

Printed-circuit board connector - DMC 1,5/ 3-G1-3,5 P20THR R24-2 - 1816140

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)

PCB headers, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm², number of positions: 3, pitch: 3.5 mm, color: black, contact surface: Tin, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm




The figure shows a 10-pos. version with 20 contacts

Your advantages

- ✓ Designed for integration into the SMT soldering process
- ✓ Conductor connection on several levels enables higher contact density
- ✓ Small component size for applications where space is at a premium



Key Commercial Data

| | |
|------------------------|---|
| Packing unit | 180 pc |
| Minimum order quantity | 180 pc |
| GTIN |  4 046356 757430 |
| GTIN | 4046356757430 |

Technical data

Item properties

| | |
|---------------------------|--------------------------|
| Brief article description | Feed-through header |
| Plug-in system | MINI COMBICON - DFMC 1,5 |
| Type of contact | Male connector |
| Range of articles | DMC 1,5/...G1-THR |
| Pitch | 3.5 mm |
| Number of positions | 3 |
| Mounting type | THR soldering |
| Pin layout | Linear pinning |
| Locking | without |
| Number of levels | 2 |

Printed-circuit board connector - DMC 1,5/ 3-G1-3,5 P20THR R24-2 - 1816140

Technical data

Item properties

| | |
|-----------------------|---|
| Number of connections | 6 |
| Number of potentials | 6 |

Electrical parameters

| | |
|-----------------------------|--------|
| Nominal current | 8 A |
| Nom. voltage | 160 V |
| Rated voltage | 160 V |
| Rated voltage (III/2) | 160 V |
| Rated voltage (II/2) | 250 V |
| Rated surge voltage (III/3) | 2.5 kV |
| Rated surge voltage (III/2) | 2.5 kV |
| Rated surge voltage (II/2) | 2.5 kV |

Material data - contact

| | |
|---|---|
| Note | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201 |
| Contact material | Cu alloy |
| Surface characteristics | Tin-plated |
| Metal surface contact area (top layer) | Tin (3 - 5 µm Sn) |
| Metal surface contact area (middle layer) | Nickel (1 - 3 µm Ni), |
| Metal surface soldering area (top layer) | Tin (3 - 5 µm Sn) |
| Metal surface soldering area (middle layer) | Nickel (1 - 3 µm Ni) |

Material data - housing

| | |
|--|--------------|
| Housing color | black (9005) |
| Insulating material | LCP |
| Insulating material group | IIIa |
| CTI according to IEC 60112 | 175 |
| Flammability rating according to UL 94 | V0 |

Dimensions for the product

| | |
|-----------------------------|--------------|
| Length [l] | 11.6 mm |
| Width [w] | 11.3 mm |
| Height [h] | 12.8 mm |
| Pitch | 3.5 mm |
| Height (without solder pin) | 10.8 mm |
| Solder pin [P] | 2 mm |
| Pin spacing | 2.50 mm |
| Pin dimensions | 0.8 x 0.8 mm |

Dimensions for PCB design

| | |
|---------------|--------|
| Hole diameter | 1.4 mm |
|---------------|--------|

Printed-circuit board connector - DMC 1,5/ 3-G1-3,5 P20THR R24-2 - 1816140

Technical data

Dimensions for PCB design

| | |
|-------------|---------|
| Pin spacing | 2.50 mm |
|-------------|---------|

Packaging information

| | |
|-----------------------------|--|
| Type of packaging | 24 mm wide tape |
| Pieces per package | 180 |
| Denomination packing units | Pcs. |
| [W] tape width | 24 mm |
| [A] coil diameter | 330 mm |
| [W2] coil overall dimension | 30.4 mm |
| Outer packaging type | Transparent-Bag |
| ESD level | (D) electrostatically conductive |
| Specification | DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07 |

Processing notes

| | |
|---|--|
| Process | Reflow/wave soldering |
| Specification | Following IPC/JEDEC J-STD-020D.1:2008-03 |
| | Following IEC 61760-1:2006-04 |
| | Following IEC 60068-2-58:2005-02 |
| Moisture Sensitive Level | MSL 1 |
| Classification temperature T _c | 260 °C |
| Solder cycles in the reflow | 3 |

