and increased safety Ex e.

**Structure of the part description**

Order key	[Type]	[a]	[b]	[c]	[d]	[e]	[f]	[ggg]
Example article description	KDSU	M20	B	S	0	SC	1	G16
Meaning	[Type] = Gland type (KDSU) [a] = Entry thread (M20-M75) [b] = Material (B = brass) [c] = Seal material (S = Silicone, N = Neoprene) [d] = Continuity for lead sheath (L = yes, 0 = no) [e] = Plating (SC = self-coloured, NI = Nickel) [f] = Cable outer sheath (1 = Reduced, 2 = Standard) [ggg] = Gland size (G16-G75)							
Note	Refer to page D.22 Selection Guide Klippon® Cable Glands to determine the suitable order number							



D

**Dimensions**

Gland Size [ggg]	Entry thread [a]	Entry thread Length [B]	Max Outer Diameter [A]	Max Length	Gland Seal Range						Armour Acceptance Range	Shroud Size
					Cable Inner Sheath [C]		Cable Outer Sheath [D]					
					Min	Max	Standard [f] = 2		Reduced [f] = 1			
G16	M20	16	28.0	78.0	3.4	8.4	9.0	13.5	6.7	10.3	0.15 - 1.25	L24
G20S	M20	16	28.0	78.0	7.2	11.7	11.5	16.0	9.4	12.5	0.15 - 1.25	L24
G20	M20	16	33.0	78.0	9.4	14.0	15.5	21.1	12.0	17.6	0.15 - 1.25	EL30
G25	M25	16	41.4	90.0	13.5	20.0	20.3	27.4	16.8	23.9	0.15 - 1.60	EL38
G32	M32	16	50.6	105.0	19.5	26.3	26.7	34.0	23.2	30.5	0.15 - 2.00	EL46
G40	M40	16	60.5	113.0	23.0	32.2	33.0	40.6	28.6	36.2	0.20 - 2.00	EL55
G50S	M50	16	71.5	125.0	28.1	38.2	39.4	46.7	34.8	42.4	0.30 - 2.50	EL65
G50	M50	16	71.5	125.0	33.1	44.1	45.7	53.2	41.1	48.5	0.30 - 2.50	EL65
G63S	M63	19	88.0	125.0	39.2	50.1	52.1	59.5	47.5	54.8	0.30 - 2.50	EL80
G63	M63	19	88.0	125.0	46.7	56.0	58.4	65.8	53.8	61.2	0.30 - 2.50	EL80
G75S	M75	19	99.0	131.0	52.1	62.0	64.8	72.2	60.2	68.0	0.30 - 2.50	EL90
G75	M75	19	99.0	131.0	58.0	68.0	71.1	78.0	66.5	73.4	0.30 - 2.50	EL90

Dimensions in mm

**Important Notes**

- The gland size does not necessarily equate to the entry thread size.
- In some cases several gland sizes can be chosen due to overlapping inner as well as outer cable diameters. Due to the wide range of armoured cables available, it is necessary to select the correct clamping range. This is achieved by taking the inner and outer clamping range values to determine the best fit (as close as possible to the Min/Max values average).
- All cable glands have a 1.5 mm pitch.
- For Flameproof Ex d applications the female thread into which the gland is to be fitted must achieve an engagement of at least 5 full threads in compliance with clause 5.3 of EN/IEC 60079-1.
- Where KDSU glands are fitted into non-metallic Increased Safety Ex e enclosures they must be included within the earth circuit of the system.
- Fully assembly instructions are supplied with the glands. The instructions must be read prior to installation and adhered to in full.
- When the gland is used to terminate un-armoured cables, the gland is suitable only for fixed installation.

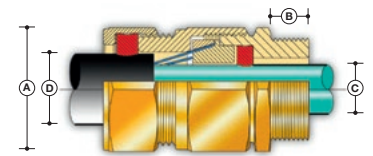
## Klippon® KDSW Cable Glands

The KDSW glands provide an armour clamp for steel wire, steel tape and lead sheathed cables. An electrical bond between the cable armour and the gland is ensured. In addition, the gland is fitted with two separate sealings to seal the outer and inner cable insulation.

When choosing the gland with a neoprene sealing a temperature range from -35 °C to +90 °C will be achieved, whereas the gland with silicone sealing ensures a temperature range from -60 °C to +180 °C. With both sealing materials an IP rating of IP66 and IP68 to 25 metres (30 min at 2.5 bar) is maintained. The KDSW gland is approved for Flameproof Ex d and Increased Safety Ex e applications.

### Structure of the part description

Order key	[Type]	[a]	[b]	[c]	[d]	[e]	[f]	[ggg]
Example article description	KDSW	M20	B	S	L	SC	1	G16
Meaning	[Type] = Gland type (KDSW)	[a] = Entry thread (M20-M75)	[b] = Material (B = brass)	[c] = Seal material (S = Silicone, N = Neoprene)	[d] = Continuity for lead sheath (L = yes, D = no)	[e] = Plating (SC = self-coloured, NI = Nickel)	[f] = Cable outer sheath (1 = Reduced, 2 = Standard)	[ggg] = Gland size (G16-G75)
Note	Refer to page D.22 Selection Guide Klippon® Cable Glands to determine the suitable order number							



### Dimensions

Gland Size [ggg]	Entry thread [a]	Entry thread Length [B]	Max Outer Diameter [A]	Max Length	Gland Seal Range						Armour Acceptance Range	Shroud Size
					Cable Inner Sheath [C]		Cable Outer Sheath [D]					
					Min	Max	Standard [f] = 2		Reduced [f] = 1			
G16	M20	16	26.5	58.0	4.0	8.4	8.4	13.5	4.9	10.0	0.90	L24
G20S	M20	16	26.5	58.0	8.0	11.7	11.5	16.0	9.4	12.5	0.90 - 1.25	L24
G20	M20	16	33.0	58.0	6.7*	14.0	15.5	21.1	12.0	17.6	0.90 - 1.25	L30
G25	M25	16	41.4	58.0	13.0	20.0	20.3	27.4	16.8	23.9	1.25 - 1.60	L38
G32	M32	16	50.6	65.0	19.0	26.3	26.7	34.0	23.2	30.5	1.60 - 2.00	L46
G40	M40	16	60.5	72.0	25.0	32.2	33.0	40.6	28.6	36.2	1.60 - 2.00	L55
G50S	M50	16	71.5	73.0	31.5	38.2	39.4	46.7	34.8	42.4	2.00 - 2.50	L65
G50	M50	16	71.5	73.0	36.5	44.1	45.7	53.2	41.1	48.5	2.00 - 2.50	L65
G63S	M63	19	88.0	76.0	42.5	50.1	52.1	59.5	47.5	54.8	2.50	L80
G63	M63	19	88.0	76.0	49.5	56.0	58.4	65.8	53.8	61.2	2.50	L80
G75S	M75	19	99.0	82.0	54.5	62.0	64.8	72.2	60.2	68.0	2.50	L90
G75	M75	19	99.0	82.0	60.5	68.0	71.1	78.0	66.5	73.4	2.5	L90
Dimensions in mm												

### Important Notes

- The gland size does not necessarily equate to the entry thread size.
- In some cases several gland sizes can be chosen due to overlapping inner as well as outer cable diameters. Due to the wide range of armoured cables available, it is necessary to select the correct clamping range. This is achieved by taking the inner and outer clamping range values to determine the best fit (as close as possible to the Min/Max values average).
- All cable glands have a 1.5 mm pitch.
- For Flameproof Ex d applications the female thread into which the gland is to be fitted must achieve an engagement of at least 5 full threads in compliance with clause 5.3 of EN/IEC 60079-1.
- Where KDSW glands are fitted into non-metallic Increased Safety Ex e enclosures they must be included within the earth circuit of the system.
- Fully assembly instructions are supplied with the glands. The instructions must be read prior to installation and adhered to in full.
- When the gland is used to terminate un-armoured cables, the gland is suitable only for fixed installation.
- \* KDSW gland size G20 with silicone seal, the silicone inner seal only seals to a minimum of 9,3 mm and NOT 6.7 mm.

The KDSX glands provide an armour clamp for braided cables. An electrical bond between the cable armour and the gland is ensured. In addition, the gland is fitted with two separate sealings to seal the outer and inner cable insulation.

The gland maintains a temperature range from -60 °C to +180 °C. With both sealing materials an IP rating of IP66 and IP68 to 25 metres (30 min at 2.5 bar) is maintained. The KDSX gland is approved for Flameproof Ex d and Increased Safety Ex e applications.

**Structure of the part description**

Order key	[Type]	[a]	[b]	[c]	[d]	[e]	[f]	[ggg]
Example article description	KDSX	M20	B	S	0	SC	1	G16
Meaning	[Type] = Gland type (KDSX) [a] = Entry thread (M20-M75) [b] = Material (B = brass) [c] = Seal material (S = Silicone) [d] = Continuity for lead sheath (L = yes, 0 = no) [e] = Plating (SC = self-coloured, NI = Nickel) [f] = Cable outer sheath (1 = Reduced, 2 = Standard) [ggg] = Gland size (G16-G75)							
Note	Refer to page D.22 Selection Guide Klippon® Cable Glands to determine the suitable order number							



D

**Dimensions**

Gland Size [ggg]	Entry thread [a]	Entry thread Length [B]	Max Outer Diameter [A]	Max Length	Gland Seal Range						Armour Acceptance Range	Shroud Size
					Cable Inner Sheath [C]		Cable Outer Sheath [D]					
					Min	Max	Standard [f] = 2		Reduced [f] = 1			
G16	M20	16	26.5	58.0	4.0	8.4	8.4	13.5	4.9	10.0	0.15 - 0.35	L24
G20S	M20	16	26.5	58.0	8.0	11.7	11.5	16.0	9.4	12.5	0.15 - 0.35	L24
G20	M20	16	33.0	58.0	6.7*	14.0	15.5	21.1	12.0	17.6	0.15 - 0.50	L30
G25	M25	16	41.4	58.0	13.0	20.0	20.3	27.4	16.8	23.9	0.15 - 0.50	L38
G32	M32	16	50.6	65.0	19.0	26.3	26.7	34.0	23.2	30.5	0.15 - 0.55	L46
G40	M40	16	60.5	72.0	25.0	32.2	33.0	40.6	28.6	36.2	0.20 - 0.60	L55
G50S	M50	16	71.5	73.0	31.5	38.2	39.4	46.7	34.8	42.4	0.20 - 0.60	L65
G50	M50	16	71.5	73.0	36.5	44.1	45.7	53.2	41.1	48.5	0.30 - 0.80	L65
G63S	M63	19	88.0	76.0	42.5	50.1	52.1	59.5	47.5	54.8	0.30 - 0.80	L80
G63	M63	19	88.0	76.0	49.5	56.0	58.4	65.8	53.8	61.2	0.30 - 0.80	L80
G75S	M75	19	99.0	82.0	54.5	62.0	64.8	72.2	60.2	68.0	0.30 - 1.00	L90
G75	M75	19	99.0	82.0	60.5	68.0	71.1	78.0	66.5	73.4	0.30 - 1.00	L90

Dimensions in mm

**Important Notes**

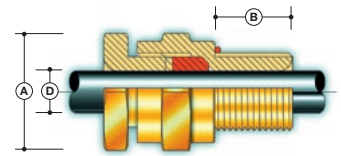
- The gland size does not necessarily equate to the entry thread size.
- In some cases several gland sizes can be chosen due to overlapping inner as well as outer cable diameters. Due to the wide range of armoured cables available, it is necessary to select the correct clamping range. This is achieved by taking the inner and outer clamping range values to determine the best fit (as close as possible to the Min/Max values average).
- All cable glands have a 1.5 mm pitch.
- For Flameproof Ex d applications the female thread into which the gland is to be fitted must achieve an engagement of at least 5 full threads in compliance with clause 5.3 of EN/IEC 60079-1.
- Where KDSX glands are fitted into non-metallic Increased Safety Ex e enclosures they must be included within the earth circuit of the system.
- Fully assembly instructions are supplied with the glands. The instructions must be read prior to installation and adhered to in full.
- When the gland is used to terminate un-armoured cables, the gland is suitable only for fixed installation.
- \* KDSX gland size G20 with silicone seal, the silicone inner seal only seals to a minimum of 9,3 mm and NOT 6.7 mm.

## Klippon® KSG Cable Glands

The KSG gland is designed to terminate un-armoured cables. When choosing the gland with a neoprene sealing a temperature range from -35 °C to +90 °C will be achieved, whereas the gland with silicone sealing ensures a temperature range from -60 °C to +180 °C. With both sealing materials an IP rating of IP66 and IP68 to 25 metres (30 min. at 2.5 bar) is maintained. The KSG type gland is approved for Flameproof Ex d and Increased Safety Ex e applications.

### Structure of the part description

Order key	[Type]	[a]	[b]	[c]	[d]	[e]	[f]	[ggg]
Example article description	KSG	M20	B	S	0	SC	2	G16
Meaning	[Type] = Gland type (KSG) [a] = Entry thread (M20-M90) [b] = Material (B = brass) [c] = Seal material (S = Silicone, N = Neoprene) [d] = Continuity for lead sheath (L = yes, 0 = no) [e] = Plating (SC = self-coloured, NI = Nickel) [f] = Cable outer sheath (2 = Standard) [ggg] = Gland size (G16-G90)							
Note	Refer to page D.22 Selection Guide Klippon® Cable Glands to determine the suitable order number							



### Dimensions

Gland Size [ggg]	Entry thread [a]	Entry thread Length [B]	Max Outer Diameter [A]	Max Length	Gland Seal Range		Shroud Size
					Cable Outer Sheath [D]		
					Standard [f] = 2		
					Min	Max	
G16	M20	16	28.0	33.0	4.0	8.4	L24
G20S	M20	16	28.0	33.0	7.2	11.7	L24
G20	M20	16	33.0	33.0	9.6	14.0	L30
G25	M25	16	41.4	33.0	13.5	20.0	L38
G32	M32	16	50.6	33.0	19.5	26.3	L46
G40	M40	16	60.5	37.0	23.0	32.2	L55
G50S	M50	16	71.5	37.0	28.2	38.2	L65
G50	M50	16	71.5	37.0	33.2	44.1	L65
G63S	M63	19	88.0	37.0	39.3	50.1	L80
G63	M63	19	88.0	37.0	46.7	56.0	L80
G75S	M75	19	99.0	37.0	52.3	62.0	L90
G75	M75	19	99.0	37.0	58.1	69.0	L90
Dimensions in mm							

### Important Notes

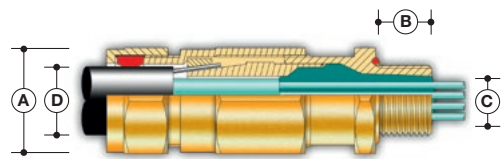
- The gland size does not necessarily equate to the entry thread size.
- In some cases several gland sizes can be chosen due to overlapping inner as well as outer cable diameters. Due to the wide range of armoured cables available, it is necessary to select the correct clamping range. This is achieved by taking the inner and outer clamping range values to determine the best fit (as close as possible to the Min/Max values average).
- All cable glands have a 1.5 mm pitch.
- For Flameproof Ex d applications the female thread into which the gland is to be fitted must achieve an engagement of at least 5 full threads in compliance with clause 5.3 of EN/IEC 60079-1.
- Where KSG glands are fitted into non-metallic Increased Safety Ex e enclosures they must be included within the earth circuit of the system.
- Fully assembly instructions are supplied with the glands. The instructions must be read prior to installation and adhered to in full.
- When the gland is used to terminate un-armoured cables, the gland is suitable only for fixed installation.

The KUB gland provide an armour clamp for steel tape, steel wire and braided cables. An electrical bond between the cable armour and the gland is ensured. The gland can also be used to terminate unarmoured cables. Additionally, the gland provides a single pull resistant seal on the outer sheath of any cable. After clamping the cable armour onto the cone, the cable has to be filled with the provided compound to seal the free spaces between the single conductors.

The gland maintains a temperature range from -60 °C to +135 °C. When filled, the gland fulfills an IP rating of IP68 to 100 metres (30 Min. at 10 bar). The KUB gland is only suitable for pressure-resistant Ex d encapsulation, and is available on request.

**Structure of the part description**

Order key	[Type]	[a]	[b]	[c]	[d]	[e]	[f]	[ggg]
Example article description	KUB	M20	B	S	0	SC	1	G16
Meaning	[Type] = Gland type (KUB) [a] = Entry thread (M20-M75) [b] = Material (B = brass) [c] = Seal material (S = Silicone) [d] = Continuity for lead sheath (L = yes, 0 = no) [e] = Plating (SC = self-coloured, NI = Nickel) [f] = Cable outer sheath (1 = Reduced, 2 = Standard) [ggg] = Gland size (G16-G75)							
Note	Refer to page D.22 Selection Guide Klippon® Cable Glands to determine the suitable order number							



D

**Dimensions**

Gland Size [ggg]	Entry thread [a]	Entry thread Length [B]	Max Outer Diameter [A]	Max Length	Gland Seal Range								Armour Acceptance Range	Shroud Size
					Cable Inner Sheath [C]			Cable Outer Sheath [D]						
					X	Y	Z	Standard [f] = 2		Reduced [f] = 1				
G16	M20	16	28.0	72.0	7	9.0	11.7	9.0	13.5	6.7	10.3	0.15 - 1.25	L24	
G20S	M20	16	28.0	72.0	8	10.4	11.7	11.5	16.0	9.4	12.5	0.15 - 1.25	L24	
G20	M20	16	33.0	73.0	14	12.5	14.0	15.5	21.1	12.0	17.6	0.15 - 1.25	EL30	
G25	M25	16	41.4	83.0	25	17.8	20.0	20.3	27.4	16.8	23.9	0.15 - 1.60	EL38	
G32	M32	16	50.6	103.0	50	23.5	26.3	26.7	34.0	23.2	30.5	0.15 - 2.00	EL46	
G40	M40	16	60.5	105.0	80	28.8	32.2	33.0	40.6	28.6	36.2	0.20 - 2.00	EL55	
G50S	M50	16	71.5	115.0	100	34.2	38.2	39.4	46.7	34.8	42.4	0.30 - 2.50	EL65	
G50	M50	16	71.5	115.0	100	39.4	44.1	45.7	53.2	41.1	48.5	0.30 - 2.50	EL65	
G63S	M63	19	88.0	115.0	120	44.8	50.1	52.1	59.5	47.5	54.8	0.30 - 2.50	EL80	
G63	M63	19	88.0	115.0	120	50.0	56.0	58.4	65.8	53.8	61.2	0.30 - 2.50	EL80	
G75S	M75	19	99.0	122.0	140	55.4	62.0	64.8	72.2	60.2	68.0	0.30 - 2.50	EL90	
G75	M75	19	99.0	122.0	140	60.8	68.0	71.1	78.0	66.5	73.4	0.30 - 2.50	EL90	

Dimensions in mm

**Important Notes**

- The gland size does not necessarily equate to the entry thread size.
- In some cases several gland sizes can be chosen due to overlapping inner as well as outer cable diameters. Due to the wide range of armoured cables available, it is necessary to select the correct clamping range. This is achieved by taking the inner and outer clamping range values to determine the best fit (as close as possible to the Min/Max values average).
- X = Maximum numbers of cores
- Y = Maximum over cores
- Z = Maximum inner sheath
- All cable glands have a 1.5 mm pitch.
- For Flameproof Ex d applications the female thread into which the gland is to be fitted must achieve an engagement of at least 5 full threads in compliance with clause 5.3 of EN/IEC 60079-1.
- Where KUB glands are fitted into non-metallic Increased Safety Ex e enclosures they must be included within the earth circuit of the system
- Fully assembly instructions are supplied with the glands. The instructions must be read prior to installation and adhered to in full.
- When the gland is used to terminate un-armoured cables, the gland is suitable only for fixed installation.

# Selection Guide Klippon® Cable Glands

## Purpose: Generation of the article description

By selecting the suitable cable gland different factors have to be considered, such as

- The environment of the application
- The conditions inside the enclosure
- The construction of the cable

By using the Selection Guide Klippon® Cable Glands the article description will be generated following the step by step process to create the 7 character order key. From this the order number can be identified.

## D

### The order key consists out of the following attributes:

Order key	[Type]	[a]	[b]	[c]	[d]	[e]	[f]	[ggg]
Example Article Description	KDSU	M20	B	S	0	SC	1	G16
Meaning	[Type] = Gland type (KDSU, KDSW, KDSX, KSG, KUB)	[a] = Entry thread (M20-M75)	[b] = Material (B = brass)	[c] = Seal material (S=Silicone, N=Neoprene)	[d] = Continuity for lead sheath (L = yes, 0 = no)	[e] = Plating (SC = self-coloured, NI = nickel-plated)	[f] = Cable outer sheath (1 = Reduced, 2 = Standard)	[ggg] = Gland size (G16-G75)

### Application example

Within an Ex d application on an Off-Shore platform a suitable cable gland for the termination into an enclosure is required.

Following details about the application are given:

- The enclosure will be used for the control of a motor circuit breaker
- The enclosure has a volume of 1.3 dm<sup>3</sup> and is installed outdoor.
- The application is in the field, a place in which an explosive atmosphere is likely to occur in normal operation, occasionally (Zone 1)
- The surrounding atmosphere of the enclosure consists Ethylene (gas group IIB)
- The enclosure operates in a temperature range of -40 °C bis +45 °C
- The armour of the cable is unknown, no lead sheathed cable
- The cable outer sheath diameter is 10 mm
- The cable inner sheath diameter is 8 mm

Based on the information in the above shown example case the article description will be determined on the following pages.



### 1. Selection of the cable gland type [type] and continuity for lead sheath [d]

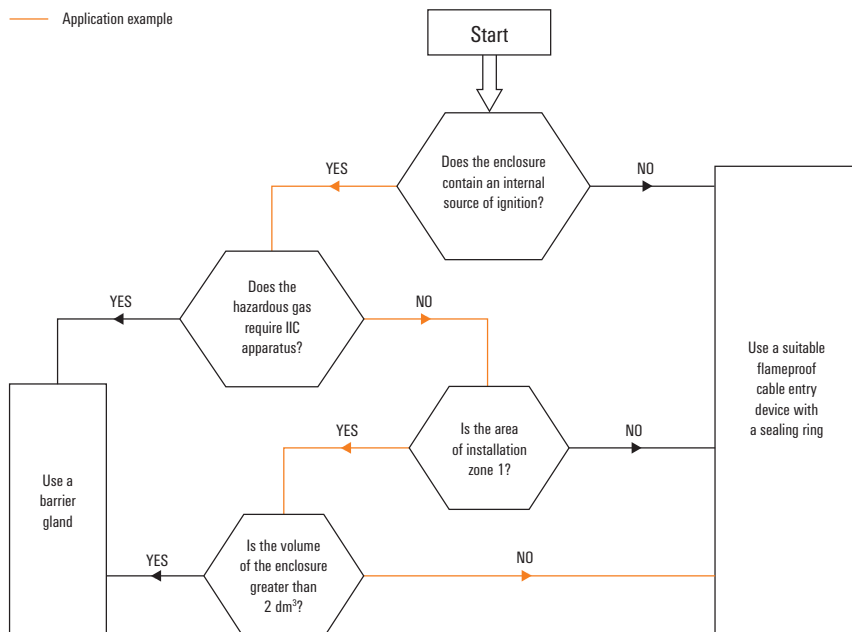
Order key	[Type]	[a]	[b]	[c]	[d]	[e]	[f]	[ggg]
Example Article Description								

#### 1a) Selection of the cable gland type in regard to the ignition protection type

[Type]	Ignition Protection Type
KDSU	Ex d / Ex e
KDSW	Ex d / Ex e
KDSX	Ex d / Ex e
KSG	Ex d / Ex e
KUB	Ex d

Because it is an Ex d application all cable gland types (marked in blue) can come into consideration.

For Ex d applications the following questionnaire according to the IEC 60079-14 standard has to be passed to find out if a barrier gland ([Type]=KUB) or if a cable gland with a sealing ring ([Type]=KDSU,KDSW,KDSX) has to be used.



By passing this questionnaire with the given information of the example case the orange marked way has to be followed and the result is that a cable gland with sealing ring has to be used. Consequently the blue marked cable gland types below can come into consideration.

Gland type	Type of sealing
KDSU	Sealing ring
KDSW	Sealing ring
KDSX	Sealing ring
KSG	Sealing ring
KUB	Compound

**1b) Selection of the cable gland type in regard to the continuity for lead sheath**

[Type]	[d]	Continuity for lead sheath
KDSU	0	No
KDSW	L / 0	Yes
KDSX	0	No
KSG	0	No
KUB	0	No

In the example case a cable without lead sheath is to be terminated, therefore the option to clamp a lead sheathed cable is not needed. Consequently is

[d] = 0

All four gland types marked in blue can be used.

**1c) Selection of the cable gland type in regard to the type of armour**

[Type]	Armour
KDSU	Universal
KDSW	Steel wire, steel tape
KDSX	Braided
KSG	No armour
KUB	Universal

Because the type of armour of the cable is unknown, the cable gland type KDSU has to be selected. Consequently is

[Type] = KDSU

The generated information has to be filled into the order key below:

Order key	[Type]	[a]	[b]	[c]	[d]	[e]	[f]	[ggg]
Example Article Description	KDSU				0			

## 2. Selection of the material [b], the sealing material [c] and the plating [e] of the cable gland

Order key	[Type]	[a]	[b]	[c]	[d]	[e]	[f]	[ggg]
Example Article Description	KDSU				0			

### 2a) Selection of the material [b]

All cable gland types are made from brass "b". Other materials can also be provided upon request. Consequently is

[b] = B

### 2b) Selection of the sealing material [c] based on the required temperature range

The cable glands can be ordered with either a neoprene seal "N" or a silicone seal "S". Glands with a neoprene seal can be used in a temperature range from -35 °C to +90 °C, whereas glands with silicone seal maintain a temperature range from -60 °C to +180 °C. (KUB glands are certified to a temperature of -60 °C to +135 °C).

[Type]	[c]	Seal material
KDSU	N,S	Neoprene, Silicone
KDSW	N,S	Neoprene (with continuity for lead sheath), Silicone
KDSX	S	Silicone
KSG	N,S	Neoprene, Silicone
KUB	N	Silicone (-60 °C to +135 °C)

Because the enclosure in the example case operates in a temperature range of -40 °C bis +45 °C, a cable gland with a silicone seal has to be used. Consequently is

[c] = „S“ (Silicone)

### 2c) Selection of the plating [e]

All cable glands can be provided either with nickel plated surface "NI" or with self-coloured surface "SC".

In the example case the enclosure is used outdoor, therefore it can come into contact with water in form of rain, so that a cable gland with nickel plated surface as protection against corrosion and wear has to be selected. Consequently is [e] = „NI“

The generated information has to be filled into the order key below:

Order key	[Type]	[a]	[b]	[c]	[d]	[e]	[f]	[ggg]
Example Article Description	KDSU		B	S	0	NI		

## 3. Selection of the entry thread [a], the cable outer sheath variant [f] and the gland size [ggg]

Order key	[Type]	[a]	[b]	[c]	[d]	[e]	[f]	[ggg]
Example Article Description	KDSU		B	S	0	NI		

The suitable gland size [ggg] will be selected based on the inner and outer sheath diameters of the cable. Thereby the entry thread size [a] and the cable outer sheath variant [f] result.

In the example case the following diameters are given:

Cable Outer Sheath: 10 mm (By looking into the below shown dimensions chart of the KDSU the orange marked clamping ranges (Cable Outer Sheath [D]) can be selected).

Cable Inner Sheath: 8 mm (By looking into the below shown dimensions chart of the KDSU the orange marked clamping ranges (Cable Inner Sheath [C]) can be selected).

Dimensions

Gland Size [ggg]	Entry thread	Entry thread Length [B]	Max Outer Diameter [A]	Max Length	Gland Seal Range						Armour Acceptance Range	Shroud Size
					Cable Inner Sheath [C]		Cable Outer Sheath [D]					
					Min	Max	Standard [f]=2		Reduced [f]=1			
							Min	Max	Min	Max		
G16	M20	16	28.0	78.0	3.4	8.4	9.0	13.5	6.7	10.3	0.15 - 1.25	L24
G20S	M20	16	28.0	78.0	7.2	11.7	11.5	16.0	9.4	12.5	0.15 - 1.25	L24
G20	M20	16	33.0	78.0	9.4	14.0	15.5	21.1	12.0	17.6	0.15 - 1.25	EL30
G25	M25	16	41.4	90.0	13.5	20.0	20.3	27.4	16.8	23.9	0.15 - 1.60	EL38
G32	M32	16	50.6	105.0	19.5	26.3	26.7	34.0	23.2	30.5	0.15 - 2.00	EL46
G40	M40	16	60.5	113.0	23.0	32.2	33.0	40.6	28.6	36.2	0.20 - 2.00	EL55
G50S	M50	16	71.5	125.0	28.1	38.2	39.4	46.7	34.8	42.4	0.30 - 2.50	EL65
G50	M50	16	71.5	125.0	33.1	44.1	45.7	53.2	41.1	48.5	0.30 - 2.50	EL65
G63S	M63	19	88.0	125.0	39.2	50.1	52.1	59.5	47.5	54.8	0.30 - 2.50	EL80
G63	M63	19	88.0	125.0	46.7	56.0	58.4	65.8	53.8	61.2	0.30 - 2.50	EL80
G75S	M75	19	99.0	131.0	52.1	62.0	64.8	72.2	60.2	68.0	0.30 - 2.50	EL90
G75	M75	19	99.0	131.0	58.0	68.0	71.1	78.0	66.5	73.4	0.30 - 2.50	EL90

All dimensions in mm

By the selection of the inner [C] resp. outer [D] clamping range, a range should be used where the diameter of the cable outer and inner sheath are as near as possible to the average of the Min/Max Values. In doing so, the reduced cable outer sheath with the gland size G20S and the entry thread of M20 has to be selected.

Consequently is

[f]=1

[ggg]=G20S

[a]=M20

The generated information has to be filled into the order key below:

Order key	[Type]	[a]	[b]	[c]	[d]	[e]	[f]	[ggg]
Article description	KDSU	M20	B	S	0	NI	1	G20S

Resulting from the complete article description the relating order number (brown marked) can be determined.

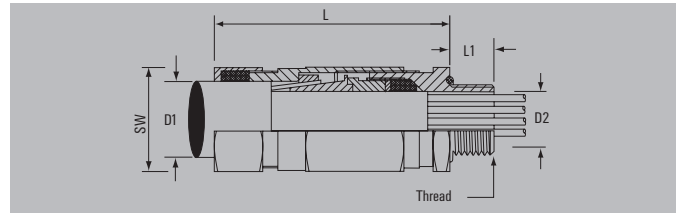
Extract from table KDSU "Nickel-plated brass gland with silicone sealing" on page D.28

Order No.	Description	[Type]	[a]	[b]	[c]	[d]	[e]	[f]	[ggg]	Qty.
0930001221	KDSU M20 BS 0 NI 1 G16	KDSU	M20	B	S	0	NI	1	G16	20
0930001222	KDSU M20 BS 0 NI 2 G16	KDSU	M20	B	S	0	NI	2	G16	20
0930011223	KDSU M20 BS 0 NI 1 G20S	KDSU	M20	B	S	0	NI	1	G20S	20
0930011224	KDSU M20 BS 0 NI 2 G20S	KDSU	M20	B	S	0	NI	2	G20S	20
0930021221	KDSU M20 BS 0 NI 1 G20	KDSU	M20	B	S	0	NI	1	G20	20
...	...	...	...	...	...	...	...	...	...	...

## Klippon® cable glands – Nickel-plated Brass – Ex e, Ex d, IP68 for armoured and non-armoured cables



All-purpose cable gland for cables and lines with single-wire armouring, metal-foil armouring and braided armouring. Non-armoured cables and lines can also be connected.



## Technical data

Material	Brass, nickel-plated
O-Ring / Seal insert	NBR / CR
Temperature range	-35 °C...90 °C
Degree of protection	IP66, IP68 - 2.5 bar
Water depth	25 m (30 Min.)
Type of armouring	Single-wire armouring, Metal foil armouring, Braided armouring
Marking	ATEX: II 2G, Ex db IIC Gb, Ex eb IIC Gb, II 1D, Ex ta IIIC Da, IECEx: Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da
Certificate no. (ATEX / IECEx / EAC)	SIRA 05ATEX1285X / IECEx SIR 05.0067X / RUC-DE.IT08.B.00594
<b>Note</b>	Length "L" depends on the cable diameter used. Cable glands made of brass with natural surface are available in the online catalogue (catalog.weidmueller.com).

## Ordering data

Type	Thread	D1 outer cable Ø	D2 inner cable Ø	Cable armour	L/L1	SW	SUHB	Qty.	Order No.
<b>metric, nickel-plated brass</b>									
KDSU M20 BN 0 NI 1 G16	M 20	6.7-10.3	3.40-8.40	0.1-1.25	78 / 16	24	L24	20	1083280000
KDSU M20 BN 0 NI 2 G16	M 20	9-13.5	3.40-8.40	0.1-1.25	78 / 16	24	L24	20	1911380000
KDSU M20 BN 0 NI 1 G20S	M 20	9.4-12.5	7.20-11.70	0.1-1.25	78 / 16	24	L24	20	1083290000
KDSU M20 BN 0 NI 2 G20S	M 20	11.5-16	7.20-11.70	0.1-1.25	78 / 16	24	L24	20	1911390000
KDSU M20 BN 0 NI 1 G20	M 20	12-17.6	9.40-14.00	0.1-1.25	78 / 16	30	EL30	20	1083320000
KDSU M20 BN 0 NI 2 G20	M 20	15.5-21.1	9.40-14.00	0.1-1.25	78 / 16	30	EL30	20	1911400000
KDSU M25 BN 0 NI 1 G25	M 25	16.8-23.9	13.50-20.00	0.1-1.6	90 / 16	38	EL38	20	1083330000
KDSU M25 BN 0 NI 2 G25	M 25	20.3-27.4	13.50-20.00	0.1-1.6	90 / 16	38	EL38	20	1911420000
KDSU M32 BN 0 NI 1 G32	M 32	23.2-30.5	19.50-26.30	0.1-2	105 / 16	46	EL46	10	1083340000
KDSU M32 BN 0 NI 2 G32	M 32	26.7-34	19.50-26.30	0.1-2	105 / 16	46	EL46	10	1911430000
KDSU M40 BN 0 NI 1 G40	M 40	28.6-36.2	23.00-32.20	0.1-2	113 / 16	55	EL55	10	1083350000
KDSU M40 BN 0 NI 2 G40	M 40	33-40.6	23.00-32.20	0.1-2	113 / 16	55	EL55	10	1911440000
KDSU M50 BN 0 NI 1 G50	M 50	41.1-48.5	33.10-44.10	0.1-2.5	125 / 16	65	EL65	1	1083370000
KDSU M50 BN 0 NI 2 G50	M 50	45.7-53.2	33.10-44.10	0.1-2.5	125 / 16	65	EL65	1	1911460000
KDSU M50 BN 0 NI 1 G50S	M 50	34.8-42.4	28.10-38.20	0.1-2.5	125 / 16	65	EL65	1	1083360000
KDSU M50 BN 0 NI 2 G50S	M 50	39.4-46.7	28.10-38.20	0.1-2.5	125 / 16	65	EL65	1	1911450000
KDSU M63 BN 0 NI 1 G63S	M 63	47.5-54.8	39.20-50.10	0.1-2.5	125 / 19	80	EL80	1	1083380000
KDSU M63 BN 0 NI 2 G63S	M 63	52.1-59.5	39.20-50.10	0.1-2.5	125 / 19	80	EL80	1	1911480000
KDSU M63 BN 0 NI 1 G63	M 63	53.8-61.2	46.70-56.00	0.1-2.5	125 / 16	80	EL80	1	1083390000
KDSU M63 BN 0 NI 2 G63	M 63	58.4-65.8	46.70-56.00	0.1-2.5	125 / 19	80	EL80	1	1911490000
KDSU M75 BN 0 NI 1 G75S	M 75	60.2-68	52.10-62.00	0.1-2.5	131 / 19	90	EL90	1	1083400000
KDSU M75 BN 0 NI 2 G75S	M 75	64.8-72.2	52.10-62.00	0.1-2.5	131 / 19	90	EL90	1	1083410000
KDSU M75 BN 0 NI 1 G75	M 75	66.5-73.4	58.00-68.00	0.1-2.5	131 / 19	90	EL90	1	1083420000
KDSU M75 BN 0 NI 2 G75	M 75	71.1-78	58.00-68.00	0.1-2.5	131 / 19	90	EL90	1	1083430000

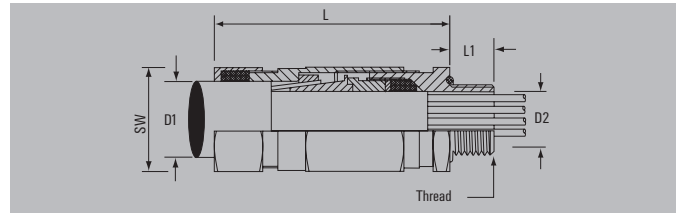
- Note**
- All cable glands have a thread pitch of 1.5 mm.
  - In the case of Ex d applications, the inner threads used for cable glands must meet the requirements of section 5.3 of EN/IEC 60079-1. In the screwed in position, at least 5 threads must be engaged.
  - If the cable glands are installed in non-metallic Ex e connection equipment, these must be connected to the protective earth of the system.
  - The connection cable must be laid securely and inflexibly to rule out tensile stress.
  - Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: catalog.weidmueller.com.

## Ex-cable glands - Brass

## Klippon® cable glands - Nickel-plated Brass - Ex e, Ex d, IP68 for armoured and non-armoured cables



All-purpose cable gland for cables and lines with single-wire armouring, metal-foil armouring and braided armouring. Non-armoured cables and lines can also be connected.



## Technical data

Material	Brass, nickel-plated
O-Ring / Seal insert	Silicone / Silicone
Temperature range	-60 °C...180 °C
Degree of protection	IP66, IP68 - 2.5 bar
Water depth	25 m (30 Min.)
Type of armouring	Single-wire armouring, Metal foil armouring, Braided armouring
Marking	ATEX: II 2G, Ex db IIC Gb, Ex eb IIC Gb, II 1D, Ex ta IIIC Da, IECEx: Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da
Certificate no. (ATEX / IECEx / EAC)	SIRA 05ATEX1285X / IECEx SIR 05.0067X / RUC-DE.IT08.B.00594
<b>Note</b>	Length "L" depends on the cable diameter used. Cable glands made of brass with natural surface are available in the online catalogue (catalog.weidmueller.com).

## Ordering data

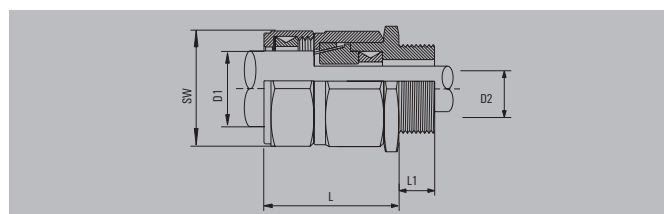
Type	Thread	D1 outer cable Ø	D2 inner cable Ø	Cable armour	L/L1	SW	SUHB	Qty.	Order No.
<b>metric, nickel-plated brass</b>									
KDSU M20 BS 0 NI 1 G16	M 20	6.7-10.3	3.40-8.40	0.1-1.25	78 / 16	24	L24	20	0930001221
KDSU M20 BS 0 NI 2 G16	M 20	9-13.5	3.40-8.40	0.1-1.25	78 / 16	24	L24	20	0930001222
KDSU M20 BS 0 NI 1 G20	M 20	12-17.6	9.40-14.00	0.1-1.25	78 / 16	30	EL30	20	0930021221
KDSU M20 BS 0 NI 2 G20	M 20	15.5-21.1	9.40-14.00	0.1-1.25	78 / 16	30	EL30	20	0930021222
KDSU M20 BS 0 NI 1 G20S	M 20	9.4-12.5	7.20-11.70	0.1-1.25	78 / 16	24	L24	20	0930011223
KDSU M20 BS 0 NI 2 G20S	M 20	11.5-16	7.20-11.70	0.1-1.25	78 / 16	24	L24	20	0930011224
KDSU M25 BS 0 NI 1 G25	M 25	16.8-23.9	13.50-20.00	0.1-1.6	90 / 16	38	EL38	20	0930031221
KDSU M25 BS 0 NI 2 G25	M 25	20.3-27.4	13.50-20.00	0.1-1.6	90 / 16	38	EL38	1	0930031222
KDSU M32 BS 0 NI 1 G32	M 32	23.2-30.5	19.50-26.30	0.1-2	105 / 16	46	EL46	10	0930041221
KDSU M32 BS 0 NI 2 G32	M 32	26.7-34	19.50-26.30	0.1-2	105 / 16	46	EL46	10	0930041222
KDSU M40 BS 0 NI 1 G40	M 40	28.6-36.2	23.00-32.20	0.1-2	113 / 16	55	EL55	10	1136990000
KDSU M40 BS 0 NI 2 G40	M 40	33-40.6	23.00-32.20	0.1-2	113 / 16	55	EL55	10	0930051222
KDSU M50 BS 0 NI 1 G50	M 50	41.1-48.5	33.10-44.10	0.1-2.5	125 / 16	65	EL65	1	1137010000
KDSU M50 BS 0 NI 2 G50	M 50	45.7-53.2	33.10-44.10	0.1-2.5	125 / 16	65	EL65	1	1137020000
KDSU M50 BS 0 NI 1 G50S	M 50	34.8-42.4	28.10-38.20	0.1-2.5	125 / 16	65	EL65	1	1137000000
KDSU M50 BS 0 NI 2 G50S	M 50	39.4-46.7	28.10-38.20	0.1-2.5	125 / 16	65	EL65	1	0930061224
KDSU M63 BS 0 NI 1 G63	M 63	53.8-61.2	46.70-56.00	0.1-2.5	125 / 19	80	EL80	1	1137050000
KDSU M63 BS 0 NI 2 G63	M 63	58.4-65.8	46.70-56.00	0.1-2.5	125 / 19	80	EL80	1	0930091222
KDSU M63 BS 0 NI 1 G63S	M 63	47.5-54.8	39.20-50.10	0.1-2.5	125 / 19	80	EL80	1	1137030000
KDSU M63 BS 0 NI 2 G63S	M 63	52.1-59.5	39.20-50.10	0.1-2.5	125 / 19	80	EL80	1	1137040000
KDSU M75 BS 0 NI 1 G75	M 75	66.5-73.4	58.00-68.00	0.1-2.5	131 / 19	90	EL90	1	1137080000
KDSU M75 BS 0 NI 2 G75	M 75	71.1-78	58.00-68.00	0.1-2.5	131 / 19	90	EL90	1	1137090000
KDSU M75 BS 0 NI 1 G75S	M 75	60.2-68	52.10-62.00	0.1-2.5	131 / 19	90	EL90	1	1137060000
KDSU M75 BS 0 NI 2 G75S	M 75	64.8-72.2	52.10-62.00	0.1-2.5	131 / 19	90	EL90	1	1137070000

- Note**
- All cable glands have a thread pitch of 1.5 mm.
  - In the case of Ex d applications, the inner threads used for cable glands must meet the requirements of section 5.3 of EN/IEC 60079-1. In the screwed in position, at least 5 threads must be engaged.
  - If the cable glands are installed in non-metallic Ex e connection equipment, these must be connected to the protective earth of the system.
  - The connection cable must be laid securely and inflexibly to rule out tensile stress.
  - Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: catalog.weidmueller.com.

