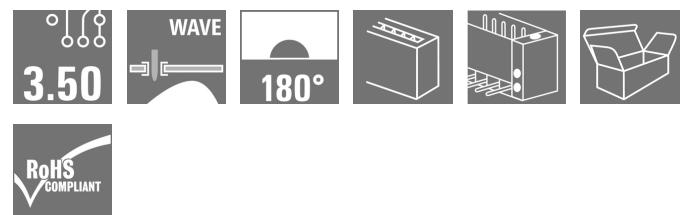


SL 3.50/16/180F 4.5 SN BK BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergsstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Product image

Pin headers for wave soldering in 3.50 mm pitch

- Plugging direction is parallel (90°), straight 180° or angled (135°) to the PCB
- Housing variant: screw flange (F)
- Packed in a cardboard box (BX)
- Pin header can be coded

General ordering data

Version	PCB plug-in connector, male header, Flange, THT solder connection, 3.50 mm, Number of poles: 16, 180°, Solder pin length (l): 4.5 mm, tinned, black, Box
Order No.	1616270000
Type	SL 3.50/16/180F 4.5 SN BK BX
GTIN (EAN)	4008190069834
Qty.	50 pc(s).
Product data	IEC: 320 V / 17 A UL: 300 V / 10 A
Packaging	Box

Creation date October 11, 2022 7:27:32 PM CEST

SL 3.50/16/180F 4.5 SN BK BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergsstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Technical data**Dimensions and weights**

Depth	7.5 mm	Depth (inches)	0.295 inch
Height	15.6 mm	Height (inches)	0.614 inch
Height of lowest version	11.1 mm	Width	63 mm
Width (inches)	2.48 inch	Net weight	5.04 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 inch										
Outgoing elbow	180°										
Number of poles	16										
Number of solder pins per pole	1										
Solder pin length (l)	4.5 mm										
Solder pin length tolerance	+0.1 / -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	52.5 mm										
L1 in inches	2.067 inch										
Number of rows	1										
Pin series quantity	1										
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.	10 N										
Tightening torque	<table border="1"> <tr> <td>Torque type</td> <td>Mounting screw, PCB</td> </tr> <tr> <td>Usage information</td> <td> <table border="1"> <tr> <td>Tightening torque</td> <td>min. 0.1 Nm</td> </tr> <tr> <td></td> <td>max. 0.15 Nm</td> </tr> <tr> <td>Recommended screw</td> <td>Part number PTSC KA 2.2X4.5 WN1412</td> </tr> </table> </td> </tr> </table>	Torque type	Mounting screw, PCB	Usage information	<table border="1"> <tr> <td>Tightening torque</td> <td>min. 0.1 Nm</td> </tr> <tr> <td></td> <td>max. 0.15 Nm</td> </tr> <tr> <td>Recommended screw</td> <td>Part number PTSC KA 2.2X4.5 WN1412</td> </tr> </table>	Tightening torque	min. 0.1 Nm		max. 0.15 Nm	Recommended screw	Part number PTSC KA 2.2X4.5 WN1412
Torque type	Mounting screw, PCB										
Usage information	<table border="1"> <tr> <td>Tightening torque</td> <td>min. 0.1 Nm</td> </tr> <tr> <td></td> <td>max. 0.15 Nm</td> </tr> <tr> <td>Recommended screw</td> <td>Part number PTSC KA 2.2X4.5 WN1412</td> </tr> </table>	Tightening torque	min. 0.1 Nm		max. 0.15 Nm	Recommended screw	Part number PTSC KA 2.2X4.5 WN1412				
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	black
Colour chart (similar)	RAL 9011	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	5...7 µm Sn glossy	Layer structure of plug contact	5...7 undefined 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

SL 3.50/16/180F 4.5 SN BK BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergsstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Technical data**Rated data acc. to IEC**

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	17 A
Rated current, max. number of poles (Tu=20°C)	12 A	Rated current, min. number of poles (Tu=40°C)	14.5 A
Rated current, max. number of poles (Tu=40°C)	10 A	Rated voltage for surge voltage class / pollution degree II/2	320 V
Rated voltage for surge voltage class / pollution degree III/2	160 V	Rated voltage for surge voltage class / pollution degree III/3	160 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 100 A

Rated data acc. to CSA

Institute (CSA)



Certificate No. (CSA)

12400-313

Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	10 A	Rated current (Use group D / CSA)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	16 mm
VPE width	27 mm	VPE height	66 mm

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	ECLASS 12.0	27-46-02-01

SL 3.50/16/180F 4.5 SN BK BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergsstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

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. • For additional mechanical support for male connectors with screw flange (...F), we recommend an additional cable gland with fastening screws (sheet metal screw ISO 1481-ST 2.2x4.5 C or ISO 7049-ST 2.2x4.5 C – see Accessories). Cable gland only permitted before soldering. • Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