Ambient conditions

| | |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 100 °C (dependent on the derating curve) |

Air clearances and creepage distances

| | |
|---|---------------------|
| Clearances and creepage distances | IEC 60664-1:2007-04 |
| Specification | IEC 60664-1:2007-04 |
| Minimum clearance - inhomogeneous field (III/3) | 1.5 mm |
| Minimum clearance - inhomogeneous field (III/2) | 1.5 mm |
| Minimum clearance - inhomogeneous field (II/2) | 1.5 mm |
| Minimum creepage distance value (III/3) | 2.5 mm |
| Minimum creepage distance value (III/2) | 1.6 mm |
| Minimum creepage distance value (II/2) | 2.5 mm |

Mechanical tests (A)

| | |
|--|-------------|
| Test specification | IEC 61984 |
| Insertion strength per pos. approx. | 3 N |
| Withdraw strength per pos. approx. | 2 N |
| Polarization when inserted requirement >20 N | Test passed |

Printed-circuit board connector - DMC 1,5/ 3-G1-3,5 P20THR R24-2 - 1816140

Technical data

Mechanical tests (A)

| | |
|---|-------------|
| Contact holder in insert requirements >20 N | Test passed |
|---|-------------|

Durability tests (B)

| | |
|--|-----------------------|
| Specification | IEC 60512-9-1:2010-03 |
| Contact resistance R ₁ | 2 mΩ |
| Insertion/withdrawal cycles | 25 |
| Contact resistance R ₂ | 2.3 mΩ |
| Impulse withstand voltage at sea level | 2.95 kV |
| Power-frequency withstand voltage | 1.39 kV |
| Insulation resistance, neighboring positions | > 12 TΩ |

Thermal tests (C)

| | |
|---|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
| Number of positions | 20 |
| Conductor cross section | 1.5 mm ² |
| Test current | 8 A |
| Upper limiting temperature requirements <100 °C | Test passed |

Climatic tests (D)

| | |
|--|---|
| Specification | ISO 6988:1985-02 |
| Cold stress | -40 °C/2 h |
| Thermal stress | 100 °C/168 h |
| Corrosive stress | 0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle |
| Impulse withstand voltage at sea level | 2.95 kV |
| Power-frequency withstand voltage | 1.39 kV |

Environmental and durability tests (E)

| | |
|---------------------------------------|-------------------------------------|
| Specification | IEC 61984:2008-10 |
| Result, degree of protection, IP code | Finger safety with IP20 test finger |

Vibration test

| | |
|------------------------|------------------------|
| Specification | IEC 60068-2-6:2007-12 |
| Result | Test passed |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 - 60.1 Hz) |
| Acceleration | 5 g (60.1 - 150 Hz) |
| Test duration per axis | 2.5 h |

Standards and Regulations

| | |
|----------------------------------|--------|
| Connection in acc. with standard | EN-VDE |
| | CUL |