## Klippon® cable glands – Nickel-plated Brass – Ex e, Ex d, IP66 / IP68 for armoured cables



Cable gland for cables and lines with single-wire armouring.



## Technical data

Material	Brass, nickel-plated
Seal insert	CR
Temperature range	-35 °C...90 °C
Protection class	IP54
Protection degree with GWDR	IP66, IP68 - 2.5 bar
Water depth	25 m (30 Min.)
Type of armouring	Single-wire armouring
Marking	ATEX: II 2G, Ex db IIC Gb, Ex eb IIC Gb, II 1D, Ex ta IIIC Da, IECEx: Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da
Certificate no. (ATEX / IECEx / EAC)	SIRA 05ATEX1286X / IECEx SIR 05.0067X / RUC-DE.IT08.B.00594
<b>Note</b>	Length "L" depends on the cable diameter used. IP protection without GWDR is IP54. To achieve IP66 / IP68 protection, a nylon GWDR must be ordered separately. Cable glands made of brass with natural surface are available in the online catalogue (catalog.weidmuller.com).

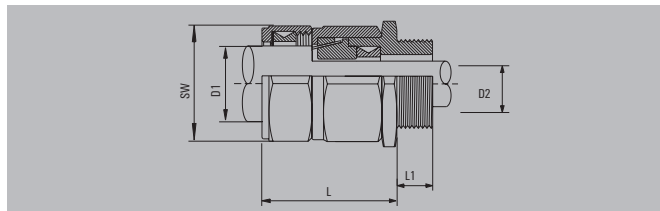
## Ordering data

Type	Thread	D1 outer cable Ø	D2 inner cable Ø	Cable armour	L/L1	SW	SUHB	Qty.	Order No.
<b>metric, nickel-plated brass</b>									
KDSW M20 BN 0 NI 1 G16	M 20	4.9-10.3	3.50-8.40	0.9	58 / 16	24	L24	20	1075030000
KDSW M20 BN 0 NI 2 G16	M 20	8.4-13.5	3.50-8.40	0.9	58 / 16	24	L24	20	1075040000
KDSW M20 BN 0 NI 1 G20	M 20	12-17.6	6.70-14.00	0.9-1.25	58 / 16	30	L30	20	1075070000
KDSW M20 BN 0 NI 2 G20	M 20	15.5-21.1	6.70-14.00	0.9-1.25	58 / 16	30	L30	20	1075080000
KDSW M20 BN 0 NI 1 G20S	M 20	9.4-12.5	8.00-11.70	0.9-1.25	58 / 16	30	L24	20	1075050000
KDSW M20 BN 0 NI 2 G20S	M 20	11.5-16	8.00-11.70	0.9-1.25	58 / 16	24	L24	20	1075060000
KDSW M25 BN 0 NI 1 G25	M 25	16.8-23.9	13.00-20.00	1.25-1.6	58 / 16	38	L38	20	1075090000
KDSW M25 BN 0 NI 2 G25	M 25	20.3-27.4	13.00-20.00	1.25-1.6	58 / 16	38	L38	20	1075110000
KDSW M32 BN 0 NI 1 G32	M 32	23.2-30.5	19.00-26.30	1.6-2	65 / 16	46	L46	10	1075120000
KDSW M32 BN 0 NI 2 G32	M 32	26.7-34	19.00-26.30	1.6-2	65 / 16	46	L46	10	1075130000
KDSW M40 BN 0 NI 1 G40	M 40	28.6-36.2	25.00-32.20	1.6-2	72 / 16	55	L55	10	1075140000
KDSW M40 BN 0 NI 2 G40	M 40	33-40.6	25.00-32.20	1.6-2	72 / 16	55	L55	10	1075150000
KDSW M50 BN 0 NI 1 G50	M 50	41.1-48.5	36.50-44.10	2-2.5	73 / 16	65	L65	1	1075180000
KDSW M50 BN 0 NI 2 G50	M 50	45.7-53.2	36.50-44.10	2-2.5	73 / 16	65	L65	1	1075190000
KDSW M50 BN 0 NI 1 G50S	M 50	34.8-42.4	31.50-38.20	2-2.5	73 / 16	65	L65	1	1075160000
KDSW M50 BN 0 NI 2 G50S	M 50	39.4-46.7	31.50-38.20	2-2.5	73 / 16	65	L65	1	1075170000
KDSW M63 BN 0 NI 1 G63	M 63	53.8-61.2	49.50-56.00	2.5	76 / 19	80	L80	1	1075230000
KDSW M63 BN 0 NI 2 G63	M 63	58.4-65.8	49.50-56.00	2.5	76 / 19	80	L80	1	1075240000
KDSW M63 BN 0 NI 1 G63S	M 63	47.5-54.8	42.50-50.10	2.5	76 / 19	80	L80	1	1075210000
KDSW M63 BN 0 NI 2 G63S	M 63	52.1-59.5	42.50-50.10	2.5	76 / 19	80	L80	1	1075220000
KDSW M75 BN 0 NI 1 G75	M 75	66.5-73.4	60.50-68.00	2.5	82 / 19	90	L90	1	1075270000
KDSW M75 BN 0 NI 2 G75	M 75	71.1-78	60.50-68.00	2.5	82 / 19	90	L90	1	1075280000
KDSW M75 BN 0 NI 1 G75S	M 75	60.2-68	54.50-62.00	2.5	82 / 19	90	L90	1	1075250000
KDSW M75 BN 0 NI 2 G75S	M 75	64.8-72.2	54.50-62.00	2.5	82 / 19	90	L90	1	1075260000
<b>Note</b>	<ul style="list-style-type: none"> <li>All cable glands have a thread pitch of 1.5 mm.</li> <li>In the case of Ex d applications, the inner threads used for cable glands must meet the requirements of section 5.3 of EN/IEC 60079-1. In the screwed in position, at least 5 threads must be engaged.</li> <li>If the cable glands are installed in non-metallic Ex e connection equipment, these must be connected to the protective earth of the system.</li> <li>The connection cable must be laid securely and inflexibly to rule out tensile stress.</li> <li>Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: catalog.weidmuller.com.</li> </ul>								

Klippon® cable glands – Nickel-plated Brass – Ex e, Ex d, IP66 / IP68 for armoured cables



Cable gland for cables and lines with single-wire armouring.



Technical data

Material	Brass, nickel-plated
Seal insert	Silicone
Temperature range	-60 °C...180 °C
Protection class	IP54
Protection degree with GWDR	IP66, IP68 - 2.5 bar
Water depth	25 m (30 Min.)
Type of armouring	Single-wire armouring
Marking	ATEX: II 2G, Ex db IIC Gb, Ex eb IIC Gb, II 1D, Ex ta IIIC Da, IECEx: Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da
Certificate no. (ATEX / IECEx / EAC)	SIRA 05ATEX1286X / IECEx SIR 05.0067X / RUC-DE.IT08.B.00594
<b>Note</b>	Length "L" depends on the cable diameter used. IP protection without GWDR is IP54. To achieve IP66 / IP68 protection, a nylon GWDR must be ordered separately. Cable glands made of brass with natural surface are available in the online catalogue (catalog.weidmueller.com).

Ordering data

Type	Thread	D1 outer cable Ø	D2 inner cable Ø	Cable armour	L/L1	SW	SUHB	Qty.	Order No.
<b>metric, nickel-plated brass</b>									
KDSW M20 BS 0 NI 1 G16	M 20	4.9-10.3	3.50-8.40	0.9	58 / 16	24	L24	20	1136410000
KDSW M20 BS 0 NI 2 G16	M 20	8.4-13.5	3.50-8.40	0.9	58 / 16	24	L24	20	1136420000
KDSW M20 BS 0 NI 1 G20	M 20	12-17.6	9.30-14.00	0.9-1.25	58 / 16	30	L30	20	1136450000
KDSW M20 BS 0 NI 2 G20	M 20	15.5-21.1	9.30-14.00	0.9-1.25	58 / 16	30	L30	20	1136460000
KDSW M20 BS 0 NI 1 G20S	M 20	9.4-12.5	8.00-11.70	0.9-1.25	58 / 16	30	L24	20	1136430000
KDSW M20 BS 0 NI 2 G20S	M 20	11.5-16	8.00-11.70	0.9-1.25	58 / 16	24	L24	20	1136440000
KDSW M25 BS 0 NI 1 G25	M 25	16.8-23.9	13.00-20.00	1.25-1.6	58 / 16	38	L38	20	1136470000
KDSW M25 BS 0 NI 2 G25	M 25	20.3-27.4	13.00-20.00	1.25-1.6	58 / 16	38	L38	20	1136480000
KDSW M32 BS 0 NI 1 G32	M 32	23.2-30.5	19.00-26.30	1.6-2	65 / 16	46	L46	10	1136490000
KDSW M32 BS 0 NI 2 G32	M 32	26.7-34	19.00-26.30	1.6-2	65 / 16	46	L46	10	1136510000
KDSW M40 BS 0 NI 1 G40	M 40	28.6-36.2	25.00-32.20	1.6-2	72 / 16	55	L55	10	1136520000
KDSW M40 BS 0 NI 2 G40	M 40	33-40.6	25.00-32.20	1.6-2	72 / 16	55	L55	10	1136530000
KDSW M50 BS 0 NI 1 G50	M 50	41.1-48.5	36.50-44.10	2-2.5	73 / 16	65	L65	1	1136560000
KDSW M50 BS 0 NI 2 G50	M 50	45.7-53.2	36.50-44.10	2-2.5	73 / 16	65	L65	1	1136570000
KDSW M50 BS 0 NI 1 G50S	M 50	34.8-42.4	31.50-38.20	2-2.5	73 / 16	65	L65	1	1136540000
KDSW M50 BS 0 NI 2 G50S	M 50	39.4-46.7	31.50-38.20	2-2.5	73 / 16	65	L65	1	1136550000
KDSW M63 BS 0 NI 1 G63	M 63	53.8-61.2	49.50-56.00	2.5	76 / 19	80	L80	1	1136600000
KDSW M63 BS 0 NI 2 G63	M 63	58.4-65.8	49.50-56.00	2.5	76 / 19	80	L80	1	1136610000
KDSW M63 BS 0 NI 1 G63S	M 63	47.5-54.8	42.50-50.10	2.5	76 / 19	80	L80	1	1136580000
KDSW M63 BS 0 NI 2 G63S	M 63	52.1-59.5	42.50-50.10	2.5	76 / 19	80	L80	1	1136590000
KDSW M75 BS 0 NI 1 G75	M 75	66.5-73.4	60.50-68.00	2.5	82 / 19	90	L90	1	1136640000
KDSW M75 BS 0 NI 2 G75	M 75	71.1-78	60.50-68.00	2.5	82 / 19	90	L90	1	1136650000
KDSW M75 BS 0 NI 1 G75S	M 75	60.2-68	54.50-62.00	2.5	82 / 19	90	L90	1	1136620000
KDSW M75 BS 0 NI 2 G75S	M 75	64.8-72.2	54.50-62.00	2.5	82 / 19	90	L90	1	1136630000

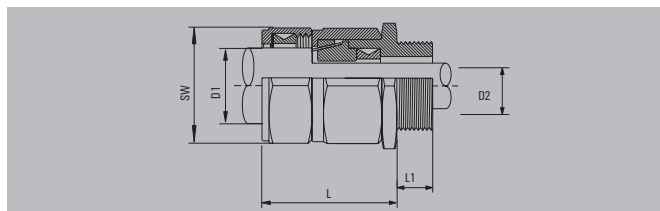
<b>Note</b>	<ul style="list-style-type: none"> <li>All cable glands have a thread pitch of 1.5 mm.</li> <li>In the case of Ex d applications, the inner threads used for cable glands must meet the requirements of section 5.3 of EN/IEC 60079-1. In the screwed in position, at least 5 threads must be engaged.</li> <li>If the cable glands are installed in non-metallic Ex e connection equipment, these must be connected to the protective earth of the system.</li> <li>The connection cable must be laid securely and inflexibly to rule out tensile stress.</li> <li>Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: catalog.weidmueller.com.</li> </ul>
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## Klippon® cable glands – Nickel-plated Brass – Ex e, Ex d, IP66 / IP68 for armoured cables



Cable gland for cables and lines with single-wire armouring and lead-sheath armouring.



## Technical data

Material	Brass, nickel-plated
Seal insert	CR
Temperature range	-35 °C...90 °C
Protection class	IP54
Protection degree with GWDR	IP66, IP68 - 2.5 bar
Water depth	25 m (30 Min.)
Type of armouring	Single-wire armouring, Lead sheath armouring
Marking	ATEX: II 2G, Ex db IIC Gb, Ex eb IIC Gb, II 1D, Ex ta IIIC Da, IECEx: Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da
Certificate no. (ATEX / IECEx / EAC)	SIRA 05ATEX1286X / IECEx SIR 05.0067X / RUC-DE.IT08.B.00594
<b>Note</b>	Length "L" depends on the cable diameter used. IP protection without GWDR is IP54. To achieve IP66 / IP68 protection, a nylon GWDR must be ordered separately. Cable glands made of brass with natural surface are available in the online catalogue (catalog.weidmuller.com).

## Ordering data

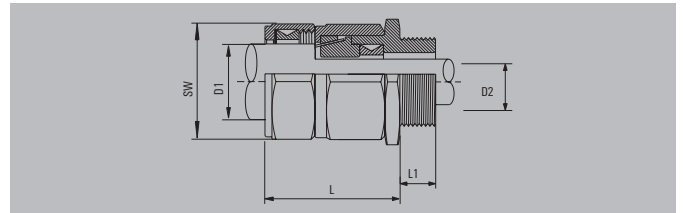
Type	Thread	D1 outer cable Ø	D2 inner cable Ø	Cable armour	L/L1	SW	SUHB	Qty.	Order No.
<b>metric, nickel-plated brass</b>									
KDSW M20 BN L NI 1 G16	M 20	4.9-10.3	3.50-8.40	0.9	58 / 16	24	L24	20	1074660000
KDSW M20 BN L NI 2 G16	M 20	8.4-13.5	3.50-8.40	0.9	58 / 16	24	L24	20	1074690000
KDSW M20 BN L NI 1 G20	M 20	12-17.6	6.70-14.00	0.9-1.25	58 / 16	30	L30	20	1074760000
KDSW M20 BN L NI 2 G20	M 20	15.5-21.1	6.70-14.00	0.9-1.25	58 / 16	30	L30	20	1074780000
KDSW M20 BN L NI 1 G20S	M 20	9.4-12.5	8.00-11.70	0.9-1.25	58 / 16	24	L24	20	1074720000
KDSW M20 BN L NI 2 G20S	M 20	11.5-16	8.00-11.70	0.9-1.25	58 / 16	24	L24	20	1074740000
KDSW M25 BN L NI 1 G25	M 25	16.8-23.9	13.00-20.00	1.25-1.6	58 / 16	38	L38	20	1074810000
KDSW M25 BN L NI 2 G25	M 25	20.3-27.4	13.00-20.00	1.25-1.6	58 / 16	38	L38	20	1074830000
KDSW M32 BN L NI 1 G32	M 32	23.2-30.5	19.00-26.30	1.6-2	65 / 16	46	L46	10	1074850000
KDSW M32 BN L NI 2 G32	M 32	26.7-34	19.00-26.30	1.6-2	65 / 16	46	L46	10	1074860000
KDSW M40 BN L NI 1 G40	M 40	28.6-36.2	25.00-32.20	1.6-2	72 / 16	55	L55	10	1074870000
KDSW M40 BN L NI 2 G40	M 40	33-40.6	25.00-32.20	1.6-2	72 / 16	55	L55	10	1074880000
KDSW M50 BN L NI 1 G50	M 50	41.4-48.5	36.50-44.10	2.2-2.5	73 / 16	65	L65	1	1074920000
KDSW M50 BN L NI 2 G50	M 50	45.7-53.2	36.50-44.10	2.2-2.5	73 / 16	65	L65	1	1074930000
KDSW M50 BN L NI 1 G50S	M 50	34.8-42.4	31.50-38.20	2.2-2.5	73 / 16	65	L65	1	1074890000
KDSW M50 BN L NI 2 G50S	M 50	39.4-46.7	31.50-38.20	2.2-2.5	73 / 16	65	L65	1	1074910000
KDSW M63 BN L NI 1 G63	M 63	53.8-61.2	49.50-56.00	2.5	76 / 19	80	L80	1	1074960000
KDSW M63 BN L NI 2 G63	M 63	58.4-65.8	49.50-56.00	2.5	76 / 19	80	L80	1	1074970000
KDSW M63 BN L NI 1 G63S	M 63	47.5-54.8	42.50-50.10	2.5	76 / 19	80	L80	1	1074940000
KDSW M63 BN L NI 2 G63S	M 63	52.1-59.5	42.50-50.10	2.5	76 / 19	80	L80	1	1074950000
KDSW M75 BN L NI 1 G75	M 75	66.5-73.4	60.50-68.00	2.5	82 / 19	90	L90	1	1075010000
KDSW M75 BN L NI 2 G75	M 75	71.1-78	60.50-68.00	2.5	82 / 19	90	L90	1	1075020000
KDSW M75 BN L NI 1 G75S	M 75	60.2-68	54.50-62.00	2.5	82 / 19	90	L90	1	1074980000
KDSW M75 BN L NI 2 G75S	M 75	64.8-72.2	54.50-62.00	2.5	82 / 19	90	L90	1	1074990000

<b>Note</b>	<ul style="list-style-type: none"> <li>All cable glands have a thread pitch of 1.5 mm.</li> <li>In the case of Ex d applications, the inner threads used for cable glands must meet the requirements of section 5.3 of EN/IEC 60079-1. In the screwed in position, at least 5 threads must be engaged.</li> <li>If the cable glands are installed in non-metallic Ex e connection equipment, these must be connected to the protective earth of the system.</li> <li>The connection cable must be laid securely and inflexibly to rule out tensile stress.</li> <li>Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: catalog.weidmuller.com.</li> </ul>
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Klippon® cable glands - Nickel-plated Brass - Ex e, Ex d, IP66 / IP68 for armoured cables



Cable gland for cables and lines with braided armouring.



Technical data

Material	Brass, nickel-plated
Seal insert	Silicone
Temperature range	-60 °C...180 °C
Protection class	IP54
Protection degree with GWDR	IP66, IP68 - 2.5 bar
Water depth	25 m (30 Min.)
Type of armouring	Braided armouring
Marking	ATEX: II 2G, Ex db IIC Gb, Ex eb IIC Gb, II 1D, Ex ta IIIC Da, IECEx: Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da
Certificate no. (ATEX / IECEx / EAC)	SIRA 05ATEX1286X / IECEx SIR 05.0067X / RUC-DE.IT08.B.00594
<b>Note</b>	Length "L" depends on the cable diameter used. IP protection without GWDR is IP54. To achieve IP66 / IP68 protection, a nylon GWDR must be ordered separately. Cable glands made of brass with natural surface are available in the online catalogue (catalog.weidmueller.com).

Ordering data

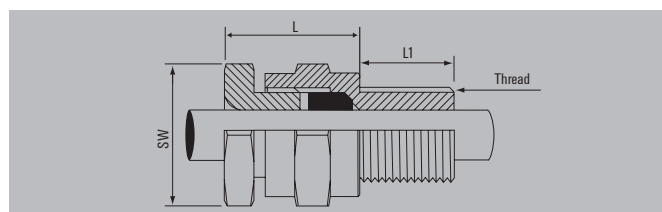
Type	Thread	D1 outer cable Ø	D2 inner cable Ø	Cable armour	L/L1	SW	SUHB	Qty.	Order No.
<b>metric, nickel-plated brass</b>									
KDSX M20 BS 0 NI 1 G16	M 20	4.9-10.3	3.50-8.40	0.15-0.35	58 / 16	24	L24	20	1135910000
KDSX M20 BS 0 NI 2 G16	M 20	8.4-13.5	3.50-8.40	0.15-0.35	58 / 16	24	L24	20	1135920000
KDSX M20 BS 0 NI 1 G20	M 20	12-17.6	9.30-14.00	0.15-0.5	58 / 16	30	L30	20	1135950000
KDSX M20 BS 0 NI 2 G20	M 20	15.5-21.1	9.30-14.00	0.15-0.5	58 / 16	30	L30	20	1135960000
KDSX M20 BS 0 NI 1 G20S	M 20	9.4-12.5	8.00-11.70	0.15-0.35	58 / 16	24	L24	20	1135930000
KDSX M20 BS 0 NI 2 G20S	M 20	11.5-16	8.00-11.70	0.15-0.35	58 / 16	24	L24	20	1135940000
KDSX M25 BS 0 NI 1 G25	M 25	16.8-23.9	13.00-20.00	0.15-0.5	58 / 16	38	L38	20	1135970000
KDSX M25 BS 0 NI 2 G25	M 25	20.3-27.4	13.00-20.00	0.15-0.5	58 / 16	38	L38	20	1135980000
KDSX M32 BS 0 NI 1 G32	M 32	23.2-30.5	19.00-26.30	0.15-0.55	65 / 16	46	L46	10	1135990000
KDSX M32 BS 0 NI 2 G32	M 32	26.7-34	19.00-26.30	0.15-0.55	65 / 16	46	L46	10	1136000000
KDSX M40 BS 0 NI 1 G40	M 40	28.6-36.2	25.00-32.20	0.2-0.6	72 / 16	55	L55	10	1136010000
KDSX M40 BS 0 NI 2 G40	M 40	33-40.6	25.00-32.20	0.2-0.6	72 / 16	55	L55	10	1136020000
KDSX M50 BS 0 NI 1 G50	M 50	41.1-48.5	36.50-44.10	0.5-0.8	73 / 16	65	L65	1	1136050000
KDSX M50 BS 0 NI 2 G50	M 50	45.7-53.2	36.50-44.10	0.5-0.8	73 / 16	65	L65	1	1136060000
KDSX M50 BS 0 NI 1 G50S	M 50	34.8-42.4	31.50-38.20	0.2-0.6	73 / 16	65	L65	1	1136030000
KDSX M50 BS 0 NI 2 G50S	M 50	39.4-46.7	31.50-38.20	0.2-0.6	73 / 16	65	L65	1	1136040000
KDSX M63 BS 0 NI 1 G63	M 63	53.8-61.2	49.50-56.00	0.5-0.8	76 / 19	80	L80	1	1136090000
KDSX M63 BS 0 NI 2 G63	M 63	58.4-65.8	49.50-56.00	0.5-0.8	76 / 19	80	L80	1	1136110000
KDSX M63 BS 0 NI 1 G63S	M 63	47.5-54.8	42.50-50.10	0.5-0.8	76 / 19	80	L80	1	1136070000
KDSX M63 BS 0 NI 2 G63S	M 63	52.1-59.5	42.50-50.10	0.5-0.8	76 / 19	80	L80	1	1136080000
KDSX M75 BS 0 NI 1 G75	M 75	66.5-73.4	60.50-68.00	0.5-1	82 / 19	90	L90	1	1136140000
KDSX M75 BS 0 NI 2 G75	M 75	71.1-78	60.50-68.00	0.5-1	82 / 19	90	L90	1	1136150000
KDSX M75 BS 0 NI 1 G75S	M 75	60.2-68	54.50-62.00	0.5-1	82 / 19	90	L90	1	1136120000
KDSX M75 BS 0 NI 2 G75S	M 75	64.8-72.2	54.50-62.00	0.5-1	82 / 19	90	L90	1	1136130000

<b>Note</b>	<ul style="list-style-type: none"> <li>All cable glands have a thread pitch of 1.5 mm.</li> <li>In the case of Ex d applications, the inner threads used for cable glands must meet the requirements of section 5.3 of EN/IEC 60079-1. In the screwed in position, at least 5 threads must be engaged.</li> <li>If the cable glands are installed in non-metallic Ex e connection equipment, these must be connected to the protective earth of the system.</li> <li>The connection cable must be laid securely and inflexibly to rule out tensile stress.</li> <li>Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: catalog.weidmueller.com.</li> </ul>
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Klippon® cable glands – Nickel-plated Brass – Ex e, Ex d, IP66 / IP68 for non-armoured cables



Cable gland exclusively for non-armoured cables and lines.



Technical data

Material	Brass, nickel-plated
O-ring / Seal insert	CR / CR
Temperature range	-35 °C...90 °C
Degree of protection	IP66, IP68 - 2.5 bar
Water depth	25 m (30 Min.)
Marking	ATEX: II 2GD, Ex db IIC Gb, Ex ta IIIC Da and/or II 2 GD, Ex eb IIC Gb, Ex ta IIIC Da, IECEx: Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da
Certificate no. (ATEX / IECEx / EAC)	SIRA 05ATEX1287X / IECEx SIR 05.0067X / RUC-DE.IT08.B.00594
<b>Note</b>	Length "L" depends on the cable diameter used. Cable glands made of brass with natural surface are available in the online catalogue (catalog.weidmueller.com).

Ordering data

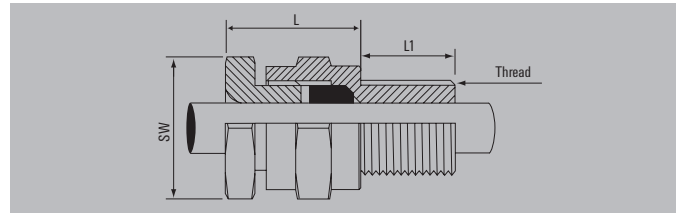
Type	Thread	KB	L/L1	SW	SUHB	Qty.	Order No.
<b>metric, nickel-plated brass</b>							
KSG M20 BN O NI 2 G16	M 20	4-8.4	33 / 16	25	L24	20	1911510000
KSG M20 BN O NI 2 G20S	M 20	7.2-11.7	33 / 16	25	L24	20	1911540000
KSG M20 BN O NI 2 G20	M 20	9.6-14	33 / 16	30	L30	20	1911560000
KSG M25 BN O NI 2 G25	M 25	13.5-20	33 / 16	38	L38	20	1911570000
KSG M32 BN O NI 2 G32	M 32	19.5-26.3	33 / 16	46	L46	10	1911580000
KSG M40 BN O NI 2 G40	M 40	23-32.2	37 / 16	55	L55	10	1911590000
KSG M50 BN O NI 2 G50S	M 50	28.1-38.2	37 / 16	65	L65	1	1911600000
KSG M50 BN O NI 2 G50	M 50	33.1-44.1	37 / 16	65	L65	1	1911610000
KSG M63 BN O NI 2 G63S	M 63	39.2-50.1	37 / 19	80	L80	1	1911620000
KSG M63 BN O NI 2 G63	M 63	46.7-56	37 / 19	80	L80	1	1911630000
KSG M75 BN O NI 2 G75	M 75	58-68	37 / 19	90	L90	1	1075360000
KSG M75 BN O NI 2 G75S	M 75	52.1-62	37 / 19	90	L90	1	1075350000

<b>Note</b>	<ul style="list-style-type: none"> <li>All cable glands have a thread pitch of 1.5 mm.</li> <li>In the case of Ex d applications, the inner threads used for cable glands must meet the requirements of section 5.3 of EN/IEC 60079-1. In the screwed in position, at least 5 threads must be engaged.</li> <li>If the cable glands are installed in non-metallic Ex e connection equipment, these must be connected to the protective earth of the system.</li> <li>The connection cable must be laid securely and inflexibly to rule out tensile stress.</li> <li>Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: catalog.weidmueller.com.</li> </ul>
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Klippon® cable glands - Brass - Ex e, Ex d, IP66 / IP68 for non-armoured cables



Cable gland exclusively for non-armoured cables and lines.



Technical data

Material	Brass, nickel-plated
O-ring / Seal insert	Silicone / Silicone
Temperature range	-60 °C...180 °C
Degree of protection	IP66, IP68 - 2.5 bar
Water depth	25 m (30 Min.)
Marking	ATEX: II 2GD, Ex db IIC Gb, Ex ta IIIC Da and/or II 2 GD, Ex eb IIC Gb, Ex ta IIIC Da, IECEx: Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da
Certificate no. (ATEX / IECEx / EAC)	SIRA 05ATEX1287X / IECEx SIR 05.0067X / RUC-DE.IT08.B.00594
<b>Note</b>	Length "L" depends on the cable diameter used. Cable glands made of brass with natural surface are available in the online catalogue (catalog.weidmueller.com).

Ordering data

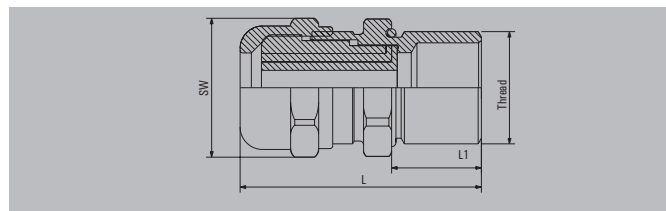
Type	Thread	KB	L/L1	SW	SUHB	Qty.	Order No.
<b>metric, nickel-plated brass</b>							
KSG M20 BS 0 NI 2 G16	M 20	4-8.4	33 / 16	25	L24	20	0930481222
KSG M20 BS 0 NI 2 G20	M 20	9.6-14	33 / 16	25	L30	20	0930501222
KSG M20 BS 0 NI 2 G20S	M 20	7.2-11.7	33 / 16	25	L24	20	0930491224
KSG M25 BS 0 NI 2 G25	M 25	13.5-20	33 / 16	38	L38	20	0930511222
KSG M32 BS 0 NI 2 G32	M 32	19.5-26.3	33 / 16	46	L46	10	0930521222
KSG M40 BS 0 NI 2 G40	M 40	23-32.2	37 / 16	55	L55	10	0930531222
KSG M50 BS 0 NI 2 G50	M 50	33.1-44.1	37 / 16	65	L65	1	1136670000
KSG M50 BS 0 NI 2 G50S	M 50	28.1-38.2	37 / 16	65	L65	1	1136660000
KSG M63 BS 0 NI 2 G63	M 63	46.7-56	37 / 19	80	L80	1	1136690000
KSG M63 BS 0 NI 2 G63S	M 63	39.2-50.1	37 / 19	80	L80	1	1136680000
KSG M75 BS 0 NI 2 G75	M 75	58-68	37 / 19	90	L90	1	1136710000
KSG M75 BS 0 NI 2 G75S	M 75	52.1-62	37 / 19	90	L90	1	1136700000

<b>Note</b>	<ul style="list-style-type: none"> <li>All cable glands have a thread pitch of 1.5 mm.</li> <li>In the case of Ex d applications, the inner threads used for cable glands must meet the requirements of section 5.3 of EN/IEC 60079-1. In the screwed in position, at least 5 threads must be engaged.</li> <li>If the cable glands are installed in non-metallic Ex e connection equipment, these must be connected to the protective earth of the system.</li> <li>The connection cable must be laid securely and inflexibly to rule out tensile stress.</li> <li>Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: catalog.weidmueller.com.</li> </ul>
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## Ex cable glands – Brass – Nickel plated – Ex e, Ex d, IP 66 / IP 68 for non-armoured cables



Cable gland made from brass exclusively for non-armoured cables and lines. This Ex e/d approved screw connection has multiply divisible seal inserts (onion rings) to cover the greatest possible clamping range.



## Technical data

Material	Brass, nickel-plated
O-ring / Seal insert	NBR / CR
Temperature range	-40 °C...100 °C
Degree of protection	IP66, IP68
Marking	Ex d IIC Gb, Ex e IIC Gb, Ex tb IIIC Db IP66/68
<b>Note</b>	Length "L" depends on the cable diameter used. Cable glands made of brass with natural surface are available in the online catalogue (catalog.weidmueller.com).

## Ordering data

Type	Thread	KB	L/L1	SW	Qty.	Order No.
VG M16 EXE MS	M 16	3-12	46 / 16	22	50	1460040000
VG M20 EXE MS	M 20	3-12	43 / 16	22	50	1460050000
VG M25 EXE MS	M 25	10-18	45.5 / 16	28	20	1460070000
VG M32 EXE MS	M 32	14-24	49 / 16	35	20	1460080000
VG M40 EXE MS	M 40	22-32	59 / 18	45	10	1460090000
VG M50 EXE MS	M 50	35-44	61.5 / 18	64	5	1460100000
VG M63 EXE MS	M 63	46-56	69.5 / 18	80	5	1460110000

**Note** Installation specifications and tightening torques can be found in the installation instructions.  
For further information please use our online catalogue: catalog.weidmueller.com.

# Safeguard processes in potentially explosive atmospheres

## Ex cable glands for safe devices as per EN 60079-0:2012 + A11 : 2013

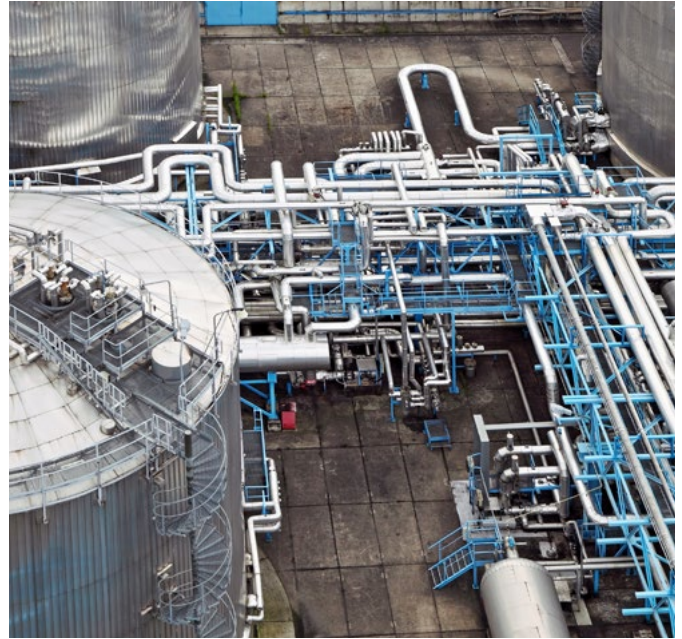
The environmental conditions in many industry and explosion-proof applications pose a real challenge for the system components. Dust, vibrations, moisture and extreme temperatures all have an impact on the installed devices and the cable glands must also be able to withstand these stresses too.

Ex cable glands from Weidmüller guarantee process reliability in demanding environments. They are designed such that they can be used universally in any enclosure series. They are also just as easy to use in both high and low-temperature environments.

With impact resistance of 7 Joules, the explosion-proof polyamide cable glands offer extremely high levels of protection against external influences such as shocks or impacts. Together with their suitability for use in an extended temperature range and their proven conformity with current standards, these cable glands ensure safe and reliable functioning in a wide range of applications.

### Your special advantages:

**Impact and temperature resistant:** The cable glands for use in areas at risk of explosion can withstand extreme temperature conditions. They are impact-resistant up to 7 Joules and can be used in any Weidmüller enclosures, guaranteeing versatile applicability with full standard conformity.



In process-intensive industries such as petrochemistry, energy production, machine construction, motor and drive technology and device components which are subjected to extremely high stresses. The cable glands can withstand even the harshest environmental conditions. Guarantee impact-resistance of up to 7 Joules over an extended temperature range.

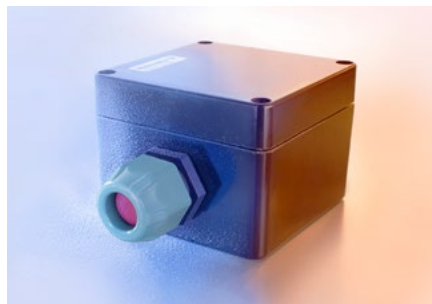
**Flexible application**

Available in 8 standard sizes from M12 to M63 (additional thread types on request) and with 14 different clamping ranges, the new range of cable glands is suitable for an extremely wide range of applications.



**Resistant to high temperatures**

The cable glands have an operating temperature range of -40 °C to +70 °C with a chloroprene seal, and a range of as wide as -60 °C to +70 °C with a silicone seal.



D



**Extremely impact-resistant**

With impact resistance of 7 Joules, the explosion-proof cable glands offer extremely high levels of protection against external influences such as shocks or impacts, in accordance with EN 60079-0:2012 + A11 : 2013.



**Comprehensive approvals**

Whether for Ex e or Ex i applications: The plastic cable glands comply consistently with EN 60079-0:2012 + A11 : 2013 and are approved in accordance with ATEX, IECEx, EAC, and DNV GL.

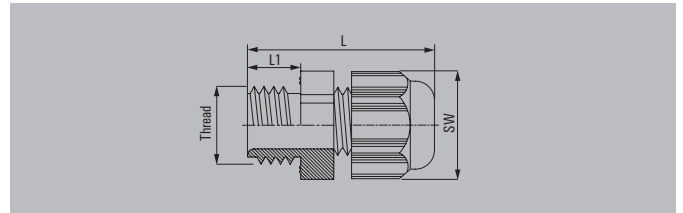


## Ex-cable glands - Plastic

## Ex cable glands - Plastic - Ex e, Ex i, IP66 / IP68, 7J, -40°C - +70°C



Plastic cable gland for Ex applications with integrated strain relief, especially for Ex e and Ex i applications with chloroprene seal and 7 Joule impact resistance. Complete with integral membrane seal for clean transportation and storage.



## Technical data

Material	Polyamide 6
Temperature range	-40 °C...70 °C
Seal insert	CR
Protection class	IP54, IP66, IP67, IP68 - 5 bar (30 min.)
Impact resistance	7 joules in acc. with IEC 60079-0
Marking	Ex eb IIC Gb, Ex tb IIC Db IP66/68
<b>Note</b>	Length "L" depends on the cable diameter used.

## Ordering data

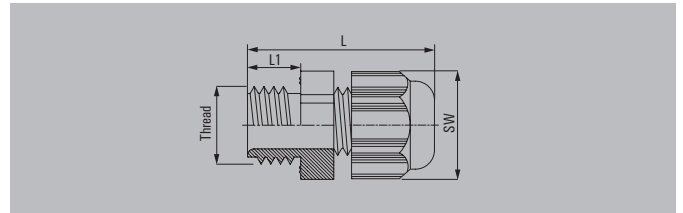
Type	Thread	KB	L/L1	SW	Qty.	Order No.
<b>Ex e, deep black</b>						
VG M12 EXE 4-6,5 CR7J G4	M 12	4-6.5 mm	22 / 10 mm	15 mm	100	2721930000
VG M16 EXE 5-8 CR7J G4	M 16	5-8 mm	26 / 10 mm	19 mm	50	2721940000
VG M16 EXE 6-10 CR7J G4	M 16	6-10 mm	29.5 / 10 mm	22 mm	50	2721950000
VG M20 EXE 7-12 CR7J G4	M 20	7-12 mm	30 / 10 mm	24 mm	50	2721960000
VG M20 EXE 7-13 CR7J G4	M 20	7-13 mm	33 / 10 mm	25 mm	50	2721970000
VG M20 EXE 11-14 CR7J G4	M 20	11-14 mm	30 / 10 mm	27 mm	50	2721980000
VG M25 EXE 12-17 CR7J G4	M 25	12-17 mm	34 / 10 mm	29 mm	50	2721990000
VG M25 EXE 14-18 CR7J G4	M 25	14-18 mm	35 / 10 mm	33 mm	25	2722000000
VG M32 EXE 16-21 CR7J G4	M 32	16-21 mm	42 / 10 mm	36 mm	25	2722010000
VG M32 EXE 19-25 CR7J G4	M 32	19-25 mm	40.5 / 15 mm	42 mm	20	2722020000
VG M40 EXE 20-28 CR7J G4	M 40	20-28 mm	46 / 10 mm	46 mm	15	2722030000
VG M40 EXE 23-32 CR7J G4	M 40	23-32 mm	50 / 18 mm	53 mm	10	2722040000
VG M50 EXE 31-38 CR7J G4	M 50	31-38 mm	54 / 18 mm	60 mm	10	2722050000
VG M63 EXE 35-44 CR7J G4	M 63	35-44 mm	54 / 18 mm	65 mm	10	2722060000
<b>Ex i, light blue, deep black</b>						
VG M12 EXI 4-6,5 CR7J G4	M 12	4-6.5 mm	22 / 10 mm	15 mm	100	2722210000
VG M16 EXI 5-8 CR7J G4	M 16	5-8 mm	26 / 10 mm	19 mm	50	2722220000
VG M16 EXI 6-10 CR7J G4	M 16	6-10 mm	29.5 / 10 mm	22 mm	50	2722230000
VG M20 EXI 7-12 CR7J G4	M 20	7-12 mm	30 / 10 mm	24 mm	50	2722240000
VG M20 EXI 7-13 CR7J G4	M 20	7-13 mm	33 / 10 mm	25 mm	50	2722250000
VG M20 EXI 11-14 CR7J G4	M 20	11-14 mm	30 / 10 mm	27 mm	50	2722260000
VG M25 EXI 12-17 CR7J G4	M 25	12-17 mm	34 / 10 mm	29 mm	50	2722270000
VG M25 EXI 14-18 CR7J G4	M 25	14-18 mm	35 / 10 mm	33 mm	25	2722280000
VG M32 EXI 16-21 CR7J G4	M 32	16-21 mm	42 / 10 mm	36 mm	25	2722290000
VG M32 EXI 19-25 CR7J G4	M 32	19-25 mm	40.5 / 15 mm	42 mm	20	2722300000
VG M40 EXI 20-28 CR7J G4	M 40	20-28 mm	46 / 10 mm	46 mm	15	2722310000
VG M40 EXI 23-32 CR7J G4	M 40	23-32 mm	50 / 18 mm	53 mm	10	2722320000
VG M50 EXI 31-38 CR7J G4	M 50	31-38 mm	54 / 18 mm	60 mm	10	2722330000
VG M63 EXI 35-44 CR7J G4	M 63	35-44 mm	54 / 18 mm	65 mm	10	2722340000
<b>Note</b>	Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: <a href="http://catalog.weidmueller.com">catalog.weidmueller.com</a>					



## Ex cable glands – Plastic – Ex e, Ex i, IP66 / IP68, 7J, -60°C – +70°C



Plastic cable gland for Ex applications with integrated strain relief, especially for Ex e and Ex i applications with silicone seal and 7 Joule impact resistance. Complete with integral membrane seal for clean transportation and storage.



