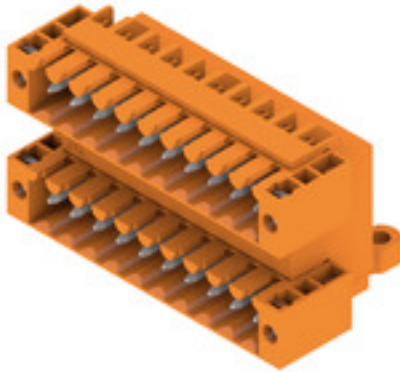


SLD 3.50/20/90F 3.2SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image**

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: 20, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box
Order No.	1633890000
Type	SLD 3.50/20/90F 3.2SN OR BX
GTIN (EAN)	4008190258344
Qty.	20 pc(s).
Product data	IEC: 200 V / 10.5 A UL: 300 V / 8 A
Packaging	Box

Creation date May 15, 2024 8:46:21 PM CEST

SLD 3.50/20/90F 3.2SN OR BX

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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	42 mm
Width (inches)	1.654 inch	Net weight	14.2 g

System specifications

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 "			
Outgoing elbow	90°			
Number of poles	20			
Number of solder pins per pole	1			
Solder pin length (l)	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)	+ 0.1 mm			
L1 in mm	31.5 mm			
L1 in inches	1.24 "			
Number of rows	2			
Pin series quantity	2			
Touch-safe protection acc. to DIN VDE 57 106	finger-safe plugged/ back-of-hand-safe unplugged			
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged			
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 number PTSC KA 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	Cu-alloy	Contact surface	tinned
Layer structure of solder connection	2...3 µm Ni / 5...7 µm Sn glossy	Storage temperature, min.	-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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Technical data

Rated data acc. to IEC

tested acc. to standard

IEC 60664-1, IEC 61984

Rated current, max. number of poles
(Tu=20°C)

8 A

Rated current, max. number of poles
(Tu=40°C)

7 A

Rated voltage for surge voltage class /
pollution degree III/2

160 V

Rated impulse voltage for surge voltage
class/ pollution degree II/2

2.5 kV

Rated impulse voltage for surge voltage
class/ contamination degree III/3

2.5 kV

Rated current, min. number of poles
(Tu=20°C)

10.5 A

Rated current, min. number of poles
(Tu=40°C)

9 A

Rated voltage for surge voltage class /
pollution degree II/2

200 V

Rated voltage for surge voltage class /
pollution degree III/3

125 V

Rated impulse voltage for surge voltage
class/ pollution degree III/2

2.5 kV

Short-time withstand current resistance

3 x 1s with 80 A

Rated data acc. to CSA

Institute (CSA)



Certificate No. (CSA)

154685-1318353

Rated voltage (Use group B / CSA)

300 V

Rated current (Use group B / CSA)

8 A

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group D / CSA)

300 V

Rated current (Use group D / CSA)

8 A

Rated data acc. to UL 1059

Institute (UR)



Certificate No. (UR)

E60693

Rated voltage (Use group B / UL 1059)

300 V

Rated current (Use group B / UL 1059)

8 A

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group D / UL 1059)

300 V

Rated current (Use group D / UL 1059)

8 A

Packing

Packaging

Box

VPE length

130 mm

VPE width

107 mm

VPE height

67 mm

Classifications

ETIM 6.0

EC002637

ETIM 8.0

EC002637

ECLASS 9.0

27-44-04-02

ECLASS 10.0

27-44-04-02

ECLASS 12.0

27-46-02-01

ETIM 7.0

EC002637

ETIM 9.0

EC002637

ECLASS 9.1

27-44-04-02

ECLASS 11.0

27-46-02-01

ECLASS 13.0

27-46-02-01

SLD 3.50/20/90F 3.2SN OR BX

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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	<ul style="list-style-type: none"> • Additional variants on request • Gold-plated contact surfaces on request • Rated current related to rated cross-section & min. No. of poles. • P on drawing = pitch • 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. • In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load • Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Approvals

Approvals

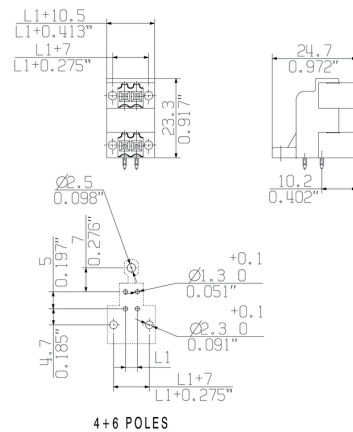
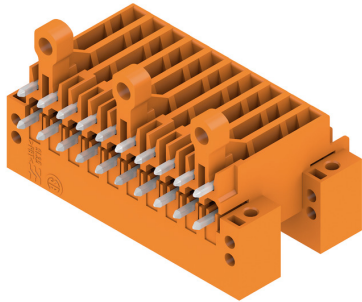


ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UR)	E60693

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 BASE STATION EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN PO OMNIMATE EN

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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

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

SLD 3.50/20/90F 3.2SN OR BX**Weidmüller Interface GmbH & Co. KG**

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www.weidmueller.com**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 clip-on connection or mounting for male and female connectors

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

General ordering data

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

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Dimensions without tolerances are no check dimensions

The English version is binding

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

AUSFUEHRUNG/TYPE SLD 3.50V/./90..

AUSFUEHRUNG/TYPE: SLD 3.50V/./90G..



46	80,50	77,00	81,90	87,50
42	73,50	70,00	74,90	80,50
38	66,50	63,00	67,90	73,50
34	59,50	56,00	60,90	66,50
30	52,50	49,00	53,90	59,50
26	45,50	42,00	46,90	52,50
22	38,50	35,00	39,90	45,50
18	31,50	28,00	32,90	38,50
14	24,50	21,00	25,90	31,50
10	17,50	14,00	18,90	24,50
6	10,50	7,00	11,90	17,50
n	L	L1	L2	L3

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to IEC 60326 part 3 very fine.

Weidmueller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

General tolerance:
DIN ISO 2768-mK

99080/5
20.10.17 HELIS_MA

06

Modification

3 21372 15

Drawing no. Issue no.

Sheet 00 of 00 sheets

Scale: 2:1

Supersedes: .

Drawn

13.08.2004

LANG_T

Responsible

LANG_T

Checked

01.11.2017

HELIS_MA

Approved

HECKERT_M

Product file: SLD 3.50V

7302

Cat.no.: .

SLD 3.50V/./90...

STIFTELEISTE

MALE HEADER

Recommended wave soldering profiles

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Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
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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.

We reserve the right to make technical changes.