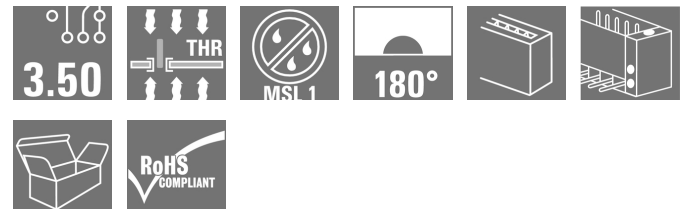


## OMNIMATE Signal - series BL/SL 3.50 SL-SMT 3.50/18/180F 1.5SN BK BX

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com



Similar to illustration

**High-temperature-resistant male header, 3.50 mm pitch.**

- **Plugging direction parallel (90°), straight 180° or angled (135°) to PCB**
- **Housing variants: closed side (G), screw flange (F), solder flange (LF) or snap-on solder flange (RF)**
- **Optimised for the SMT process**
- **Pin length 3.2 mm universal for all soldering methods**
- **Pin length 1.5 mm optimised for reflow soldering methods**
- **Packed either in a box (BX) or tape-on-reel (RL)**
- **Male header can be coded**

### General ordering data

Type	SL-SMT 3.50/18/180F 1.5SN BK BX
Order No.	<a href="#">1761122001</a>
Version	PCB plug-in connector, male header, Flange, THT/THR solder connection, 3.50 mm, Number of poles: 18, 180°, Solder pin length (l): 1.5 mm, tinned, black, Box
GTIN (EAN)	4032248131693
Qty.	24 pc(s).
Product data	IEC: 320 V / 15 A UL: 300 V / 10 A
Packaging	Box

**OMNIMATE Signal - series BL/SL 3.50**  
**SL-SMT 3.50/18/180F 1.5SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

**Technical data**
**Dimensions and weights**

Width	70 mm	Width (inches)	2.756 inch
Height	12.6 mm	Height (inches)	0.496 inch
Height of lowest version	11.1 mm	Depth	7.5 mm
Depth (inches)	0.295 inch	Net weight	5 g

**System specifications**

Product family	OMNIMATE Signal - series BL/SL 3.50		
Type of connection	Board connection		
Mounting onto the PCB	THT/THR solder connection		
Pitch in mm (P)	3.5 mm		
Pitch in inches (P)	0.138 inch		
Outgoing elbow	180°		
Number of poles	18		
Number of solder pins per pole	1		
Solder pin length (l)	1.5 mm		
Solder pin length tolerance	0 / -0.3 mm		
Tolerance of solder pin position	± 0.20 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		
Outside diameter of solder pad	2.3 mm		
Template aperture diameter	2.1 mm		
L1 in mm	59.5 mm		
L1 in inches	2.343 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	≤ 5mΩ		
Can be coded	Yes		
Tightening torque for screw flange, max.	0.1 Nm		
Plugging cycles	25		
Plugging force/pole, max.	6 N		
Pulling force/pole, max.	6 N		
Tightening torque	Torque type	PCB	
	Usage information	Tightening torque	max. 0.1 Nm
		Recommended screw	Part number <a href="#">PTSC KA 2.2X4.5 WN1412</a>

**OMNIMATE Signal - series BL/SL 3.50  
SL-SMT 3.50/18/180F 1.5SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com


**Technical data****Material data**

Insulating material	LCP GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 175	Insulation strength	≥ 10 <sup>8</sup> Ω
Moisture Level (MSL)	1	UL 94 flammability rating	V-0
GWIT	930 °C	GWFI	960 °C
Contact material	CuSn	Contact surface	tinned
Layer structure of solder connection	2-3 μm Ni / 5-7 μm Sn	Layer structure of plug contact	2-3 μm Ni / 5-7 μm Sn
Storage temperature, min.	-25 °C	Storage temperature, max.	50 °C
Max. relative humidity during storage	70 %	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-30 °C
Temperature range, installation, max.	100 °C		


**Rated data acc. to IEC**

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	15 A
Rated current, max. number of poles (Tu=20°C)	12 A	Rated current, min. number of poles (Tu=40°C)	13 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)	200039-1176845
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.		