Printed-circuit board connector - DMC 1,5/ 3-G1-3,5 P20THR R24-2 - 1816140

Technical data

Standards and Regulations

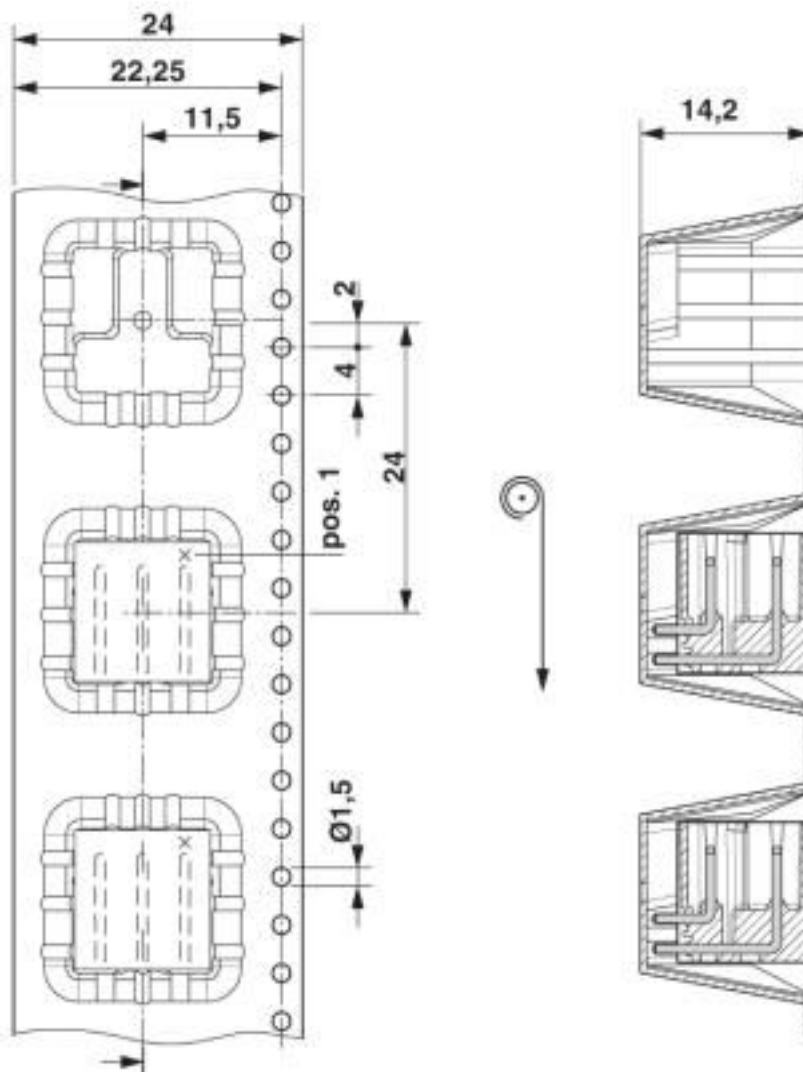
| | |
|--|----|
| Flammability rating according to UL 94 | V0 |
|--|----|

Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

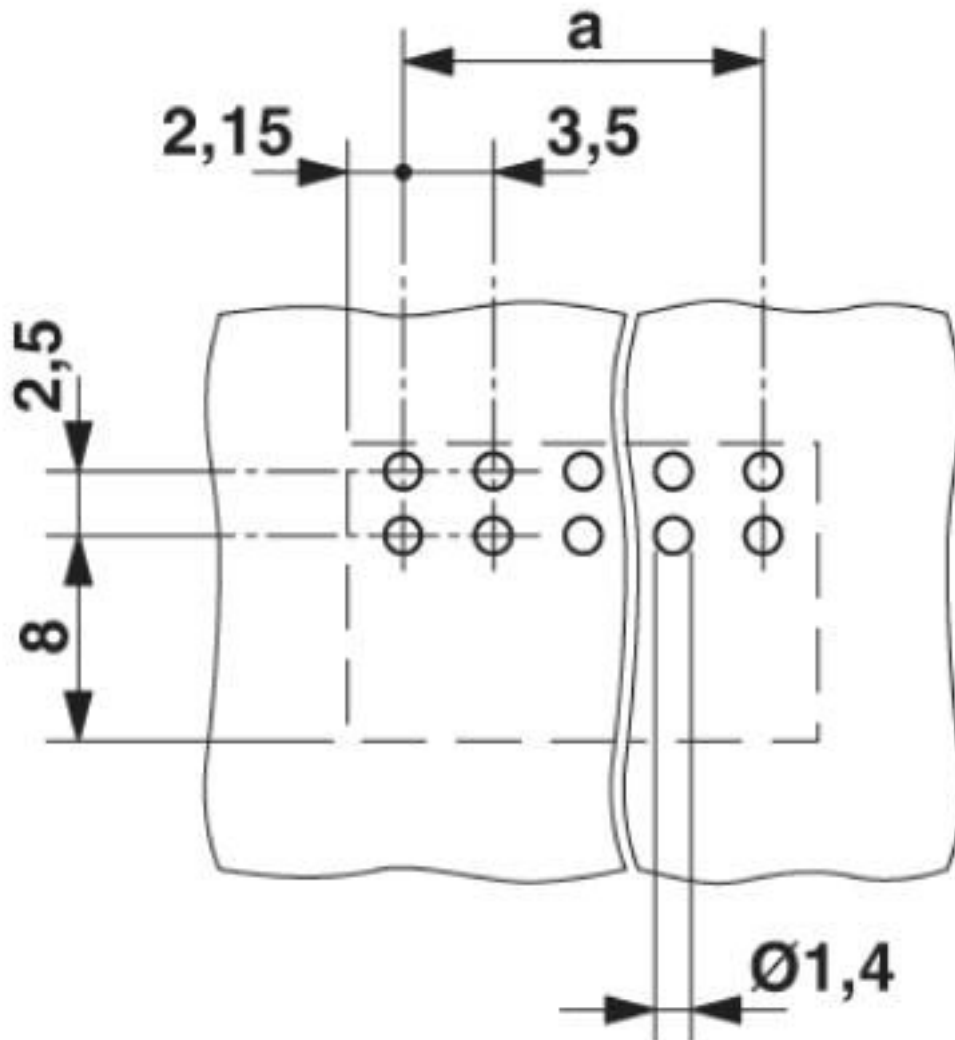
Drawings

Dimensional drawing



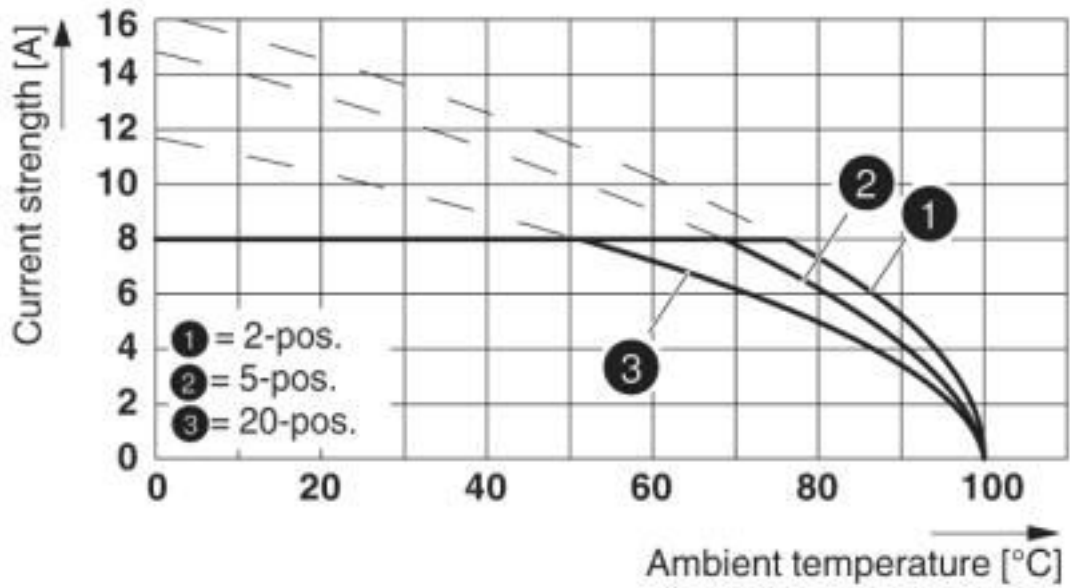
Printed-circuit board connector - DMC 1,5/ 3-G1-3,5 P20THR R24-2 - 1816140

