

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

#### **Product image**

















Similar to illustration

Two-tier pin header for wave soldering in 3.50 mm pitch. The connector is available in open, closed and flange versions. The male connectors provide space for labelling and can be coded. Packed in a cardboard box.

#### **General ordering data**

Version	PCB plug-in connector, male header, Flange, THT solder connection, 3.50 mm, Number of poles: 16, 90°, Solder pin length (I): 3.2 mm, tinned, orange, Box
Order No.	<u>1633870000</u>
Туре	SLD 3.50/16/90F 3.2SN OR BX
GTIN (EAN)	4008190258320
Qty.	20 pc(s).
Product data	IEC: 200 V / 10.5 A
	UL: 300 V / 8 A
Packaging	Box

Creation date January 26, 2022 11:23:07 PM CET



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# **Technical data**

#### **Dimensions and weights**

Depth	24.7 mm	Depth (inches)	0.972 inch
Height	26.5 mm	Height (inches)	1.043 inch
Height of lowest version	23.3 mm	Width	35 mm
Width (inches)	1.378 inch	Net weight	10.38 g

#### **System specifications**

<u> </u>					
Product family	OMNIMATE Signal - series BL/SL	3.50			
Type of connection	Board connection				
Mounting onto the PCB	THT solder connection				
Pitch in mm (P)	3.5 mm				
Pitch in inches (P)	0.138 inch				
Outgoing elbow	90°				
Number of poles	16				
Number of solder pins per pole	1				
Solder pin length (I)	3.2 mm				
Solder pin length tolerance	0 / -0.3 mm				
Solder pin dimensions	d = 1.2 mm, Octagonal				
Solder pin dimensions = d tolerance	0 / -0,03 mm				
Solder eyelet hole diameter (D)	1.4 mm				
Solder eyelet hole diameter tolerance (D	0)+ 0,1 mm				
L1 in mm	24.5 mm				
L1 in inches	0.965 inch				
Number of rows	2				
Pin series quantity	2				
Touch-safe protection acc. to DIN VDE 57 106	Safe from back-of-hand touch				
Touch-safe protection acc. to DIN VDE 0470	IP 10				
Volume resistance	≤5 mΩ				
Can be coded	Yes				
Plugging force/pole, max.	10 N				
Pulling force/pole, max.	8 N				
Tightening torque	Torque type		Mounting screw, PCB		
	Usage information		Tightening torque	min.	0.1 Nm
				max.	0.15 Nm
			Recommended screw	Part	PTSC KA
				number	2.2X4.5 WN1412

#### **Material data**

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	UL 94 flammability rating	V-0
Contact material	CuSn	Contact surface	tinned
Layer structure of solder connection	23 μm Ni / 57 μm Sn	Storage temperature, min.	
	glossy		-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-30 °C
Temperature range, installation, max.	100 °C		



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141 mm

69 mm

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# **Technical data**

#### Rated data acc. to IEC

tested acc. to standard		Rated current, min. number of poles	
	IEC 60664-1, IEC 61984	(Tu=20°C)	10.5 A
Rated current, max. number of poles (Tu=20°C)	8 A	Rated current, min. number of poles (Tu=40°C)	9 A
Rated current, max. number of poles (Tu=40°C)	7 A	Rated voltage for surge voltage class / pollution degree II/2	200 V
Rated voltage for surge voltage class / pollution degree III/2	160 V	Rated voltage for surge voltage class / pollution degree III/3	125 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	2.5 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	2.5 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	2.5 kV	Short-time withstand current resistance	3 x 1s with 80 A

#### Rated data acc. to CSA

Institute (CSA)	<b>(F)</b>	Certificate No. (CSA)	
			154685-1318353
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	8 A	Rated current (Use group D / CSA)	8 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059	
Institute (UR)	Certificate No. (UR)
Rated voltage (Use group B / UL 1059) 300 V	Rated voltage (Use group D / UL 1059) 300 V
Rated current (Use group B / UL 1059) 8 A	Rated current (Use group D / UL 1059) 8 A
Reference to approval values Specifications are	

maximum values, details see approval certificate.

Box

87 mm

#### **Packing**

Packaging

VPE width

Classifications			
ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	EC002637	ECLASS 9.0	27-44-04-02
ECLASS 9.1	27-44-04-02	ECLASS 10.0	27-44-04-02
ECLASS 11.0	27-46-02-01		

VPE length

VPE height



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# **Technical data**

#### Important note

IPC conformity	Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.
Notes	Additional colours on request
	Gold-plated contact surfaces on request
	Rated current related to rated cross-section & min. No. of poles.
	• P on drawing = pitch
	<ul> <li>Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.</li> </ul>

#### **Approvals**

Approvals



ROHS	Conform
UL File Number Search	E60693

#### **Downloads**

Approval/Certificate/Document of	
Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FL INDUSTR.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL APPL INVERTER EN FL BASE STATION EN FL LEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN PO OMNIMATE EN