**Rated data acc. to UL 1059**

Institute (UR)		Certificate No. (UR)	E60693
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)	10 A	Rated current (Use group D / UL 1059)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

**Packing**

Packaging	Box	VPE length	45 mm
VPE width	80 mm	VPE height	85 mm

Creation date May 3, 2020 11:01:28 AM CEST

**OMNIMATE Signal - series BL/SL 3.50**  
**SL-SMT 3.50/18/180F 1.5SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

**Technical data**
**Classifications**

ETIM 6.0	EC002637	ETIM 7.0	EC002637
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02
eClass 10.0	27-44-04-02	UNSPSC	30-21-18-10

**Notes**

Notes	<ul style="list-style-type: none"> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Diameter of solder eyelet D = 1.4+0.1mm</li> <li>• Solder eyelet diameter D = 1.5 + 0.1 mm, from 9 poles</li> <li>• P on drawing = pitch</li> <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> <li>• For additional mechanical support for male connectors with screw flange (...F), we recommend an additional cable gland with fastening screws (sheet metal screw ISO 148 1-ST 2.2x4.5 C or ISO 7049-ST 2.2x4.5 C - see Accessories). Cable gland only permitted before soldering.</li> </ul>
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.

**Approvals**

Approvals



ROHS

Conform

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Brochure/Catalogue	<a href="#">FL DRIVES EN</a> <a href="#">MB SMT EN</a> <a href="#">FL DRIVES DE</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL BUILDING SAFETY EN</a> <a href="#">FL APPL LED LIGHTING EN</a> <a href="#">FLIndustr.CONTROLS EN</a> <a href="#">FL MACHINE SAFETY EN</a> <a href="#">FL HEATING ELECTR EN</a> <a href="#">FL APPL INVERTER EN</a> <a href="#">FL_BASE_STATION_EN</a> <a href="#">FL ELEVATOR EN</a> <a href="#">FL POWER SUPPLY EN</a> <a href="#">FL 72H SAMPLE SER EN</a> <a href="#">PO OMNIMATE EN</a>
Engineering Data	<a href="#">SL-SMT.zip</a> <a href="#">STEP</a>
White paper surface mount technology	<a href="#">Download Whitepaper</a>

Creation date May 3, 2020 11:01:28 AM CEST

Catalogue status 17.04.2020 / We reserve the right to make technical changes.

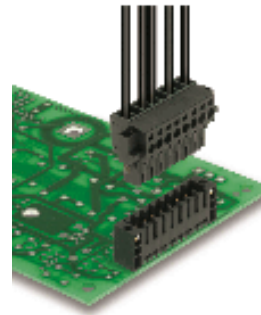
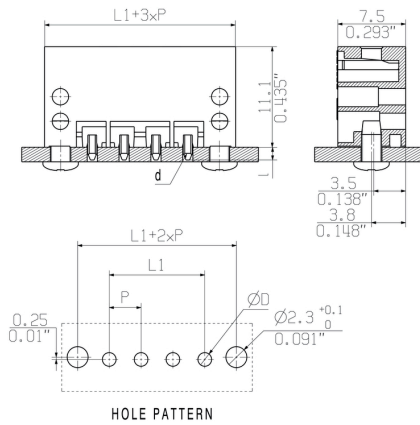
4

**OMNIMATE Signal - series BL/SL 3.50  
SL-SMT 3.50/18/180F 1.5SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

**Drawings**

**Dimensional drawing**



**OMNIMATE Signal - series BL/SL 3.50  
SL-SMT 3.50/18/180F 1.5SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

**Mating connector (conditionally pluggable)**
**BL 3.50/90**


Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BL 3.50/18/90 SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1638710000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190276263	90°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	24 pc(s).			
Type	BL 3.50/18/90 SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1638940000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190276485	90°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	24 pc(s).			

**BL 3.50/270**


Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BL 3.50/18/270 SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1639630000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190277185	270°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	24 pc(s).	Box		
Type	BL 3.50/18/270 SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1639860000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190277413	270°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	20 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50  
SL-SMT 3.50/18/180F 1.5SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

**Mating connector (conditionally pluggable)**
**BL 3.50/180**


Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BL 3.50/18/180 SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1620300000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190154172	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	24 pc(s).	Box		
Type	BL 3.50/18/180 SN GY BX	Version	Product data	Packaging
Order No.	<a href="#">1620610000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190159795	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	20 pc(s).	Box		
Type	BL 3.50/18/180 SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1620380000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190155766	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	24 pc(s).	Box		
Type	BL 3.50/18/180 SN DKGN ...	Version	Product data	Packaging
Order No.	<a href="#">1620690000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190160630	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	24 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50  
SL-SMT 3.50/18/180F 1.5SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