Drilling diagram

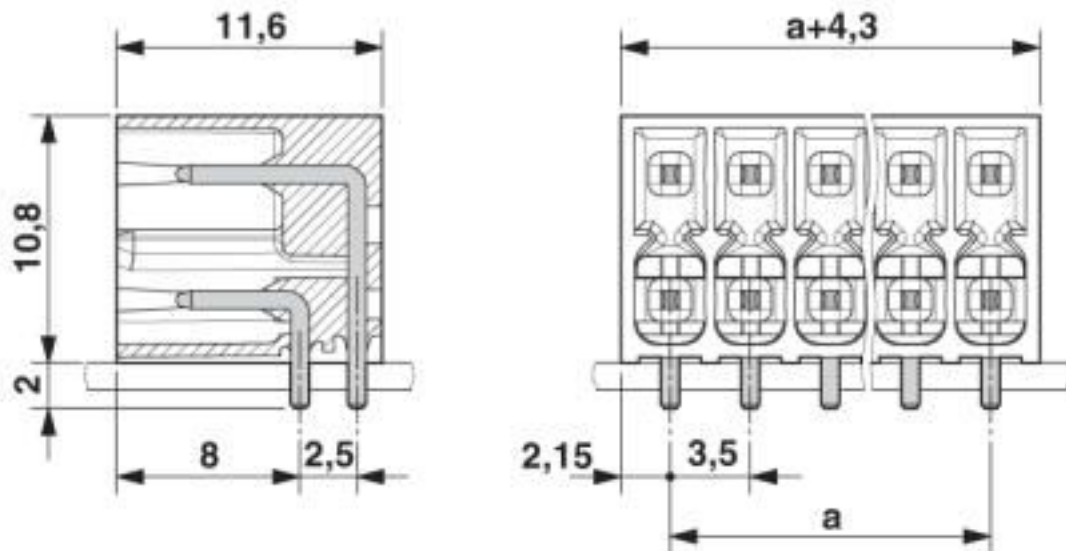


Printed-circuit board connector - DMC 1,5/ 3-G1-3,5 P20THR R24-2 - 1816140

Diagram

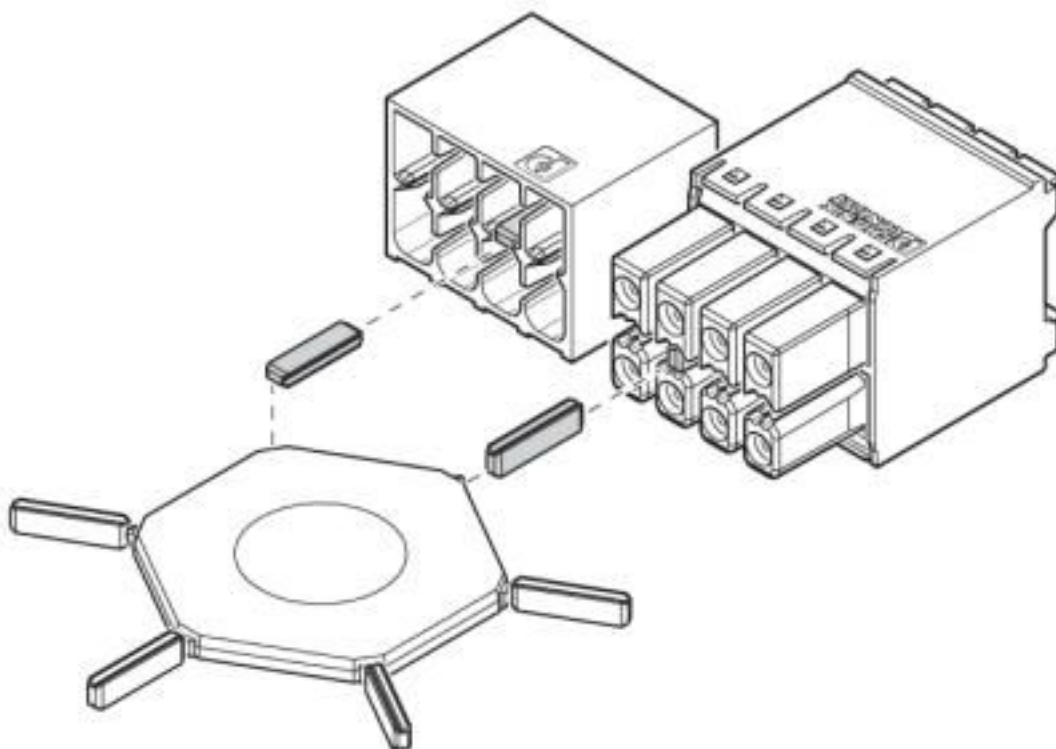


Dimensional drawing



Printed-circuit board connector - DMC 1,5/ 3-G1-3,5 P20THR R24-2 - 1816140

Schematic diagram



Use of the CP-DMC... coding profile

Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27440402 |
| eCl@ss 4.0 | 27260700 |
| eCl@ss 4.1 | 27260700 |
| eCl@ss 5.0 | 27260700 |
| eCl@ss 5.1 | 27260700 |
| eCl@ss 6.0 | 27260700 |
| eCl@ss 7.0 | 27440402 |
| eCl@ss 8.0 | 27440402 |
| eCl@ss 9.0 | 27440402 |