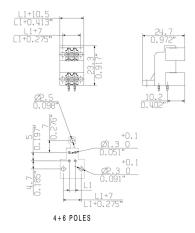
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# **Drawings**

#### **Dimensional drawing**





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### **Accessories**

#### **Coding elements**



# Only connects what is supposed to be connected: the right connection at the right place.

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery. Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

#### **General ordering data**

Туре	BL SL 3.5 KO SW	Version	Product data	Packaging
Order No.	<u>1610100000</u>	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190187637	of poles: 1		
Qty.	100 pc(s).			
Туре	BL SL 3.5 KO OR	Version	Product data	Packaging
Order No.	<u>1693430000</u>	PCB plug-in connector, Accessories, Coding element, orange, Numbe	r	Box
GTIN (EAN)	4008190867447	of poles: 1		



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#### **Accessories**

#### **Additional accessories**



# No task is too small when creating the perfect solution. br />

Connections form just one part of the overall process. Small details are often the key to the perfect solution in applications where potentials are tested, grouped or even isolated.

A system is not a system without small but useful details:

- Test plugs ensure reliable pick-up from diagnostic sockets
- Cross-connectors ensure a stable electrical distribution contact directly at the connection
- Compartment partition elements divide a large number of male connectors into several separate socket connector channels
- Locks and clips optional vibration-resistant clipon connection or mounting for male and female connectors

In tandem with the manufacturing process and application - more accessories = smaller workload

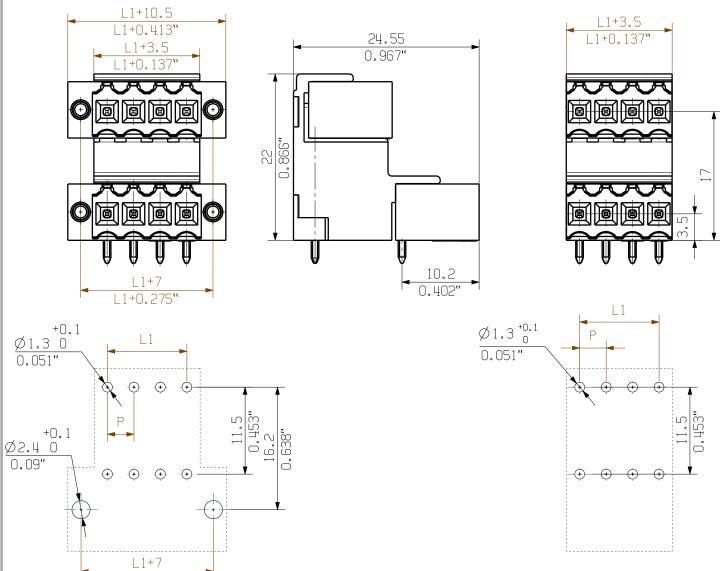
#### **General ordering data**

Туре	PTSC KA 2.2X4.5 WN1412	Version	Product data
Order No.	<u>1610740000</u>	PCB plug-in connector, Accessories, Mounting screw, Number of	
GTIN (EAN)	4008190039523	poles: 1	
Qty.	100 pc(s).		

L1+0.275"

# AUSFUEHRUNG/TYPE: SLD 3.50V/../90F..

#### AUSFUEHRUI



For the mounting of PCBs, it should be not rated data given in the catalogue relates o connection elements. The neccessary cree clearance paths must be observed in connet the respective applicant in accordance to NThe current-carrying capacity and pitch told be determined according to IEC 60326 part

Weidmueller connectors are tested to the D standard, and are valid for its field of appl Provided that the connectors are used to the purpose, all requirements with respect to the occuring of electrical, mechanical, thermic corrosive stress will be satisfied.



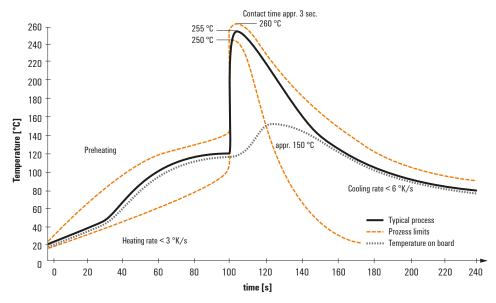
#### Recommended wave solderding profiles

#### Weidmüller Interface GmbH & Co. KG

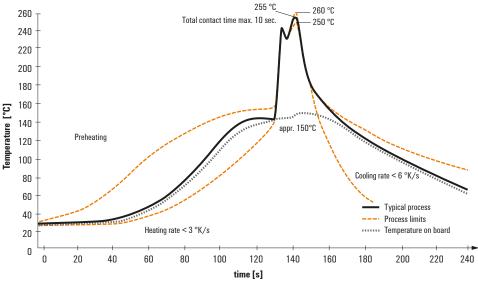
Klingenbergstraße 16 D-32758 Detmold Germany

Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

#### Single Wave:



#### **Double Wave:**



#### Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.

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