## Technical data

Material	Polyamide 6
Temperature range	-60 °C...70 °C
Seal insert	Silicone
Protection class	IP54, IP66, IP67, IP68 - 5 bar (30 min.)
Impact resistance	7 joules in acc. with IEC 60079-0
Marking	Ex eb IIC Gb, Ex tb IIC Db IP66/68
<b>Note</b>	Length "L" depends on the cable diameter used.

## Ordering data

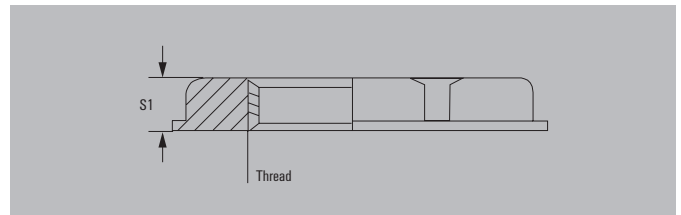
Type	Thread	KB	L/L1	SW	Qty.	Order No.
<b>Ex e, deep black</b>						
VG M12 EXE 4-6,5 SI7J G4	M 12	4-6.5 mm	22 / 10 mm	15 mm	100	2722070000
VG M16 EXE 5-8 SI7J G4	M 16	5-8 mm	26 / 10 mm	19 mm	50	2722080000
VG M16 EXE 6-10 SI7J G4	M 16	6-10 mm	29.5 / 10 mm	22 mm	50	2722090000
VG M20 EXE 7-12 SI7J G4	M 20	7-12 mm	30 / 10 mm	24 mm	50	2722100000
VG M20 EXE 7-13 SI7J G4	M 20	7-13 mm	33 / 10 mm	25 mm	50	2722110000
VG M20 EXE 11-14 SI7J G4	M 20	11-14 mm	30 / 10 mm	27 mm	50	2722120000
VG M25 EXE 12-17 SI7J G4	M 25	12-17 mm	34 / 10 mm	29 mm	50	2722130000
VG M25 EXE 14-18 SI7J G4	M 25	14-18 mm	35 / 10 mm	33 mm	25	2722140000
VG M32 EXE 16-21 SI7J G4	M 32	16-21 mm	42 / 10 mm	36 mm	25	2722150000
VG M32 EXE 19-25 SI7J G4	M 32	19-25 mm	40.5 / 15 mm	42 mm	20	2722160000
VG M40 EXE 20-28 SI7J G4	M 40	20-28 mm	46 / 10 mm	46 mm	15	2722170000
VG M40 EXE 23-32 SI7J G4	M 40	23-32 mm	50 / 18 mm	53 mm	10	2722180000
VG M50 EXE 31-38 SI7J G4	M 50	31-38 mm	54 / 18 mm	60 mm	10	2722190000
VG M63 EXE 35-44 SI7J G4	M 63	35-44 mm	54 / 18 mm	65 mm	10	2722200000
<b>Ex i, light blue, deep black</b>						
VG M12 EXI 4-6,5 SI7J G4	M 12	4-6.5 mm	22 / 10 mm	15 mm	100	2722350000
VG M16 EXI 5-8 SI7J G4	M 16	5-8 mm	26 / 10 mm	19 mm	50	2722360000
VG M16 EXI 6-10 SI7J G4	M 16	6-10 mm	29.5 / 10 mm	22 mm	50	2722370000
VG M20 EXI 7-12 SI7J G4	M 20	7-12 mm	30 / 10 mm	24 mm	50	2722380000
VG M20 EXI 7-13 SI7J G4	M 20	7-13 mm	33 / 10 mm	25 mm	50	2722390000
VG M20 EXI 11-14 SI7J G4	M 20	11-14 mm	30 / 10 mm	27 mm	50	2722400000
VG M25 EXI 12-17 SI7J G4	M 25	12-17 mm	34 / 10 mm	29 mm	50	2722410000
VG M25 EXI 14-18 SI7J G4	M 25	14-18 mm	35 / 10 mm	33 mm	25	2722420000
VG M32 EXI 16-21 SI7J G4	M 32	16-21 mm	42 / 10 mm	36 mm	25	2722430000
VG M32 EXI 19-25 SI7J G4	M 32	19-25 mm	40.5 / 15 mm	42 mm	20	2722440000
VG M40 EXI 20-28 SI7J G4	M 40	20-28 mm	46 / 10 mm	46 mm	15	2722450000
VG M40 EXI 23-32 SI7J G4	M 40	23-32 mm	50 / 18 mm	53 mm	10	2722460000
VG M50 EXI 31-38 SI7J G4	M 50	31-38 mm	54 / 18 mm	60 mm	10	2722470000
VG M63 EXI 35-44 SI7J G4	M 63	35-44 mm	54 / 18 mm	65 mm	10	2722480000
<b>Note</b>	Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: <a href="http://catalog.weidmuller.com">catalog.weidmuller.com</a>					

## Accessories – Lock nuts

## Lock nuts – Plastic 7035



For fastening cable glands and accessories if no threaded hole is available. With circumferential collar to prevent damage to the substrate during installation.



## Technical data

Material / Colour	Polyamid 6 (PA6 - GF30) / Light Grey / RAL 7035
Temperature range	-40 °C...100 °C
Flammability rating	V-2
<b>Note</b>	

## Ordering data

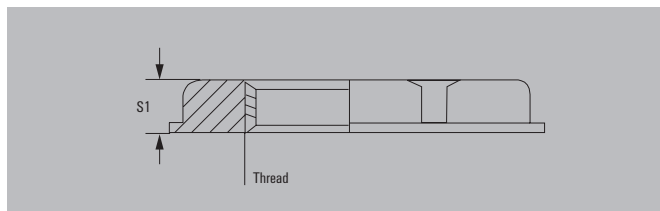
Type	Thread	S1	SW	Qty.	Order No.
<b>metric</b>					
SKMU M12 - K GR	M 12	5.00	18	100	1772440000
SKMU M16 - K GR	M 16	5.00	22	100	1772450000
SKMU M20 - K GR	M 20	6.00	26	100	1772460000
SKMU M25 - K GR	M 25	6.00	32	100	1772470000
SKMU M32 - K GR	M 32	7.00	41	100	1772480000
SKMU M40 - K GR	M 40	7.00	50	50	1772490000
SKMU M50 - K GR	M 50	8.00	60	10	1772500000
SKMU M63 - K GR	M 63	8.00	75	10	1772510000
<b>PG</b>					
SKMU PG7-K GR	PG 7	5.00	19	100	1697440000
SKMU PG9-K GR	PG 9	5.00	22	100	1697450000
SKMU PG11-K GR	PG 11	5.00	24	100	1697460000
SKMU PG 13,5-K GR	PG 13.5	6.00	27	100	1697470000
SKMU PG16-K GR	PG 16	6.00	30	100	1697480000
SKMU PG21-K GR	PG 21	7.00	36	100	1698220000
SKMU PG29-K GR	PG 29	7.00	46	50	1698230000
SKMU PG36-K GR	PG 36	8.00	60	25	1698240000
SKMU PG42-K GR	PG 42	8.00	65	25	1698250000
SKMU PG48-K GR	PG 48	8.00	70	25	1719090000

**Note** Further versions on request.

Lock nuts – Plastic 9005



Lock nuts with collar for preventing enclosure damage on installation. These are used to secure plastic cable glands and blanking plugs - recommended for Ex e and Ex i plastic cable glands.



Technical data

Material / Colour	Polyamid 6 (PA6 - GF30) / Deep black / RAL 9005
Temperature range	-40 °C...100 °C
Flammability rating	V-2
<b>Note</b>	Accessories for Ex cable glands are not subject to approval.

Ordering data

Type	Thread	S1	SW	Qty.	Order No.
<b>metric</b>					
SKMU M12 K SW	M 12	5.00	18	100	1806540000
SKMU M16 K SW	M 16	5.00	22	100	1736920000
SKMU M20 K SW	M 20	6.00	26	100	1736930000
SKMU M25 K SW	M 25	6.00	32	25	1736940000
SKMU M32 K SW	M 32	7.00	41	100	1736950000
SKMU M40 K SW	M 40	7.00	50	10	1736960000
SKMU M50 K SW	M 50	8.00	60	5	1736970000
SKMU M63 K SW	M 63	8.00	75	5	1736980000
<b>PG</b>					
SKMU PG7-K SW	PG 7	5.00	19	100	1719100000
SKMU PG9-K SW	PG 9	5.00	22	50	1719110000
SKMU PG11-K SW	PG 11	5.00	24	50	1719120000
SKMU PG13,5-K SW	PG 13.5	6.00	27	50	1719130000
SKMU PG16-K SW	PG 16	6.00	30	100	1719140000
SKMU PG21-K SW	PG 21	7.00	36	100	1719150000
SKMU PG29-K SW	PG 29	7.00	46	20	1719160000
SKMU PG36-K SW	PG 36	8.00	60	10	1719170000
SKMU PG42-K SW	PG 42	8.00	65	25	1719180000
SKMU PG48-K SW	PG 48	8.00	70	25	1719190000

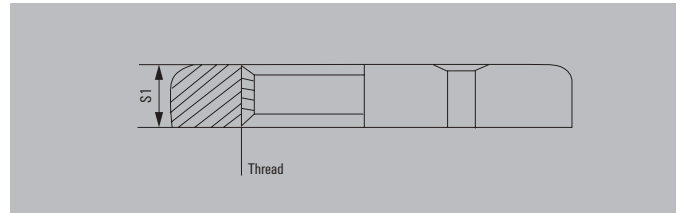
<b>Note</b>	Further versions on request.
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## Accessories – Lock nuts

## Lock nuts – Brass – nickel-plated



For fastening cable glands and accessories if no threaded hole is available. Recommended when working with Ex applications.



## Technical data

Material	Brass, nickel-plated
Note	

## Ordering data

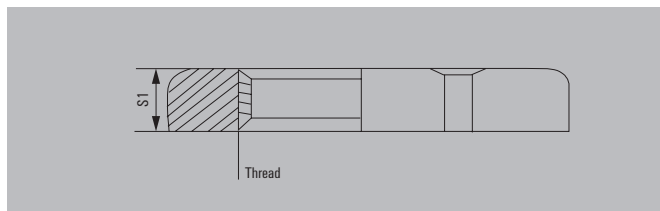
Type	Thread	S1	SW	Qty.	Order No.
<b>metric</b>					
SKMU M12 MS	M 12	2.8	14	100	1772360000
SKMU M16 MS	M 16	2.8	19	100	1736990000
SKMU M20 MS	M 20	3	24	100	1737000000
SKMU M25 MS	M 25	3	28	100	1737010000
SKMU M32 MS	M 32	4	36	100	1737020000
SKMU M40 MS	M 40	4.5	44	50	1737030000
SKMU M50 MS	M 50	5	54	25	1737040000
SKMU M63 MS	M 63	6	70	25	1737050000
SKMU M75 MS	M 75	8	85	5	1737060000
<b>PG</b>					
SKMU PG7-MS	PG 7	2.8	15	100	1694070000
SKMU PG9-MS	PG 9	2.8	18	100	1694080000
SKMU PG11-MS	PG 11	3	21	100	1694090000
SKMU PG13,5-MS	PG 13.5	3	23	100	1694100000
SKMU PG16-MS	PG 16	3	26	100	1694110000
SKMU PG21-MS	PG 21	3.5	32	100	1719200000
SKMU PG29-MS	PG 29	4	41	50	1719210000
SKMU PG36-MS	PG 36	5	51	50	1719220000
SKMU PG42-MS	PG 42	5	60	25	1719230000
SKMU PG48-MS	PG 48	5.5	64	10	1719240000

Note Further versions on request.

Lock nuts – Brass – natural



For fastening cable glands and accessories if no threaded hole is available. Recommended when working with Ex applications.



Technical data

Material	Brass
Note	

Ordering data

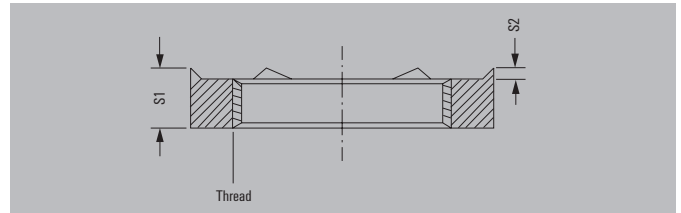
Type	Thread	S1	SW	Qty.	Order No.
metric					
SKMU M16 MS SC	M 16	4	22	50	0930640001
SKMU M20 MS SC	M 20	4	24	50	0930640002
SKMU M25 MS SC	M 25	4	30	25	0930640003
SKMU M32 MS SC	M 32	4	40	20	0930640004
SKMU M40 MS SC	M 40	4.5	50	10	0930640005
SKMU M50 MS SC	M 50	5	65	5	0930640006
SKMU M63 MS SC	M 63	6.5	75	5	0930640007
SKMU M75 MS SC	M 75	7	90	5	0930640008
Note					

## Accessories – Lock nuts

## Lock nuts – Brass – EMC



For fastening cable glands and accessories if no threaded hole is available. Specially equipped with 6 edges which contact the enclosure when the lock nut is tightened.



## Technical data

Material Brass, nickel-plated

## Note

## Ordering data

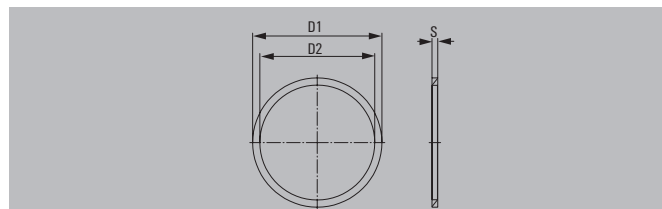
Type	Thread	S1	SW	Qty.	Order No.
<b>metric</b>					
SKMU EMV M12	M 12	3.6	15	100	1777610000
SKMU EMV M16	M 16	3.6	19	100	1777620000
SKMU EMV M20	M 20	3.6	24	100	1777630000
SKMU EMV M25	M 25	3.6	30	50	1777640000
SKMU EMV M32	M 32	4.1	36	50	1777650000
SKMU EMV M40	M 40	4.6	46	10	1777660000
SKMU EMV M50	M 50	4.6	60	10	1777670000
SKMU EMV M63	M 63	6.6	70	10	1777680000
<b>PG</b>					
SKMU EMV PG7	PG 7	4.7	15	20	1718900000
SKMU EMV PG9	PG 9	4.7	18	20	1718910000
SKMU EMV PG11	PG 11	4.7	21	20	1718920000
SKMU EMV PG13,5	PG 13,5	4.7	23	10	1718930000
SKMU EMV PG16	PG 16	4.7	26	10	1718940000
SKMU EMV PG21	PG 21	5.2	32	10	1718950000
SKMU EMV PG29	PG 29	5.7	41	15	1718960000
SKMU EMV PG 36	PG 36	4.6	51	1	1777710000
SKMU EMV PG 42	PG 42	4.6	58	1	1777700000
SKMU EMV PG 48	PG 48	5.6	64	1	1777690000

Note Further versions on request.

## Flat IP washer – Standard – Polyethylene



For better sealing of the connection thread of a cable gland or accessory.



## Technical data

Material / Colour	Polyethylene / Transparent
Temperature range	-30 °C...90 °C
<b>Note</b>	

## Ordering data

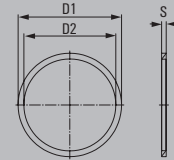
Type	Thread	D1	D2	S	Qty.	Order No.
<b>metric</b>						
GWDR M12-PO	M 12	16.00	12.00	2.00	50	1777920000
GWDR M16-PO	M 16	20.00	16.00	2.00	50	1777930000
GWDR M20-PO	M 20	24.00	20.00	2.00	100	1777940000
GWDR M25-PO	M 25	29.00	25.00	2.00	50	1777950000
GWDR M32-PO	M 32	36.00	32.00	2.00	50	1777960000
GWDR M40-PO	M 40	45.00	40.00	2.00	50	1777970000
GWDR M50-PO	M 50	56.00	50.00	2.00	50	1777980000
GWDR M63-PO	M 63	70.00	63.00	2.00	50	1777990000
<b>PG</b>						
GWDR PG7-PO	PG 7	16.50	12.50	2.00	100	1719440000
GWDR PG9-PO	PG 9	19.00	15.20	2.00	100	1719450000
GWDR PG11-PO	PG 11	22.50	18.60	2.00	100	1719460000
GWDR PG13,5-PO	PG 13.5	25.00	20.40	2.00	100	1719470000
GWDR PG16-PO	PG 16	27.00	22.50	2.00	100	1719480000
GWDR PG21-PO	PG 21	33.50	28.30	3.00	100	1719490000
GWDR PG29-PO	PG 29	43.50	37.00	3.00	50	1719500000
GWDR PG36-PO	PG 36	55.00	47.00	3.00	50	1719510000
GWDR PG42-PO	PG 42	63.00	54.00	3.00	10	1719520000
GWDR PG48-PO	PG 48	69.00	59.30	3.00	5	1719530000

**Note** Further versions on request.

## Flat IP washer – Standard – Neoprene



For better sealing of the connection thread of a cable gland or accessory.



### D

**Technical data**

Material / Colour	Neoprene / Deep black / RAL 9005
Temperature range	-40 °C...100 °C

**Note****Ordering data**

Type	Thread	D1	D2	S	Qty.	Order No.
<b>metric</b>						
GWDR M12-NP	M 12	18.00	12.00	1.20	50	1913320000
GWDR M16-NP	M 16	22.00	16.00	1.20	50	1736230000
GWDR M20-NP	M 20	24.00	20.00	1.20	50	1736240000
GWDR M25-NP	M 25	30.00	25.00	1.50	100	1736250000
GWDR M32-NP	M 32	42.00	32.00	1.50	50	1736260000
GWDR M40-NP	M 40	52.00	40.00	1.50	20	1736270000
GWDR M50-NP	M 50	63.00	50.00	1.50	20	1736280000
GWDR M63-NP	M 63	77.00	63.00	2.00	10	1736290000
<b>PG</b>						
GWDR PG7-NP	PG 7	17.00	11.60	1.20	100	1719540000
GWDR PG9-NP	PG 9	21.00	14.00	1.20	100	1719550000
GWDR PG11-NP	PG 11	24.00	17.00	1.20	100	1719560000
GWDR PG13,5-NP	PG 13.5	27.00	19.50	1.20	100	1719570000
GWDR PG16-NP	PG 16	30.00	22.50	1.20	100	1719580000
GWDR PG21-NP	PG 21	35.00	28.30	1.50	100	1719590000
GWDR PG29-NP	PG 29	45.00	37.00	1.50	50	1719600000
GWDR PG36-NP	PG 36	60.00	47.00	1.50	20	1719610000
GWDR PG42-NP	PG 42	65.00	54.00	1.50	10	1719620000
GWDR PG48-NP	PG 48	71.00	59.30	1.50	5	1719630000

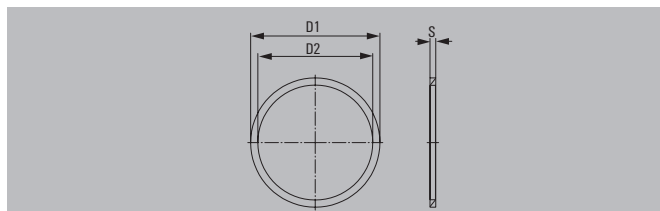
**Note** Further versions on request.



Flat IP washer – Standard – Nylon



For better sealing of the connection thread of a cable gland or accessory.



Technical data

Material / Colour	Nylon 6 / traffic red / RAL 3020
Temperature range	-40 °C...135 °C
<b>Note</b>	

Ordering data

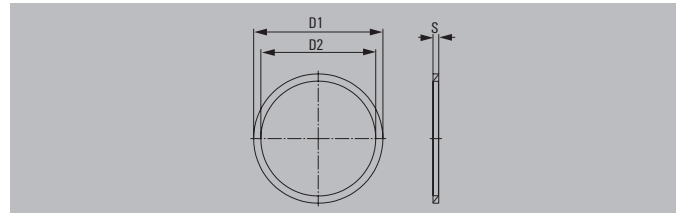
Type	Thread	D1	D2	S	Qty.	Order No.
<b>metric</b>						
KSWN M16	M 16	25.00	16.50	2.00	25	1076630000
KSWN M20	M 20	29.40	20.70	2.00	25	0930730002
KSWN M25	M 25	38.10	25.70	2.00	25	1076640000
KSWN M32	M 32	42.50	32.50	2.00	25	1076650000
KSWN M40	M 40	52.00	40.50	2.00	25	0899780000
KSWN M50	M 50	65.00	50.50	2.00	25	0900660000
KSWN M63	M 63	79.40	63.50	2.00	25	1076660000
KSWN M75	M 75	90.50	75.50	2.00	25	1076670000
<b>Note</b>						

## Accessories - Flat IP washer

## Flat IP washer - Standard - Vulcanised fibre



For better sealing of the connection thread of a cable gland or accessory.



## Technical data

Material / Colour	Vulcanized fibre / brown-red / RAL 3011
Temperature range	-40 °C...95 °C

## Note

## Ordering data

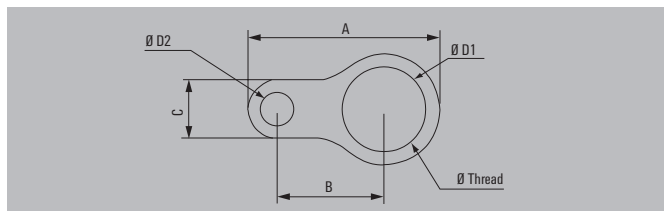
Type	Thread	D1	D2	S	Qty.	Order No.
<b>metric</b>						
KSWF M16	M 16	25.00	16.50	1.50	25	1076680000
KSWF M20	M 20	29.40	20.70	1.50	25	0899750000
KSWF M25	M 25	38.10	25.70	1.50	25	0899770000
KSWF M32	M 32	42.50	32.50	1.50	25	1076690000
KSWF M40	M 40	52.00	40.50	1.50	25	1076710000
KSWF M50	M 50	65.00	50.50	1.50	25	1076720000
KSWF M63	M 63	79.40	63.50	1.50	25	1076730000
KSWF M75	M 75	90.50	75.50	1.50	25	1076740000

## Note

Accessories – Earth tags – Brass



Earth tags are best used when a cable shielding is being tightened onto the cable gland, and when it has the same potential as another cable gland on the enclosure.



Technical data

Material	Brass, nickel-plated
Note	

Ordering data

Type	Thread	A	B	C	D1	D2	Qty.	Order No.
<b>metric, nickel-plated brass</b>								
EA-RING MS/M 16	M 16	48.75	30.00	13.00	24.5	6.75	20	1736480000
EA-RING MS/M 20	M 20	53.8	33.00	13.00	28.6	7.00	20	1736490000
EA-RING MS/M 25	M 25	61.5	36.00	17.00	34	10.50	20	1736500000
EA-RING MS/M 32	M 32	73	41.00	22.00	42	12.20	20	1736510000
EA-RING MS/M 40	M 40	86.5	44.50	30.00	54	13.50	10	1736520000
EA-RING MS/M 50	M 50	111.5	58.00	40.00	67	13.50	10	1736530000
EA-RING MS/M 63	M 63	125.5	67.00	40.00	77	13.50	10	1736540000
EA-RING MS/M 75	M 75	137.5	73.00	40.00	89	13.50	10	1736550000
<b>metric, brass natural</b>								
EA-RING MS/M16 SC	M 16	50.8	31.80	12.80	25.4	6.90	20	0930710001
EA-RING MS/M20 SC	M 20	54	33.00	12.80	28.6	6.90	20	0930710002
EA-RING MS/M25 SC	M 25	60.2	36.50	12.80	34.8	6.90	20	0930710003
EA-RING MS/M32 SC	M 32	74.6	42.50	22.30	44.6	11.80	20	0930710004
EA-RING MS/M40 SC	M 40	86.7	45.40	31.70	53	13.50	10	0930710005
EA-RING MS/M50 SC	M 50	111	58.10	41.30	65.2	13.50	10	0930710006
EA-RING MS/M63 SC	M 63	128.7	66.80	41.30	82.6	13.50	10	0930710007
EA-RING MS/M75 SC	M 75	141.3	73.00	41.30	95.3	13.50	10	0930710008

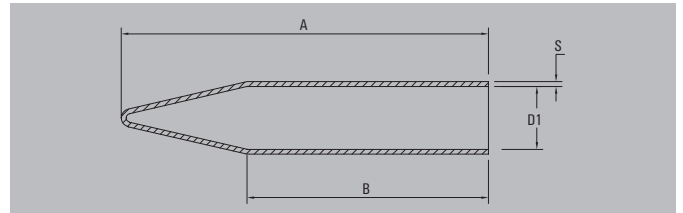
Note	Further versions on request.
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## Accessories – Shrouds

## Accessories – Shrouds – Silicone



The cover shroud a cable gland before and after the installation. It also protects against external environmental influences.



## Technical data

Material / Colour	Silicone / blue-grey / RAL 7031
Temperature range	-60 °C...200 °C
Hardness (IRHD)	60

## Note

## Ordering data

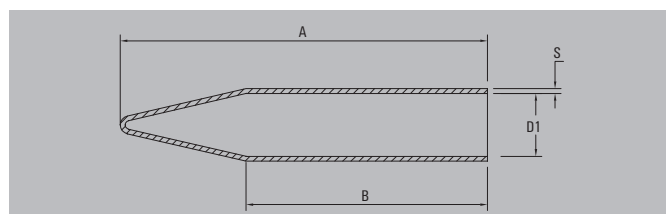
Type	A	B	D1	D2	S	Qty.	Order No.
<b>metric</b>							
KSP L24 S	123	70.00	25.00	28	1.50	10	0930700001
KSP L30 S	130	75.00	30.00	33	1.50	10	0930700002
KSP L38 S	130	75.00	37.00	40	1.50	10	0930700003
KSP L46 S	130	75.00	46.00	49	1.50	10	0930700004
KSP L55 S	150	85.00	55.00	58	1.50	10	0930700005
KSP L65 S	150	85.00	65.00	68	1.50	10	0930700006
KSP L80 S	150	85.00	80.00	84	2.00	10	0930700007
KSP L90 S	165	95.00	90.00	94	2.00	10	0930700008
KSP L 104 S	210	120.00	104.00	108	2.00	10	1193940000
KSP L114 S	210	120.00	114.00	118	2.00	10	1192790000

## Note

Accessories – Shrouds – PVC



The cover shroud a cable gland before and after the installation. It also protects against external environmental influences.



Technical data

Material / Colour	PVC / Deep black / RAL 9005
Temperature range	-25 °C...70 °C
Hardness (Shore A)	65
<b>Note</b>	

Ordering data

Type	A	B	D1	D2	S	Qty.	Order No.
<b>metric</b>							
KSP L24	123	70.00	25.00	29	2.00	10	1736570000
KSP L30	130	75.00	30.00	34	2.00	10	1736580000
KSP L38	130	75.00	37.00	41	2.00	10	1736590000
KSP L46	130	75.00	46.00	50	2.00	10	1736600000
KSP L55	150	85.00	55.00	59	2.00	10	1736610000
KSP L65	150	85.00	65.00	69	2.00	10	1736620000
KSP L80	150	85.00	80.00	84	2.00	10	1736630000
KSP L90	165	95.00	90.00	94	2.00	10	1736640000
KSP EL30	130	80.00	30.00	34	2.00	10	1736670000
KSP EL38	175	95.00	37.00	41	2.00	10	1736680000
KSP EL46	205	105.00	46.00	50	2.00	10	1076750000
KSP EL55	220	115.00	55.00	59	2.00	10	1076760000
KSP EL65	265	125.00	65.00	69	2.00	10	1076770000
KSP EL80	280	130.00	80.00	84	2.00	10	1076780000
KSP EL90	280	140.00	90.00	94	2.00	10	1076790000

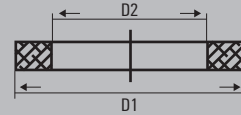
**Note** \*These shrouds have been specially designed for the Klippon® KDSU and Klippon® KUB cable glands.

## Accessories - Washers

## Accessories - Serrated washers, Stainless steel



Serrated stainless-steel washers to prevent mounted cable glands from loosening. Can also be used to roughen painted or passivated surfaces.



## D

**Technical data**

Material	Stainless steel 1.4404 (316L)
Note	

**Ordering data**

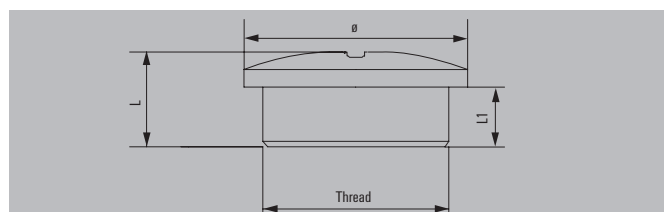
Type metric	Thread	D1	D2	Qty.	Order No.
SZS M16	M 16	25.5	17.30	50	1736300000
SZS M20	M 20	32.4	21.30	10	1736310000
SZS M25	M 25	37.4	25.30	10	1736320000
SZS M32	M 32	48	33.00	10	1736330000
SZS M40	M 40	60	41.00	5	1736340000
SZS M50	M 50	71	51.00	5	1736350000
SZS M63	M 63	87	64.00	5	1736360000

Note

## Blanking plugs – Plastic



Plastic blanking plug with cross-head is used to seal surplus threaded holes and to maintain the IP protection degree.



## Technical data

Material / Colour	Polyamid 6 (PA6 - GF30) / Light Grey / RAL 7035
Temperature range	-40 °C...100 °C
Protection class	IP54
Flammability rating	V-2
<b>Note</b>	Optional sealing ring.

## Ordering data

Type	Thread	L	L1	Head Ø	Qty.	Order No.
<b>metric</b>						
VP M12 K54	M 12	5.5	6	15.00	100	1776930000
VP M16 K54	M 16	5.5	7	20.00	100	1776920000
VP M20 K54	M 20	6.5	7	24.00	100	1776910000
VP M25 K54	M 25	7	10	30.00	100	1776900000
VP M32 K54	M 32	7	11	37.00	50	1776940000
VP M40 K54	M 40	7	13	46.00	25	1776950000
VP M50 K54	M 50	8.5	14	56.00	10	1776960000
VP M63 K54	M 63	8.5	15	69.50	50	1776970000
<b>PG</b>						
VP 7-K54	PG 7	8	6	15.00	100	1719250000
VP 9-K54	PG 9	9.5	5	19.00	100	0294760000
VP 11-K54	PG 11	10	6.5	22.00	100	0294860000
VP 13,5-K54	PG 13.5	10	5	25.00	100	0294960000
VP 16-K54	PG 16	10	5	27.00	100	0295060000
VP 21-K54	PG 21	12	8	33.00	50	0295160000
VP 29-K54	PG 29	11.5	8	44.00	25	0501160000
VP 36-K54	PG 36	14	10	55.00	10	0501260000
VP 42-K54	PG 42	14	10	62.00	5	0501360000
VP 48-K54	PG 48	16	12	69.00	5	1719260000

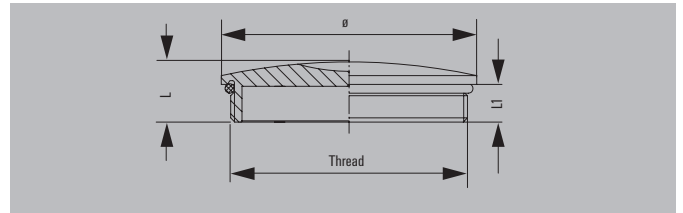
**Note** Other versions available on request. The blanking plugs must be tightened "hand-tight" with the screwdriver.

## Blanking plugs

## Blanking plugs – Brass – Nickel-plated



Brass blanking plug with cross-head is used to seal surplus threaded holes and to maintain the IP protection degree.



## Technical data

Material	Brass, nickel-plated
O-Ring	NBR
Temperature range	-40 °C...100 °C
Protection class	IP68 - 5 bar (30 min.)

## Note

## Ordering data

Type metric	Thread	L	L1	Head Ø	Qty.	Order No.
VP M12-MS65	M 12	7.5	5	14.00	100	1777720000
VP M16-MS65	M 16	8	5	18.00	100	1777730000
VP M20-MS65	M 20	9.5	6	22.00	100	1777740000
VP M25-MS65	M 25	11	7	28.00	100	1777750000
VP M32-MS65	M 32	12	8	35.00	50	1777760000
VP M40-MS65	M 40	13	8	44.00	50	1777770000
VP M50-MS65	M 50	15	9	54.00	25	1777780000
VP M63-MS65	M 63	16	10	67.00	10	1777790000
<b>PG</b>						
VP 7-MS65	PG 7	7.5	5	15.00	100	0521600000
VP 9-MS65	PG 9	8	5	18.00	100	0294700000
VP 11-MS65	PG 11	8	5	22.00	100	0294800000
VP 13,5-MS65	PG 13,5	9	6	24.00	100	0294900000
VP 16-MS65	PG 16	9	6	26.00	100	0295000000
VP 21-MS65	PG 21	10	6	32.00	50	0295100000
VP 29-MS65	PG 29	12	8	40.00	50	0501100000
VP 36-MS65	PG 36	15	9	50.00	25	0501200000
VP 42-MS65	PG 42	16	10	57.00	25	0501300000
VP 48-MS65	PG 48	16	10	64.00	10	1719270000

## Note

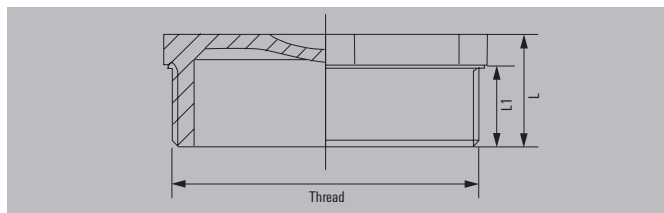
Other versions available on request. The blanking plugs must be tightened "hand-tight" with the screwdriver.



Blanking plugs – Plastic – Ex e



Blanking plug with cross-head is used to seal surplus threaded holes and to maintain the IP protection degree – especially for Ex-e Ex applications.



Technical data

Material / Colour	Polyamide / Deep black / RAL 9005
Temperature range	-20 °C...80 °C
Protection class	IP54, IP66
Protection degree with GWDR	IP66, IP68
UL 94 flammability rating	V-2
Marking	Ex e II, Ex tD
<b>Note</b>	Optional sealing ring.

Ordering data

Type	Thread	L	L1	SW	Qty.	Order No.
VP M16-EXE SW	M 16	19	15	19	100	1737070000
VP M20-EXE SW	M 20	19	15	23	100	1737080000
VP M25-EXE SW	M 25	20	15	28	100	1737090000
VP M32-EXE SW	M 32	20.5	15	36	100	1737100000
VP M40-EXE SW	M 40	20.5	15	44	20	1737110000
VP M50-EXE SW	M 50	21	15	54	5	1737120000
VP M63-EXE SW	M 63	23.5	15	67	5	1737130000

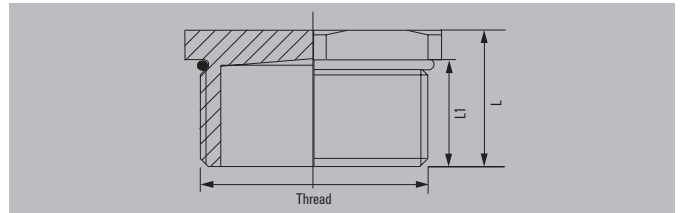
**Note** Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: [catalog.weidmueller.com](http://catalog.weidmueller.com).

## Ex-Blanking plugs

## Blanking plugs – Brass – Ex e, Ex d



Blanking plug is used for sealing surplus threaded holes to ensure the IP protection degree - especially for Ex-e and Ex-d applications.



## Technical data

Material	Brass, nickel-plated
O-Ring	NBR
Temperature range	-40 °C...100 °C
Protection class	IP54, IP64, IP68
Marking	II 2 GD, Ex d IIC, Ex e II, Ex tD
<b>Note</b>	

## Ordering data

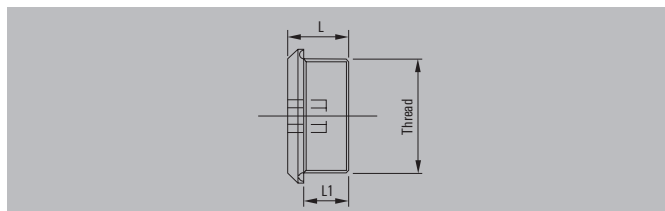
Type metric	Thread	L	L1	SW	Qty.	Order No.
VP M16 EXE MS	M 16	15	12	18	50	1210890000
VP M20 EXE MS	M 20	15	12	23	50	1210900000
VP M25 EXE MS	M 25	15.5	12	29	25	1210910000
VP M32 EXE MS	M 32	16	12	39	10	1210920000
VP M40 EXE MS	M 40	19	15	45	10	1210930000
VP M50 EXE MS	M 50	20	15	58	5	1210940000
VP M63 EXE MS	M 63	26	19	70	5	1210950000

**Note** Installation specifications and tightening torques can be found in the installation instructions.  
For further information please use our online catalogue: [catalog.weidmueller.com](http://catalog.weidmueller.com).

## Blanking plugs – Brass and Stainless steel – Ex e, Ex d, IP66 / IP68



The KSPMH is a mushroom-shaped blanking plug with a hexagon socket. It is used to seal unused threaded holes so that cable glands can be inserted in the future. The KSPMH is approved for pressure-resistant Ex d encapsulations and increased safety Ex e applications.



## Technical data

O-Ring	Silicone
Temperature range	-60 °C...200 °C
Protection class	IP66, IP68 (100 m / 168 h)
Marking	Ex d IIC Gb, Ex e IIC Gb, Ex tb IIIC Db
<b>Note</b>	

## Ordering data

Type	Thread	L	L1	Qty.	Order No.
<b>brass</b>					
KSPMH M16 BSC	M 16	20.5	16	20	1477740000
KSPMH M20 BSC	M 20	21	16	20	1477750000
KSPMH M25 BSC	M 25	21	16	20	1477770000
KSPMH M32 BSC	M 32	21	16	10	1477780000
KSPMH M40 BSC	M 40	21.5	16	10	1477790000
KSPMH M50 BSC	M 50	21.5	16	1	1477800000
KSPMH M63 BSC	M 63	22	16	1	1477810000
KSPMH M75 BSC	M 75	22	16	1	1477830000
<b>Stainless steel</b>					
KSPMH M16 SSC	M 16	20.5	16	20	1477820000
KSPMH M20 SSC	M 20	21	16	20	1477840000
KSPMH M25 SSC	M 25	21	16	20	1477870000
KSPMH M32 SSC	M 32	21	16	10	1477890000
KSPMH M40 SSC	M 40	21.5	16	10	1477910000
KSPMH M50 SSC	M 50	21.5	16	1	1477930000
KSPMH M63 SSC	M 63	22	16	1	1477950000
KSPMH M75 SSC	M 75	22	16	1	1477980000

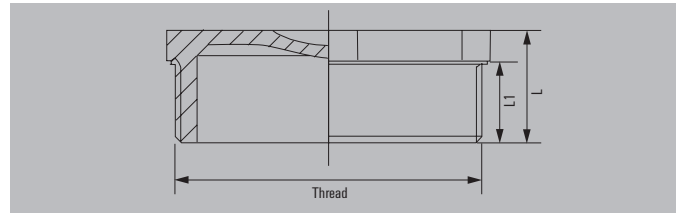
<b>Note</b>	Installation specifications and tightening torques can be found in the installation instructions. For further information please use our online catalogue: <a href="http://catalog.weidmueller.com">catalog.weidmueller.com</a> .
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## Ex-Blanking plugs

## Blanking plugs – Plastic – Ex e, IP66



For secure connection of unused screw-in threads or through-hole in enclosures. For Ex e applications with an impact resistance of 7 Joule in accordance with IEC 60079-0.