ETIM

| | |
|----------|----------|
| ETIM 3.0 | EC001121 |
| ETIM 4.0 | EC002637 |
| ETIM 5.0 | EC002637 |
| ETIM 6.0 | EC002637 |
| ETIM 7.0 | EC002637 |

Printed-circuit board connector - DMC 1,5/ 3-G1-3,5 P20THR R24-2 - 1816140

Classifications

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211810 |
| UNSPSC 7.0901 | 39121409 |
| UNSPSC 11 | 39121409 |
| UNSPSC 12.01 | 39121409 |
| UNSPSC 13.2 | 39121409 |
| UNSPSC 18.0 | 39121409 |
| UNSPSC 19.0 | 39121409 |
| UNSPSC 20.0 | 39121409 |
| UNSPSC 21.0 | 39121409 |

Approvals


Approvals


Approvals

IECEE CB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC / cULus Recognized

Ex Approvals

Approval details

| | | | |
|--------------------|---|---|-----------------|
| IECEE CB Scheme |  | http://www.iecee.org/ | DE1-60359_B1_B2 |
| Nominal voltage UN | 160 V | | |
| Nominal current IN | 8 A | | |

| | | | |
|---|---|---|----------|
| VDE Gutachten mit Fertigungsüberwachung |  | http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx | 40038423 |
| Nominal voltage UN | 160 V | | |
| Nominal current IN | 8 A | | |

| | | |
|-----|---|---------|
| EAC |  | B.01687 |
|-----|---|---------|

Printed-circuit board connector - DMC 1,5/ 3-G1-3,5 P20THR R24-2 - 1816140

Approvals

| | | | |
|--------------------|-------|---|-----------------|
| cULus Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | E60425-20110128 |
| | B | C | D |
| Nominal voltage UN | 150 V | 50 V | 300 V |
| Nominal current IN | 8 A | 8 A | 8 A |

Accessories

Accessories

Coding element

Coding profile - CP-DMC 1,5 NAT - 1790647

Coding profile, for insertion between the coding ribs of the connector and the header following the reflow soldering process, insulating material, color: natural



Additional products

Printed-circuit board connector - DFMC 1,5/ 3-ST-3,5 - 1790111

Plug, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 3 with 6 contacts, pitch: 3.5 mm, connection method: spring-cage connection, color: green, contact surface: tin



Phoenix Contact 2020 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Pluggable Terminal Blocks](#) category:

Click to view products by [Phoenix Contact](#) manufacturer:

Other Similar products are found below :

[57.510.0053](#) [MC 1.5/ 6-ST-3.5 GY AU](#) [734-104](#) [734-302](#) [8-141-P](#) [8426620000](#) [860505](#) [860810](#) [GBPACX-12](#) [93.731.4953.0](#) [PV05-5,08-K](#)
[PVP02-5,00](#) [PVP03-3,50](#) [PVP04-3,50](#) [PVS02-5,00](#) [1-1986160-3](#) [1377680000](#) [1531000000](#) [1546228-5](#) [ELFH16150](#) [ELFP03110](#)
[ELFP10210](#) [ELFT06250](#) [ELVP03100](#) [1700101](#) [1700410](#) [1700425](#) [1702246](#) [1705229](#) [1710175](#) [1714537](#) [1717806](#) [1719600](#) [1728941](#)
[1734692](#) [1734795](#) [1736036](#) [1740194](#) [1740291](#) [1740628](#) [1740990](#) [1746952](#) [1750207](#) [1752441](#) [1752865](#) [1754115](#) [1754144](#) [1756913](#)
[1760051](#) [1760336](#)