Approvals

Approvals



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

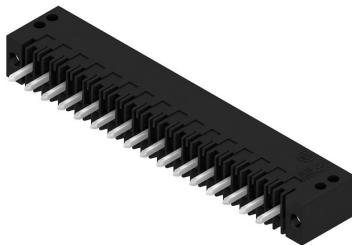
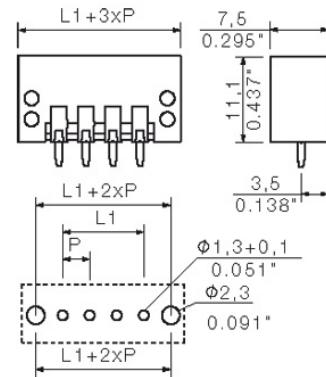
Downloads

Engineering Data	CAD data – STEP
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN FL DRIVES DE

SL 3.50/16/180F 4.5 SN BK BX

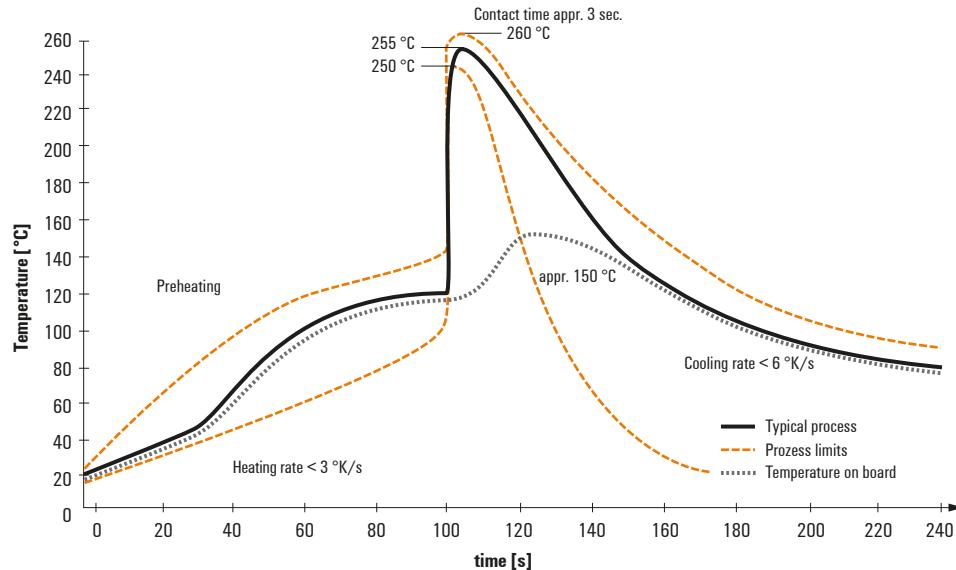
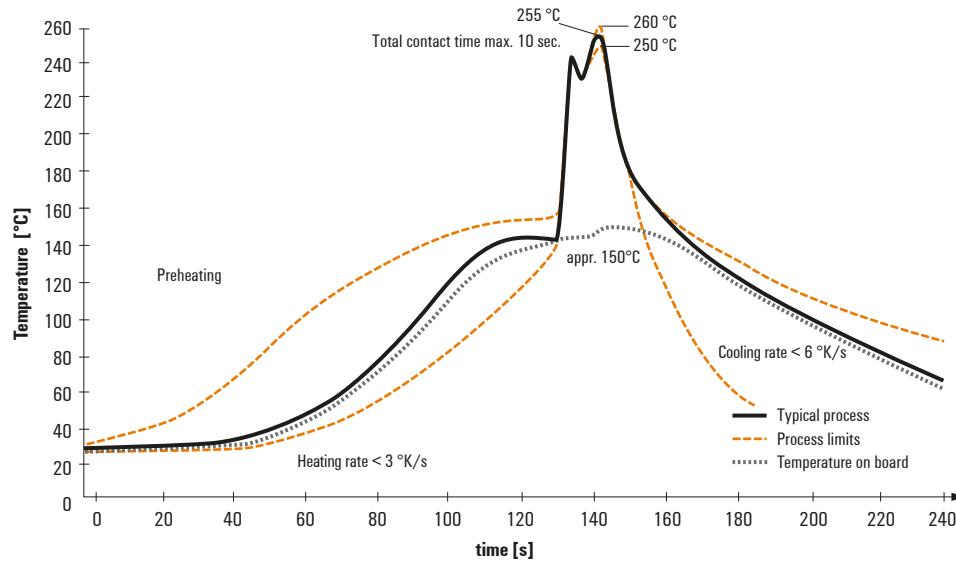
Weidmüller Interface GmbH & Co. KG
Klingenbergsstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Drawings**Product image****Dimensional drawing**

Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG
 Klingenbergsstraße 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.