**Mating connector (fully pluggable)**
**BL 3.50/180LH**


Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BL 3.50/18/180LH SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1688040000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190853594	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	24 pc(s).	Box		
Type	BL 3.50/18/180LH SN DKG ...	Version	Product data	Packaging
Order No.	<a href="#">1752880000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248007493	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	20 pc(s).	Box		
Type	BL 3.50/18/180LH SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1687810000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190853365	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	24 pc(s).	Box		

**BLF 3.50/180LH**


Connect efficiently - in a small space: female header with spring connection (PUSH IN) as a plug-in connection level; used together with male headers in 3.50 mm pitch.

**General ordering data**

Type	BLF 3.50/18/180LH SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">2460110000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4050118475524	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / AWG 26 - AWG 16	
Qty.	24 pc(s).	Box		
Type	BLF 3.50/18/180LH SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">2538170000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4050118549898	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / AWG 26 - AWG 16	
Qty.	24 pc(s).	Box		



## OMNIMATE Signal - series BL/SL 3.50 SL-SMT 3.50/18/180F 1.5SN BK BX

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

### Mating connector (fully pluggable)

#### BL 3.50/180F



Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

#### General ordering data

Type	BL 3.50/18/180F SN GY BX	Version	Product data	Packaging
Order No.	<a href="#">1621080000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190168247	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	20 pc(s).	Box		
Type	BL 3.50/18/180F SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1620850000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190164621	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	24 pc(s).	Box		
Type	BL 3.50/18/180F SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1620770000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190163075	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	24 pc(s).	Box		
Type	BL 3.50/18/180F SN DKGN ...	Version	Product data	Packaging
Order No.	<a href="#">1621290000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190170912	180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 28 - AWG 14	
Qty.	20 pc(s).	Box		

#### BLF 3.50/180F



Connect efficiently - in a small space: female header with spring connection (PUSH IN) as a plug-in connection level; used together with male headers in 3.50 mm pitch.

#### General ordering data

Type	BLF 3.50/18/180F SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">2537990000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4050118549744	180°, PUSH IN, Spring connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / AWG 26 - AWG 16	
Qty.	24 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50  
SL-SMT 3.50/18/180F 1.5SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

**Mating connector (fully pluggable)**
**BL 3.50/90F**


Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BL 3.50/18/90F SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1639170000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190276713	90°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	24 pc(s).			
Type	BL 3.50/18/90F SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1639400000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190276942	90°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	24 pc(s).			

**BL 3.50/270F**


Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	BL 3.50/18/270F SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1640320000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190277901	270°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	24 pc(s).	Box		
Type	BL 3.50/18/270F SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1640090000</a>	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 18,	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190277642	270°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> ,	UL: 300 V / 8 A / AWG 28 - AWG 14	
Qty.	24 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 3.50  
SL-SMT 3.50/18/180F 1.5SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

**Accessories****LED Light guides****Effective: the link between LED and front panel.**

Floodlight indicators allow users to monitor the switching states without requiring a special design: optical plastic directs the light from standard LEDs around a bend into the connectors or through the front plate.

The fibre-optic elements are simply clipped behind the relevant 90° bend male connectors (90° outlet direction). Versions with different incoming light beam heights achieve maximum light efficiency for LEDs with different designs or heights.

The advantages compared to conventional solutions:

- No additional LED circuit board required behind the front panel
- No "long-legged" LEDs with separate mounting required
- Bent fibre-optic cable line for maximum light efficiency
- Uncomplicated front plate bore holes due to circular shape of outgoing light beam
- Easy to maintain correct clearance and creepage distance
- Can be partitioned for smaller pole numbers

The result: simplified manufacturing process, reduced costs and simplified design

**General ordering data**

Type	SL 3.5 FLA 1.5/1.75/8	Version	Product data	Packaging
Order No.	<a href="#">1597630000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190148386	Number of poles: 1		
Qty.	50 pc(s).			
Type	SL 3.5 FLA 2.3/1.75/8	Version	Product data	Packaging
Order No.	<a href="#">1597640000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190011321	Number of poles: 1		
Qty.	25 pc(s).			
Type	SL 3.5 FLA 4.0/1.75/8	Version	Product data	Packaging
Order No.	<a href="#">1597650000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190027773	Number of poles: 1		
Qty.	50 pc(s).			
Type	SL 3.5 FLA 1.5/8	Version	Product data	Packaging
Order No.	<a href="#">1597510000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190127541	Number of poles: 1		
Qty.	50 pc(s).			
Type	SL 3.5 FLA 2.3/8	Version	Product data	Packaging
Order No.	<a href="#">1597520000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190120566	Number of poles: 1		
Qty.	50 pc(s).			