## Technical data

Material / Colour	Polyamide 6 / Deep black / RAL 9005
O-Ring	Silicone
Temperature range	-60 °C...70 °C
Protection class	IP54, IP66, IP67, IP68 - 5 bar (30 min.)
Impact resistance	7 joules in acc. with IEC 60079-0
Marking	Ex eb IIC Gb, Ex tb IIC Db IP66/68
<b>Note</b>	

## Ordering data

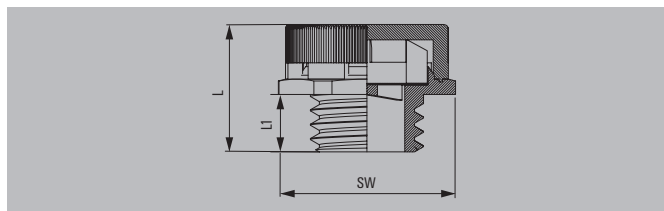
Type	Thread	L	L1	SW	Qty.	Order No.
VP M12 EX SI 7J	M 12	15	10	15	100	2066710000
VP M16 EX SI 7J	M 16	16.3	12	19	100	2066720000
VP M20 EX SI 7J	M 20	17	11	23	100	2066730000
VP M25 EX SI 7J	M 25	15.8	10	28	100	2066740000
VP M32 EX SI 7J	M 32	22.8	15	36	100	2066750000
VP M40 EX SI 7J	M 40	26.5	18	46	20	2066760000
VP M50 EX SI 7J	M 50	27.5	18	55	20	2066770000
VP M63 EX SI 7J	M 63	27.5	18	69	20	2066940000

**Note** Installation specifications and tightening torques can be found in the installation instructions.  
For further information please use our online catalogue: [catalog.weidmueller.com](http://catalog.weidmueller.com).

Compensation elements – Plastic – DAE



The DAE pressure-compensation element provides good ventilation for the enclosure and prevents moisture build-up. At the same time it maintains the high IP69k protection level. The membrane repels water and oil.



Technical data

Material / Colour	Polyamide 6 / Deep black / RAL 9005
O-Ring	NBR
Temperature range	-40 °C...105 °C
Protection class	IP66, IP68 (1 m / 60 min), IP69K
Air flow	0.8 l/min at 0.1 bar ΔP, up to 7.6 l/min at 1bar ΔP
Water inlet point	> 1.5 bar
UL 94 flammability rating	V-2
<b>Note</b>	

Ordering data

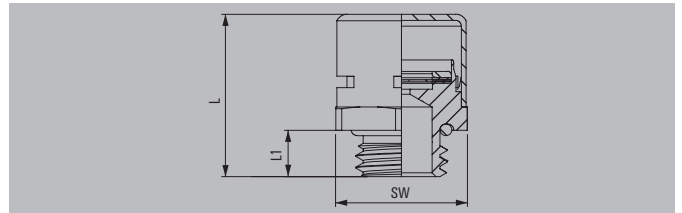
Type	Thread	L	L1	SW	Qty.	Order No.
metric						
DAE M12 PA LONG	M 12	17.4	10	17	10	1868570000
DAE M12 PA SHORT	M 12	13.4	6	17	10	1868560000
<b>Note</b>		Light grey version - RAL 7035 - on request.				

## Compensating elements

## Compensation elements – Stainless steel – DAE



The DAE pressure-compensation element provides good ventilation for the enclosure and prevents moisture build-up. At the same time it maintains the high IP69k protection level. The membrane repels water and oil.



## Technical data

Material	Stainless steel 1.4305 (303)
O-Ring	NBR
Temperature range	-40 °C...105 °C
Protection class	IP66, IP68 (1 m / 60 min), IP69K
Air flow	0.4 l/min at 0.1 bar ΔP, up to 5.0 l/min at 1bar ΔP
Water inlet point	> 1.5 bar
<b>Note</b>	

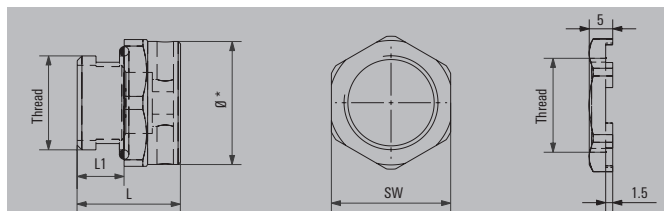
## Ordering data

Type	Thread	L	L1	SW	Qty.	Order No.
metric						
DAEM12 SS	M 12	21.1	10	17	10	1868550000
<b>Note</b>						

## Breather drains – Klippon® BDX



The BDX compensating element is used for ventilating the enclosure and preventing a buildup of moisture, particularly in Ex applications.



## Technical data

Material	Brass / Stainless steel 1.4404 (316L)
Protection class	IP66
Impact resistance	7 J ATEX version
Filter	Bronze insert (90% copper, 10% tin)
Air flow	0.25 l / 1 h
Sealing	Silicone / O-Ring
Temperature range	-60 °C...200 °C
Colour	Natural
<b>Note</b>	

## Ordering data

Type	Material	Thread	L / L1	SW	*Diameter	Qty.	Order No.
KLIPPON BDX M20 B	Brass	M 20	22 / 10	27	26.20	1	2519520000
KLIPPON BDX M20 S	Stainless steel 1.4404 (316L)	M 20	22 / 10	27	26.20	1	2519550000
KLIPPON BDX M20X15 S	Stainless steel 1.4404 (316L)	M 20	22 / 15	27	26.20	1	2519570000
KLIPPON BDX M25 S	Stainless steel 1.4404 (316L)	M 25	22 / 10	32	31.00	1	2519590000

- Note**
- The breather-drain is only to be fitted on the bottom side of the enclosure, aligned vertically with the thread upwards, and at the lowest point to permit proper drainage.
  - The water flow rate has been tested by a water filled empty enclosure (no pressure or heat producing internal components). The water flow rate can slightly differ by influences from operational parameter and environmental conditions.
  - Installation specifications and torques can be found in the installation instructions.
  - For further information please use our online catalogue: [catalog.weidmueller.com](http://catalog.weidmueller.com).





# Cable entry system

<b>Cable entry system</b>	Cable Management - Cable Entry System - Cabtite	E.2
	Cable grommets	E.4
	Cable entry frames	E.5
	Divisible cable gland and accessories	E.7

# Flexible and safe insertion of pre-assembled cables

## Cabtite – the new modular system cable entry system

Managing pre-assembled cables is challenging for many plant manufacturers, especially when the cables run through cabinet or enclosure walls. A flexible cable entry system speeds up installation, facilitates service, and minimises downtime.

With the Cabtite cable entry system, maximal flexibility and time savings in cable management can be achieved. Assembled and unassembled cables in control cabinets, enclosures and machines are securely sealed and protected against tensile stress. The modular design consisting of a frame or cable gland, snap-in inlays and sealing elements allows quick configuration of cable entry cut-outs – without tools and with reliable sealing in IP66 according to DIN EN 60529.

### Your special advantages:

- Maximum flexibility and time savings
- High IP protection class (IP66) as well NEMA 4x and 12
- Integrated strain relief acc. to DIN EN 62444
- Installation safety through simple handling with acoustic feedback
- Preservation of the manufacturer's guarantee for pre-assembled cables
- Fast adaptation of cable management in the event of system changes, service and maintenance cases



Use our online catalogue to find additional product details, technical information and additional services:

[www.weidmueller.com/Cabtite](http://www.weidmueller.com/Cabtite)



### Handling-Video:

Cabtite Cable Entry System  
Frame Solution

[weidmueller.com/handling-cabtite-fs](http://weidmueller.com/handling-cabtite-fs)



### Handling-Video:

Handling – Cabtite Cable Entry System  
separable retrofit Cable Gland Solution

[weidmueller.com/handling-cabtite-cgs](http://weidmueller.com/handling-cabtite-cgs)



#### Individual assembly

Whether with frames or with separable cable glands with inlay and sealing elements: the basic modular components guarantee maximal flexibility and a wide range of variants.



#### High reliability

One click informs the user about the correct installation and guarantees error-free operation. The foamed-in seals guarantee high IP and NEMA protection.



#### No loss of warranty

Due to the cut-in sealing elements, the cables and wires are precisely encased. Existing connectors do not have to be dismantled – and the manufacturer's warranty is maintained.

**Cable grommets**

**Cabtite SE - Sealing element small**



Cable grommets for ASI cables

The Cabtite SE sealing elements are used in the Cabtite FR frame or in the separable cable gland Cabtite CGS. The conical design allows easy installation, reliably seals gaps and provides strain relief in accordance with DIN EN 62444. For installation, the sealing elements are pressed from the inside to the outside into the snap-in inlays previously fitted in the frame or, in the case of the Cabtite CGS divisible cable gland, are placed between the cable gland half-shells. Various sealing elements with different cable diameters and geometries are available.

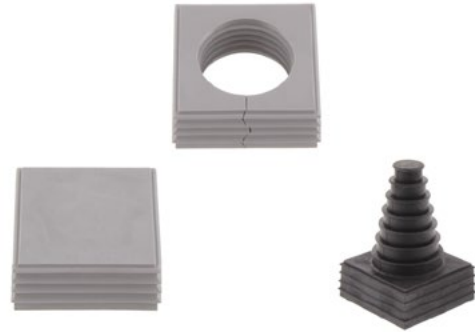
**Technical data**

Material	TPE
Halogen / Silicone	No / No
Operating temperature, min.	Light Grey: -40 °C; Deep black: -40 °C
Operating temperature, max.	Light Grey: 90 °C; Deep black: 120 °C
UL 94 flammability rating	Light Grey: V-0; Deep black: HB
<b>Note</b>	

**Ordering data**

Type	Clamping range	Qty.	Deep black Order No.	Light Grey Order No.
<b>Individual sealing elements</b>				
CABTITE SE 1.5-2 SML	1.5...2 mm	10	2584780000	2583360000
CABTITE SE 2-3 SML	2...3 mm	10	2584760000	2583380000
CABTITE SE 3-4 SML	3...4 mm	10	2584730000	2583400000
CABTITE SE 4-5 SML	4...5 mm	10	2584680000	2583440000
CABTITE SE 5-6 SML	5...6 mm	10	2584710000	2583450000
CABTITE SE 6-7 SML	6...7 mm	10	2584690000	2583460000
CABTITE SE 7-8 SML	7...8 mm	10	2584670000	2584660000
CABTITE SE 8-9 SML	8...9 mm	10	2584330000	2584650000
CABTITE SE 9-10 SML	9...10 mm	10	2584080000	2584630000
CABTITE SE 10-11 SML	10...11 mm	10	2584060000	2584610000
CABTITE SE 11-12 SML	11...12 mm	10	2584040000	2584600000
CABTITE SE 12-13 SML	12...13 mm	10	2584020000	2584590000
CABTITE SE 13-14 SML	13...14 mm	10	2584000000	2584570000
CABTITE SE 14-15 SML	14...15 mm	10	2583980000	2584560000
CABTITE SE 15-16 SML	15...16 mm	10	2583960000	2584550000
<b>Special geometry ASI</b>				
CABTITE SE 1/ASI SML		10	2583530000	2584810000
CABTITE SE 2/ASI SML		10	2583520000	2584800000
<b>Multiple sealing element</b>				
CABTITE SE 2/4-5 SML	4...5 mm	10	2583620000	2584900000
CABTITE SE 2/5-6 SML	5...6 mm	10	2583610000	2584890000
CABTITE SE 2/7 SML	7...8 mm	10	2583550000	2584830000
CABTITE SE 2/8 SML	8...9 mm	10	2583540000	2584820000
CABTITE SE 3/5-6 SML	5...6 mm	10	2652280000	2652290000
CABTITE SE 4/2-3 SML	2...3 mm	10	2583590000	2584870000
CABTITE SE 4/3-4 SML	3...4 mm	10	2583580000	2584860000
CABTITE SE 4/4-5 SML	4...5 mm	10	2583560000	2584840000
<b>Cone sealing element</b>				
CABTITE CSE 2-11 SML	2...11 mm	10	2583510000	
<b>Blind plugs</b>				
CABTITE BSE SML		10	2584790000	2583350000
<b>Note</b>				

**Cabtite SE - sealing elements large**



Blanking plugs

Cone sealing element

The Cabtite SE sealing elements in large design are identical in construction to those in small design. However, they can accommodate cables with a larger outer diameter.

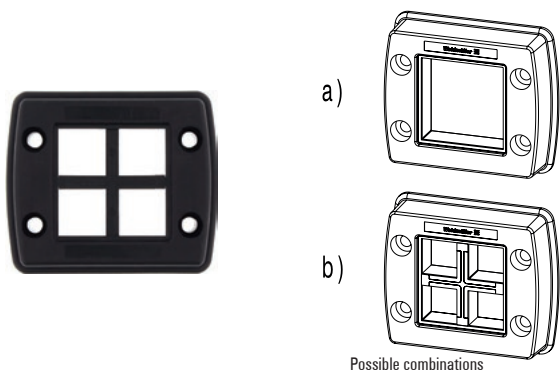
**Technical data**

Material	TPE
Halogen / Silicone	No / No
Operating temperature, min.	Deep black: -40 °C; Light Grey: -40 °C
Operating temperature, max.	Deep black: 120 °C; Light Grey: 90 °C
UL 94 flammability rating	Deep black: HB; Light Grey: V-0
<b>Note</b>	

**Ordering data**

Type	Clamping range	Qty.	Deep black Order No.	Light Grey Order No.
<b>Individual sealing elements</b>				
CABTITE SE 14-15 LRG	14...15 mm	10	2583880000	2584510000
CABTITE SE 15-16 LRG	15...16 mm	10	2583860000	2584500000
CABTITE SE 16-17 LRG	16...17 mm	10	2583850000	2584490000
CABTITE SE 17-18 LRG	17...18 mm	10	2583840000	2584480000
CABTITE SE 18-19 LRG	18...19 mm	10	2583830000	2584470000
CABTITE SE 19-20 LRG	19...20 mm	10	2583810000	2584460000
CABTITE SE 20-21 LRG	20...21 mm	10	2583790000	2584450000
CABTITE SE 21-22 LRG	21...22 mm	10	2583770000	2584440000
CABTITE SE 22-23 LRG	22...23 mm	10	2583750000	2584430000
CABTITE SE 23-24 LRG	23...24 mm	10	2583730000	2584420000
CABTITE SE 24-25 LRG	24...25 mm	10	2583710000	2584410000
CABTITE SE 25-26 LRG	25...26 mm	10	2583700000	2584400000
CABTITE SE 26-27 LRG	26...27 mm	10	2583690000	2584390000
CABTITE SE 27-28 LRG	27...28 mm	10	2583680000	2584370000
CABTITE SE 28-29 LRG	28...29 mm	10	2583670000	2584350000
CABTITE SE 29-30 LRG	29...30 mm	10	2583660000	2584380000
CABTITE SE 30-31 LRG	30...31 mm	10	2583650000	2584360000
CABTITE SE 31-32 LRG	31...32 mm	10	2583640000	2584340000
CABTITE SE 32-33 LRG	32...33 mm	10	2583630000	2584920000
CABTITE SE 33-34 LRG	33...34 mm	10	2595510000	2584910000
CABTITE SE 34-35 LRG	34...35 mm	10	2595520000	2595530000
<b>Cone sealing element</b>				
CABTITE CSE 7-24 LRG	7...24 mm	10	2583500000	
<b>Blind plugs</b>				
CABTITE BSE LRG		10	2583900000	2584520000
<b>Note</b>				

**Cabtite FR - CABTITE FR 4-1 BK SET**



The one-piece frame, consisting of a dimensionally stable, fibreglass-reinforced plastic, is quick and easy to assemble and available in four different sizes. The foamed, captive seal guarantees a high degree of impermeability to IP66, even with painted or rough surfaces. The frame sets contain the appropriate Rastinlays to realize the individual configuration (see above a or b) of small and large sealing elements. The sealing elements are not included in the frame set and must be selected to match the cable diameter.

**Technical data**

Material	Polyamide, glass fibre-reinforced
Colour	Deep black
Operating temperature	-40...120 °C
Protection class / Protection class (UL)	IP54, IP65, IP66 / Type 12, Type 4x
UL 94 flammability rating	V-0
<b>Note</b>	

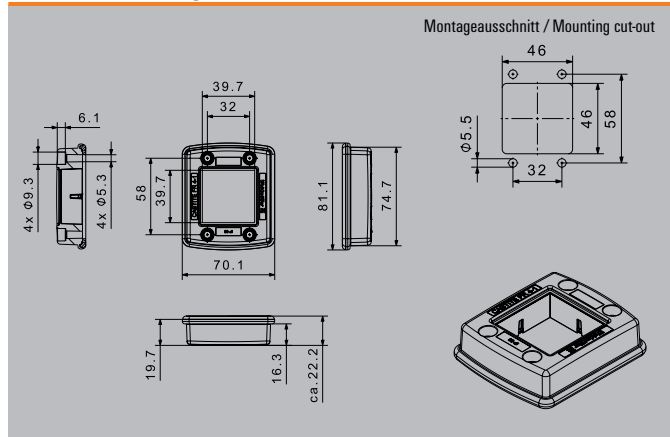
**Ordering data**

Type	Qty.	Order No.
<b>Set</b>		
CABTITE FR 4-1 BK SET	1	2583780000
<b>Single frame (without snap-in inlay)</b>		
CABTITE FR 4-1 BK	1	2583490000
<b>Note</b>	The individual frames do not contain any Rastinlays or sealing elements.	

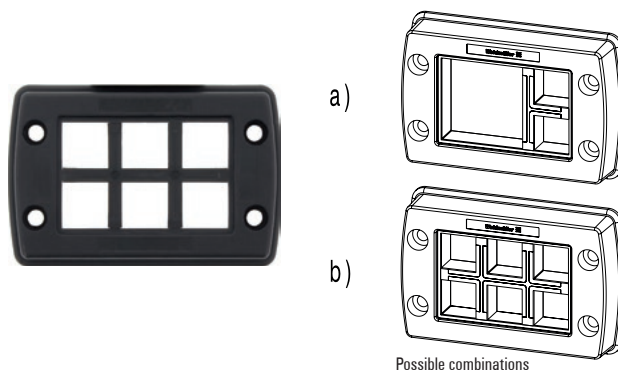
**Accessories**

Product type	Type	Qty.	Order No.
Locking frame (inside)	CABTITE FRL 4-1 BK	10	2584260000
Operating tool	CABTITE TOOL ATSE PA	1	2637360000
Mounting screw set	CABTITE SC M5X25 SET	1	2635120000
<b>Note</b>			

**Dimensioned drawing**



**Cabtite FR - CABTITE FR 10/6 BK SET**



The one-piece frame, consisting of a dimensionally stable, fibreglass-reinforced plastic, is quick and easy to assemble and available in four different sizes. The foamed, captive seal guarantees a high degree of impermeability to IP66, even with painted or rough surfaces. The frame sets contain the appropriate Rastinlays to realize the individual configuration (see above a or b) of small and large sealing elements. The sealing elements are not included in the frame set and must be selected to match the cable diameter.

**Technical data**

Material	Polyamide, glass fibre-reinforced
Colour	Deep black
Operating temperature	-40...120 °C
Protection class / Protection class (UL)	IP54, IP65, IP66 / Type 12, Type 4x
UL 94 flammability rating	V-0
<b>Note</b>	

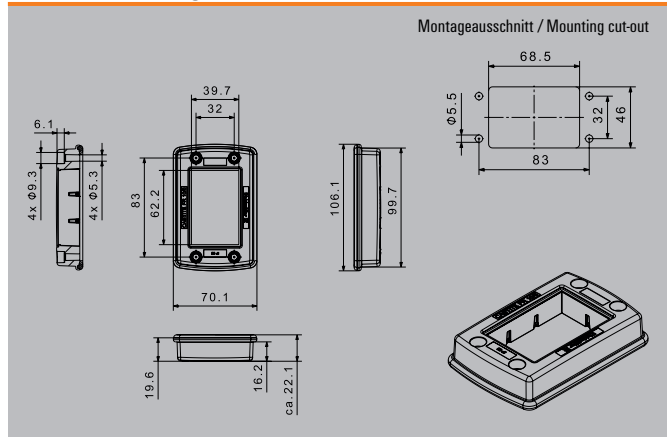
**Ordering data**

Type	Qty.	Order No.
<b>Set</b>		
CABTITE FR 10/6 BK SET	1	2583760000
<b>Single frame (without snap-in inlay)</b>		
CABTITE FR 10/6 BK	1	2583480000
<b>Note</b>	The individual frames do not contain any Rastinlays or sealing elements.	

**Accessories**

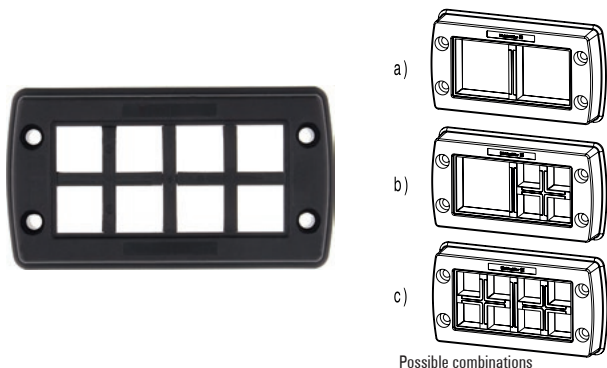
Product type	Type	Qty.	Order No.
Locking frame (inside)	CABTITE FRL 10/6 BK	10	2584240000
Operating tool	CABTITE TOOL ATSE PA	1	2637360000
Mounting screw set	CABTITE SC M5X25 SET	1	2635120000
<b>Note</b>			

**Dimensioned drawing**



## Cable entry frames

### Cabtite FR - CABTITE FR 16/8 BK SET



The one-piece frame, consisting of a dimensionally stable, fibreglass-reinforced plastic, is quick and easy to assemble and available in four different sizes. The foamed, captive seal guarantees a high degree of impermeability to IP66, even with painted or rough surfaces. The frame sets contain the appropriate Rastinlays to realize the individual configuration (see above a, b or c) of small and large sealing elements. The sealing elements are not included in the frame set and must be selected to match the cable diameters.

#### Technical data

Material	Polyamide, glass fibre-reinforced
Colour	Deep black
Operating temperature	-40...120 °C
Protection class / Protection class (UL)	IP54, IP65, IP66 / Type 12, Type 4x
UL 94 flammability rating	V-0
<b>Note</b>	

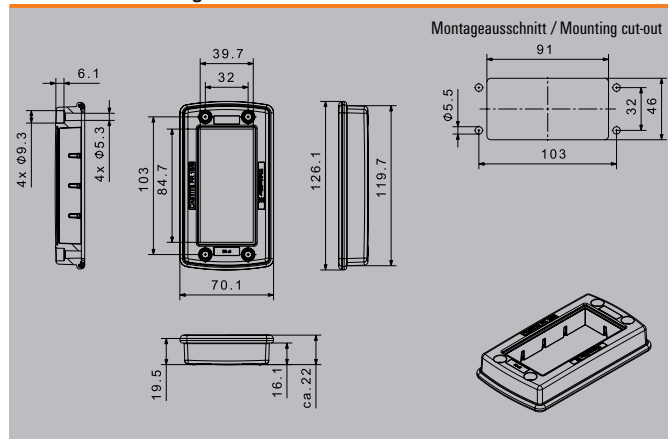
#### Ordering data

Type	Qty.	Order No.
<b>Set</b>		
CABTITE FR 16/8 BK SET	1	2583740000
<b>Single frame (without snap-in inlay)</b>		
CABTITE FR 16/8 BK	1	2583470000
<b>Note</b>	The individual frames do not contain any Rastinlays or sealing elements.	

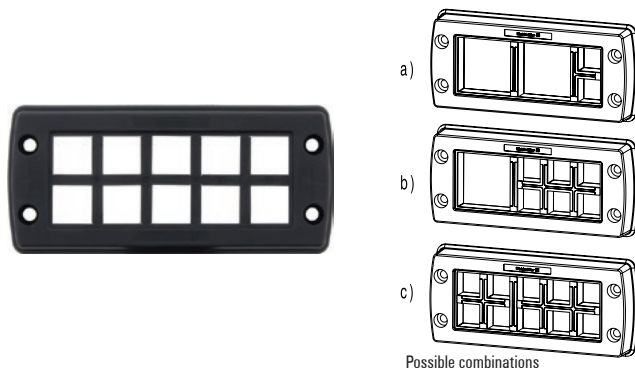
#### Accessories

Product type	Type	Qty.	Order No.
Locking frame (inside)	CABTITE FRL 16/8 BK	10	2584220000
Operating tool	CABTITE TOOL ATSE PA	1	2637360000
Mounting screw set	CABTITE SC M5X25 SET	1	2635120000
<b>Note</b>			

#### Dimensioned drawing



### Cabtite FR - CABTITE FR 24/10 BK SET



The one-piece frame, consisting of a dimensionally stable, fibreglass-reinforced plastic, is quick and easy to assemble and available in four different sizes. The foamed, captive seal guarantees a high degree of impermeability to IP66, even with painted or rough surfaces. The frame sets contain the appropriate Rastinlays to realize the individual configuration (see above a, b or c) of small and large sealing elements. The sealing elements are not included in the frame set and must be selected to match the cable diameters.

#### Technical data

Material	Polyamide, glass fibre-reinforced
Colour	Deep black
Operating temperature	-40...120 °C
Protection class / Protection class (UL)	IP54, IP65, IP66 / Type 12, Type 4x
UL 94 flammability rating	V-0
<b>Note</b>	

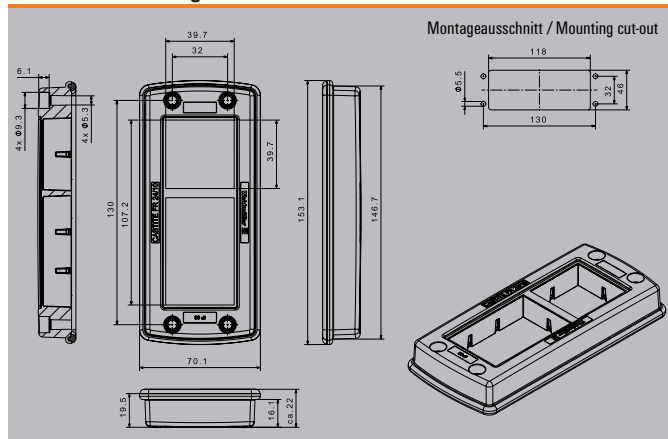
#### Ordering data

Type	Qty.	Order No.
<b>Set</b>		
CABTITE FR 24/10 BK SET	1	2583720000
<b>Single frame (without snap-in inlay)</b>		
CABTITE FR 24/10 BK	1	2583800000
<b>Note</b>	The individual frames do not contain any Rastinlays or sealing elements.	

#### Accessories

Product type	Type	Qty.	Order No.
Locking frame (inside)	CABTITE FRL 24/10 BK	10	2584210000
Operating tool	CABTITE TOOL ATSE PA	1	2637360000
Mounting screw set	CABTITE SC M5X25 SET	1	2635120000
<b>Note</b>			

#### Dimensioned drawing



**Cabtite CGD - separable cable gland**



Spare counter nut

For metric through holes from M20 to M63, the Cabtite cable entry system offers separable cable glands for cables with and without plugs. In case of maintenance or changes in the system, pre-assembled cables with diameters from 2 to 35 mm can be quickly and safely inserted into switch cabinets or housings. After inserting the sealing elements (Cabtite SE), the two halves of the cable gland are simply snapped together. A likewise separable lock nut on the inside of the cabinet ensures a secure and firm hold.

**Technical data**

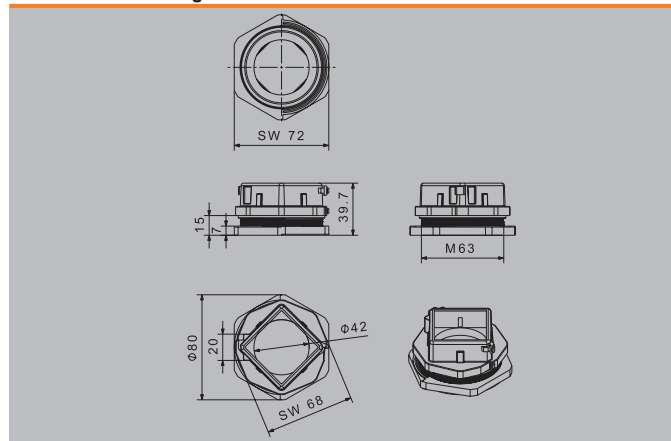
Material	Polyamide, glass fibre-reinforced
Colour	Deep black
Operating temperature	-40...120 °C
Protection class / Protection class (UL)	IP54, IP65, IP66 /
UL 94 flammability rating	V-0
<b>Note</b>	

**Ordering data**

Type	Qty.	Order No.
<b>Divisible cable gland*</b>		
CABTITE CGS M20 BK	10	2584200000
CABTITE CGS M25 BK	10	2584180000
CABTITE CGS M32 BK	10	2584160000
CABTITE CGS M40 BK	5	2584150000
CABTITE CGS M50 BK	5	2584130000
CABTITE CGS M63 BK	5	2584120000
<b>Articulated locknut</b>		
CABTITE LNS M20 BK	10	2584110000
CABTITE LNS M25 BK	10	2584090000
CABTITE LNS M32 BK	10	2584070000
CABTITE LNS M40 BK	5	2584050000
CABTITE LNS M50 BK	5	2584030000
CABTITE LNS M63 BK	5	2584010000
<b>Rastinly for M40-M63**</b>		
CABTITE GI X BK	5	2584290000
<b>Note</b>		

\*The cable glands are supplied with a locknut. \*\*The snap-in insert is required to install 4 small sealing elements in the cable gland.

**Dimensioned drawing**



**Cabtite GI - Rastinlay**



The insertable snap-in inlay allows the frame openings/cable glands to be configured as required for the small or large sealing elements used. Thus the Cabtite cable entry system can be variably configured for different requirements (cables, lines, hoses, pneumatic and hydraulic lines).

**Technical data**

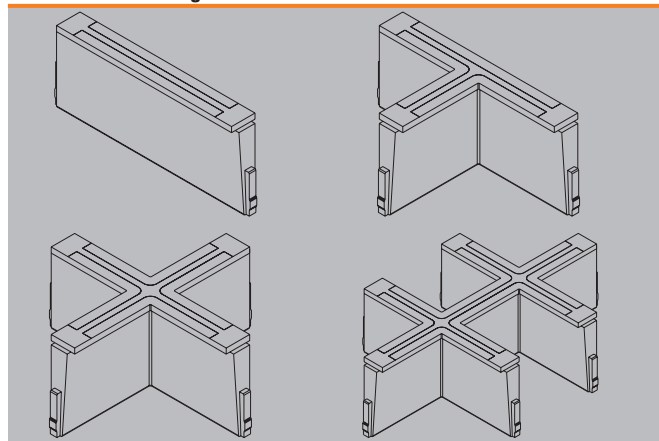
Material	Polyamide, glass fibre-reinforced
Colour	Deep black
Operating temperature	-40...120 °C
Protection class / Protection class (UL)	IP54, IP65, IP66 /
UL 94 flammability rating	V-0
<b>Note</b>	

**Ordering data**

Type	Qty.	Order No.
CABTITE GI I BK	5	2584320000
CABTITE GI T BK	5	2584300000
CABTITE GI H BK	5	2584270000
<b>Rastinly for M40-M63**</b>		
CABTITE GI X BK	5	2584290000
<b>Note</b>		

\*\*The locking inlay is required to install 4 small sealing elements in the cable gland.

**Dimensioned drawing**



**Divisible cable gland and accessories**

**Cabtite CR - Cable support strips (EMC)**



In combination with a large number of different shield connection clamps (KLBÜ), the shield connection rails enable practical, uncomplicated and fast shielding of cables.

**Technical data**

Material	Steel, galvanized
Colour	silver

**Note**

**Ordering data**

Type	Qty.	Order No.
CABTITE CR 4-1 EMV	10	2583950000
CABTITE CR 10/6 EMV	10	2583930000
CABTITE CR 16/8 EMV	10	2583910000
CABTITE CR 24/10 EMV	10	2583890000

**Note**

**Cabtite BP - Blanking plug**



The blind plugs are used for the safe closing of unneeded cable passages in the sealing elements.

**Technical data**

Material	Polyamide
Colour	red
Operating temperature	-60...100 °C

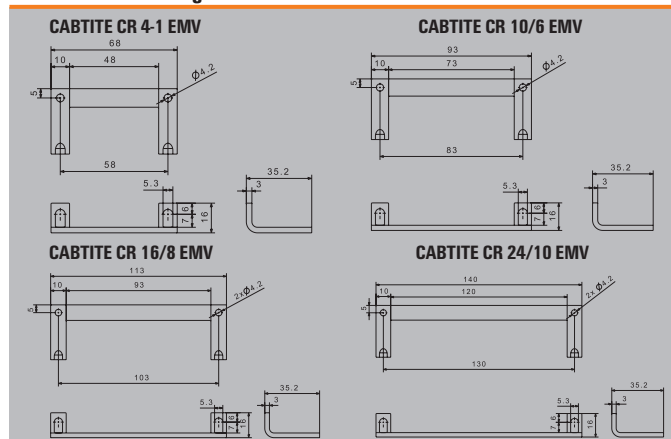
**Note**

**Ordering data**

Type	Qty.	Order No.
CABTITE BP 2MM PA	50	2652300000
CABTITE BP 3MM PA	50	2652310000
CABTITE BP 4MM PA	50	2652320000
CABTITE BP 5MM PA	50	2652330000
CABTITE BP 6MM PA	50	2652340000
CABTITE BP 7MM PA	50	2652350000
CABTITE BP 8MM PA	50	2652360000
CABTITE BP 9MM PA	50	2652370000
CABTITE BP 10MM PA	50	2652380000
CABTITE BP 12MM PA	50	2652400000
CABTITE BP 13MM PA	50	2652410000
CABTITE BP 14MM PA	50	2652420000
CABTITE BP 17MM PA	50	2652430000
CABTITE BP 20MM PA	50	2652440000
CABTITE BP 21MM PA	50	2652450000
CABTITE BP 25MM PA	50	2652460000
CABTITE BP 28MM PA	50	2652470000
CABTITE BP 35MM PA	50	2652480000

**Note**

**Dimensioned drawing**





# Tools

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**Tools**

Overview

F.2

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# Tools

At Weidmüller, we have been developing and manufacturing quality tools to meet the most stringent requirements for over 30 years. When we develop new solutions, we always keep our goal in mind: to make your job easier, optimise processes and help protect the long-term productivity of your business.

The best conditions for this can be created by using perfectly coordinated products and tools from a single source. Our range includes professional manual tools for cutting, stripping, crimping, testing and screwing. The assortment is supplemented by tool sets that sensibly and efficiently combine tools and matching accessories. Our machines simplify continually recurring tasks and save valuable time.

**Your special advantages:**

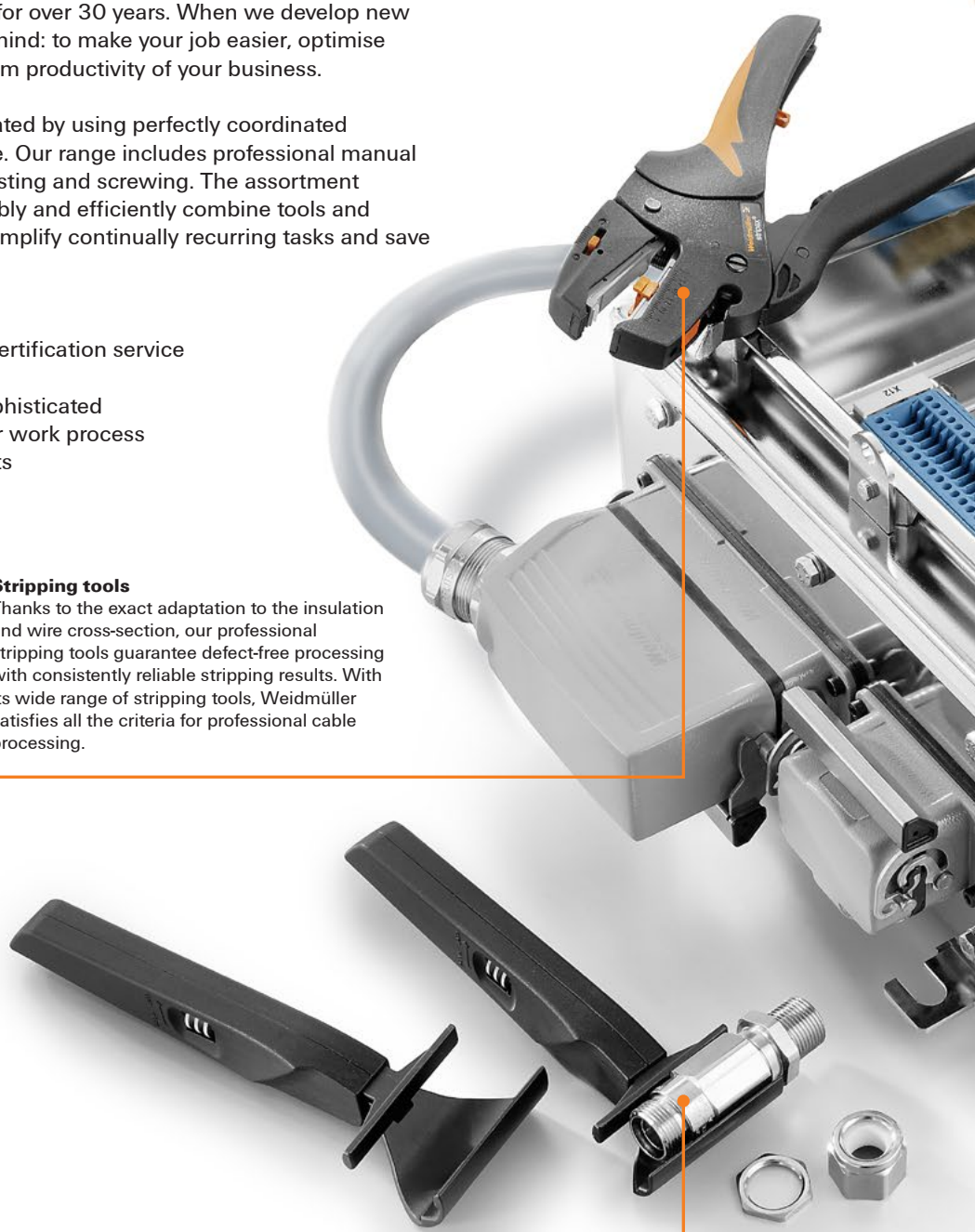
- Increased safety thanks to the tool certification service
- Flexibility in form and function
- High level of efficiency thanks to sophisticated ergonomics and multiple actions per work process
- Profitable interplay between products and tools from a single source

**Stripping tools**

Thanks to the exact adaptation to the insulation and wire cross-section, our professional stripping tools guarantee defect-free processing with consistently reliable stripping results. With its wide range of stripping tools, Weidmüller satisfies all the criteria for professional cable processing.

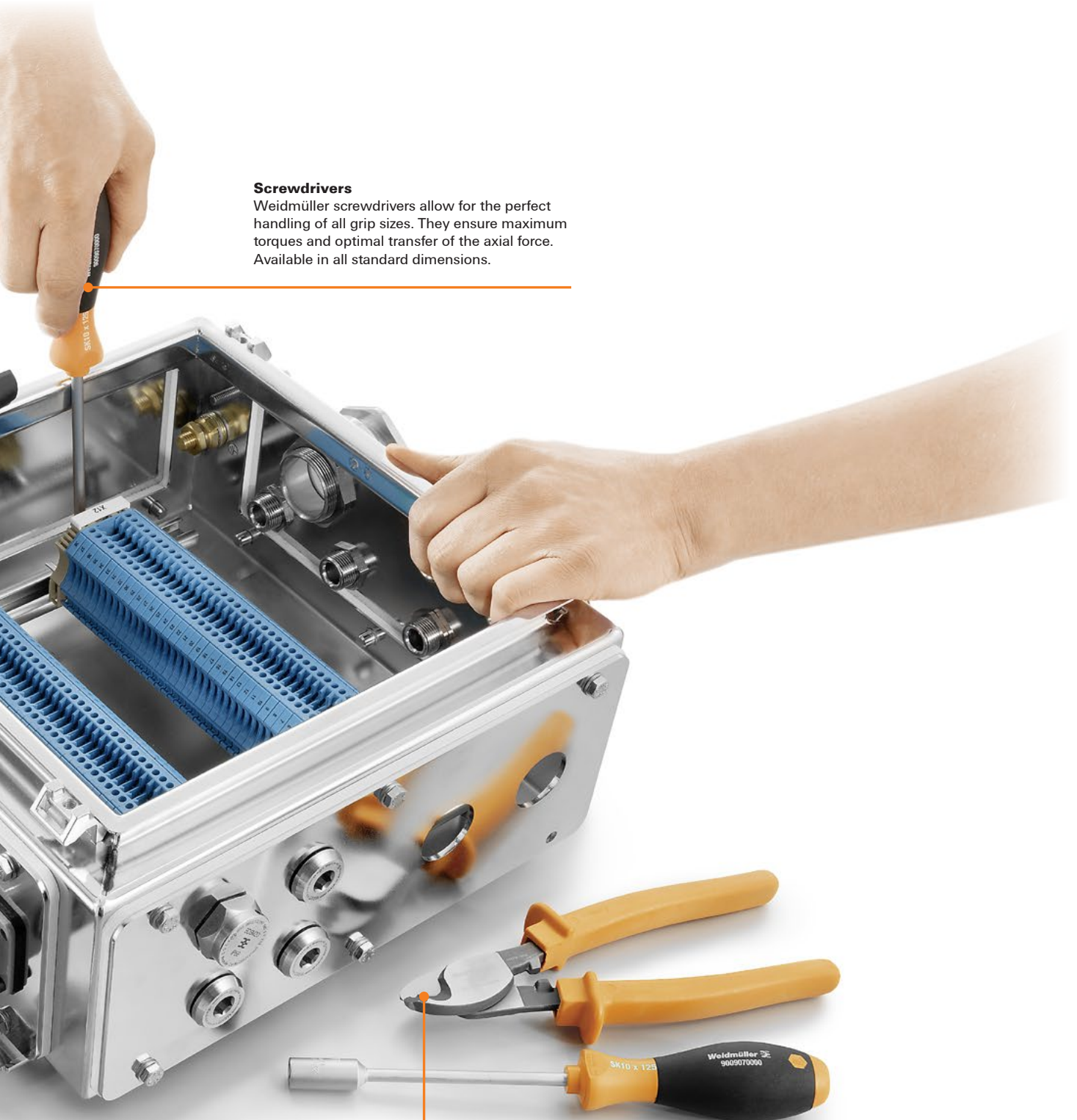
**Cable gland tools**

The Weidmüller cable gland tools are suitable for an extremely wide range of cable glands. They enable you to tighten or loosen several rows of connections without deforming the cable glands.