## OMNIMATE Signal - series BL/SL 3.50 SL-SMT 3.50/18/180F 1.5SN BK BX

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

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

## 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	BL/SL 3.50 VR BK BX	Version	Product data
Order No.	<a href="#">1669300000</a>	PCB plug-in connector, Accessories, Latches, black, Number of poles:	
GTIN (EAN)	4008190428471	1	
Qty.	100 pc(s).		

## Data sheet

### OMNIMATE Signal - series BL/SL 3.50 SL-SMT 3.50/18/180F 1.5SN BK BX

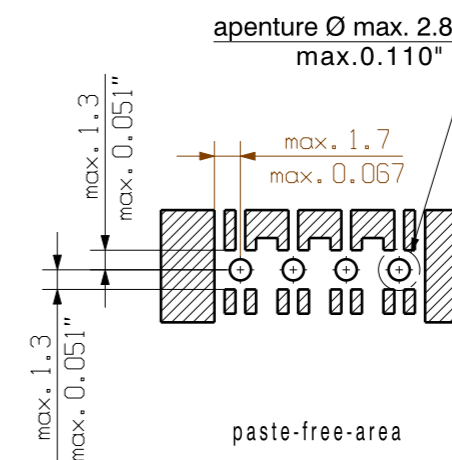
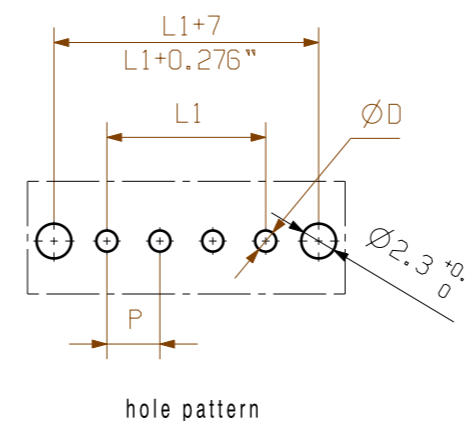
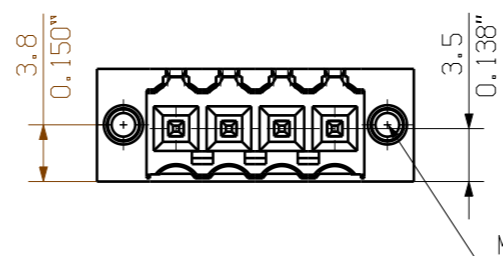
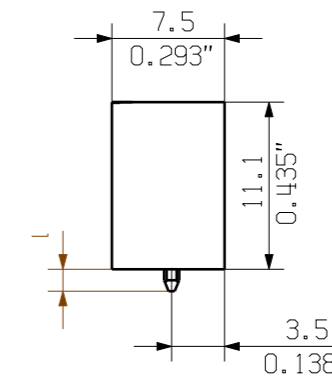
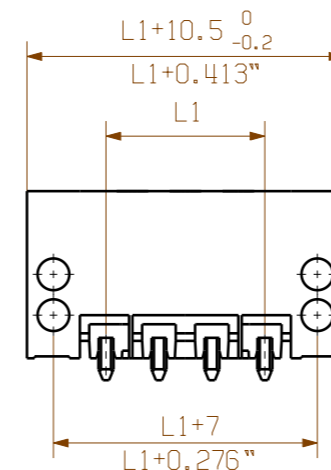
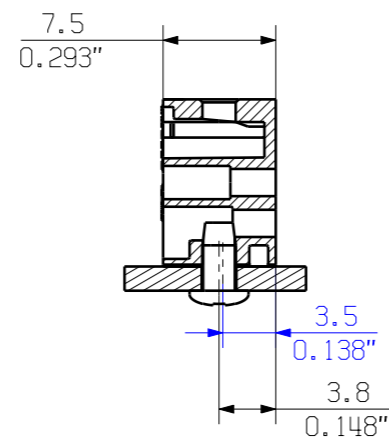
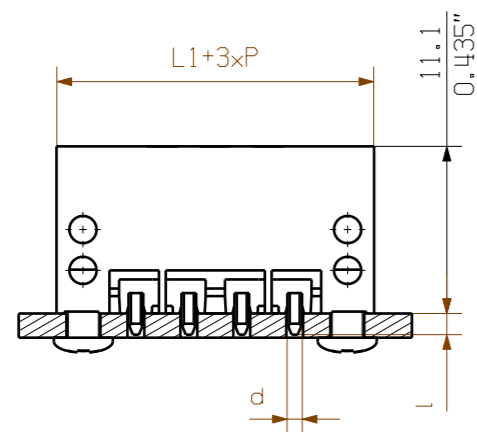
**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

## Accessories

Type	PTSC KA 2.2X4.5 WN1412	Version	Product data
Order No.	<a href="#">1610740000</a>	PCB plug-in connector, Accessories, Mounting screw, Number of	
GTIN (EAN)	4008190039523	poles: 1	
Qty.	100 pc(s).		
Type	BL/SL 3.50 VR OR BX	Version	Product data
Order No.	<a href="#">1669310000</a>	PCB plug-in connector, Accessories, Latches, orange, Number of poles:	
GTIN (EAN)	4008190428488	1	
Qty.	100 pc(s).		

The reproduction, distribution and utilization of this document as well as the communication of its contents to others without explicit authorization is prohibited. Offenders will be held liable for the payment of damages. Weidmüller exclusively reserves the right to file for patents, utility models or designs.

© Weidmüller Interface GmbH & Co. KG



pin length l	tolerance
1,5	0,0 -0,3
2,6	0,0 -0,3
3,2	0,0 -0,3
4,5	0,0 -0,3

n	L1 [mm]	L1 [Inch]	tolerance
24	80,50	3,169	+/- 0.2
23	77,00	3,031	
22	73,50	2,894	
21	70,00	2,756	
20	66,50	2,618	
19	63,00	2,480	+/- 0.15
18	59,50	2,343	
17	56,00	2,205	
16	52,50	2,067	
15	49,00	1,929	
14	45,50	1,791	+/- 0.1
13	42,00	1,654	
12	38,50	1,516	
11	35,00	1,378	
10	31,50	1,240	
9	28,00	1,102	+/- 0.1
8	24,50	0,965	
7	21,00	0,827	
6	17,50	0,689	
5	14,00	0,551	
4	10,50	0,413	+/- 0.1
3	7,00	0,276	
2	3,50	0,138	
n	L1 [mm]	L1 [Inch]	tolerance

shown: SL-SMT 3.50/04/180F

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 DIN IEC 326 part 3 very fine.

Weidmüller 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, thermal and corrosive stress will be satisfied.

<b>GENERAL TOLERANCE:</b> DIN ISO 2768-mK		99546/5 08.12.17 HELIS_MA 00		Cat.no.: .	
		Modification			
		Drawn	Date		
Scale: 2:1		Responsible	28.11.2007	HELIS_MA	<b>3 34146</b> (11) Drawing no. Issue no. Sheet 04 of 05 sheets
Supersedes: .		Checked	05.01.2018	HERTEL_S	
		Approved		LANG_T	
				<b>SL-SMT 3.50/.../180...</b> STIFTLAISTE MALE HEADER	
				Product file: SL-SMT 3.50	
				7312	

## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
 Klängenbergstraße 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.

## Recommended reflow soldering profile

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com



### Reflow soldering profile

The perfect soldering profile for SMT Surface Mount Technology is one the most exiting question in SMT production. But there are more than one correct answer: The diagram of temperature-on-time is related to processing features of solder paste and to maximum load of components.

We have to consider the following parameters:

- Time for pre heating
- Maximum temperature
- Time above melting point
- Time for cooling
- Maximum heating rate
- Maximum cooling rate

We recommend a typical solder profile with associated process limits. With preheating components and board are prepared smoothly for the solder phase. Heating rate is typically  $\leq +3\text{K/s}$ . In parallel the solder paste is ‚activated‘. The time above melting point of 217°C the paste gets liquid and components and boards begin to connect. The maximum temperature of 245°C to 254°C should stay between 10 and 40 seconds. In the cooling phase at  $\geq -6\text{K/s}$  solder is cured. Board and components cool down while avoiding cold cracks.