### Screwdrivers

Weidmüller screwdrivers allow for the perfect handling of all grip sizes. They ensure maximum torques and optimal transfer of the axial force. Available in all standard dimensions.



### Cutting tools

Weidmüller is a specialist in the cutting of copper and aluminium cables. The range of products extends from cutting tools with direct force application for small cross-sections to cutting tools for large diameters.



# Service and support

<b>Service and support</b>	Our expertise for your requirements	V.2
	Benefit from optimum support when using our products	V.4

## Our expertise for your requirements

### Service connects - worldwide

Automation technology functions are becoming more complex in a globally-oriented world facing ambitious targets in terms of energy efficiency and smart production. We are your equal partners for the best connections in Industrial Connectivity. Our worldwide network of industrial managers for machine construction, process automation, energy and traffic engineering and for device manufacturers know the challenges you face and can support you in your specific applications.

Training course on technologies, applications and the detailed functionality of our products is available to you locally or at our headquarter in Germany. Our personal support can answer any questions reliably and expertly. Our online services are available 365 day a year around the clock to provide answers to your questions on our products - from user documentation through software to planning tools.

In short: Weidmüller's global service combines our expertise with your requirements.





### Professional advice on planning

Our global network of industrial managers has extensive experience in automation technology and electrical connectivity. This expertise allows us to assist you with advice and planning support in order to work with you on resolving the everyday challenges of your applications.



### Technology and application training

Industrial automation is moving towards smart production. It faces the challenges of new technologies and applications. Our varied range of training courses develops this knowledge further or provides more in-depth information on the handling of our products and solutions. Our seminars are modular and can be customised. We can train you and your employees in our academy, on your premises if you wish or online in our webinars at any time.



### Customised installation

The challenges for the future are reducing costs and increasing efficiency. This requires intelligent, individual solutions which are tailored to your requirements. We can offer a highly qualified customer-specific production service in our application centre. Whether you need modified products, pre-assembled terminal rails or complete small cabinets: we produce the solutions developed for your application quickly and flexibly.

## Online support and downloads

# Exactly the right help and information on our solutions and products

If our products are used in your automation technology applications, you need the best possible individual support, from planning through installation to operation.

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**Whitepaper for device connectivity**  
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**Engineering software**  
Webcode #11377



**Product configurators, product selection guides and samples**  
Webcode #01214

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Download all the documents and software relating to our products by simply entering the item number. You can also view our Online Catalogue and research the technical properties of our products.



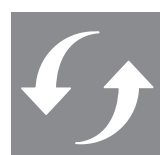
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# Technical appendix

<b>Technical appendix</b>	Directive 1999/92/EC	W.2
	ATEX directive 2014/34/EU	W.5
	IECEx scheme	W.6
	☞ Hazardous areas guide	W.7
	IP class of protection	W.10
	Guidelines for selecting cable glands	W.12
	Ratings plate of an empty enclosure	W.14
	Type label for enclosure assemblies	W.15

# Directive 1999/92/EC

Article 137 of the European Community Formation Treaty set out the minimum standards in order to improve workers' health and safety, this can also be put at risk by explosive atmospheres. An explosive atmosphere is a mixture of air and flammable gasses, vapours, mists or dust under atmospheric conditions where, following successful ignition, the burning process will propagate throughout the whole unburned mixture.

The directive 1999/92/EC was transferred into national law. Compliance with the minimum standards contained in this directive does not guarantee that all relevant national laws are met. It is possible for local regulators to introduce more stringent requirements.

The employer is required, according to the directive 1999/92/EC, to take measures to ensure the health and safety of the employees. One measure is the division of the area into zones where explosive atmospheres could be present.

Unless the risk analysis conducted by the employer indicates otherwise, all areas where an explosive atmosphere may be present must be equipped with devices and protective systems that meet the relevant category of the ATEX directive 2014/34/EU.

In particular in these zones the following categories of equipment should be used, as long as they are suitable for use with gases, vapours, mists or dusts:

- In Zone 0 or Zone 20: category 1 devices
- In Zone 1 or Zone 21: category 1 or category 2 devices
- In Zone 2 or Zone 22: category 1, category 2 or category 3 devices

## Zoning according to the directive 1999/92/EC

Explosion risk areas are classified into zones according to likelihood of explosive atmospheres occurring and their persistence.

### Zone 0

An area which has a potentially explosive atmosphere that is a mixture of air and **flammable gases, vapours or mists**. The mixture is either permanently present or frequently present over long periods of time.

### Zone 1

An area in which during normal operations a potentially explosive atmosphere of air and **flammable gases, vapours or mists** can occasionally form.

### Zone 2

An area for which during normal operations there is at most only a short-term occurrence of a potentially explosive atmosphere of mixtures of air and **flammables gases, vapours or mists**.

### Zone 20

An area where a potentially explosive atmosphere is present in the form of a **flammable dust** cloud in the air. This cloud is either permanently present or frequently present over long periods of time.

### Zone 21

An area where, during normal operations, a potentially explosive atmosphere in the form of a **flammable dust** cloud in the air can occasionally form.

### Zone 22

An area where, during normal operations, a potentially explosive atmosphere in the form of a **flammable dust** cloud in the air is not normally present or only present for a short time.

For the risk assessment and as well as the zoning concept described above, Ex devices themselves can be considered in an alternative process which uses the equipment protection level (EPL). These protective levels determine the internal ignition risk of a device where the sort of applied protection does not play a role.

The system of EPL classifications (Equipment Protection Level) is shown below.

### **Firedamp (methane) risk mines (Group I)**

#### **EPL Ma**

Equipment for installation in mining applications, offering a „very high“ level of protection and which do not constitute a source of ignition during normal operation, or in the event of rarely occurring faults.

#### **EPL Mb**

Equipment for installation in a mine with a high level of protection. Has sufficient safety to ensure that there is no source of ignition in the period of time between the outbreak of gas and the time the equipment is switched off.

### **Gases (Group II)**

#### **EPL Ga**

Equipment for explosive-risk gas atmospheres with a very high level of protection. No source of ignition is present during normal operation or when errors occur that cannot be necessarily expected on a regular basis.

#### **EPL Gb**

Equipment for explosive-risk gas atmospheres with a high level of protection. No source of ignition is present during normal operation or when errors occur that cannot be necessarily expected on a regular basis.

#### **EPL Gc**

Equipment for explosive-risk gas atmospheres with an elevated level of protection. No source of ignition is present during normal operation and it can have additional safeguards to ensure that none is present during faults which happen regularly (e. g. failure of a lamp).

### **Dust (Group III)**

#### **EPL Da**

Equipment for combustible dust atmospheres with a very high level of protection. No source of ignition is present during normal operation or in very rare faults.

#### **EPL Db**

Equipment for combustible dust atmospheres with a high level of protection. No source of ignition is present during normal operation or when errors occur that cannot be necessarily expected on a regular basis.

#### **EPL Dc**

Equipment for combustible dust atmospheres with an elevated level of protection. No source of ignition is present during normal operation and it can have additional safeguards to ensure that none is present during faults which happen regularly (e. g. failure of a lamp).



### Classification of explosive groups

Electrical devices for groups II and III are classified further as a function of the properties of the explosive atmosphere for which they are intended.

The danger of the atmosphere increases from IIA(IIIA) to IIC(IIIC) so that all equipment certified for use in IIC(IIIC) areas may also be used in IIA(IIIA) and IIB(IIIB) areas.

#### Classification of explosive groups

Group	Material, e.g.	Ignition energy	Group	Material
IIA	Propane	266 µJ	IIA	Flammable fluff
IIB	Ethylene	85 µJ	IIB	Non-conductive dust
IIC	Hydrogen	19 µJ	IIC	Conductive dust

#### Classification of zones and equipment categories

Combustible ingredients	Explosive atmospheres	Zone division	EPL safety level	Identification	
				Equipment group	Device category
Gas, mist, vapours/fumes (G / Gas)	permanent, long-term	Zone 0	Ga	II	1G
	occasionally	Zone 1	Gb	II	2G
	unlikely, short-term	Zone 2	Gc	II	3G
Dusts (D / Dust)	permanent, long-term	Zone 20	Da	II	1D
	occasionally	Zone 21	Db	II	2D
	unlikely, short-term	Zone 22	Dc	II	3D

W

## ATEX directive 2014/34/EU

Article 96 of the Treaty on the Foundation of the European Union and Decision no. 768/2008/EU and Federal Gazette 96/309-356 govern the standardisation of legal regulations in the Member States. The ATEX directive 2014/34/EU sets out the basic requirements for health and safety protection as a directive following the new concept. It is aimed at manufacturers of equipment and components designed for used in potentially explosive atmosphere areas.

This directive had to be adopted without deviation into national law.

For Germany, this took the form of the passing of the Explosion Protection Ordinance (2015 ExVo 2015) of the Product Safety Act (ProdSG). It applies to all industrial potentially explosive areas, including mines, and also covers protection from dust-ignited explosions.

This directive sets out the requirements for the products depending on their equipment group and category. This is the category as set down by the directive 1999/92/EC applicable for each appropriate zone.

To prove conformity with the basic health and safety regulations, harmonised standards are used. If the requirements as laid out in the Official Journal of the EU are met, then it will be in compliance with the standard requirements for conformity (presumption of conformity). Various, mostly equivalent, protection types have been standardised harmoniously.

This conformity assessment process of the directives sets out different procedures. For device category 3, the manufacturer can perform the conformity assessment itself. For devices of categories 1 and 2, this conformity check must be carried out at a notified body in the form of a EC type-examination. In addition, quality assurance must be monitored for the devices of categories 1, 2 and 3.

Weidmüller has devices and components in its product range. Empty enclosures are components and are certified at the factory as such. Installing certified components does not create a certified equipment. To do this, additional tests must be carried out.

Weidmüller offers customer-specific devices available as certified solutions. The production of assembled enclosures is monitored by a notified body.

## IECEX scheme

The IECEx scheme is an international certification scheme for products which meet the requirements of the international standards, e.g. the technical committee TC31's IEC standards.

The certificates awarded in this scheme are published on the IECEx website ([www.iecex.com](http://www.iecex.com)) as an electronic certificate. They can be viewed online and printed out.

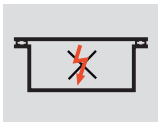
A Certificate of Conformity (CoC) refers to a test report (Ex Test Report ExTR) and on an assessment of the quality assessment report from the manufacturer (QAR).

The standards used for the production of the test report correspond almost entirely to the harmonised standards in Europe. Recent EN standards were initially adopted as IEC standards.

## Protection concepts

The zoning described above provides the basis for the selection of the type of ignition protection. So, as an example, in the ATEX applicable areas, only ignition protection devices meeting Ex ia for Zone 0 (highest probability of an explosive atmosphere being present) are allowed.

### Increased safety Ex e No sparks and a surface temperature limited to a safe level

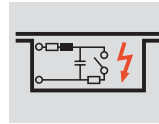


Increased safety is for products where there are no sparks produced during normal operation or in case of a failure. The surface temperature of the relevant parts is limited to a value below the ignition temperature.

Increased safety is achieved by reducing the current load and raising the isolation properties and by maintaining clearance and creepage distances above the value in an industrial application. The highest voltage permitted for this protection scheme is 11 kV (D.C. or A.C. rms).

This protection scheme is usually used for distribution cabinets..

### Intrinsically safe Ex i Limited to a safe level of ignition energy

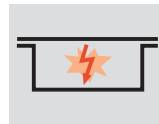


Intrinsic safety is for products where electrical energy which flows into the product, or is stored in the product, is not sufficient to ignite the surrounding explosive atmosphere. This also applies in fault conditions. The methods that achieve intrinsic safety mean that it is important that not only the devices installed in direct contact with the explosive atmosphere are constructed correctly, but also the electrical devices to which they are connected.

Intrinsically safe equipment and intrinsically safe parts of the associated equipment are divided into protection levels: ia (for zones 0, 1, and 2), ib (for zones 1 and 2), and ic (only for zone 2).

A typical application area are control and display circuits with low voltage and current.

### Pressure-resistant Ex d encapsulation Limits the explosion to the inside of the enclosure



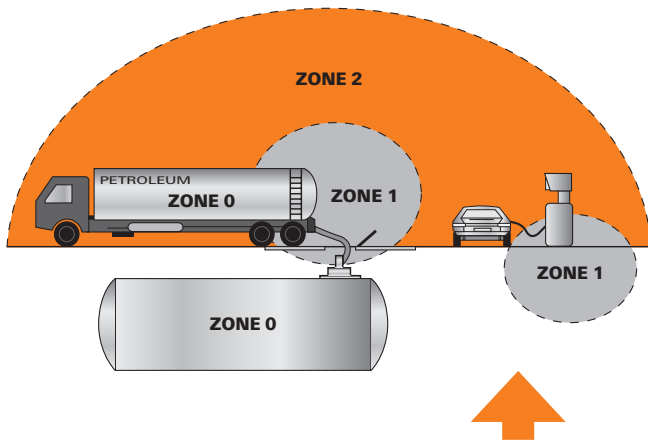
Pressure-resistant encapsulated enclosures are designed for devices where sparks are generated or which have hot surfaces which are a source of ignition during normal operation. Similarly, industrial components for use in potentially explosive atmospheres are often made suitable by encapsulating them in a pressure-resistant enclosure which otherwise could not be used.

The surrounding possibly explosive atmosphere can enter the enclosure and will produce an internal explosion during the equipment's lifespan.

The enclosure must therefore be stable enough to ensure that it is not deformed or destroyed by the pressure created. All connections of the enclosure are sized so that they cannot transmit an explosion from inside to the surrounding atmosphere. These connections are known as ignition gaps.



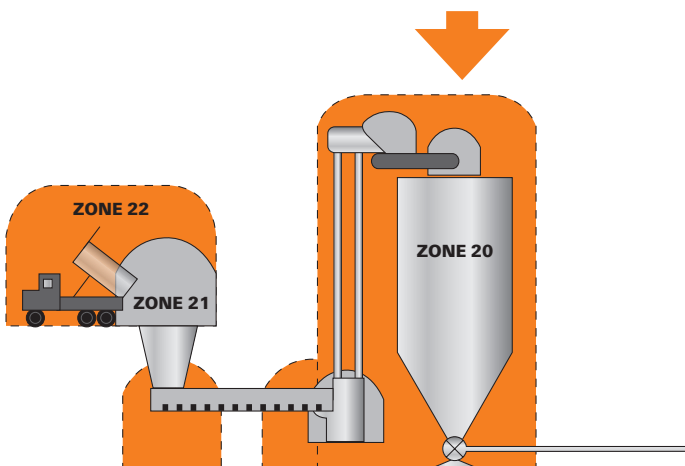
# Area classification



### Gas groups

IIA	e.g. Propane
IIB	e.g. Etyhlene
IIC	e.g. Hydrogen

Equipment group acc. to directive 2014/34/EU	Equipment category acc. to directive 2014/34/EU	Classification of hazardous areas acc. to directive 1999/92/EG	Group acc. to IEC/EN 60079-0	Combustible materials	Equipment protection level (EPL acc. to IEC/EN 60079-0)
I Mining	M1 very high level of protection; remain functional at occurrence of Ex-atmosphere		I	Methane, Carbon dust	Ma
	M2 high level of protection; de-energized at occurrence of Ex-atmosphere		I		Mb
II Other industries (except mining)	1 very high level of protection; save even in an event of rare incidents	0	II	Gases, Vapours, Mists (G)	Ga
	2 high level of protection; save even in an event of predictable failures	1	II		Gb
	3 normal level of protection; save during normal operation	2	II		Gc
II Other industries (except mining)	1 very high level of protection; save even in an event of rare incidents	20	III	Dust (D)	Da
	2 high level of protection; save even in an event of predictable failures	21	III		Db
	3 normal level of protection; save during normal operation	22	III		Dc



### Dust groups

IIIA	Combustible flyings
IIIB	Non-conductive dust
IIIC	Conductive dust

# Types of Protection

## Types of protection for electrical equipment in explosive gas atmospheres

Type of protection	Symbol	Main application	Norm
increased safety	eb	junction boxes, control stations for installing Ex-components (with a different type of protection), squirrel-cage motors, light fittings	IEC 60079-7 EN 60079-7 ISA 60079-7
flameproof enclosures	db	switchgears, control stations, indicating equipment, control systems, motors, transformers, heating equipment, light fittings	IEC 60079-1 EN 60079-1 ISA 60079-1
pressurized enclosures	pxb pyb pzc	switchgear and control cabinets, analysers, large motors	IEC 60079-2 EN 60079-2 ISA 60079-2
intrinsic safety	ia ib ic	instrumentation technology, fieldbus technology, sensors, actuators [Ex ib] = associated electrical apparatus - installation in the safe area	IEC 60079-11 EN 60079-11 ISA 60079-11
		intrinsically safe systems	IEC 60079-25 EN 60079-25
		FISCO: fieldbus intrinsically-safe concept	IEC 60079-27 EN 60079-27 ISA 60079-27
oil immersion	ob	transformers, starting resistors	IEC 60079-6 EN 60079-6 ISA 60079-6
powder filling	qb	sensors, display units, electronic ballasts, transmitters	IEC 60079-5 EN 60079-5 ISA 60079-5
encapsulation	ma mb mc	switchgear with small capacity, control and signalling units, display units, sensors	IEC 60079-18 EN 60079-18 ISA 60079-18
type of protection "n"	nAc nCc nRc	all electrical equipment for Zone 2 nA = non-sparking device nC = sparking devices and components nL = energy limited apparatus nR = restricted breathing enclosures	IEC 60079-15 EN 60079-15 ISA 60079-15
optical radiation	op_a op_b op_c	op is = inherently safe optical radiation	IEC 60079-28 EN 60079-28
		op pr = protected optical radiation	
		op sh = optical radiation interlock	

## Types of protection for electrical equipment in explosive dust atmospheres

Type of protection	Symbol	Main application	Norm		
protection by enclosures	ta tb tc	switchgear, control stations, junction boxes, control boxes, motors, light fittings	IEC 60079-31 EN 60079-31 ISA 60079-31		
pressurization	pb pc	switchgear and control cabinets, motors	IEC 60079-2 EN 60079-2 ISA 60079-2		
intrinsic safety	ia ib ic	instrumentation technology, fieldbus technology, sensors, actuators [Ex ib] = associated electrical apparatus - installation in the safe area	IEC 60079-11 EN 60079-11 ISA 60079-11		
		encapsulation	ma mb mc	switchgear with small capacity, control and signalling units, display units, sensors	IEC 60079-18 EN 60079-18 ISA 60079-18

# Temperature class

Classification of the maximum surface temperatures into temperature classes for electrical equipment of group II

Temperature class ATEX/IECEx	Temperature class NEC/UL (AEx)	Maximum surface temperature	
T1	T1	450 °C	842 °F
T2	T2	300 °C	572 °F
	T2A	280 °C	536 °F
	T2B	260 °C	500 °F
	T2C	230 °C	446 °F
T3	T2D	215 °C	419 °F
	T3	200 °C	392 °F
	T3A	180 °C	356 °F
	T3B	165 °C	329 °F
T4	T3C	160 °C	320 °F
	T4	135 °C	275 °F
	T4A	120 °C	248 °F
T5	T5	100 °C	212 °F
T6	T6	85 °C	185 °F
IEC/DIN EN 60079-0	NEC500ff	°C	°F

# Certifications worldwide

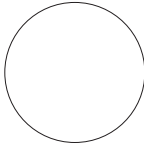


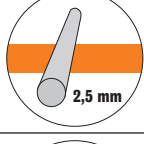
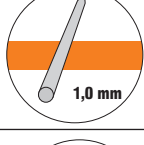




# IP class of protection to DIN EN 60529

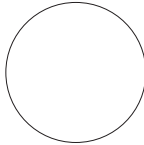
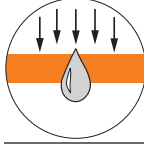
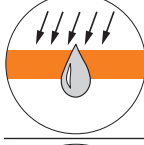
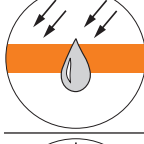
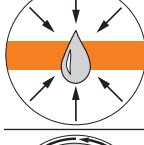

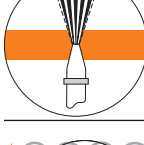
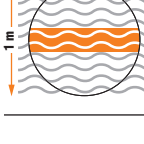
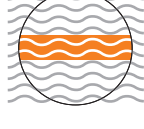
The ingress protection class or IP rating is indicated by a code consisting of the two letters IP and two digits representing the class of protection.

Example: **IP 65**  
 |        |  
       2nd digit: protection from liquids  
       1st digit: protection from solid bodies

## Protection against intrusion of external particle matter (1st digit)

Code digit	
0	 No protection
1	 Protection against ingress of large solid bodies with diameter > 50 mm. (Protection to prevent dangerous parts being touched with the back of the hand.)
2	 Protection against ingress of large solid bodies with diameter > 12.5 mm. (Protection to prevent dangerous parts being touched with the fingers.)
3	 Protection against ingress of large solid bodies with diameter > 2.5 mm. (Protection to prevent dangerous parts being touched with a tool.)
4	 Protection against ingress of large solid bodies with diameter > 1 mm. (Protection to prevent dangerous parts being touched with a piece of wire.)
5	 Protection against harmful deposits of dust, which cannot enter in an amount sufficient to interfere with satisfactory operation.
6	 Complete protection against ingress of dust.

## Protection against penetration of liquids (2nd digit)

Code digit	
0	 No protection
1	 Protection against drops of condensed water falling vertically.
2	 Protection against drops of liquid falling at an angle of 15° with respect to the vertical.
3	 Protection against drops of liquid falling at an angle of 60° with respect to the vertical.
4	 Protection against liquids splashed from any direction.
5	 Protection against water jets projected by a nozzle from any direction.
6	 Protection against water from heavy sea on ships' decks.
7	 Protection against immersion in water under defined conditions of pressure and time.
8	 Protection against indefinite immersion in water under defined conditions of pressure (which must be agreed between manufacturer and user and must be more adverse than number 7).

## Definition of the protection degrees according to NEMA, UL and CSA

Type	NEMA	UL	CSA
Designation	National Electrical Manufacturers Association NEMA 250-1991	Underwriters Laboratories Inc. UL 50 und UL 508	Canadian Standards Association CSA-C22.2 No. 94-M91
<b>Type 1</b>	Enclosure predominately for indoor use. Protection against penetration by solid foreign bodies.	Enclosure predominately for indoor use. Protection against penetration by solid foreign bodies.	Enclosure for general use. Protection against accidental contact with live components.
<b>Type 2</b>	Enclosure predominately for indoor use. Protection against penetration by solid foreign bodies and water.	Enclosure predominately for indoor use. Protection against penetration by solid foreign bodies and water.	Enclosure for indoor use. Protection against non-corrosive drops/splashes of liquid and foreign bodies.
<b>Type 3</b>	Enclosure predominately for indoor use. Protection against penetration by rainfall and dust as well as damage due to ice formation.	Enclosure predominately for indoor use. Protection against penetration by rainfall and dust as well as damage due to ice formation.	Enclosure for indoor or outdoor use. Protection against penetration by rainfall and snow as well as damage due to ice formation.
<b>Type 3R</b>	Enclosure predominately for indoor use. Protection against rain and snow as damage due to ice-formation.	Enclosure predominately for indoor use. Protection against rain and snow as damage due to ice-formation.	Enclosure for indoor or outdoor use. Protection against penetration by rainfall and snow as well as damage due to ice formation.
<b>Type 3S</b>	Enclosure predominately for indoor use. Protection against rain, snow and foreign bodies. External mechanisms can be operated despite ice accumulation.	Enclosure predominately for indoor use. Protection against rain, snow and foreign bodies. External mechanisms can be operated despite ice accumulation.	Enclosure for indoor or outdoor use. Protection against rain, snow and foreign bodies. External mechanisms can be operated despite ice accumulation.
<b>Type 4</b>	Enclosure for indoor or outdoor use. Protection against rain, foreign bodies, splashing water and hose water as well as damage due to ice-formation on the outside of the enclosure.	Enclosure for indoor or outdoor use. Protection against rain, foreign bodies, splashing water and hose water as well as damage due to ice-formation on the outside of the enclosure.	Enclosure for indoor or outdoor use. Protection against rain, snow, foreign bodies, splashing water and hose water as well as damage due to ice-formation on the outside of the enclosure.
<b>Type 4X</b>	Enclosure for indoor or outdoor use. Protection against corrosion, rain, foreign bodies, splashing water and hose water as well as damage due to ice-formation on the outside of the enclosure.	Enclosure for indoor or outdoor use. Protection against corrosion, rain, foreign bodies, splashing water and hose water as well as damage due to ice-formation on the outside of the enclosure.	Enclosure for indoor or outdoor use. Protection against rain, foreign bodies, splashing water and hose water as well as damage due to ice-formation on the outside of the enclosure.
<b>Type 6</b>	Enclosure for indoor or outdoor use. Protection against hose water as well as against penetration by water during immersion; protection damage due to ice formation on the outside of the enclosure.	Enclosure for indoor or outdoor use. Protection against hose water as well as against penetration by water during immersion; protection damage due to ice formation on the outside of the enclosure.	Enclosure for indoor or outdoor use. Protection against penetration by water during immersion; protection damage due to ice formation on the outside of the enclosure.
<b>Type 12</b>	Enclosure for indoor use. Protection against dust accumulation, foreign bodies and non-corrosive drops of liquids.	Enclosure for indoor use. Protection against dust accumulation, foreign bodies and non-corrosive drops of liquids.	Enclosure for indoor or outdoor use. Protection against a build-up of dust, fibres and foreign bodies as well as against non-corrosive liquid drips, without pre-formed openings.
<b>Type 13</b>	Enclosure for indoor use. Protection against dust build-up, splashing water, oil, and non-corrosive coolants.	Enclosure for indoor use. Protection against dust build-up, splashing water, oil, and non-corrosive coolants.	Enclosure for indoor or outdoor use. Protection against a build-up of dust, fibres and foreign bodies as well as against non-corrosive liquid sprays including oil and coolants.



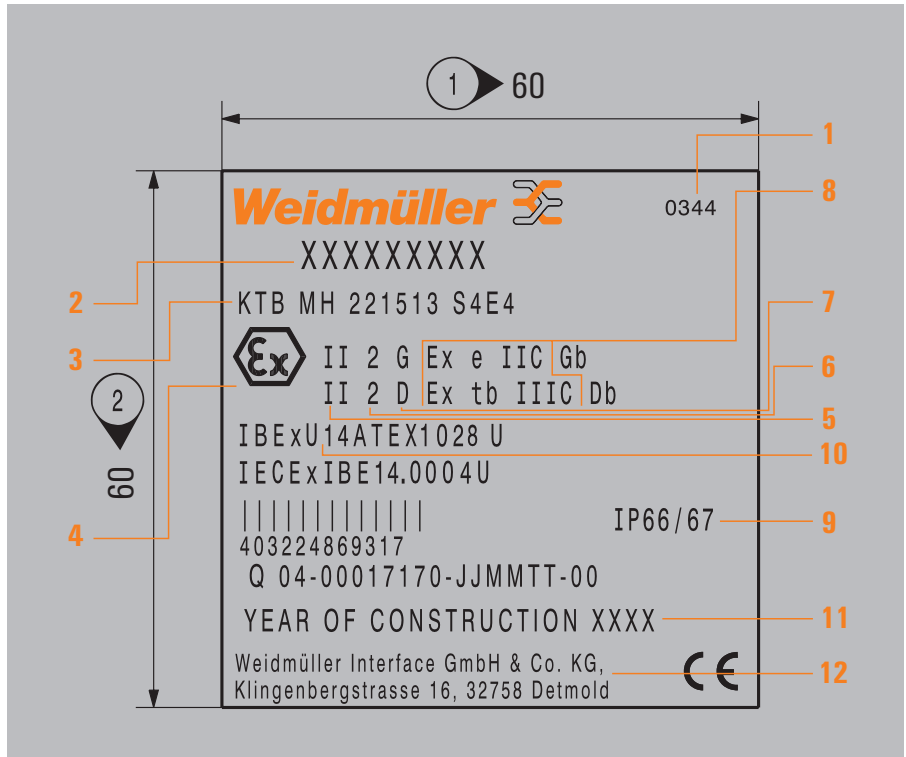
Cross-section	No. of conductors	Cable ø approx. mm	Metric cable glands				PG						
1.5 mm <sup>2</sup> AWG 16	2	8.0 - 11.0	12	16	20	9	11	13.5	16				
	3	8.7 - 11.0	16	20	25	9	11	13.5	16				
	4	9.7 - 11.8	16	20	25	9	11	13.5	16				
	5	10.8 - 13.0		20	25		11	13.5	16				
	6	10.8 - 14.2		20	25		11	13.5	16				
	7	10.8 - 14.2		20	25		11	13.5	16				
	8	13.2 - 16.6			25	32		13.5	16	21			
	11	13.6 - 16.8			25	32		13.5	16	21			
	12	17.6 - 16.8			25	32		13.5	16	21			
	14	14.4 - 17.6			25	32			16	21			
	16	15.8 - 18.4			25	32			16	21			
	18	16.6 - 19.2			25	32			21	29			
	20	17.4 - 20.0			25	32	40		21	29			
	25	20.2 - 23.0				32	40		21	29			
	32	23.8 - 24.5					40			29	36		
	34	22.6 - 25.4					40			29	36		
	42	25.8 - 29.0					40	50		29	36		
	50	27.0 - 30.2					40	50		29	36		
	56	27.8 - 31.0					40	50		29	36		
	61	28.6 - 31.8					40	50			36		
80	33.0 - 36.4						50	63		36	42		
90	34.6 - 37.6						50	63		36	42		
100	37.8 - 41.4						50	63			42		
2.5 mm <sup>2</sup> AWG 12-14	2	9.8 - 12.8	16	20	25	9	11	13.5	16				
	3	10.6 - 13.4		20	25		11	13.5	16				
	4	11.7 - 14.4		20	25		11	13.5	16				
	5	13.0 - 16.4		20	25	32		13.5	16	21			
	6	13.3 - 16.7			25	32		13.5	16	21			
	7	13.3 - 16.7			25	32		13.5	16	21			
	8	17.4 - 20.8			25	32	40			21	29		
	11	18.0 - 20.6			25	32	40			21	29		
	16	20.6 - 23.4				32	40			21	29		
	18	21.7 - 24.5					40				29	36	
	25	26.4 - 29.6					40	50			29	36	
	34	31.3 - 33.1					40	50				36	42
	50	37.0 - 39.4						50	63			42	
	61	39.0 - 41.5						50	63			42	
4 mm <sup>2</sup> AWG 10-12	2	10.7 - 14.1	20	25		11	13.5	16	21				
	4	13.0 - 16.4		25	32		13.5	16	21				
	5	14.3 - 17.7		25	32		16	21					
	7	16.2 - 19.6		25	32				21	29	36		
	11	ca. 24.5				40				29	36		

**Note:**

The values can differ between manufacturers. These figures should be considered as rough guidelines.

# Ratings plate of an Ex-certified empty enclosure

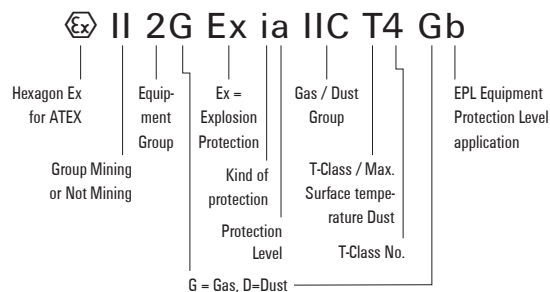
- 1 Number of the notified body
- 2 Part No.
- 3 Part designation
- 4 Ex marking
- 5 Equipment group
- 6 Device category
- 7 • G Gas (gas)  
• D flammable dust
- 8 Explosion protection type
- 9 IP ingress protection class (DIN EN 60529)
- 10 EC type-examination certificate
- 11 Year of manufacture
- 12 Name and address of manufacturer





# Type label for enclosure assemblies

- 1 Certification conditions and logo
- 2 Name and address of manufacturer
- 3 Approval number
- 4 Part designation
- 5 Part No.
- 6 Serial number
- 7 Year of Construction
- 8 IP ingress protection class
- 9 Ambient temperature
- 10 Approval number
- 11 Ex marking  
Example:



**Weidmüller**

Weidmüller Interface GmbH & Co. KG **2**  
Klingenbergstr. 16 – D 32758 Detmold

**4** Type: Klippon TB MH 303020  
**5** P/N: 9876543219  
**6** S/N: XA-DE-A-0000  
**7** Year of Construction: 2018

**8** IP 66

Rated voltage: 600 [V]      Cable size: 4 [mm<sup>2</sup>]  
Rated current: 21 [A]      **9** T amb: - 20 °C ... + 55 °C

**11** Class I Zone 1 AEx e IIC T4 Gb

---

W A R N I N G - DO NOT OPEN WHEN ENERGIZED

**1**

Junction Box for HAZ. LOC.  
E223792  
**3**

NEMA TYPE: 4x

**Weidmüller**

Weidmüller Interface GmbH & Co. KG **2**  
Klingenbergstr. 16 – D 32758 Detmold

**4** Type: Klippon TB MH 303020  
**5** P/N: 9876543219  
**6** S/N: XA-DE-A-0000  
**7** Year of Construction: 2018

**8** IP 66

Rated voltage: 600 [V]      Cable size: 4 [mm<sup>2</sup>]  
Rated current: 21 [A]      **9** T amb: - 20 °C ... + 55 °C

**10** IBExU14ATEX1050  
**11** II 2G Ex eb IIC T4 Gb

**10** IECEx IBE 14.0013  
**11** Ex eb IIC T4 Gb

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W A R N I N G - DO NOT OPEN WHEN ENERGIZED

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KL SET 4Z4 S	8000004139	C.116	KLIIPPON CS STB 1-2	153724000	C.87	KLIIPPON K21 VMQ	193959000	C.94	KLIIPPON K52 RAL7001	952923000	C.110
KL SET 5W4 S	8000004138	C.116	KLIIPPON CS STB 1-2	153725000	C.88	KLIIPPON K21 VMQ	193959000	C.102	KLIIPPON K52 VMQ	193967000	C.94
KL SET 5Z2.5 S	8000004130	C.116	KLIIPPON CS STB 1-2	153728000	C.88	KLIIPPON K21 VMQ RAL7001	193783000	C.94	KLIIPPON K52 VMQ	193967000	C.110
KL SET 6A4 S	8000004144	C.150	KLIIPPON CS STB 1-2	153729000	C.89	KLIIPPON K21 VMQ RAL7001	193783000	C.102	KLIIPPON K52 VMQ RAL7001	193774000	C.94
KL SET 6A4 S	8000004144	C.152	KLIIPPON CS STB 2-1-2	153730000	C.89	KLIIPPON K3	034220000	C.94	KLIIPPON K52 VMQ RAL7001	193774000	C.110
KL SET KLIIPPON POK1 BK4	8000004365	C.150	KLIIPPON CS STB 2-1-2	153731000	C.89	KLIIPPON K3	034220000	C.103	KLIIPPON K6	034250000	C.94
KL SET KLIIPPON POK1 BK4	8000004365	C.152	KLIIPPON CS STB 2-1-2	153732000	C.90	KLIIPPON K3	034220000	C.116	KLIIPPON K6	034250000	C.111
KL SET KLIIPPON POK2 BK6	8000004366	C.150	KLIIPPON CS STB 2-1-6	153733000	C.90	KLIIPPON K3 4M20AB CSS	8000004153	C.116	KLIIPPON K6 EX	952696000	C.94
KL SET KLIIPPON POK2 BK6	8000004366	C.153	KLIIPPON CS STB 2-1-7	153734000	C.91	KLIIPPON K3 EX	952688000	C.94	KLIIPPON K6 EX RAL7001	132974000	C.94
KL SET KLIIPPON POK3BK12	8000004367	C.150	KLIIPPON CS STB 2-1-7	153737000	C.91	KLIIPPON K3 EX RAL7001	132967000	C.94	KLIIPPON K6 RAL7001	952924000	C.94
KL SET KLIIPPON POK3BK12	8000004367	C.154	KLIIPPON CS MF KIT 16	952908000	C.108	KLIIPPON K3 M20BCSS EX	8000004213	C.116	KLIIPPON K6 RAL7001	952924000	C.111
KLIIPPON BDX M20 B	251952000	C.44	KLIIPPON K MF KIT 16	952908000	C.111	KLIIPPON K3 RAL7001	952916000	C.94	KLIIPPON K6 VMQ	193969000	C.94
KLIIPPON BDX M20 B	251952000	C.45	KLIIPPON K MF KIT 16	952908000	C.113	KLIIPPON K3 RAL7001	952916000	C.103	KLIIPPON K6 VMQ	193969000	C.111
KLIIPPON BDX M20 B	251952000	C.46	KLIIPPON K MF KIT 25	952759000	C.107	KLIIPPON K3 VMQ	193960000	C.94	KLIIPPON K6 VMQ RAL7001	193787000	C.94
KLIIPPON BDX M20 B	251952000	C.47	KLIIPPON K MF KIT 25	952759000	C.109	KLIIPPON K3 VMQ	193960000	C.103	KLIIPPON K6 VMQ RAL7001	193787000	C.111
KLIIPPON BDX M20 B	251952000	C.78	KLIIPPON K MF KIT 25	952759000	C.110	KLIIPPON K3 VMQ RAL7001	193790000	C.94	KLIIPPON K61	057360000	C.94
KLIIPPON BDX M20 B	251952000	C.79	KLIIPPON K MF KIT 25	952759000	C.112	KLIIPPON K3 VMQ RAL7001	193790000	C.103	KLIIPPON K61	057360000	C.112
KLIIPPON BDX M20 B	251952000	C.80	KLIIPPON K MF KIT 25	952759000	C.114	KLIIPPON K31	057350000	C.94	KLIIPPON K61 EX	952697000	C.94
KLIIPPON BDX M20 B	251952000	C.81	KLIIPPON K0	057320000	C.94	KLIIPPON K31	057350000	C.104	KLIIPPON K61 EX RAL7001	132814000	C.94
KLIIPPON BDX M20 B	251952000	D.61	KLIIPPON K0	057320000	C.96	KLIIPPON K31	057350000	C.116	KLIIPPON K61 RAL7001	952925000	C.94
KLIIPPON BDX M20 S	251955000	C.44	KLIIPPON K0 RAL7001	952909000	C.94	KLIIPPON K31 4M20AB CSS	8000004154	C.116	KLIIPPON K61 RAL7001	952925000	C.112
KLIIPPON BDX M20 S	251955000	C.45	KLIIPPON K0 RAL7001	952909000	C.96	KLIIPPON K31 EX	952689000	C.94	KLIIPPON K61 VMQ	193970000	C.94
KLIIPPON BDX M20 S	251955000	C.46	KLIIPPON K0 VMQ	193976000	C.94	KLIIPPON K31 EX RAL7001	132968000	C.94	KLIIPPON K61 VMQ	193970000	C.112
KLIIPPON BDX M20 S	251955000	C.47	KLIIPPON K0 VMQ	193976000	C.96	KLIIPPON K31 M20ZCSS EX	8000004214	C.116	KLIIPPON K61 VMQ RAL7001	193773000	C.94
KLIIPPON BDX M20 S	251955000	C.68	KLIIPPON K0 VMQ RAL7001	193792000	C.94	KLIIPPON K31 RAL7001	952917000	C.94	KLIIPPON K61 VMQ RAL7001	193773000	C.112
KLIIPPON BDX M20 S	251955000	C.69	KLIIPPON K0 VMQ RAL7001	193792000	C.96	KLIIPPON K31 RAL7001	952917000	C.104	KLIIPPON K7	034260000	C.94
KLIIPPON BDX M20 S	251955000	C.70	KLIIPPON K01	156524000	C.94	KLIIPPON K31 VMQ	193961000	C.94	KLIIPPON K7	034260000	C.113
KLIIPPON BDX M20 S	251955000	C.71	KLIIPPON K01	156524000	C.97	KLIIPPON K31 VMQ	193961000	C.104	KLIIPPON K7 EX	952698000	C.94
KLIIPPON BDX M20 S	251955000	C.72	KLIIPPON K01	156524000	C.116	KLIIPPON K31 VMQ RAL7001	193782000	C.94	KLIIPPON K7 EX RAL7001	132975000	C.94
KLIIPPON BDX M20 S	251955000	C.73	KLIIPPON K01 1M16AB CSS	8000004184	C.116	KLIIPPON K31 VMQ RAL7001	193782000	C.104	KLIIPPON K7 RAL7001	952926000	C.94
KLIIPPON BDX M20 S	251955000	C.74	KLIIPPON K01 RAL7001	952910000	C.94	KLIIPPON K32	156526000	C.94	KLIIPPON K7 RAL7001	952926000	C.113
KLIIPPON BDX M20 S	251955000	C.75	KLIIPPON K01 RAL7001	952910000	C.97	KLIIPPON K32	156526000	C.105	KLIIPPON K7 VMQ	193971000	C.94
KLIIPPON BDX M20 S	251955000	C.78	KLIIPPON K01 VMQ	193954000	C.94	KLIIPPON K32 EX	952699000	C.94	KLIIPPON K7 VMQ	193971000	C.113
KLIIPPON BDX M20 S	251955000	C.79	KLIIPPON K01 VMQ	193954000	C.97	KLIIPPON K32 EX RAL7001	132969000	C.94	KLIIPPON K7 VMQ RAL7001	193788000	C.94
KLIIPPON BDX M20 S	251955000	C.80	KLIIPPON K01 VMQ RAL7001	193785000	C.94	KLIIPPON K32 RAL7001	952918000	C.94	KLIIPPON K7 VMQ RAL7001	193788000	C.113
KLIIPPON BDX M20 S	251955000	C.81	KLIIPPON K01 VMQ RAL7001	193785000	C.97	KLIIPPON K32 RAL7001	952918000	C.105	KLIIPPON K71	057370000	C.94
KLIIPPON BDX M20 S	251955000	D.61	KLIIPPON K02	156525000	C.94	KLIIPPON K32 VMQ	193962000	C.94	KLIIPPON K71	057370000	C.114
KLIIPPON BDX M20X15 S	251957000	C.132	KLIIPPON K02	156525000	C.98	KLIIPPON K32 VMQ	193962000	C.105	KLIIPPON K71 EX	952699000	C.94
KLIIPPON BDX M20X15 S	251957000	C.133	KLIIPPON K02 RAL7001	952911000	C.94	KLIIPPON K32 VMQ RAL7001	193781000	C.94	KLIIPPON K71 EX RAL7001	132977000	C.94
KLIIPPON BDX M20X15 S	251957000	C.134	KLIIPPON K02 RAL7001	952911000	C.98	KLIIPPON K32 VMQ RAL7001	193781000	C.105	KLIIPPON K71 RAL7001	952927000	C.94

Type	Order No.	Page	Type	Order No.	Page	Type	Order No.	Page	Type	Order No.	Page
KLIPPON POK 081906	1305840000	C.135	KLIPPON STB 1 MS HT	1024970000	C.68	KSP L90 S	0930700008	D.50	KTB FS 453820 S4E3	1196180000	C.40
KLIPPON POK 081906 EX	1306030000	C.130	KLIPPON STB 1 SS	1002690000	C.66	KSPMH M16 BSC	1477740000	D.57	KTB FS 453820 S4E4	1196190000	C.40
KLIPPON POK 081906 EX	1306030000	C.135	KLIPPON STB 1 SS	1002690000	C.68	KSPMH M16 SSC	1477820000	C.44	KTB FS 484815 S4E0	1196200000	C.40
KLIPPON POK 082306	1305850000	C.130	KLIPPON STB 1 SS	1002690000	C.78	KSPMH M16 SSC	1477820000	C.78	KTB FS 484815 S4E1	1196210000	C.40
KLIPPON POK 082306	1305850000	C.136	KLIPPON STB 1 SS E	1058810000	C.66	KSPMH M16 SSC	1477820000	D.57	KTB FS 484815 S4E2	1196220000	C.40
KLIPPON POK 082306 EX	1306040000	C.130	KLIPPON STB 1 SS E	1058810000	C.68	KSPMH M20 BSC	1477750000	D.57	KTB FS 484815 S4E3	1196230000	C.40
KLIPPON POK 082306 EX	1306040000	C.136	KLIPPON STB 1.1 MS HT	1024980000	C.66	KSPMH M20 SSC	1477840000	C.44	KTB FS 484815 S4E4	1196240000	C.40
KLIPPON POK 121209	1305870000	C.130	KLIPPON STB 1.1 MS HT	1024980000	C.69	KSPMH M20 SSC	1477840000	C.45	KTB FS 484820 S4E0	1196250000	C.40
KLIPPON POK 121209	1305870000	C.137	KLIPPON STB 1.1 SS	1002750000	C.66	KSPMH M20 SSC	1477840000	C.46	KTB FS 484820 S4E1	1196260000	C.40
KLIPPON POK 121209	1305870000	C.150	KLIPPON STB 1.1 SS	1002750000	C.69	KSPMH M20 SSC	1477840000	C.47	KTB FS 484820 S4E2	1196270000	C.40
KLIPPON POK 121209 EX	1306050000	C.130	KLIPPON STB 1.1 SS E	1058820000	C.66	KSPMH M20 SSC	1477840000	C.79	KTB FS 484820 S4E3	1196280000	C.40
KLIPPON POK 121209 EX	1306050000	C.137	KLIPPON STB 1.1 SS E	1058820000	C.69	KSPMH M20 SSC	1477840000	C.80	KTB FS 484820 S4E4	1196290000	C.40
KLIPPON POK 122209	1305880000	C.130	KLIPPON STB 2 MS HT	1024990000	C.66	KSPMH M20 SSC	1477840000	D.57	KTB FS 553515 S4E0	1196300000	C.40
KLIPPON POK 122209	1305880000	C.138	KLIPPON STB 2 MS HT	1024990000	C.70	KSPMH M25 BSC	1477770000	D.57	KTB FS 553515 S4E1	1196310000	C.40
KLIPPON POK 122209 EX	1306070000	C.130	KLIPPON STB 2 SS	1002740000	C.66	KSPMH M25 SSC	1477870000	C.47	KTB FS 553515 S4E2	1196320000	C.40
KLIPPON POK 122209 EX	1306070000	C.138	KLIPPON STB 2 SS	1002740000	C.70	KSPMH M25 SSC	1477870000	C.81	KTB FS 553515 S4E3	1196330000	C.40
KLIPPON POK 161609	1305890000	C.130	KLIPPON STB 2 SS	1002740000	C.79	KSPMH M25 SSC	1477870000	D.57	KTB FS 553515 S4E4	1196340000	C.40
KLIPPON POK 161609	1305890000	C.139	KLIPPON STB 2 SS E	1058830000	C.66	KSPMH M32 BSC	1477780000	D.57	KTB FS 553520 S4E0	1196350000	C.40
KLIPPON POK 161609	1305890000	C.150	KLIPPON STB 2 SS E	1058830000	C.70	KSPMH M32 SSC	1477890000	C.45	KTB FS 553520 S4E1	1196360000	C.40
KLIPPON POK 161609 EX	1306080000	C.130	KLIPPON STB 2.1 MS HT	1025010000	C.66	KSPMH M32 SSC	1477890000	C.46	KTB FS 553520 S4E2	1196370000	C.40
KLIPPON POK 161609 EX	1306080000	C.139	KLIPPON STB 2.1 MS HT	1025010000	C.71	KSPMH M32 SSC	1477890000	D.57	KTB FS 553520 S4E3	1196380000	C.40
KLIPPON POK 162609	1305900000	C.130	KLIPPON STB 2.1 SS	1002730000	C.66	KSPMH M40 BSC	1477790000	D.57	KTB FS 553520 S4E4	1196390000	C.40
KLIPPON POK 162609	1305900000	C.140	KLIPPON STB 2.1 SS	1002730000	C.71	KSPMH M40 SSC	1477910000	C.47	KTB FS 624515 S4E0	1196400000	C.40
KLIPPON POK 162609 EX	1306090000	C.130	KLIPPON STB 2.1 SS E	1058840000	C.66	KSPMH M40 SSC	1477910000	D.57	KTB FS 624515 S4E1	1196410000	C.40
KLIPPON POK 162609 EX	1306090000	C.140	KLIPPON STB 2.1 SS E	1058840000	C.71	KSPMH M50 BSC	1477800000	D.57	KTB FS 624515 S4E2	1196420000	C.40
KLIPPON POK 163609	1305910000	C.130	KLIPPON STB 3 MS HT	1025020000	C.66	KSPMH M50 SSC	1477930000	D.57	KTB FS 624515 S4E3	1196430000	C.40
KLIPPON POK 163609	1305910000	C.141	KLIPPON STB 3 MS HT	1025020000	C.72	KSPMH M63 BSC	1477810000	D.57	KTB FS 624515 S4E4	1196440000	C.40
KLIPPON POK 163609 EX	1306100000	C.130	KLIPPON STB 3 SS	1002720000	C.66	KSPMH M63 SSC	1477950000	D.57	KTB FS 624520 S4E0	1196450000	C.40
KLIPPON POK 163609 EX	1306100000	C.141	KLIPPON STB 3 SS	1002720000	C.72	KSPMH M75 BSC	1477830000	D.57	KTB FS 624520 S4E1	1196460000	C.40
KLIPPON POK 165609	1305920000	C.130	KLIPPON STB 3 SS	1002720000	C.80	KSPMH M75 SSC	1477980000	D.57	KTB FS 624520 S4E2	1196470000	C.40
KLIPPON POK 165609	1305920000	C.142	KLIPPON STB 3 SS E	1058850000	C.66	KSFW M16	1076800000	D.48	KTB FS 624520 S4E3	1196480000	C.40
KLIPPON POK 165609 EX	1306110000	C.130	KLIPPON STB 3 SS E	1058850000	C.72	KSFW M20	0899750000	D.48	KTB FS 624520 S4E4	1196490000	C.40
KLIPPON POK 165609 EX	1306110000	C.142	KLIPPON STB 4 MS HT	1025030000	C.66	KSFW M25	0899770000	D.48	KTB FS 765015 S4E0	1196500000	C.40
KLIPPON POK 252512	1305930000	C.130	KLIPPON STB 4 MS HT	1025030000	C.73	KSFW M32	1076690000	D.48	KTB FS 765015 S4E1	1196510000	C.40
KLIPPON POK 252512	1305930000	C.143	KLIPPON STB 4 SS	1002710000	C.66	KSFW M40	1076710000	D.48	KTB FS 765015 S4E2	1196520000	C.40
KLIPPON POK 252512 EX	1306120000	C.130	KLIPPON STB 4 SS	1002710000	C.73	KSFW M50	1076720000	D.48	KTB FS 765015 S4E3	1196530000	C.40
KLIPPON POK 252512 EX	1306120000	C.143	KLIPPON STB 4 SS	1002710000	C.81	KSFW M63	1076730000	D.48	KTB FS 765015 S4E4	1196540000	C.40
KLIPPON POK 252516	1305980000	C.130	KLIPPON STB 4 SS E	1058860000	C.66	KSFW M75	1076740000	D.48	KTB FS 765020 S4E0	1196550000	C.40
KLIPPON POK 252516	1305980000	C.144	KLIPPON STB 4 SS E	1058860000	C.73	KSWN M16	1076630000	D.47	KTB FS 765020 S4E1	1196560000	C.40
KLIPPON POK 252516 EX	1306170000	C.130	KLIPPON STB 5 MS HT	1025040000	C.66	KSWN M20	0930730002	D.47	KTB FS 765020 S4E2	1196570000	C.40
KLIPPON POK 252516 EX	1306170000	C.144	KLIPPON STB 5 MS HT	1025040000	C.74	KSWN M25	1076640000	D.47	KTB FS 765020 S4E3	1196580000	C.40
KLIPPON POK 254012	1305940000	C.130	KLIPPON STB 5 SS	1002700000	C.66	KSWN M32	1076650000	D.47	KTB FS 765020 S4E4	1196590000	C.40
KLIPPON POK 254012	1305940000	C.145	KLIPPON STB 5 SS	1002700000	C.74	KSWN M40	0899780000	D.47	KTB FS 916115 S4E0	1196600000	C.40
KLIPPON POK 254012 EX	1306130000	C.130	KLIPPON STB 5 SS E	1058880000	C.66	KSWN M50	0900660000	D.47	KTB FS 916115 S4E1	1196610000	C.40
KLIPPON POK 254012 EX	1306130000	C.145	KLIPPON STB 5 SS E	1058880000	C.74	KSWN M63	1076660000	D.47	KTB FS 916115 S4E2	1196620000	C.40
KLIPPON POK 254016	1305990000	C.130	KLIPPON STB 6 MS HT	1025050000	C.66	KSWN M75	1076670000	D.47	KTB FS 916115 S4E3	1196630000	C.40
KLIPPON POK 254016	1305990000	C.146	KLIPPON STB 6 MS HT	1025050000	C.75	KTB FS 221513 S4E0	1195650000	C.40	KTB FS 916115 S4E4	1196640000	C.40
KLIPPON POK 254016 EX	1306180000	C.130	KLIPPON STB 6 SS	1002760000	C.66	KTB FS 221513 S4E1	1195660000	C.40	KTB FS 916120 S4E0	1196650000	C.40
KLIPPON POK 254016 EX	1306180000	C.146	KLIPPON STB 6 SS	1002760000	C.75	KTB FS 221513 S4E2	1195670000	C.40	KTB FS 916120 S4E1	1196660000	C.40
KLIPPON POK 256012	1305950000	C.130	KLIPPON STB 6 SS E	1058870000	C.66	KTB FS 221513 S4E3	1195680000	C.40	KTB FS 916120 S4E2	1196670000	C.40
KLIPPON POK 256012	1305950000	C.147	KLIPPON STB 6 SS E	1058870000	C.75	KTB FS 221513 S4E4	1195690000	C.40	KTB FS 916120 S4E3	1196680000	C.40
KLIPPON POK 256012 EX	1306140000	C.130	KSG M20 BN 0 NI 2 G16	1911510000	C.33	KTB FS 262615 S4E0	1195700000	C.40	KTB FS 916120 S4E4	1196690000	C.40
KLIPPON POK 256012 EX	1306140000	C.147	KSG M20 BN 0 NI 2 G20	1911560000	C.33	KTB FS 262615 S4E1	1195710000	C.40	KTB FS 987420 S4E0	1196700000	C.40
KLIPPON POK 404012	1305970000	C.130	KSG M20 BS 0 NI 2 G20S	1911540000	C.33	KTB FS 262615 S4E2	1195720000	C.40	KTB FS 987420 S4E1	1196710000	C.40
KLIPPON POK 404012	1305970000	C.148	KSG M20 BS 0 NI 2 G16	0930481222	D.34	KTB FS 262615 S4E3	1195730000	C.40	KTB FS 987420 S4E2	1196720000	C.40
KLIPPON POK 404012 EX	1306150000	C.130	KSG M20 BS 0 NI 2 G20	0930501222	D.34	KTB FS 262615 S4E4	1195740000	C.40	KTB FS 987420 S4E3	1196730000	C.40
KLIPPON POK 404012 EX	1306150000	C.148	KSG M20 BS 0 NI 2 G20S	0930491224	D.34	KTB FS 262620 S4E0	1195750000	C.40	KTB FS 987420 S4E4	1196740000	C.40
KLIPPON POK1 2M16AB CSS	8000004160	C.150	KSG M25 BN 0 NI 2 G25	1911570000	C.33	KTB FS 262620 S4E1	1195760000	C.40	KTB GP 221513 AB S4	2208080000	C.44
KLIPPON POK1 2M16AB CSS	8000004160	C.152	KSG M25 BS 0 NI 2 G25	0930511222	D.34	KTB FS 262620 S4E2	1195770000	C.40	KTB GP 221513 AB S4 6MM	2256290000	C.15
KLIPPON POK1 M16ACSS EX	8000004223	C.150	KSG M32 BN 0 NI 2 G32	1911580000	C.33	KTB FS 262620 S4E3	1195780000	C.40	KTB GP 221513 AB S4 6MM	2256270000	C.44
KLIPPON POK1 M16ACSS EX	8000004223	C.152	KSG M32 BS 0 NI 2 G32	0930521222	D.34	KTB FS 262620 S4E4	1195790000	C.40	KTB GP 221513 CD S4 PE	2022770000	C.15
KLIPPON POK1 M16BCSS EX	8000004222	C.150	KSG M40 BN 0 NI 2 G40	1911590000	C.33	KTB FS 303015 S4E0	1195800000	C.40	KTB GP 221513 CD S4 6MM	2256280000	C.15
KLIPPON POK1 M16BCSS EX	8000004222	C.152	KSG M40 BS 0 NI 2 G40	0930531222	D.34	KTB FS 303015 S4E1	1195810000	C.40	KTB GP 221513 CD S4 PE	2022930000	C.15
KLIPPON POK2 2M20AB CSS	8000004161	C.150	KSG M50 BN 0 NI 2 G50	1911610000	C.33	KTB FS 303015 S4E2	1195820000	C.40	KTB GP 262615 AB S4	2209100000	C.15
KLIPPON POK2 2M20AB CSS	8000004161	C.153	KSG M50 BS 0 NI 2 G50S	1911600000	C.33	KTB FS 303015 S4E3	1195830000	C.40	KTB GP 262615 AB S4 6MM	2256290000	C.16
KLIPPON POK2 M20ACSS EX	8000004225	C.150	KSG M50 BS 0 NI 2 G50	1366760000	C.34	KTB FS 303015 S4E4	1195840000	C.40	KTB GP 262615 AB S4 6MM	2256290000	C.45
KLIPPON POK2 M20ACSS EX	8000004225	C.153	KSG M50 BS 0 NI 2 G50S	1366660000	D.34	KTB FS 303020 S4E0	1195850000	C.40	KTB GP 262615 AB S4 PE	2022930000	C.16
KLIPPON POK2 M20BCSS EX	8000004224	C.150	KSG M63 BN 0 NI 2 G63	1911630000	C.33	KTB FS 303020 S4E1	1195860000	C.40	KTB GP 262615 CD S4 6MM	2256310000	C.16
KLIPPON POK2 M20BCSS EX	8000004224	C.153	KSG M63 BS 0 NI 2 G63S	1911620000	C.33	KTB FS 303020 S4E2	1195870000	C.40	KTB GP 262620 AB S4 PE	2023090000	C.17
KLIPPON POK3 4M20AB CSS	8000004162	C.150	KSG M63 BS 0 NI 2 G63	1366690000	D.34	KTB FS 303020 S4E3	1195880000	C.40	KTB GP 262620 AB S4 6MM	2256320000	C.17
KLIPPON POK3 4M20AB CSS	8000004162	C.154	KSG M63 BS 0 NI 2 G63S	1366680000	D.34	KTB FS 303020 S4E4	1195890000	C.40	KTB GP 262620 CD S4 PE	2023100000	C.17
KLIPPON POK3 M20ACSS EX	8000004228	C.150	KSG M75 BN 0 NI 2 G75	1075360000	C.33	KTB FS 352615 S4E0	1195900000	C.40	KTB GP 262620 CD S4 6MM	2256330000	C.17
KLIPPON POK3 M20ACSS EX	8000004228	C.154	KSG M75 BS 0 NI 2 G75S	1075350000	C.33	KTB FS 352615 S4E1	1195910000	C.40	KTB GP 262620 CD S4 PE	2023110000	C.17
KLIPPON POK3 M20BCSS EX	8000004226	C.150	KSG M75 BS 0 NI 2 G75	1366710000	D.34	KTB FS 352615 S4E2	1195920000	C.40	KTB GP 303015 AB S4 6MM	2256340000	C.18
KLIPPON POK3 M20BCSS EX	8000004226	C.154	KSG M75 BS 0 NI 2 G75S	1366700000	D.34	KTB FS 352615 S4E3	1195930000	C.40			

Type	Order No.	Page	Type	Order No.	Page	Type	Order No.	Page	Type	Order No.	Page
KTb GP 453815 AB S4 6MM	1256480000	C.24	KTb MH 303015 S4E4	1194740000	C.18	KTb MH 553515 S4E4	1195240000	C.12	KTb MOPL 3030 MSZn H	2022190000	C.19
KTb GP 453815 AB S4 PE	2023490000	C.24	KTb MH 303020 S4E0	1194750000	C.12	KTb MH 553515 S4E4	1195240000	C.28	KTb MOPL 3030 S2N	1193830000	C.18
KTb GP 453815 CD S4 6MM	1256490000	C.24	KTb MH 303020 S4E0	1194750000	C.19	KTb MH 553520 S4E0	1195250000	C.12	KTb MOPL 3030 S2N	1193830000	C.19
KTb GP 453815 CD S4 PE	2023490000	C.24	KTb MH 303020 S4E1	1194760000	C.12	KTb MH 553520 S4E0	1195250000	C.29	KTb MOPL 3030 S2N	1193830000	C.46
KTb GP 453820 AB S4 6MM	1256510000	C.25	KTb MH 303020 S4E1	1194760000	C.19	KTb MH 553520 S4E1	1195260000	C.12	KTb MOPL 3030 S2N H	1257670000	C.18
KTb GP 453820 AB S4 PE	2023510000	C.25	KTb MH 303020 S4E2	1194770000	C.12	KTb MH 553520 S4E1	1195260000	C.29	KTb MOPL 3030 S2N H	1257670000	C.19
KTb GP 453820 CD S4 6MM	1256520000	C.25	KTb MH 303020 S4E2	1194770000	C.19	KTb MH 553520 S4E2	1195270000	C.12	KTb MOPL 3526 MSZn	1193970000	C.20
KTb GP 453820 CD S4 PE	2023520000	C.25	KTb MH 303020 S4E3	1194780000	C.12	KTb MH 553520 S4E2	1195270000	C.29	KTb MOPL 3526 MSZn	1193970000	C.21
KTb GP 484815 AB S4 6MM	1256530000	C.26	KTb MH 303020 S4E3	1194780000	C.19	KTb MH 553520 S4E3	1195280000	C.12	KTb MOPL 3526 MSZn H	2022310000	C.20
KTb GP 484815 AB S4 PE	2023530000	C.26	KTb MH 303020 S4E4	1194790000	C.12	KTb MH 553520 S4E3	1195280000	C.29	KTb MOPL 3526 MSZn H	2022310000	C.21
KTb GP 484815 CD S4 6MM	1256540000	C.26	KTb MH 303020 S4E4	1194790000	C.19	KTb MH 553520 S4E4	1195290000	C.12	KTb MOPL 3526 S2N	1193840000	C.20
KTb GP 484815 CD S4 PE	2023540000	C.26	KTb MH 352615 S4E0	1194800000	C.12	KTb MH 553520 S4E4	1195290000	C.29	KTb MOPL 3526 S2N	1193840000	C.21
KTb GP 484820 AB S4	1281130000	C.47	KTb MH 352615 S4E0	1194800000	C.20	KTb MH 624515 S4E0	1195300000	C.12	KTb MOPL 3526 S2N H	1257680000	C.20
KTb GP 484820 AB S4 6MM	1256550000	C.27	KTb MH 352615 S4E1	1194810000	C.12	KTb MH 624515 S4E0	1195300000	C.30	KTb MOPL 3526 S2N H	1257680000	C.21
KTb GP 484820 AB S4 6MM	1256550000	C.47	KTb MH 352615 S4E1	1194810000	C.20	KTb MH 624515 S4E1	1195310000	C.12	KTb MOPL 4030 MSZn	1193980000	C.22
KTb GP 484820 AB S4 PE	2023560000	C.27	KTb MH 352615 S4E2	1194820000	C.12	KTb MH 624515 S4E1	1195310000	C.30	KTb MOPL 4030 MSZn	1193980000	C.23
KTb GP 484820 CD S4 6MM	1256560000	C.27	KTb MH 352615 S4E2	1194820000	C.20	KTb MH 624515 S4E2	1195320000	C.12	KTb MOPL 4030 MSZn H	2022420000	C.22
KTb GP 484820 CD S4 PE	2023620000	C.27	KTb MH 352615 S4E3	1194830000	C.12	KTb MH 624515 S4E2	1195320000	C.30	KTb MOPL 4030 MSZn H	2022420000	C.23
KTb GP 553515 AB S4 6MM	1256570000	C.28	KTb MH 352615 S4E3	1194830000	C.20	KTb MH 624515 S4E3	1195330000	C.12	KTb MOPL 4030 S2N	1193850000	C.22
KTb GP 553515 AB S4 PE	2023660000	C.28	KTb MH 352615 S4E4	1194840000	C.12	KTb MH 624515 S4E3	1195330000	C.30	KTb MOPL 4030 S2N	1193850000	C.23
KTb GP 553515 CD S4 6MM	1256580000	C.28	KTb MH 352615 S4E4	1194840000	C.20	KTb MH 624515 S4E4	1195340000	C.12	KTb MOPL 4030 S2N	1257690000	C.22
KTb GP 553515 CD S4 PE	2023670000	C.28	KTb MH 352620 S4E0	1194850000	C.12	KTb MH 624515 S4E4	1195340000	C.30	KTb MOPL 4030 S2N H	1257690000	C.23
KTb GP 553520 AB S4 6MM	1256590000	C.29	KTb MH 352620 S4E0	1194850000	C.21	KTb MH 624520 S4E0	1195350000	C.12	KTb MOPL 4538 MSZn	1193990000	C.24
KTb GP 553520 AB S4 PE	2023740000	C.29	KTb MH 352620 S4E1	1194860000	C.12	KTb MH 624520 S4E0	1195350000	C.31	KTb MOPL 4538 MSZn	1193990000	C.25
KTb GP 553520 CD S4 6MM	1256610000	C.29	KTb MH 352620 S4E1	1194860000	C.21	KTb MH 624520 S4E1	1195360000	C.12	KTb MOPL 4538 MSZn H	2022590000	C.24
KTb GP 553520 CD S4 PE	2023790000	C.29	KTb MH 352620 S4E2	1194870000	C.12	KTb MH 624520 S4E1	1195360000	C.31	KTb MOPL 4538 MSZn H	2022590000	C.25
KTb GP 624515 AB S4 6MM	1256620000	C.30	KTb MH 352620 S4E2	1194870000	C.21	KTb MH 624520 S4E2	1195370000	C.12	KTb MOPL 4538 S2N	1193860000	C.24
KTb GP 624515 AB S4 PE	2023820000	C.30	KTb MH 352620 S4E3	1194880000	C.12	KTb MH 624520 S4E2	1195370000	C.31	KTb MOPL 4538 S2N	1193860000	C.25
KTb GP 624515 CD S4 6MM	1256630000	C.30	KTb MH 352620 S4E3	1194880000	C.21	KTb MH 624520 S4E3	1195380000	C.12	KTb MOPL 4538 S2N H	1257700000	C.24
KTb GP 624515 CD S4 PE	2023870000	C.30	KTb MH 352620 S4E4	1194890000	C.12	KTb MH 624520 S4E3	1195380000	C.31	KTb MOPL 4538 S2N H	1257700000	C.25
KTb GP 624520 AB S4 6MM	1256640000	C.31	KTb MH 352620 S4E4	1194890000	C.21	KTb MH 624520 S4E4	1195390000	C.12	KTb MOPL 4848 MSZn	1194000000	C.26
KTb GP 624520 AB S4 PE	2023980000	C.31	KTb MH 403015 S4E0	1194900000	C.12	KTb MH 624520 S4E4	1195390000	C.31	KTb MOPL 4848 MSZn	1194000000	C.27
KTb GP 624520 CD S4 6MM	1256650000	C.31	KTb MH 403015 S4E0	1194900000	C.22	KTb MH 765015 S4E0	1195400000	C.12	KTb MOPL 4848 MSZn H	2022610000	C.26
KTb GP 624520 CD S4 PE	2023930000	C.31	KTb MH 403015 S4E1	1194910000	C.12	KTb MH 765015 S4E0	1195400000	C.32	KTb MOPL 4848 MSZn H	2022610000	C.27
KTb GP 765015 AB S4 6MM	1256660000	C.32	KTb MH 403015 S4E1	1194910000	C.22	KTb MH 765015 S4E1	1195410000	C.12	KTb MOPL 4848 MSZn	1193870000	C.26
KTb GP 765015 AB S4 PE	2024040000	C.32	KTb MH 403015 S4E2	1194920000	C.12	KTb MH 765015 S4E1	1195410000	C.32	KTb MOPL 4848 S2N	1193870000	C.27
KTb GP 765015 CD S4 6MM	1256670000	C.32	KTb MH 403015 S4E2	1194920000	C.22	KTb MH 765015 S4E2	1195420000	C.12	KTb MOPL 4848 S2N	1193870000	C.47
KTb GP 765015 CD S4 PE	2024090000	C.32	KTb MH 403015 S4E3	1194930000	C.12	KTb MH 765015 S4E2	1195420000	C.32	KTb MOPL 4848 S2N H	1257710000	C.26
KTb GP 765020 AB S4 6MM	1256680000	C.33	KTb MH 403015 S4E3	1194930000	C.22	KTb MH 765015 S4E3	1195430000	C.12	KTb MOPL 4848 S2N H	1257710000	C.27
KTb GP 765020 AB S4 PE	2024100000	C.33	KTb MH 403015 S4E4	1194940000	C.12	KTb MH 765015 S4E3	1195430000	C.32	KTb MOPL 5335 MSZn	1194010000	C.28
KTb GP 765020 CD S4 6MM	1256690000	C.33	KTb MH 403015 S4E4	1194940000	C.22	KTb MH 765015 S4E4	1195440000	C.12	KTb MOPL 5335 MSZn	1194010000	C.29
KTb GP 765020 CD S4 PE	2024140000	C.33	KTb MH 403020 S4E0	1194950000	C.12	KTb MH 765015 S4E4	1195440000	C.32	KTb MOPL 5335 MSZn H	2022650000	C.28
KTb GP 916115 AB S4 6MM	1256710000	C.34	KTb MH 403020 S4E0	1194950000	C.23	KTb MH 765020 S4E0	1195450000	C.12	KTb MOPL 5335 MSZn H	2022650000	C.29
KTb GP 916115 AB S4 PE	2024150000	C.34	KTb MH 403020 S4E1	1194960000	C.12	KTb MH 765020 S4E0	1195450000	C.33	KTb MOPL 5335 S2N	1193880000	C.28
KTb GP 916115 CD S4 6MM	1256720000	C.34	KTb MH 403020 S4E1	1194960000	C.23	KTb MH 765020 S4E1	1195460000	C.12	KTb MOPL 5335 S2N	1193880000	C.29
KTb GP 916115 CD S4 PE	2024300000	C.34	KTb MH 403020 S4E2	1194970000	C.12	KTb MH 765020 S4E1	1195460000	C.33	KTb MOPL 5335 S2N H	1257720000	C.28
KTb GP 916120 AB S4 6MM	1256730000	C.35	KTb MH 403020 S4E2	1194970000	C.23	KTb MH 765020 S4E2	1195470000	C.12	KTb MOPL 5335 S2N H	1257720000	C.29
KTb GP 916120 AB S4 PE	2024430000	C.35	KTb MH 403020 S4E3	1194980000	C.12	KTb MH 765020 S4E2	1195470000	C.33	KTb MOPL 6245 MSZn	1194020000	C.30
KTb GP 916120 CD S4 6MM	1256740000	C.35	KTb MH 403020 S4E3	1194980000	C.23	KTb MH 765020 S4E3	1195480000	C.12	KTb MOPL 6245 MSZn	1194020000	C.31
KTb GP 916120 CD S4 PE	2024490000	C.35	KTb MH 403020 S4E4	1194990000	C.12	KTb MH 765020 S4E3	1195480000	C.33	KTb MOPL 6245 MSZn H	2022670000	C.30
KTb GP 987420 AB S4 6MM	1256750000	C.36	KTb MH 403020 S4E4	1194990000	C.23	KTb MH 765020 S4E4	1195490000	C.12	KTb MOPL 6245 MSZn H	2022670000	C.31
KTb GP 987420 AB S4 PE	2024560000	C.36	KTb MH 453815 S4E0	1195000000	C.12	KTb MH 765020 S4E4	1195490000	C.33	KTb MOPL 6245 MSZn H	2022670000	C.32
KTb GP 987420 CD S4 6MM	1256760000	C.36	KTb MH 453815 S4E0	1195000000	C.24	KTb MH 916115 S4E0	1195500000	C.12	KTb MOPL 6245 S2N	1193890000	C.30
KTb GP 987420 CD S4 PE	2024590000	C.36	KTb MH 453815 S4E1	1195010000	C.12	KTb MH 916115 S4E0	1195500000	C.34	KTb MOPL 6245 S2N	1193890000	C.31
KTb MH 221513 Exia	8000028398	C.42	KTb MH 453815 S4E1	1195010000	C.24	KTb MH 916115 S4E1	1195500000	C.12	KTb MOPL 6245 S2N H	1257740000	C.30
KTb MH 221513 Exia	8000028398	C.44	KTb MH 453815 S4E2	1195020000	C.12	KTb MH 916115 S4E1	1195510000	C.34	KTb MOPL 6245 S2N H	1257740000	C.31
KTb MH 221513 S4E0	1194550000	C.15	KTb MH 453815 S4E2	1195020000	C.24	KTb MH 916115 S4E2	1195510000	C.12	KTb MOPL 7650 MSZn	1194030000	C.32
KTb MH 221513 S4E1	1194560000	C.12	KTb MH 453815 S4E3	1195030000	C.12	KTb MH 916115 S4E2	1195520000	C.34	KTb MOPL 7650 MSZn H	2022680000	C.33
KTb MH 221513 S4E1	1194560000	C.15	KTb MH 453815 S4E3	1195030000	C.24	KTb MH 916115 S4E3	1195530000	C.12	KTb MOPL 7650 MSZn H	2022680000	C.34
KTb MH 221513 S4E1	1194560000	C.15	KTb MH 453815 S4E4	1195040000	C.12	KTb MH 916115 S4E3	1195530000	C.34	KTb MOPL 7650 S2N	1193900000	C.32
KTb MH 221513 S4E1	1194560000	C.12	KTb MH 453815 S4E4	1195040000	C.24	KTb MH 916115 S4E4	1195540000	C.12	KTb MOPL 7650 S2N	1193900000	C.33
KTb MH 221513 S4E2	1194570000	C.12	KTb MH 453820 S4E0	1195050000	C.12	KTb MH 916115 S4E4	1195540000	C.34	KTb MOPL 7650 S2N H	1257750000	C.32
KTb MH 221513 S4E2	1194570000	C.15	KTb MH 453820 S4E0	1195050000	C.25	KTb MH 916120 S4E0	1195550000	C.12	KTb MOPL 7650 S2N H	1257750000	C.33
KTb MH 221513 S4E3	1194580000	C.12	KTb MH 453820 S4E1	1195060000	C.12	KTb MH 916120 S4E0	1195550000	C.35	KTb MOPL 7650 S2N H	1257750000	C.34
KTb MH 221513 S4E3	1194580000	C.15	KTb MH 453820 S4E1	1195060000	C.25	KTb MH 916120 S4E1	1195560000	C.12	KTb MOPL 9161 MSZn	1194040000	C.35
KTb MH 221513 S4E4	1194590000	C.12	KTb MH 453820 S4E2	1195070000	C.12	KTb MH 916120 S4E1	1195560000	C.35	KTb MOPL 9161 MSZn H	2022740000	C.34
KTb MH 221513 S4E4	1194590000	C.15	KTb MH 453820 S4E2	1195070000	C.25	KTb MH 916120 S4E2	1195570000	C.12	KTb MOPL 9161 MSZn H	2022740000	C.35
KTb MH 262615 Exia	8000028399	C.42	KTb MH 453820 S4E3	1195080000	C.12	KTb MH 916120 S4E2	1195570000	C.35	KTb MOPL 9161 S2N	1193910000	C.34
KTb MH 262615 Exia	8000028399	C.45	KTb MH 453820 S4E3	1195080000	C.25	KTb MH 916120 S4E3	1195580000	C.12	KTb MOPL 9161 S2N H	1193910000	C.35
KTb MH 262615 S4E0	1194600000	C.12	KTb MH 453820 S4E4	1195090000	C.12	KTb MH 916120 S4E3	1195580000	C.35	KTb MOPL 9161 S2N H	1257760000	C.34
KTb MH 262615 S4E0	1194600000	C.16	KTb MH 453820 S4E4	1195090000	C.25	KTb MH 916120 S4E4	1195590000	C.12	KTb MOPL 9161 S2N H	1257760000	C.35
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KTBL QL 303020 S4E1	1200070000	C.46	KTBL QLL S2 SLS	1191600000	C.59	MOPL K4 STAHL	3073060000	C.106	PEBZ M10 BR SET	1277220000	C.114
KTBL QL 303020 S4E2	1200080000	C.38	KTBL QLL S2 SLS	1191600000	C.60	MOPL K41 STAHL	3073070000	C.107	PEBZ M10 BR SET	1277220000	C.132
KTBL QL 303020 S4E3	1200090000	C.38	KTBL QLL S2 SLS	1191600000	C.61	MOPL K5 STAHL	3073080000	C.108	PEBZ M10 BR SET	1277220000	C.133
KTBL QL 303020 S4E4	1200100000	C.38	KTBL QLL S2 SLS	1191600000	C.62	MOPL K51 STAHL	3073090000	C.109	PEBZ M10 BR SET	1277220000	C.134
KTBL QL 352615 S4E0	1200110000	C.38	KTBL RNHD 221513 R	1281360000	C.15	MOPL K52 STAHL	3073100000	C.110	PEBZ M10 BR SET	1277220000	C.135
KTBL QL 352615 S4E1	1200120000	C.38	KTBL RNHD 221513 R	1281360000	C.20	MOPL K6 STAHL	3073110000	C.111	PEBZ M10 BR SET	1277220000	C.136
KTBL QL 352615 S4E2	1200130000	C.38	KTBL RNHD 221513 S4E R	1314090000	C.15	MOPL K61 STAHL	3073120000	C.112	PEBZ M10 BR SET	1277220000	C.137
KTBL QL 352615 S4E3	1200140000	C.38	KTBL RNHD 262615 R	1281370000	C.16	MOPL K7 STAHL	3073130000	C.113	PEBZ M10 BR SET	1277220000	C.138
KTBL QL 352615 S4E4	1200150000	C.38	KTBL RNHD 262615 R	1281370000	C.45	MOPL K71 STAHL	3073140000	C.114	PEBZ M10 BR SET	1277220000	C.139
KTBL QL 352620 S4E0	1200160000	C.38	KTBL RNHD 262615 S4E R	1314100000	C.16	MOPL SET BK12 S	8000004135	C.116	PEBZ M10 BR SET	1277220000	C.140
KTBL QL 352620 S4E1	1200170000	C.38	KTBL RNHD 262620 R	1281380000	C.17	MOPL SET BK4 S	8000004129	C.116	PEBZ M10 BR SET	1277220000	C.141
KTBL QL 352620 S4E2	1200180000	C.38	KTBL RNHD 262620 S4E R	1314110000	C.17	MOPL SET BK6 S	8000004132	C.116	PEBZ M10 BR SET	1277220000	C.142
KTBL QL 352620 S4E3	1200190000	C.38	KTBL RNHD 303015 R	1281390000	C.18	MP FCC 20/20	9535920000	C.185	PEBZ M10 BR SET	1277220000	C.143
KTBL QL 352620 S4E4	1200210000	C.38	KTBL RNHD 303015 S4E R	1314120000	C.18	MP FCC 20/30	9535930000	C.185	PEBZ M10 BR SET	1277220000	C.144
KTBL QL 403015 S4E0	1200220000	C.38	KTBL RNHD 303020 R	1281400000	C.19	MP FCC 20/40	9535940000	C.186	PEBZ M10 BR SET	1277220000	C.145
KTBL QL 403015 S4E1	1200230000	C.38	KTBL RNHD 303020 R	1281400000	C.46	MP FCC 30/30	9535950000	C.186	PEBZ M10 BR SET	1277220000	C.146
KTBL QL 403015 S4E2	1200240000	C.38	KTBL RNHD 303020 S4E R	1314130000	C.19	MP FCC 30/40	9535960000	C.187	PEBZ M10 BR SET	1277220000	C.147
KTBL QL 403015 S4E3	1200250000	C.38	KTBL RNHD 352615 R	1281410000	C.20	MP FCC 40/60	9535980000	C.187	PEBZ M10 BR SET	1277220000	C.148
KTBL QL 403015 S4E4	1200260000	C.38	KTBL RNHD 352615 S4E R	1314140000	C.20	MP MPC 07/12	9535540000	C.178	PEBZ M10 BR SET	1277220000	C.170
KTBL QL 403020 S4E0	1200270000	C.38	KTBL RNHD 352620 R	1281420000	C.21	MP MPC 12/12	9535550000	C.179	PEBZ M10 BR SET	1277220000	C.171
KTBL QL 403020 S4E1	1200280000	C.38	KTBL RNHD 352620 S4E R	1314150000	C.21	MP MPC 12/17	9535560000	C.179	PEBZ M10 BR SET	1277220000	C.172
KTBL QL 403020 S4E2	1200290000	C.38	KTBL RNHD 403015 R	1281430000	C.22	MP MPC 12/17	9535560000	C.180	PEBZ M10 BR SET	1277220000	C.173
KTBL QL 403020 S4E3	1200310000	C.38	KTBL RNHD 403015 S4E R	1314170000	C.22	MP MPC 17/17	9535570000	C.181	PEBZ M10 BR SET	1277220000	C.174
KTBL QL 403020 S4E4	1200320000	C.38	KTBL RNHD 403020 R	1281440000	C.23	MP MPC 17/17	9535570000	C.182	PEBZ M10 BR SET	1277220000	C.178
KTBL QL 453815 S4E0	1200330000	C.38	KTBL RNHD 403020 S4E R	1314180000	C.23	MP MPC 17/25	9535580000	C.182	PEBZ M10 BR SET	1277220000	C.179
KTBL QL 453815 S4E1	1200340000	C.38	KTBL RNHD 453815 R	1281450000	C.24	MP MPC 17/25	9535580000	C.183	PEBZ M10 BR SET	1277220000	C.180
KTBL QL 453815 S4E2	1200350000	C.38	KTBL RNHD 453815 S4E R	1314190000	C.24	MP TBF 19/15	9502720000	C.170	PEBZ M10 BR SET	1277220000	C.181
KTBL QL 453815 S4E3	1200360000	C.38	KTBL RNHD 453820 R	1281460000	C.25	MP TBF 30/19	3018950000	C.170	PEBZ M10 BR SET	1277220000	C.182
KTBL QL 453815 S4E4	1200370000	C.38	KTBL RNHD 453820 S4E R	1314200000	C.25	MP TBF 30/30	9502730000	C.171	PEBZ M10 BR SET	1277220000	C.183
KTBL QL 453820 S4E0	1200380000	C.38	KTBL RNHD 484815 R	1281470000	C.26	MP TBF 37/30	9502740000	C.171	PEBZ M10 BR SET	1277220000	C.185
KTBL QL 453820 S4E1	1200390000	C.38	KTBL RNHD 484815 S4E R	1314220000	C.26	MP TBF 49/30	9500960000	C.172	PEBZ M10 BR SET	1277220000	C.186
KTBL QL 453820 S4E2	1200410000	C.38	KTBL RNHD 484820 R	1281480000	C.27	MP TBF 56/30	9500950000	C.172	PEBZ M10 BR SET	1277220000	C.187
KTBL QL 453820 S4E3	1200420000	C.38	KTBL RNHD 484820 R	1281480000	C.47	MP TBF 60/30	9502750000	C.173	PEBZ M10 KTB S4 SET	1192690000	C.15
KTBL QL 453820 S4E4	1200430000	C.38	KTBL RNHD 484820 S4E R	1314230000	C.27	MP TBF 60/67	9502910000	C.174	PEBZ M10 KTB S4 SET	1192690000	C.16
KTBL QL 484815 S4E0	1200440000	C.38	KTBL RNHD 553515 R	1281490000	C.28	MP TBF 60/60	9502920000	C.174	PEBZ M10 KTB S4 SET	1192690000	C.17
KTBL QL 484815 S4E1	1200450000	C.38	KTBL RNHD 553515 S4E R	1314240000	C.28	MPC 07/12/07 7035	9535170000	C.178	PEBZ M10 KTB S4 SET	1192690000	C.18
KTBL QL 484815 S4E2	1200460000	C.38	KTBL RNHD 553520 R	1281500000	C.29	MPC 07/12/07 7035	9535170000	C.178	PEBZ M10 KTB S4 SET	1192690000	C.19
KTBL QL 484815 S4E3	1200470000	C.38	KTBL RNHD 553520 S4E R	1314250000	C.29	MPC 07/12/07 TRSP	9535180000	C.178	PEBZ M10 KTB S4 SET	1192690000	C.20
KTBL QL 484815 S4E4	1200480000	C.38	KTBL RNHD 624515 R	1281510000	C.30	MPC 07/12/07 TRSP	9535180000	C.178	PEBZ M10 KTB S4 SET	1192690000	C.21
KTBL QL 484820 Exe	8000028401	C.42	KTBL RNHD 624515 S4E R	1281520000	C.30	MP TBF 30/19	9535190000	C.176	PEBZ M10 KTB S4 SET	1192690000	C.22
KTBL QL 484820 Exe	8000028401	C.47	KTBL RNHD 624520 R	1281520000	C.31	MPC 07/12/10 TRSP	9535200000	C.176	PEBZ M10 KTB S4 SET	1192690000	C.23
KTBL QL 484820 S4E0	1200490000	C.38	KTBL RNHD 624520 S4E R	1314280000	C.31	MPC 07/12/12 7035	9535210000	C.178	PEBZ M10 KTB S4 SET	1192690000	C.24
KTBL QL 484820 S4E1	1200510000	C.38	KTBL RNHD 765015 R	1281530000	C.32	MPC 07/12/12 7035	9535210000	C.178	PEBZ M10 KTB S4 SET	1192690000	C.25
KTBL QL 484820 S4E2	1200510000	C.47	KTBL RNHD 765015 S4E R	1314290000	C.32	MPC 07/12/12 TRSP	9535220000	C.178	PEBZ M10 KTB S4 SET	1192690000	C.26
KTBL QL 484820 S4E3	1200520000	C.38	KTBL RNHD 765020 R	1281540000	C.33	MPC 07/12/12 TRSP	9535220000	C.178	PEBZ M10 KTB S4 SET	1192690000	C.27
KTBL QL 484820 S4E4	1200530000	C.38	KTBL RNHD 765020 S4E R	1314300000	C.33	MPC 12/12/07 7035	9535230000	C.176	PEBZ M10 KTB S4 SET	1192690000	C.28
KTBL QL 484820 S4E5	1200540000	C.38	KTBL RNHD 916115 R	1281550000	C.34	MPC 12/12/07 7035	9535230000	C.179	PEBZ M10 KTB S4 SET	1192690000	C.29
KTBL QL 553515 S4E0	1200550000	C.38	KTBL RNHD 916115 S4E R	1314320000	C.34	MPC 12/12/07 TRSP	9535240000	C.176	PEBZ M10 KTB S4 SET	1192690000	C.30
KTBL QL 553515 S4E1	1200560000	C.38	KTBL RNHD 916120 R	1281570000	C.35	MPC 12/12/07 TRSP	9535240000	C.179	PEBZ M10 KTB S4 SET	1192690000	C.31
KTBL QL 553515 S4E2	1200570000	C.38	KTBL RNHD 916120 S4E R	1314330000	C.35	MPC 12/12/10 7035	9535250000	C.176	PEBZ M10 KTB S4 SET	1192690000	C.32
KTBL QL 553515 S4E3	1200580000	C.38	KTBL RNHD 987420 R	1281580000	C.36	MPC 12/12/10 TRSP	9535260000	C.176	PEBZ M10 KTB S4 SET	1192690000	C.33
KTBL QL 553515 S4E4	1200590000	C.38	KTBL RNHD 987420 S4E R	1314340000	C.36	MPC 12/12/12 7035	9535270000	C.176	PEBZ M10 KTB S4 SET	1192690000	C.34
KTBL QL 553520 S4E0	1200610000	C.38	KV 11-M	1656390000	D.10	MPC 12/12/12 TRSP	9535280000	C.176	PEBZ M10 KTB S4 SET	1192690000	C.35
KTBL QL 553520 S4E1	1200620000	C.38	KV 13-M	1656400000	D.10	MPC 12/17/07 7035	9535290000	C.176	PEBZ M10 KTB S4 SET	1192690000	C.36
KTBL QL 553520 S4E2	1200630000	C.38	KV 16-M	1656410000	D.10	MPC 12/17/07 7035	9535290000	C.179	PEBZ M10 KTB S4 SET	1192690000	C.44
KTBL QL 553520 S4E3	1200640000	C.38	KV 21-M	1656420000	D.10	MPC 12/17/07 TRSP	9535300000	C.176	PEBZ M10 KTB S4 SET	1192690000	C.45
KTBL QL 553520 S4E4	1200650000	C.38	KV 29-M	1656430000	D.10	MPC 12/17/07 TRSP	9535300000	C.179	PEBZ M10 KTB S4 SET	1192690000	C.46
KTBL QL 624515 S4E0	1200660000	C.38				MPC 12/17/10 7035	9535310000	C.176	PEBZ M10 KTB S4 SET	1192690000	C.47
KTBL QL 624515 S4E1	1200670000	C.38				MPC 12/17/10 7035	9535310000	C.180	PEBZ M10 S4 SET	1283440000	C.106
KTBL QL 624515 S4E2	1200680000	C.38				MPC 12/17/10 TRSP	9535320000	C.176	PEBZ M10 S4 SET	1283440000	C.107
KTBL QL 624515 S4E3	1200690000	C.38	MF FCC	9536040000	C.185	MPC 12/17/10 TRSP	9535320000	C.180	PEBZ M10 S4 SET	1283440000	C.108
KTBL QL 624515 S4E4	1200710000	C.38	MF FCC	9536040000	C.186	MPC 12/17/12 7035	9535330000	C.176	PEBZ M10 S4 SET	1283440000	C.109
KTBL QL 624520 S4E0	1200720000	C.38	MF FCC	9536040000	C.187	MPC 12/17/12 7035	9535330000	C.180	PEBZ M10 S4 SET	1283440000	C.110
KTBL QL 624520 S4E1	1200730000	C.38	MF MPC	9535600000	C.178	MPC 12/17/12 TRSP	9535340000	C.176	PEBZ M10 S4 SET	1283440000	C.111
KTBL QL 624520 S4E2	1200740000	C.38	MF MPC	9535600000	C.179	MPC 12/17/12 TRSP	9535340000	C.180	PEBZ M10 S4 SET	1283440000	C.112
KTBL QL 624520 S4E3	1200750000	C.38	MF MPC	9535600000	C.180	MPC 12/17/15 7035	9535350000	C.176	PEBZ M10 S4 SET	1283440000	C.113
KTBL QL 624520 S4E4	1200760000	C.38	MF MPC	9535600000	C.181	MPC 12/17/15 TRSP	9535350000	C.176	PEBZ M10 S4 SET	1283440000	C.114
KTBL QL 765015 S4E0	1200770000	C.38	MF MPC	9535600000	C.182	MPC 12/17/15 TRSP	9535360000	C.176	PEBZ M10 S4 SET	1283440000	C.112
KTBL QL 765015 S4E1	1200780000	C.38	MF MPC	9535600000	C.183	MPC 17/17/07 7035	9535370000	C.176	PEBZ M10 S4 SET	1283440000	C.133
KTBL QL 765015 S4E2	1200790000	C.38	MF POK BIG	9510910000	C.137	MPC 17/17/07 TRSP	9535380000	C.176	PEBZ M10 S4 SET	1283440000	C.134
KTBL QL 765015 S4E3	1200810000	C.38	MF POK BIG	9510910000	C.138	MPC 17/17/07 TRSP	9535380000	C.181	PEBZ M10 S4 SET	1283440000	C.135
KTBL QL 765015 S4E4	1200820000	C.38	MF POK BIG	9510910000	C.139	MPC 17/17/10 7035	9535390000	C.176	PEBZ M10 S4 SET	1283440000	C.136
KTBL QL 765020 S4E0	1200830000	C.38	MF POK BIG	9510910000	C.140	MPC 17/17/10 TRSP	9535400000	C.176	PEBZ M10 S4 SET	1283440000	C.137
KTBL QL 765020 S4E1	1200840000	C.38	MF POK BIG	9510910000	C.141	MPC 17/17/12 7035	9535410000	C.176	PEBZ M10 S4 SET	1283440000	C.138
KTBL QL 765020 S4E2	1200850000	C.38	MF POK BIG	9510910000	C.142	MPC 17/17/15 7035	9535430000	C.176	PEBZ M10 S4 SET	1283440000	C.139
KTBL QL 765020 S4E3	1200860000	C.38	MF POK BIG	95109							

Type	Order No.	Page	Type	Order No.	Page	Type	Order No.	Page	Type	Order No.	Page
PEBZ M6 BR SET	1277250000	C.100	PECD WIRE 6/200/D6 SET	2475490000	C.80	SKMU EMV P613.5	1718930000	D.44	SP M6 10 S2	0935110000	C.29
PEBZ M6 BR SET	1277250000	C.101	PECD WIRE 6/200/D6 SET	2475490000	C.81	SKMU EMV P616	1718940000	D.44	SP M6 10 S2	0935110000	C.30
PEBZ M6 BR SET	1277250000	C.102	POK MOPL 0808	9510670000	C.132	SKMU EMV P621	1718950000	D.44	SP M6 10 S2	0935110000	C.31
PEBZ M6 BR SET	1277250000	C.103	POK MOPL 0808 MINI	1534280000	C.132	SKMU EMV P629	1718960000	D.44	SP M6 10 S2	0935110000	C.32
PEBZ M6 BR SET	1277250000	C.104	POK MOPL 0811	9510580000	C.133	SKMU EMV P67	1718900000	D.44	SP M6 10 S2	0935110000	C.33
PEBZ M6 BR SET	1277250000	C.105	POK MOPL 0811 MINI	1534290000	C.133	SKMU EMV P69	1718910000	D.44	SP M6 10 S2	0935110000	C.34
PEBZ M6 BR SET	1277250000	C.106	POK MOPL 0816	9510680000	C.134	SKMU M12 - K GR	1772440000	D.40	SP M6 10 S2	0935110000	C.35
PEBZ M6 BR SET	1277250000	C.107	POK MOPL 0816 MINI	1534310000	C.134	SKMU M12 K SW	1806540000	D.41	SP M6 10 S2	0935110000	C.36
PEBZ M6 BR SET	1277250000	C.108	POK MOPL 0819	9510690000	C.135	SKMU M12 MS	1772360000	D.42	SP M6 10 S2	0935110000	C.37
PEBZ M6 BR SET	1277250000	C.109	POK MOPL 0819 MINI	1534320000	C.135	SKMU M16 - K GR	1772450000	D.40	SP M6 10 S2	0935110000	C.38
PEBZ M6 BR SET	1277250000	C.110	POK MOPL 0823 MINI	1534330000	C.136	SKMU M16 K SW	1736920000	D.41	SP M6 10 S2	0935110000	C.39
PEBZ M6 BR SET	1277250000	C.111	POK MOPL 1212	9510590000	C.137	SKMU M16 MS	1736990000	C.44	SP M6 10 S2	0935110000	C.40
PEBZ M6 BR SET	1277250000	C.112	POK MOPL 1212 MINI	1534340000	C.137	SKMU M16 MS	1736990000	C.78	SP M6 10 S2	0935110000	C.41
PEBZ M6 BR SET	1277250000	C.113	POK MOPL 1222	9510600000	C.138	SKMU M16 MS	1736990000	D.42	SP M6 10 S2	0935110000	C.42
PEBZ M6 BR SET	1277250000	C.114	POK MOPL 1222 MINI	1534350000	C.138	SKMU M16 MS SC	0930640001	D.43	SP M6 10 S2	0935110000	C.43
PEBZ M6 BR SET	1277250000	C.132	POK MOPL 1616	9510610000	C.139	SKMU M20 - K GR	1772460000	D.40	SP M6 10 S2	0935110000	C.44
PEBZ M6 BR SET	1277250000	C.133	POK MOPL 1616 MINI	1534360000	C.139	SKMU M20 K SW	1736930000	C.79	SP M6 10 S2	0935110000	C.45
PEBZ M6 BR SET	1277250000	C.134	POK MOPL 1626	9510620000	C.140	SKMU M20 K SW	1736930000	C.80	SP M6 10 S2	0935110000	C.46
PEBZ M6 BR SET	1277250000	C.135	POK MOPL 1626 MINI	1534370000	C.140	SKMU M20 K SW	1736930000	D.41	SP M6 10 S2	0935110000	C.47
PEBZ M6 BR SET	1277250000	C.136	POK MOPL 1636	9510630000	C.141	SKMU M20 MS	1737000000	C.44	SP M6 15 MSZN	3896100000	C.52
PEBZ M6 BR SET	1277250000	C.137	POK MOPL 1636 MINI	1534380000	C.141	SKMU M20 MS	1737000000	C.45	SP M6 15 MSZN	3896100000	C.53
PEBZ M6 BR SET	1277250000	C.138	POK MOPL 1656	9510710000	C.142	SKMU M20 MS	1737000000	C.46	SP M6 15 MSZN	3896100000	C.54
PEBZ M6 BR SET	1277250000	C.139	POK MOPL 1656 MINI	1534390000	C.142	SKMU M20 MS	1737000000	C.47	SP M6 15 MSZN	3896100000	C.55
PEBZ M6 BR SET	1277250000	C.140	POK MOPL 2525	9510640000	C.143	SKMU M20 MS	1737000000	C.79	SP M6 15 MSZN	3896100000	C.56
PEBZ M6 BR SET	1277250000	C.141	POK MOPL 2525	9510640000	C.144	SKMU M20 MS	1737000000	C.80	SP M6 15 MSZN	3896100000	C.57
PEBZ M6 BR SET	1277250000	C.142	POK MOPL 2525 MINI	1534410000	C.143	SKMU M20 MS	1737000000	D.42	SP M6 15 MSZN	3896100000	C.58
PEBZ M6 BR SET	1277250000	C.143	POK MOPL 2525 MINI	1534410000	C.144	SKMU M20 MS SC	0930640002	D.43	SP M6 15 MSZN	3896100000	C.59
PEBZ M6 BR SET	1277250000	C.144	POK MOPL 2540	9510650000	C.145	SKMU M25 - K GR	1772470000	D.40	SP M6 15 MSZN	3896100000	C.60
PEBZ M6 BR SET	1277250000	C.145	POK MOPL 2540	9510650000	C.146	SKMU M25 K SW	1736940000	C.81	SP M6 15 MSZN	3896100000	C.61
PEBZ M6 BR SET	1277250000	C.146	POK MOPL 2540 MINI	1534420000	C.145	SKMU M25 K SW	1736940000	D.41	SP M6 15 MSZN	3896100000	C.62
PEBZ M6 BR SET	1277250000	C.147	POK MOPL 2540 MINI	1534420000	C.146	SKMU M25 MS	1737010000	C.47	SP M6 15 S2	0935120000	C.15
PEBZ M6 BR SET	1277250000	C.148	POK MOPL 2560	9510660000	C.147	SKMU M25 MS	1737010000	C.81	SP M6 15 S2	0935120000	C.16
PEBZ M6 BR SET	1277250000	C.170	POK MOPL 2560 MINI	1534430000	C.147	SKMU M25 MS	1737010000	D.42	SP M6 15 S2	0935120000	C.17
PEBZ M6 BR SET	1277250000	C.171	POK MOPL 4040	9510670000	C.148	SKMU M25 MS SC	0930640003	D.43	SP M6 15 S2	0935120000	C.18
PEBZ M6 BR SET	1277250000	C.172	POK MOPL 4040 MINI	1534440000	C.148	SKMU M32 - K GR	1772480000	D.40	SP M6 15 S2	0935120000	C.19
PEBZ M6 BR SET	1277250000	C.173				SKMU M32 K SW	1736950000	D.41	SP M6 15 S2	0935120000	C.20
PEBZ M6 BR SET	1277250000	C.174				SKMU M32 MS	1737020000	C.45	SP M6 15 S2	0935120000	C.21
PEBZ M6 BR SET	1277250000	C.178				SKMU M32 MS	1737020000	C.46	SP M6 15 S2	0935120000	C.22
PEBZ M6 BR SET	1277250000	C.179	SD FIXING SET	1285200000	C.15	SKMU M32 MS	1737020000	D.42	SP M6 15 S2	0935120000	C.23
PEBZ M6 BR SET	1277250000	C.180	SD FIXING SET	1285200000	C.16	SKMU M32 MS SC	0930640004	D.43	SP M6 15 S2	0935120000	C.24
PEBZ M6 BR SET	1277250000	C.181	SD FIXING SET	1285200000	C.17	SKMU M40 - K GR	1772490000	D.40	SP M6 15 S2	0935120000	C.25
PEBZ M6 BR SET	1277250000	C.182	SD FIXING SET	1285200000	C.18	SKMU M40 K SW	1736960000	D.41	SP M6 15 S2	0935120000	C.26
PEBZ M6 BR SET	1277250000	C.183	SD FIXING SET	1285200000	C.19	SKMU M40 MS	1737030000	C.47	SP M6 15 S2	0935120000	C.27
PEBZ M6 BR SET	1277250000	C.185	SD FIXING SET	1285200000	C.20	SKMU M40 MS	1737030000	D.42	SP M6 15 S2	0935120000	C.28
PEBZ M6 BR SET	1277250000	C.186	SD FIXING SET	1285200000	C.21	SKMU M40 MS SC	0930640005	D.43	SP M6 15 S2	0935120000	C.29
PEBZ M6 BR SET	1277250000	C.187	SD FIXING SET	1285200000	C.22	SKMU M50 - K GR	1772500000	D.40	SP M6 15 S2	0935120000	C.30
PEBZ M6 S4 SET	1283430000	C.89	SD FIXING SET	1285200000	C.23	SKMU M50 K SW	1736970000	D.41	SP M6 15 S2	0935120000	C.31
PEBZ M6 S4 SET	1283430000	C.100	SD FIXING SET	1285200000	C.24	SKMU M50 MS	1737040000	D.42	SP M6 15 S2	0935120000	C.32
PEBZ M6 S4 SET	1283430000	C.101	SD FIXING SET	1285200000	C.25	SKMU M50 MS SC	0930640006	D.43	SP M6 15 S2	0935120000	C.33
PEBZ M6 S4 SET	1283430000	C.102	SD FIXING SET	1285200000	C.26	SKMU M63 - K GR	1772510000	D.40	SP M6 15 S2	0935120000	C.34
PEBZ M6 S4 SET	1283430000	C.103	SD FIXING SET	1285200000	C.27	SKMU M63 K SW	1736980000	D.41	SP M6 15 S2	0935120000	C.35
PEBZ M6 S4 SET	1283430000	C.104	SD FIXING SET	1285200000	C.28	SKMU M63 MS	1737050000	D.42	SP M6 15 S2	0935120000	C.36
PEBZ M6 S4 SET	1283430000	C.105	SD FIXING SET	1285200000	C.29	SKMU M63 MS SC	0930640007	D.43	SP M6 15 S2	0935120000	C.37
PEBZ M6 S4 SET	1283430000	C.106	SD FIXING SET	1285200000	C.30	SKMU M75 MS	1737060000	D.42	SP M6 15 S2	0935120000	C.38
PEBZ M6 S4 SET	1283430000	C.107	SD FIXING SET	1285200000	C.31	SKMU M75 MS SC	0930640008	D.43	SP M6 15 S2	0935120000	C.39
PEBZ M6 S4 SET	1283430000	C.108	SD FIXING SET	1285200000	C.32	SKMU PG 13,5-K GR	1697470000	D.40	SP M6 15 S2	0935120000	C.40
PEBZ M6 S4 SET	1283430000	C.109	SD FIXING SET	1285200000	C.33	SKMU PG11-K GR	1697460000	D.40	SP M6 15 S2	0935120000	C.41
PEBZ M6 S4 SET	1283430000	C.110	SD FIXING SET	1285200000	C.34	SKMU PG11-K SW	1719120000	D.41	SP M6 15 S2	0935120000	C.42
PEBZ M6 S4 SET	1283430000	C.111	SD FIXING SET	1285200000	C.35	SKMU PG11-MS	1694090000	D.42	SP M6 15 S2	0935120000	C.43
PEBZ M6 S4 SET	1283430000	C.112	SD FIXING SET	1285200000	C.36	SKMU PG13,5-K SW	1719130000	D.41	SP M6 15 S2	0935120000	C.44
PEBZ M6 S4 SET	1283430000	C.113	SD TH20	9009160000	C.96	SKMU PG13,5-MS	1694100000	D.42	SP M6 15 S2	0935120000	C.45
PEBZ M6 S4 SET	1283430000	C.114	SD TH20	9009160000	C.97	SKMU PG16-K GR	1697480000	D.40	SP M6 15 S2	0935120000	C.46
PEBZ M6 S4 SET	1283430000	C.132	SD TH20	9009160000	C.98	SKMU PG16-K SW	1719140000	D.41	SP M6 15 S2	0935120000	C.47
PEBZ M6 S4 SET	1283430000	C.133	SD TH20	9009160000	C.99	SKMU PG16-MS	1694110000	D.42	SP M6 20 MSZN	3896200000	C.52
PEBZ M6 S4 SET	1283430000	C.134	SD TH20	9009160000	C.100	SKMU PG21-K GR	1698220000	D.40	SP M6 20 MSZN	3896200000	C.53
PEBZ M6 S4 SET	1283430000	C.135	SD TH20	9009160000	C.101	SKMU PG21-K SW	1719150000	D.41	SP M6 20 MSZN	3896200000	C.54
PEBZ M6 S4 SET	1283430000	C.136	SD TH20	9009160000	C.102	SKMU PG21-MS	1719200000	D.42	SP M6 20 MSZN	3896200000	C.55
PEBZ M6 S4 SET	1283430000	C.137	SD TH20	9009160000	C.103	SKMU PG29-K GR	1698230000	D.40	SP M6 20 MSZN	3896200000	C.56
PEBZ M6 S4 SET	1283430000	C.138	SD TH20	9009160000	C.104	SKMU PG29-K SW	1719160000	D.41	SP M6 20 MSZN	3896200000	C.57
PEBZ M6 S4 SET	1283430000	C.139	SD TH20	9009160000	C.105	SKMU PG29-MS	1719210000	D.42	SP M6 20 MSZN	3896200000	C.58
PEBZ M6 S4 SET	1283430000	C.140	SD TH20	9009160000	C.106	SKMU PG36-K GR	1698240000	D.40	SP M6 20 MSZN	3896200000	C.59
PEBZ M6 S4 SET	1283430000	C.141	SD TH20	9009160000	C.107	SKMU PG36-K SW	1719170000	D.41	SP M6 20 MSZN	3896200000	C.60
PEBZ M6 S4 SET	1283430000	C.142	SD TH20	9009160000	C.108	SKMU PG36-MS	1719220000	D.42	SP M6 20 MSZN	3896200000	C.61
PEBZ M6 S4 SET	1283430000	C.143	SD TH20	9009160000	C.109	SKMU PG42-K GR	1698250000	D.40	SP M6 20 MSZN	3896200000	C.62
PEBZ M6 S4 SET	1283430000	C.144	SD TH20	9009160000	C.110	SKMU PG42-K SW	1719180000	D.41	SP M6 20 S2	0935130000	C.15
PEBZ M6 S4 SET	1283430000	C.145	SD TH20	9009160000	C.111	SKMU PG42-MS	1719230000	D.42	SP M6 20 S2	0935130000	C.16
PEBZ M6 S4 SET	1283430000	C.146	SD TH20	9009160000	C.112	SKMU PG48-K GR	1719090000	D.40	SP M6 20 S2	0935130000	C.17
PEBZ M6 S4 SET	1283430000	C.147	SD TH20	9009160000	C.113	SKMU PG48-K SW	1719190000	D.41	SP M6 20 S2	0935130000	C.18
PEBZ M6 S4 SET	1283430000	C.148	SD TH20	9009160000	C.114	SKMU PG48-MS	1719240000	D.42	SP M6 20 S2	0935130000	C.19
PEBZ M6 S4 SET	1283430000	C.170	SFN55 VKMU M5 SW15	0433500000	C.68	SKMU PG7-K GR	1697440000	D.40	SP M6 20 S2	0935130000	C.20
PEBZ M6 S4 SET	1283430000	C.171	SFN55 VKMU M5 SW15	0433500000	C.69	SKMU PG7-K SW	1719100000	D.41	SP M6 20 S2	0935130000	C.21
PEBZ M6 S4 SET	1283430000	C.172	SFN55 VKMU M5 SW15	0433500000	C.70	SKMU PG7-MS	1694070000	D.42	SP M6 20 S2	0935130000	C.22
PEBZ M6 S4 SET	1283430000	C.173	SFN55 VKMU M5 SW15	0433500000	C.71	SKMU PG9-K GR	1697450000	D.40	SP M6 20 S2	0935130000	C.23</

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SP M6 20 S2	0935130000	C.55	TBF 60/37/18 7035	9502820000	C.174	TPSDHA KTB 70X70M3 S2 R	1279320000	C.44	TS35X7.5 ST KTB4538 VER	8000006713	C.25
SP M6 20 S2	0935130000	C.56	TBF 60/37/21 TRSP	9502860000	C.168	TPSDHA KTB 70X70M3 S2 R	1279320000	C.45	TS35X7.5 ST KTB4848 HOR	8000006725	C.26
SP M6 20 S2	0935130000	C.57	TBF 60/37/21 TRSP	9502860000	C.174	TPSDHA KTB 70X70M3 S2 R	1279320000	C.46	TS35X7.5 ST KTB4848 HOR	8000006725	C.27
SP M6 20 S2	0935130000	C.58	TBF 60/60/18 7035	9502830000	C.168	TPSDHA KTB 70X70M3 S2 R	1279320000	C.47	TS35X7.5 ST KTB4848 VER	8000006714	C.26
SP M6 20 S2	0935130000	C.59	TBF 60/60/18 7035	9502830000	C.174	TS 35x105_MPC_12	8000037603	C.178	TS35X7.5 ST KTB4848 HOR	8000006714	C.27
SP M6 20 S2	0935130000	C.60	TBF 60/60/21 TRSP	9502870000	C.168	TS 35x105_MPC_12	8000037603	C.179	TS35X7.5 ST KTB5535 HOR	8000006726	C.28
SP M6 20 S2	0935130000	C.61	TBF 60/60/21 TRSP	9502870000	C.174	TS15 114 Klippon K21 CSS	1910020000	C.102	TS35X7.5 ST KTB5535 HOR	8000006726	C.29
SP M6 20 S2	0935130000	C.62	TPSD FIXING SET KTB	1252190000	C.15	TS15 114 Klippon K21 CSS	1910020000	C.102	TS35X7.5 ST KTB5535 VER	8000006715	C.28
SP M6 30 MSZN	3896300000	C.52	TPSD FIXING SET KTB	1252190000	C.16	TS15 114 Klippon K21 CSS	1910020000	C.116	TS35X7.5 ST KTB5535 VER	8000006715	C.29
SP M6 30 MSZN	3896300000	C.53	TPSD FIXING SET KTB	1252190000	C.17	TS15 147 Klippon POK3 CSS	1928080000	C.150	TS35X7.5 ST KTB6245 HOR	8000006727	C.30
SP M6 30 MSZN	3896300000	C.54	TPSD FIXING SET KTB	1252190000	C.18	TS15 147 Klippon POK3 CSS	1928080000	C.154	TS35X7.5 ST KTB6245 HOR	8000006727	C.31
SP M6 30 MSZN	3896300000	C.55	TPSD FIXING SET KTB	1252190000	C.19	TS15 155 Klippon K3 CSS	1910030000	C.103	TS35X7.5 ST KTB6245 VER	8000006716	C.30
SP M6 30 MSZN	3896300000	C.56	TPSD FIXING SET KTB	1252190000	C.20	TS15 155 Klippon K3 CSS	1910030000	C.116	TS35X7.5 ST KTB6245 VER	8000006716	C.31
SP M6 30 MSZN	3896300000	C.57	TPSD FIXING SET KTB	1252190000	C.21	TS15 164 Klippon K31 CSS	1910040000	C.104	TS35X7.5 ST KTB7650 HOR	8000006728	C.32
SP M6 30 MSZN	3896300000	C.58	TPSD FIXING SET KTB	1252190000	C.22	TS15 164 Klippon K31 CSS	1910040000	C.116	TS35X7.5 ST KTB7650 HOR	8000006728	C.33
SP M6 30 MSZN	3896300000	C.59	TPSD FIXING SET KTB	1252190000	C.23	TS15 60 Klippon K1 CSS	1909980000	C.99	TS35X7.5 ST KTB7650 VER	8000006717	C.32
SP M6 30 MSZN	3896300000	C.60	TPSD FIXING SET KTB	1252190000	C.24	TS15 60 Klippon K1 CSS	1909980000	C.116	TS35X7.5 ST KTB7650 VER	8000006717	C.33
SP M6 30 MSZN	3896300000	C.61	TPSD FIXING SET KTB	1252190000	C.25	TS15 64 Klippon K11	1909990000	C.100	TS35X7.5 ST KTB9161 HOR	8000006729	C.34
SP M6 30 MSZN	3896300000	C.62	TPSD FIXING SET KTB	1252190000	C.26	TS15 64 Klippon K11	1909990000	C.116	TS35X7.5 ST KTB9161 HOR	8000006729	C.35
SP M6 30 S2	0935140000	C.15	TPSD FIXING SET KTB	1252190000	C.27	TS15 68 Klippon POK1 CSS	1928060000	C.150	TS35X7.5 ST KTB9161 VER	8000006718	C.34
SP M6 30 S2	0935140000	C.16	TPSD FIXING SET KTB	1252190000	C.28	TS15 68 Klippon POK1 CSS	1928060000	C.152	TS35X7.5 ST KTB9161 VER	8000006718	C.35
SP M6 30 S2	0935140000	C.17	TPSD FIXING SET KTB	1252190000	C.29	TS15 90 Klippon K2 CSS	1910010000	C.101	TS35X7.5 ST KTB9874 HOR	8000006730	C.36
SP M6 30 S2	0935140000	C.18	TPSD FIXING SET KTB	1252190000	C.30	TS15 90 Klippon K2 CSS	1910010000	C.116	TS35X7.5 ST KTB9874 VER	8000006719	C.36
SP M6 30 S2	0935140000	C.19	TPSD FIXING SET KTB	1252190000	C.31	TS15 98 Klippon POK2 CSS	1928070000	C.150	TS35X7.5 ST MPC1725 HOR	8000037601	C.182
SP M6 30 S2	0935140000	C.20	TPSD FIXING SET KTB	1252190000	C.32	TS15 98 Klippon POK2 CSS	1928070000	C.153	TS35X7.5 ST MPC1725 HOR	8000037601	C.183
SP M6 30 S2	0935140000	C.21	TPSD FIXING SET KTB	1252190000	C.33	TS15X5 ST PPC 20 VER	8000037604	C.185	TS35X7.5 ST MPC1725 VER	8000037600	C.182
SP M6 30 S2	0935140000	C.22	TPSD FIXING SET KTB	1252190000	C.34	TS15X5 ST PPC 20 VER	8000037604	C.186	TS35X7.5 ST MPC1725 VER	8000037600	C.183
SP M6 30 S2	0935140000	C.23	TPSD FIXING SET KTB	1252190000	C.35	TS15X5 ST MPC0712 VER	8000037599	C.178	TS35X7.5 ST POK 1232	8000037568	C.138
SP M6 30 S2	0935140000	C.24	TPSD FIXING SET KTB	1252190000	C.36	TS15X5 ST MPC1217 VER	8000037598	C.178	TS35X7.5 ST POK 1626	8000003909	C.140
SP M6 30 S2	0935140000	C.25	TPSDHA KTB 100X25 S2 2R	1257640000	C.16	TS15X5 ST MPC1217 VER	8000037598	C.179	TS35X7.5 ST POK 1636	8000003910	C.141
SP M6 30 S2	0935140000	C.26	TPSDHA KTB 100X25 S2 2R	1257640000	C.17	TS15X5 ST MPC1217 VER	8000037598	C.180	TS35X7.5 ST POK 1656	8000003911	C.142
SP M6 30 S2	0935140000	C.27	TPSDHA KTB 100X25 S2 2R	1257640000	C.18	TS15X5 ST POK 0808	8000003889	C.132	TS35X7.5 ST POK 2525	8000003912	C.143
SP M6 30 S2	0935140000	C.28	TPSDHA KTB 100X25 S2 2R	1257640000	C.19	TS15X5 ST POK 0811	8000003890	C.133	TS35X7.5 ST POK 2525	8000003912	C.144
SP M6 30 S2	0935140000	C.29	TPSDHA KTB 100X25 S2 2R	1257640000	C.20	TS15X5 ST POK 0811	8000003890	C.137	TS35X7.5 ST POK 2560	8000003914	C.147
SP M6 30 S2	0935140000	C.30	TPSDHA KTB 100X25 S2 2R	1257640000	C.21	TS15X5 ST POK 0816	8000003891	C.134	TS35X7.5 ST POK 4040	8000003913	C.145
SP M6 30 S2	0935140000	C.31	TPSDHA KTB 100X25 S2 2R	1257640000	C.22	TS15X5 ST POK 0819	8000003892	C.135	TS35X7.5 ST POK 4040	8000003913	C.146
SP M6 30 S2	0935140000	C.32	TPSDHA KTB 100X25 S2 2R	1257640000	C.23	TS15X5 ST POK 0823	8000032382	C.136	TS35X7.5 ST POK 4040	8000003913	C.148
SP M6 30 S2	0935140000	C.33	TPSDHA KTB 100X25 S2 2R	1257640000	C.24	TS35 105 Klippon K41/POK4	1910070000	C.107	TS35X7.5 ST STB 1.1 STB 2	8683740000	C.68
SP M6 30 S2	0935140000	C.34	TPSDHA KTB 100X25 S2 2R	1257640000	C.25	TS35 105 Klippon K41/POK4	1910070000	C.116	TS35X7.5 ST STB 1.1 STB 2	8683740000	C.69
SP M6 30 S2	0935140000	C.35	TPSDHA KTB 100X25 S2 2R	1257640000	C.26	TS35 105 Klippon K41/POK4	1910070000	C.150	TS35X7.5 ST STB 1.1 STB 2	8683740000	C.70
SP M6 30 S2	0935140000	C.36	TPSDHA KTB 100X25 S2 2R	1257640000	C.27	TS35 105 Klippon K41/POK4	1910070000	C.155	TS35X7.5 ST STB 2.1 STB 3	1567660000	C.71
SP M6 30 S2	0935140000	C.37	TPSDHA KTB 100X25 S2 2R	1257640000	C.28	TS35 64 Klippon K4K11	1910060000	C.106	TS35X7.5 ST STB 2.1 STB 3	1567660000	C.72
SP M6 30 S2	0935140000	C.38	TPSDHA KTB 100X25 S2 2R	1257640000	C.29	TS35 64 Klippon K4K11	1910060000	C.116	TS35X7.5 ST STB 4 STB 6	8563410000	C.73
SP M6 30 S2	0935140000	C.39	TPSDHA KTB 100X25 S2 2R	1257640000	C.30	TS35 MPC 1717 VER	8000037605	C.179	TS35X7.5 ST STB 4 STB 6	8563410000	C.74
SP M6 30 S2	0935140000	C.40	TPSDHA KTB 100X25 S2 2R	1257640000	C.31	TS35 MPC 1717 VER	8000037605	C.180	TS35X7.5 ST STB 4 STB 6	8563410000	C.75
SP M6 30 S2	0935140000	C.41	TPSDHA KTB 100X25 S2 2R	1257640000	C.32	TS35 MPC 1717 VER	8000037605	C.181	TS35X7.5 ST STB 5	8803610000	C.73
SP M6 30 S2	0935140000	C.42	TPSDHA KTB 100X25 S2 2R	1257640000	C.33	TS35/140 Klippon K52 POK51	1910100000	C.110	TS35X7.5 ST STB 5	8803610000	C.74
SP M6 30 S2	0935140000	C.43	TPSDHA KTB 100X25 S2 2R	1257640000	C.34	TS35/140 Klippon K52 POK51	1910100000	C.116	TS35X7.5 ST STB 5	8803610000	C.75
SP M6 30 S2	0935140000	C.44	TPSDHA KTB 100X25 S2 2R	1257640000	C.35	TS35/140 Klippon K52 POK51	1910100000	C.150			
SP M6 30 S2	0935140000	C.45	TPSDHA KTB 100X25 S2 2R	1257640000	C.36	TS35/140 Klippon K52 POK51	1910100000	C.156			
SP M6 30 S2	0935140000	C.46	TPSDHA KTB 100X25 S2 2R	1257640000	C.46	TS35/148 KLIPPON K5 CSS	1910080000	C.108			
SP M6 30 S2	0935140000	C.47	TPSDHA KTB 100X25 S2 2R	1257640000	C.47	TS35/148 KLIPPON K5 CSS	1910080000	C.116			
STB 1 EXIA	8000028394	C.78	TPSDHA KTB 100X25 S2 2R	1257640000	C.47	TS35/172 KLIPPON K6 CSS	1910110000	C.111	VG 11-K68	1568990000	D.6
STB 1 EXIA	8000028394	C.76	TPSDHA KTB 130X50 S2 R	1283450000	C.16	TS35/203 KLIPPON K51 POK5	1910090000	C.109	VG 11-K68 SKS	1720490000	D.7
STB 2 Exe	8000028395	C.76	TPSDHA KTB 130X50 S2 R	1283450000	C.17	TS35/243 KLIPPON K61 POK6	1910120000	C.112	VG 11-MS68	1569080000	D.8
STB 2 Exe	8000028395	C.79	TPSDHA KTB 130X50 S2 R	1283450000	C.18	TS35/260 KLIPPON K71 CSS	1910140000	C.114	VG 11-SS 68 KB 5-10	1009760000	D.13
STB 3 Exe	8000028396	C.76	TPSDHA KTB 130X50 S2 R	1283450000	C.19	TS35/324 KLIPPON K7 CSS	1910130000	C.113	VG 13.5-MS68	1569090000	D.8
STB 3 Exe	8000028396	C.76	TPSDHA KTB 130X50 S2 R	1283450000	C.20	TS35X7.5 ST PPC 20 HOR	8000037557	C.185	VG 13.5-K68	1569000000	D.6
STB 4 Exe	8000028397	C.80	TPSDHA KTB 130X50 S2 R	1283450000	C.21	TS35X7.5 ST PPC 20 VER	8000037558	C.185	VG 13.5-K68 SKS	1720500000	D.7
STB 4 Exe	8000028397	C.81	TPSDHA KTB 130X50 S2 R	1283450000	C.22	TS35X7.5 ST PPC 20 VER	8000037558	C.186	VG 16-K68	1569010000	D.6
SZS M16	1736300000	D.52	TPSDHA KTB 130X50 S2 R	1283450000	C.23	TS35X7.5 ST PPC 30 HOR	8000037559	C.185	VG 16-K68 SKS	1720510000	D.7
SZS M20	1736310000	D.52	TPSDHA KTB 130X50 S2 R	1283450000	C.24	TS35X7.5 ST PPC 30 VER	8000037561	C.187	VG 16-MS68	1569100000	D.8
SZS M25	1736320000	D.52	TPSDHA KTB 130X50 S2 R	1283450000	C.25	TS35X7.5 ST PPC 40 HOR	8000037560	C.186	VG 16-SS 68 KB 10-14	1009780000	D.13
SZS M32	1736330000	D.52	TPSDHA KTB 130X50 S2 R	1283450000	C.26	TS35X7.5 ST PPC 40 HOR	8000037560	C.187	VG 21-K68	1569020000	D.6
SZS M40	1736340000	D.52	TPSDHA KTB 130X50 S2 R	1283450000	C.27	TS35X7.5 ST PPC 40 HOR	8000037562	C.187	VG 21-K68 SKS	1720520000	D.7
SZS M50	1736350000	D.52	TPSDHA KTB 130X50 S2 R	1283450000	C.28	TS35X7.5 ST PPC 60 HOR	8000037563	C.187	VG 21-MS68	1569110000	D.8
SZS M63	1736360000	D.52	TPSDHA KTB 130X50 S2 R	1283450000	C.29	TS35X7.5 ST K52	8000003908	C.139	VG 21-SS 68 KB 13-18	1009790000	D.13
			TPSDHA KTB 130X50 S2 R	1283450000	C.30	TS35X7.5 ST KEBI 30 VER	8000037556	C.52	VG 29-K68	1569030000	D.6
			TPSDHA KTB 130X50 S2 R	1283450000	C.31	TS35X7.5 ST KEBI 30 VER	8000037556	C.53	VG 29-MS68	1569120000	D.8
			TPSDHA KTB 130X50 S2 R	1283450000	C.32	TS35X7.5 ST KEBI 30 VER	8000037556	C.54	VG 29-SS 68 KB 18-25	1009800000	D.13
			TPSDHA KTB 130X50 S2 R	1283450000	C.33	TS35X7.5 ST KEBI 40 VER	8000037555	C.55	VG 36-K68	1569040000	D.6
			TPSDHA KTB 130X50 S2 R	1283450000	C.34	TS35X7.5 ST KEBI 40 VER	8000037555	C.56	VG 36-MS68	1569130000	D.8
			TPSDHA KTB 130X50 S2 R	1283450000	C.35	TS35X7.5 ST KEBI 40 VER	8000037555	C.57	VG 36-SS 68 KB 22-32	1009810000	D.13
			TPSDHA KTB 130X50 S2 R	1283450000	C.36	TS35X7.5 ST KEBI 40 VER	8000037555	C.57	VG 42-K68	1569050000	D.6
			TPSDHA KTB 130X50 S2 R	1283450000	C.45	TS35X7.5 ST KEBI 50 VER	8000037554	C.58	VG 42-MS68	1569140000	D.8
			TPSDHA KTB 130X50 S2 R	1283450000	C.46	TS35X7.5 ST KEBI 50 VER	8000037554				

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VG M16 EXE 6-10 CR7J G4	2721950000	D.38
VG M16 EXE 6-10 SI7J G4	2722090000	C.152
VG M16 EXE 6-10 SI7J G4	2722090000	D.39
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VG M16 EXE MS	1460040000	C.78
VG M16 EXE MS	1460040000	C.152
VG M16 EXI 5-8 CR7J G4	2722220000	D.38
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VG M16 EXI 6-10 CR7J G4	2722300000	D.38
VG M16 EXI 6-10 SI7J G4	2722370000	D.39
VG M16-1/K68	1909860000	D.6
VG M16-1/MS68	1909910000	D.8
VG M16-K68 SKS	1776710000	D.7
VG M20 - MS 68	1772220000	D.8
VG M20 EMV4 MS 6-12	2435150000	D.11
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VG M20 EXE 11-14 CR7J G4	2721980000	D.38
VG M20 EXE 11-14 SI7J G4	2722120000	C.153
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VG M20 EXE 11-14 SI7J G4	2722120000	C.155
VG M20 EXE 11-14 SI7J G4	2722120000	C.156
VG M20 EXE 11-14 SI7J G4	2722120000	D.39
VG M20 EXE 7-12 CR7J G4	2721960000	D.38
VG M20 EXE 7-12 SI7J G4	2722100000	D.39
VG M20 EXE 7-13 CR7J G4	2721970000	D.38
VG M20 EXE 7-13 SI7J G4	2722110000	C.153
VG M20 EXE 7-13 SI7J G4	2722110000	C.154
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VG M20 EXE 7-13 SI7J G4	2722110000	C.156
VG M20 EXE 7-13 SI7J G4	2722110000	D.39
VG M20 EXE MS	1460050000	C.44
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VG M20 EXE MS	1460050000	C.46
VG M20 EXE MS	1460050000	C.47
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VG M20 EXI 11-14 CR7J G4	2722260000	D.38
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VG M20 EXI 7-13 CR7J G4	2722250000	D.38
VG M20 EXI 7-13 SI7J G4	2722390000	D.39
VG M20-1/K68	1772300000	D.6
VG M20-K68 SKS 10-14	1776720000	D.7
VG M20-K68 SKS 6-12	1778860000	D.7
VG M25 - K 68	1772310000	D.6
VG M25 - MS 68	1772230000	D.8
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VG M25 EXE 12-17 SI7J G4	2722130000	D.39
VG M25 EXE 14-18 CR7J G4	2722000000	D.38
VG M25 EXE 14-18 SI7J G4	2722140000	D.39
VG M25 EXE MS	1460070000	C.47
VG M25 EXE MS	1460070000	C.81
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VG M25 EXI 12-17 SI7J G4	2722410000	D.39
VG M25 EXI 14-18 CR7J G4	2722280000	D.38
VG M25 EXI 14-18 SI7J G4	2722420000	D.39
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VG M32 EXE 16-21 SI7J G4	2722150000	D.39
VG M32 EXE 19-25 CR7J G4	2722020000	D.38
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VG M32 EXE MS	1460080000	C.45
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VG M40 EXI 23-32 SI7J G4	2722460000	D.39
VG M40-1/K68	1909890000	D.6
VG M40-1/MS68	1909940000	D.8
VG M50 - K 68	1772340000	D.6
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107478000	KDSW M20 BN L NI 2 G20	D.31
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107486000	KDSW M32 BN L NI 2 G32	D.31
107487000	KDSW M40 BN L NI 1 G40	D.31
107488000	KDSW M40 BN L NI 2 G40	D.31
107489000	KDSW M50 BN L NI 1 G50S	D.31
107491000	KDSW M50 BN L NI 2 G50S	D.31
107492000	KDSW M50 BN L NI 1 G50	D.31
107493000	KDSW M50 BN L NI 2 G50	D.31
107494000	KDSW M63 BN L NI 1 G63S	D.31
107495000	KDSW M63 BN L NI 2 G63S	D.31
107496000	KDSW M63 BN L NI 1 G63	D.31
107497000	KDSW M63 BN L NI 2 G63	D.31
107498000	KDSW M75 BN L NI 1 G75S	D.31
107499000	KDSW M75 BN L NI 2 G75S	D.31
107501000	KDSW M75 BN L NI 1 G75	D.31
107502000	KDSW M75 BN L NI 2 G75	D.31
107503000	KDSW M20 BN O NI 1 G16	D.29
107504000	KDSW M20 BN O NI 2 G16	D.29
107505000	KDSW M20 BN O NI 1 G20S	D.29
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107508000	KDSW M20 BN O NI 2 G20	D.29
107509000	KDSW M25 BN O NI 1 G25	D.29
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107513000	KDSW M32 BN O NI 2 G32	D.29
107514000	KDSW M40 BN O NI 1 G40	D.29
107515000	KDSW M40 BN O NI 2 G40	D.29
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107517000	KDSW M50 BN O NI 2 G50S	D.29
107518000	KDSW M50 BN O NI 1 G50	D.29
107519000	KDSW M50 BN O NI 2 G50	D.29
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107524000	KDSW M63 BN O NI 2 G63	D.29
107525000	KDSW M75 BN O NI 1 G75S	D.29
107526000	KDSW M75 BN O NI 2 G75S	D.29
107527000	KDSW M75 BN O NI 1 G75	D.29
107528000	KDSW M75 BN O NI 2 G75	D.29
107535000	KSG M75 BN O NI 2 G75S	D.33
107536000	KSG M75 BN O NI 2 G75	D.33
107663000	KSWN M16	D.47
107664000	KSWN M25	D.47
107665000	KSWN M32	D.47
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107667000	KSWN M75	D.47
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107675000	KSP EL46	D.51
107676000	KSP EL55	D.51
107677000	KSP EL65	D.51
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108329000	KDSU M20 BN O NI 1 G20S	D.27
108332000	KDSU M20 BN O NI 1 G20	D.27
108333000	KDSU M25 BN O NI 1 G25	D.27
108334000	KDSU M32 BN O NI 1 G32	D.27
108335000	KDSU M40 BN O NI 1 G40	D.27
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108337000	KDSU M50 BN O NI 1 G50	D.27
108338000	KDSU M63 BN O NI 1 G63S	D.27
108339000	KDSU M63 BN O NI 1 G63	D.27
108340000	KDSU M75 BN O NI 1 G75S	D.27
108341000	KDSU M75 BN O NI 2 G75S	D.27
108342000	KDSU M75 BN O NI 1 G75	D.27
108343000	KDSU M75 BN O NI 2 G75	D.27

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113592000	KDSX M20 BS O NI 2 G16	D.32
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113615000	KDSX M75 BS O NI 2 G75	D.32
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113648000	KSG M75 BS O NI 2 G75	D.34
113649000	KDSU M40 BS O NI 1 G40	D.28
113650000	KDSU M40 BS O NI 1 G50S	D.28
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113652000	KDSU M50 BS O NI 2 G50	D.28
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113656000	KDSU M75 BS O NI 1 G75S	D.28
113657000	KDSU M75 BS O NI 2 G75S	D.28
113658000	KDSU M75 BS O NI 1 G75	D.28
113659000	KDSU M75 BS O NI 2 G75	D.28

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119359000	VGM40-S568 20-32 BG	D.14
119360000	VGM25-S568 11-20 BG	D.9
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119383000	KTB MOP1 3030 S2N	C.17
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119383000	KTB MOP1 3030 S2N	C.46
119384000	KTB MOP1 3526 S2N	C.20
119384000	KTB MOP1 3526 S2N	C.21
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119387000	KTB MOP1 4848 S2N	C.26
119387000	KTB MOP1 4848 S2N	C.27
119387000	KTB MOP1 4848 S2N	C.47
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119389000	KTB MOP1 6245 S2N	C.30
119389000	KTB MOP1 6245 S2N	C.31
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119390000	KTB MOP1 7650 S2N	C.33
119391000	KTB MOP1 9161 S2N	C.34
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1310350000	KEBI-KTBI MOPL 5040 S2N	C.58
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1310380000	KEBI-KTBI MOPL 6060 S2N	C.61
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1310420000	KEBI-KTBI MOPL 4030 MSZN	C.55
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1913320000	GWDR M12-NP	D.46

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1921720000	VG H M20 MS	D.10
1921740000	VG H M25 MS	D.10
1921760000	VG H M32 MS	D.10
1921770000	VG H M40 MS	D.10
1928060000	TS15 68 Klippon POK1 CSS	C.150
1928060000	TS15 68 Klippon POK1 CSS	C.152
1928070000	TS15 98 Klippon POK2 CSS	C.150
1928070000	TS15 98 Klippon POK2 CSS	C.153
1928080000	TS15 147 Klippon POK3 CSS	C.150
1928080000	TS15 147 Klippon POK3 CSS	C.154

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1937630000	KLIPPON K1 VMO RAL7001	C.94
1937630000	KLIPPON K1 VMO RAL7001	C.99

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1937720000	KLIPPON K71 VMO RAL7001	C.94
1937720000	KLIPPON K71 VMO RAL7001	C.114
1937730000	KLIPPON K61 VMO RAL7001	C.94
1937730000	KLIPPON K61 VMO RAL7001	C.112
1937740000	KLIPPON K52 VMO RAL7001	C.94
1937740000	KLIPPON K52 VMO RAL7001	C.110
1937750000	KLIPPON K51 VMO RAL7001	C.94
1937750000	KLIPPON K51 VMO RAL7001	C.109
1937800000	KLIPPON K41 VMO RAL7001	C.94
1937800000	KLIPPON K41 VMO RAL7001	C.107
1937810000	KLIPPON K32 VMO RAL7001	C.94
1937810000	KLIPPON K32 VMO RAL7001	C.105
1937820000	KLIPPON K31 VMO RAL7001	C.94
1937820000	KLIPPON K31 VMO RAL7001	C.104
1937830000	KLIPPON K21 VMO RAL7001	C.94
1937830000	KLIPPON K21 VMO RAL7001	C.102
1937840000	KLIPPON K02 VMO RAL7001	C.94
1937840000	KLIPPON K02 VMO RAL7001	C.98
1937850000	KLIPPON K01 VMO RAL7001	C.94
1937850000	KLIPPON K01 VMO RAL7001	C.97
1937860000	KLIPPON K5 VMO RAL7001	C.108
1937860000	KLIPPON K5 VMO RAL7001	C.94
1937870000	KLIPPON K6 VMO RAL7001	C.111
1937870000	KLIPPON K6 VMO RAL7001	C.94
1937880000	KLIPPON K7 VMO RAL7001	C.94
1937880000	KLIPPON K7 VMO RAL7001	C.113
1937890000	KLIPPON K4 VMO RAL7001	C.94
1937890000	KLIPPON K4 VMO RAL7001	C.106
1937900000	KLIPPON K3 VMO RAL7001	C.94
1937900000	KLIPPON K3 VMO RAL7001	C.103
1937910000	KLIPPON K11 VMO RAL7001	C.94
1937910000	KLIPPON K11 VMO RAL7001	C.100
1937920000	KLIPPON K0 VMO RAL7001	C.94
1937920000	KLIPPON K0 VMO RAL7001	C.96
1937930000	KLIPPON K2 VMO RAL7001	C.94
1937930000	KLIPPON K2 VMO RAL7001	C.101
1939540000	KLIPPON K01 VMO	C.94
1939540000	KLIPPON K01 VMO	C.97
1939550000	KLIPPON K02 VMO	C.94
1939550000	KLIPPON K02 VMO	C.98
1939560000	KLIPPON K1 VMO	C.94
1939560000	KLIPPON K1 VMO	C.99
1939570000	KLIPPON K11 VMO	C.94
1939570000	KLIPPON K11 VMO	C.100
1939580000	KLIPPON K2 VMO	C.94
1939580000	KLIPPON K2 VMO	C.101
1939590000	KLIPPON K21 VMO	C.94
1939590000	KLIPPON K21 VMO	C.102
1939600000	KLIPPON K3 VMO	C.94
1939600000	KLIPPON K3 VMO	C.103
1939610000	KLIPPON K31 VMO	C.94
1939610000	KLIPPON K31 VMO	C.104
1939620000	KLIPPON K32 VMO	C.94
1939620000	KLIPPON K32 VMO	C.105
1939630000	KLIPPON K4 VMO	C.94
1939630000	KLIPPON K4 VMO	C.106
1939640000	KLIPPON K41 VMO	C.94
1939640000	KLIPPON K41 VMO	C.107
1939650000	KLIPPON K5 VMO	C.94
1939650000	KLIPPON K5 VMO	C.108
1939660000	KLIPPON K51 VMO	C.94
1939660000	KLIPPON K51 VMO	C.109
1939670000	KLIPPON K52 VMO	C.94
1939670000	KLIPPON K52 VMO	C.110
1939680000	KLIPPON K6 VMO	C.94
1939680000	KLIPPON K6 VMO	C.111
1939700000	KLIPPON K61 VMO	C.94
1939700000	KLIPPON K61 VMO	C.112
1939710000	KLIPPON K7 VMO	C.94
1939710000	KLIPPON K7 VMO	C.113
1939730000	KLIPPON K71 VMO	C.94
1939730000	KLIPPON K71 VMO	C.114
1939760000	KLIPPON K0 VMO	C.94
1939760000	KLIPPON K0 VMO	C.96

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2022050000	KT B MOPL 2215 MSZ N H	C.15
2022060000	KT B MOPL 2626 MSZ N H	C.16
2022060000	KT B MOPL 2626 MSZ N H	C.17
2022190000	KT B MOPL 3030 MSZ N H	C.18
2022190000	KT B MOPL 3030 MSZ N H	C.19
2022310000	KT B MOPL 3526 MSZ N H	C.20
2022310000	KT B MOPL 3526 MSZ N H	C.21
2022420000	KT B MOPL 4030 MSZ N H	C.22
2022420000	KT B MOPL 4030 MSZ N H	C.23
2022590000	KT B MOPL 4538 MSZ N H	C.24
2022590000	KT B MOPL 4538 MSZ N H	C.25
2022610000	KT B MOPL 4848 MSZ N H	C.26
2022610000	KT B MOPL 4848 MSZ N H	C.27
2022650000	KT B MOPL 5535 MSZ N H	C.28
2022650000	KT B MOPL 5535 MSZ N H	C.29
2022670000	KT B MOPL 6245 MSZ N H	C.30
2022670000	KT B MOPL 6245 MSZ N H	C.31
2022680000	KT B MOPL 7650 MSZ N H	C.32
2022680000	KT B MOPL 7650 MSZ N H	C.33
2022740000	KT B MOPL 9161 MSZ N H	C.34
2022740000	KT B MOPL 9161 MSZ N H	C.35
2022760000	KT B MOPL 9874 MSZ N H	C.36

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2022900000	KT B GP 221513 CD S4 PE	C.15
2022930000	KT B GP 262615 AB S4 PE	C.16
2023090000	KT B GP 262615 CD S4 PE	C.16
2023100000	KT B GP 262620 AB S4 PE	C.17
2023110000	KT B GP 262620 CD S4 PE	C.17
2023120000	KT B GP 303015 AB S4 PE	C.18
2023130000	KT B GP 303015 CD S4 PE	C.18
2023140000	KT B GP 303020 AB S4 PE	C.19
2023150000	KT B GP 303020 CD S4 PE	C.19
2023160000	KT B GP 352615 AB S4 PE	C.20
2023210000	KT B GP 352615 DC S4 PE	C.20
2023230000	KT B GP 352620 AB S4 PE	C.21
2023280000	KT B GP 352620 CD S4 PE	C.21
2023320000	KT B GP 403015 AB S4 PE	C.22
2023330000	KT B GP 403015 CD S4 PE	C.22
2023450000	KT B GP 403020 AB S4 PE	C.23
2023480000	KT B GP 403020 CD S4 PE	C.23
2023490000	KT B GP 453815 AB S4 PE	C.24
2023500000	KT B GP 453815 CD S4 PE	C.24
2023510000	KT B GP 453820 AB S4 PE	C.25
2023520000	KT B GP 453820 CD S4 PE	C.25
2023530000	KT B GP 484815 AB S4 PE	C.26
2023540000	KT B GP 484815 CD S4 PE	C.26
2023580000	KT B GP 484820 AB S4 PE	C.27
2023620000	KT B GP 484820 CD S4 PE	C.27
2023660000	KT B GP 553515 AB S4 PE	C.28
2023670000	KT B GP 553515 CD S4 PE	C.28
2023740000	KT B GP 553520 AB S4 PE	C.29
2023790000	KT B GP 553520 CD S4 PE	C.29
2023820000	KT B GP 624515 AB S4 PE	C.30
2023870000	KT B GP 624515 CD S4 PE	C.30
2023880000	KT B GP 624520 AB S4 PE	C.31
2023930000	KT B GP 624520 CD S4 PE	C.31
2024040000	KT B GP 765015 AB S4 PE	C.32
2024090000	KT B GP 765015 CD S4 PE	C.32
2024100000	KT B GP 765020 AB S4 PE	C.33
2024140000	KT B GP 765020 CD S4 PE	C.33
2024150000	KT B GP 916115 AB S4 PE	C.34
2024300000	KT B GP 916115 CD S4 PE	C.34
2024470000	KT B GP 916120 AB S4 PE	C.35
2024490000	KT B GP 916120 CD S4 PE	C.35
2024560000	KT B GP 987420 AB S4 PE	C.36
2024590000	KT B GP 987420 CD S4 PE	C.36

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2066710000	VP M12 EX SI T1	D.58
2066720000	VP M16 EX SI T1	C.152
2066720000	VP M16 EX SI T1	D.58
2066730000	VP M20 EX SI T1	C.153
2066730000	VP M20 EX SI T1	C.154
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2066730000	VP M20 EX SI T1	D.58
2066740000	VP M25 EX SI T1	D.58
2066750000	VP M32 EX SI T1	D.58
2066760000	VP M40 EX SI T1	D.58
2066770000	VP M50 EX SI T1	D.58
2066940000	VP M63 EX SI T1	D.58

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2435070000	VG M12 EMV4 MS 3-6.5	D.11
2435140000	VG M16 EMV4 MS 5-10	D.11
2435150000	VG M20 EMV4 MS 6-12	D.11
2435160000	VG M20 EMV4 MS 8-14	D.11
2435170000	VG M25 EMV4 MS 10-18	D.11
2435180000	VG M32 EMV4 MS 16-25	D.11
2435190000	VG M40 EMV4 MS 22-32	D.11
2435200000	VG M50 EMV4 MS 30-38	D.11
2435210000	VG M63 EMV4 MS 34-44	D.11

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2470690000	KEBI QL 302015 S2B0	C.52
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2583500000	CABTITE CSE 7-24 LRG BK	E.4
2583510000	CABTITE CSE 2-11 SML BK	E.4
2583520000	CABTITE SE 2/ASI SML BK	E.4
2583530000	CABTITE SE 1/ASI SML BK	E.4
2583540000	CABTITE SE 2/8 SML BK	E.4
2583550000	CABTITE SE 2/7 SML BK	E.4
2583560000	CABTITE SE 4/4-5 SML BK	E.4
2583580000	CABTITE SE 4/3-4 SML BK	E.4
2583590000	CABTITE SE 4/2-3 SML BK	E.4
2583610000	CABTITE SE 2/5-6 SML BK	E.4
2583620000	CABTITE SE 2/4-5 SML BK	E.4
2583630000	CABTITE SE 32-33 LRG BK	E.4
2583640000	CABTITE SE 31-32 LRG BK	E.4
2583650000	CABTITE SE 30-31 LRG BK	E.4
2583660000	CABTITE SE 29-30 LRG BK	E.4
2583670000	CABTITE SE 28-29 LRG BK	E.4
2583680000	CABTITE SE 27-28 LRG BK	E.4
2583690000	CABTITE SE 26-27 LRG BK	E.4
2583700000	CABTITE SE 25-26 LRG BK	E.4
2583710000	CABTITE SE 24-25 LRG BK	E.4
2583720000	CABTITE FR 24/10 BK SET	E.6
2583730000	CABTITE SE 23-24 LRG BK	E.4
2583740000	CABTITE FR 16/8 BK SET	E.6
2583750000	CABTITE SE 22-23 LRG BK	E.4
2583760000	CABTITE FR 10/6 BK SET	E.5
2583770000	CABTITE SE 21-22 LRG BK	E.4
2583780000	CABTITE FR 4-1 BK SET	E.5
2583790000	CABTITE SE 20-21 LRG BK	E.4
2583800000	CABTITE FR 24/10 BK	E.6
2583810000	CABTITE SE 19-20 LRG BK	E.4
2583830000	CABTITE SE 18-19 LRG BK	E.4
2583840000	CABTITE SE 17-18 LRG BK	E.4
2583850000	CABTITE SE 16-17 LRG BK	E.4
2583860000	CABTITE SE 15-16 LRG BK	E.4
2583880000	CABTITE SE 14-15 LRG BK	E.4
2583890000	CABTITE CR 24/10 EMV	E.8
2583900000	CABTITE BSE LRG BK	E.4
2583910000	CABTITE CR 16/8 EMV	E.8
2583930000	CABTITE CR 10/6 EMV	E.8
2583950000	CABTITE CR 4/1 EMV	E.8
2583960000	CABTITE SE 15-16 SML BK	E.4
2583980000	CABTITE SE 14-15 SML BK	E.4
2584000000	CABTITE SE 13-14 SML BK	E.4
2584010000	CABTITE LNS M63 BK	E.7
2584020000	CABTITE SE 12-13 SML BK	E.4
2584030000	CABTITE LNS M50 BK	E.7
2584040000	CABTITE SE 11-12 SML BK	E.4
2584050000	CABTITE LNS M40 BK	E.7
2584060000	CABTITE SE 10-11 SML BK	E.4
2584070000	CABTITE LNS M32 BK	E.7
2584080000	CABTITE SE 9-10 SML BK	E.4
2584090000	CABTITE LNS M25 BK	E.7
2584110000	CABTITE LNS M20 BK	E.7
2584120000	CABTITE CGS M63 BK	E.7
2584130000	CABTITE CGS M50 BK	E.7
2584150000	CABTITE CGS M40 BK	E.7
2584160000	CABTITE CGS M32 BK	E.7
2584180000	CABTITE CGS M25 BK	E.7
2584200000	CABTITE CGS M20 BK	E.7
2584210000	CABTITE FRL 24/10 BK	E.6
2584220000	CABTITE FRL 16/8 BK	E.6
2584240000	CABTITE FRL 10/6 BK	E.5
2584260000	CABTITE FRL 4-1 BK	E.5
2584270000	CABTITE GI H BK	E.7
2584290000	CABTITE GI B BK	E.7
2584300000	CABTITE GI BK	E.7
2584320000	CABTITE GI BK	E.7
2584330000	CABTITE SE 8-9 SML BK	E.4
2584340000	CABTITE SE 31-32 LRG GY	E.4
2584350000	CABTITE SE 28-29 LRG GY	E.4
2584360000	CABTITE SE 30-31 LRG GY	E.4
2584370000	CABTITE SE 27-28 LRG GY	E.4
2584380000	CABTITE SE 29-30 LRG GY	E.4
2584390000	CABTITE SE 26-27 LRG GY	E.4
2584400000	CABTITE SE 25-26 LRG GY	E.4
2584410000	CABTITE SE 24-25 LRG GY	E.4
2584420000	CABTITE SE 23-24 LRG GY	E.4
2584430000	CABTITE SE 22-23 LRG GY	E.4
2584440000	CABTITE SE 21-22 LRG GY	E.4
2584450000	CABTITE SE 20-21 LRG GY	E.4
2584460000	CABTITE SE 19-20 LRG GY	E.4
2584470000	CABTITE SE 18-19 LRG GY	E.4
2584480000	CABTITE SE 17-18 LRG GY	E.4
2584490000	CABTITE SE 27-28 LRG GY	E.4
2584500000	CABTITE SE 15-16 LRG GY	E.4
2584510000	CABTITE SE 14-15 LRG GY	E.4
2584520000	CABTITE BSE LRG GY	E.4
2584550000	CABTITE SE 15-16 SML GY	E.4
2584560000	CABTITE SE 14-15 SML GY	E.4
2584570000	CABTITE SE 13-14 SML GY	E.4
2584590000	CABTITE SE 12-13 SML GY	E.4
2584600000	CABTITE SE 11-12 SML GY	E.4
2584610000	CABTITE SE 10-11 SML GY	E.4
2584630000	CABTITE SE 9-10 SML GY	E.4
2584650000	CABTITE SE 8-9 SML GY	E.4
2584660000	CABTITE SE 7-8 SML GY	E.4
2584670000	CABTITE SE 7-8 SML BK	E.4
2584680000	CABTITE SE 4-5 SML BK	E.4

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2584690000	CABTITE SE 6-7 SML BK	E.4
2584710000	CABTITE SE 5-6 SML BK	E.4
2584730000	CABTITE SE 3-4 SML BK	E.4
2584760000	CABTITE SE 2-3 SML BK	E.4
2584780000	CABTITE SE 1-2 SML BK	E.4
2584790000	CABTITE BSE SML BK	E.4
2584800000	CABTITE SE 2/ASI SML GY	E.4
2584810000	CABTITE SE 1/ASI SML GY	E.4
2584820000	CABTITE SE 2/8 SML GY	E.4
2584830000	CABTITE SE 2/7 SML GY	E.4
2584840000	CABTITE SE 4/4-5 SML GY	E.4
2584860000	CABTITE SE 4/3-4 SML GY	E.4
2584870000	CABTITE SE 4/2-3 SML GY	E.4
2584880000	CABTITE SE 2/5-6 SML GY	E.4
2584900000	CABTITE SE 2/4-5 SML GY	E.4
2584910000	CABTITE SE 33-34 LRG GY	E.4
2584920000	CABTITE SE 32-33 LRG GY	E.4

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2595510000	CABTITE SE 33-34 LRG BK	E.4
2595520000	CABTITE SE 34-35 LRG BK	E.4
2595530000	CABTITE SE 34-35 LRG GY	E.4

## 2630000000

2635120000	CABTITE SC M5X25 SET	E.6
2635120000	CABTITE SC M5X25 SET	E.6
2637360000	CABTITE TOOL ATSE PA	E.5
2637360000	CABTITE TOOL ATSE PA	E.5

## 2650000000

2652280000	CABTITE SE 3/5-6 SML BK	E.4
2652290000	CABTITE SE 3/5-6 SML GY	E.4
2652300000	CABTITE BP 2MM PA	E.8
2652310000	CABTITE BP 3MM PA	E.8
2652320000	CABTITE BP 4MM PA	E.8
2652330000	CABTITE BP 5MM PA	E.8
2652340000	CABTITE BP 6MM PA	E.8
2652350000	CABTITE BP 7MM PA	E.8
2652360000	CABTITE BP 8MM PA	E.8
2652370000	CABTITE BP 9MM PA	E.8
2652380000	CABTITE BP 10MM PA	E.8
2652400000	CABTITE BP 12MM PA	E.8
2652410000	CABTITE BP 13MM PA	E.8
2652420000	CABTITE BP 14MM PA	E.8
2652430000	CABTITE BP 17MM PA	E.8
2652440000	CABTITE BP 20MM PA	E.8
2652450000	CABTITE BP 21MM PA	E.8
2652460000	CABTITE BP 25MM PA	E.8
2652470000	CABTITE BP 28MM PA	E.8
2652480000	CABTITE BP 35MM PA	E.8

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2721930000	VG M12 EXE 4-6,5 CR7J G4	D.38
2721940000	VG M16 EXE 5-8 CR7J G4	D.38
2721950000	VG M16 EXE 6-18 CR7J G4	D.38
2721960000	VG M20 EXE 7-12 CR7J G4	D.38
2721970000	VG M20 EXE 7-13 CR7J G4	D.38
2721980000	VG M20 EXE 11-14 CR7J G4	D.38
2721990000	VG M25 EXE 12-17 CR7J G4	D.38
2722000000	VG M25 EXE 14-18 CR7J G4	D.38
2722010000	VG M32 EXE 16-21 CR7J G4	D.38
2722020000	VG M32 EXE 19-25 CR7J G4	D.38
2722030000	VG M40 EXE 20-28 CR7J G4	D.38
2722040000	VG M40 EXE 23-32 CR7J G4	D.38
2722050000	VG M50 EXE 31-38 CR7J G4	D.38
2722060000	VG M63 EXE 35-44 CR7J G4	D.38
2722070000	VG M12 EXE 4-6,5 SI7J G4	D.39
2722080000	VG M16 EXE 5-8 SI7J G4	C.152
2722080000	VG M16 EXE 5-8 SI7J G4	D.39
2722090000	VG M18 EXE 6-10 SI7J G4	C.152
2722090000	VG M18 EXE 6-10 SI7J G4	D.39
2722100000	VG M16 EXE 6-10 SI7J G4	D.39
2722100000	VG M20 EXE 7-12 SI7J G4	C.153
2722100000	VG M20 EXE 7-13 SI7J G4	C.154
2722110000	VG M20 EXE 7-13 SI7J G4	C.155
2722110000	VG M20 EXE 11-14 SI7J G4	C.156
2722110000	VG M20 EXE 11-14 SI7J G4	D.39
2722120000	VG M20 EXE 11-14 SI7J G4	C.154
2722120000	VG M20 EXE 11-14 SI7J G4	C.155
2722120000	VG M20 EXE 11-14 SI7J G4	D.39
2722130000	VG M25 EXE 12-17 SI7J G4	D.39
2722140000	VG M25 EXE 14-18 SI7J G4	D.39
2722150000	VG M32 EXE 16-21 SI7J G4	D.39
2722160000	VG M32 EXE 19-25 SI7J G4	D.39
2722170000	VG M40 EXE 20-28 SI7J G4	D.39
2722180000	VG M40 EXE 23-32 SI7J G4	D.39
2722190000	VG M50 EXE 31-38 SI7J G4	D.39
2722200000	VG M63 EXE 35-44 SI7J G4	D.39
2722210000	VG M12 EXI 4-6,5 CR7J G4	D.38
2722220000	VG M16 EXI 5-8 CR7J G4	D.38
2722230000	VG M16 EXI 6-10 CR7J G4	D.38
2722240000	VG M20 EXI 7-12 CR7J G4	D.38
2722250000	VG M20 EXI 7-13 CR7J G4	D.38

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2722260000	VG M20 EXI 11-14 CR7J G4	D.38
2722270000	VG M25 EXI 12-17 CR7J G4	D.38
2722280000	VG M25 EXI 14-18 CR7J G4	D.38
2722290000	VG M32 EXI 16-21 CR7J G4	D.38
2722300000	VG M32 EXI 19-25 CR7J G4	D.38
2722310000	VG M40 EXI 20-28 CR7J G4	D.38
2722320000	VG M40 EXI 23-32 CR7J G4	D.38
2722330000	VG M50 EXI 31-38 CR7J G4	D.38
2722340000	VG M63 EXI 35-44 CR7J G4	D.38
2722350000	VG M12 EXI 4-6,5 SI7J G4	D.39
2722360000	VG M16 EXI 5-8 SI7J G4	D.39
2722370000	VG M16 EXI 6-10 SI7J G4	D.39
2722380000	VG M20 EXI 7-12 SI7J G4	D.39
2722390000	VG M20 EXI 7-13 SI7J G4	D.39
2722400000	VG M20 EXI 11-14 SI7J G4	D.39
2722410000	VG M25 EXI 12-17 SI7J G4	D.39
2722420000	VG M25 EXI 14-18 SI7J G4	D.39
2722430000	VG M32 EXI 16-21 SI7J G4	D.39
2722440000	VG M32 EXI 19-25 SI7J G4	D.39
2722450000	VG M40 EXI 20-28 SI7J G4	D.39
2722460000	VG M40 EXI 23-32 SI7J G4	D.39
2722470000	VG M50 EXI 31-38 SI7J G4	D.39
2722480000	VG M63 EXI 35-44 SI7J G4	D.39

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3018950000	MP TBF 30/19	C.170
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3073020000	MOPL K21 STAHL	C.102
3073040000	MOPL K31 STAHL	C.104
3073050000	MOPL K32 STAHL	C.105
3073060000	MOPL K4 STAHL	C.106
3073070000	MOPL K41 STAHL	C.107
3073080000	MOPL K5 STAHL	C.108
3073090000	MOPL K51 STAHL	C.109
3073100000	MOPL K52 STAHL	C.110
3073110000	MOPL K6 STAHL	C.111
3073120000	MOPL K61 STAHL	C.112
3073130000	MOPL K7 STAHL	C.113
3073140000	MOPL K71 STAHL	C.114

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3896100000	SP M6 15 MSZN	C.62
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8000006712	TS35X7.5 ST KT83526 VER	C.23
8000006713	TS35X7.5 ST KT83526 VER	C.24
8000006713	TS35X7.5 ST KT83526 VER	C.25
8000006714	TS35X7.5 ST KT83526 VER	C.26
8000006714	TS35X7.5 ST KT83526 VER	C.27
8000006715	TS35X7.5 ST KT83526 VER	C.28
8000006715	TS35X7.5 ST KT83526 VER	C.29
8000006716	TS35X7.5 ST KT83526 VER	C.30
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8000006717	TS35X7.5 ST KT83526 VER	C.32
8000006717	TS35X7.5 ST KT83526 VER	C.33
8000006718	TS35X7.5 ST KT83526 VER	C.34
8000006718	TS35X7.5 ST KT83526 VER	C.35
8000006719	TS35X7.5 ST KT83526 VER	C.36
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8000006721	TS35X7.5 ST KT83526 VER	C.20
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8000006728	TS35X7.5 ST KT87650 HOR	C.33
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8000037605	TS35 MPC 1717 VER	C.180
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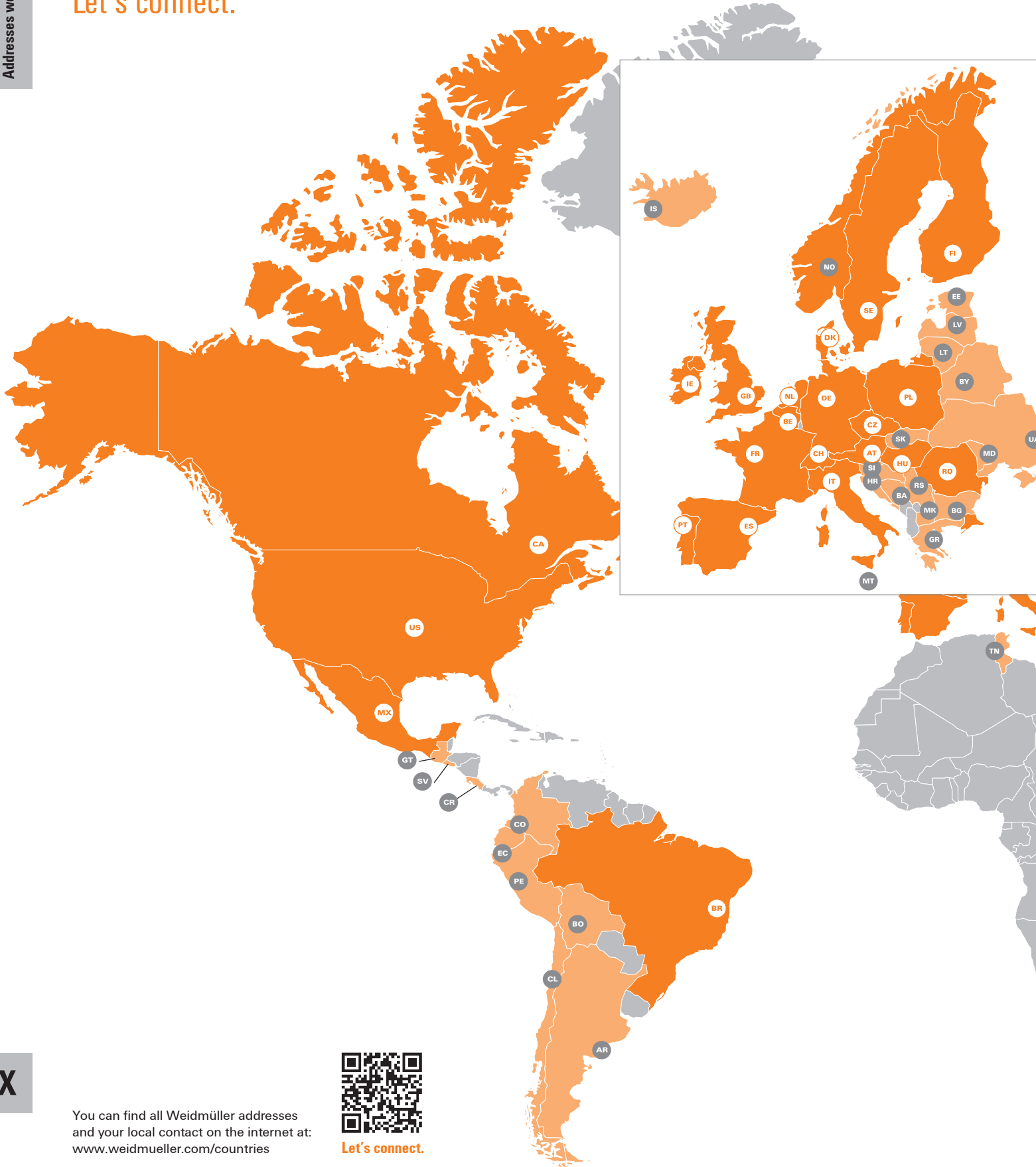
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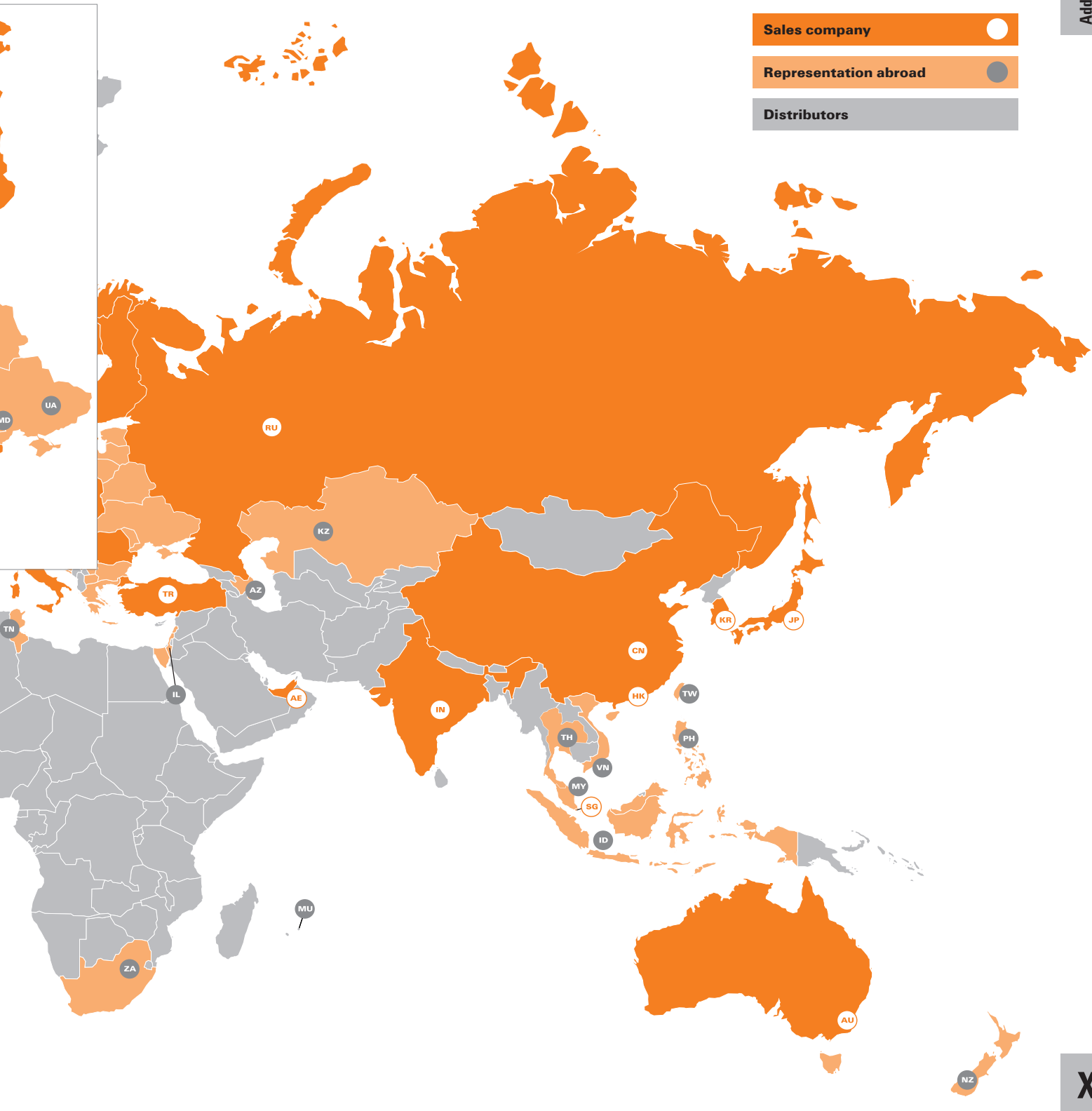


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