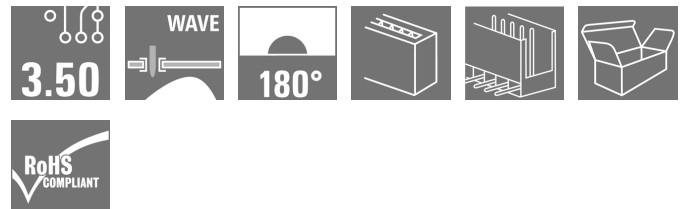


## OMNIMATE Signal - series BL/SL 3.50 SL 3.50/10/180 3.2SN OR BX

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



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

Type	SL 3.50/10/180 3.2SN OR BX
Order No.	<a href="#">1604850000</a>
Version	PCB plug-in connector, male header, open side, THT solder connection, 3.50 mm, No. of poles: 10, 180°, Solder pin length (l): 3.2 mm, tinned, Orange, Box
GTIN (EAN)	4008190096649
Qty.	50 pc(s).
Product data	IEC: 320 V / 17 A UL: 300 V / 10 A
Packaging	Box

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

Net weight 2.76 g

**System specifications**

Product family	OMNIMATE Signal - series BL/SL 3.50	Type of connection	Solder 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°
No. of poles	10	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Solder pin length tolerance	+0.1 / -0.3 mm
Tolerance of solder pin position	± 0.15 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 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	6.00 mΩ
Can be coded	Yes	Plugging cycles	25
push-in force/pole	4 N	Withdrawal force per pole	4 N
Packaging	Box		

**Material data**

Insulating material	PBT	Colour	Orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
CTI	≥ 200	Insulation resistance	≥ 10 <sup>8</sup> Ω
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 μm Sn glossy	Storage temperature, min.	-25 °C
Storage temperature, max.	55 °C	Max. relative humidity during storage	80 %
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. no. of poles (Ta = 20°C)	17 A
Rated current, max. no. of poles (Ta = 20°C)	12 A	Rated current, min. no. of poles (Ta = 40°C)	14.5 A
Rated current, max. no. of poles (Ta = 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


**Data sheet**

**OMNIMATE Signal - series BL/SL 3.50  
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www.weidmueller.com

**Technical data**

**Rated data acc. to CSA**

Institute (CSA)				Certificate No. (CSA)	
				154685-1318353	
Rated voltage (Use group B)	300 V	Rated voltage (use group D)	300 V		
Rated current (use group B)	10 A	Rated current (use group D)	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)	300 V	Rated voltage (use group D)	300 V		
Rated current (use group B)	10 A	Rated current (use group D)	10 A		
Reference to approval values	Specifications are maximum values, details - see approval certificate.				

**Classifications**

ETIM 3.0	EC001284	ETIM 4.0	EC002637
ETIM 5.0	EC002637	ETIM 6.0	EC002637
UNSPSC	30-21-18-10	eClass 5.1	27-26-07-04
eClass 6.2	27-26-07-04	eClass 7.1	27-44-04-02
eClass 8.1	27-44-04-02	eClass 9.0	27-44-04-02
eClass 9.1	27-44-04-02		

**Notes**

Notes	<ul style="list-style-type: none"> <li>• Additional colours on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of 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> </ul>
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IPC conformity The products are developed, manufactured and delivered according to the internationally recognised IPC-A-610 standard, category "permissible". More extensive demands on the products can be evaluated on request.

**Approvals**

Approvals	
ROHS	Conform

**Data sheet****OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/10/180 3.2SN OR BX**

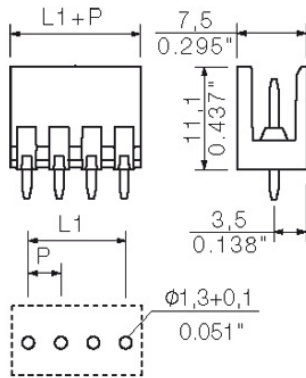
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**Technical data****Downloads**

Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Brochure/Catalogue	<a href="#">FL DRIVES EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL DRIVES DE</a> <a href="#">CAT 2 PORTFOLIOGUIDE EN</a> <a href="#">FL BUILDING SAFETY EN</a> <a href="#">FL APPL LED LIGHTING EN</a> <a href="#">FL INDUSTR.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.zip</a> <a href="#">STEP</a>

**Data sheet****OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/10/180 3.2SN OR BX**

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**Drawings****Dimensional drawing**

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**Mating connector (conditionally pluggable)**
**BL-I/O 3.5/30**


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL-I/O 3.50/30F M SN BK BX PRT	<a href="#">1792330000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 30, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248225330	20 pc(s).	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box
Discontinued	2016-07-08T00:00:00+02:00	BL-I/O 3.50/30F SN LTGY BX	<a href="#">1965910000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 30, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248657575	20 pc(s).
BL-I/O 3.50/30FP SN BK BX	<a href="#">1779910000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 30, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248165230	20 pc(s).	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box
BL-I/O 3.50/30F SN BK BX	<a href="#">1779920000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 30, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248165247	20 pc(s).	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box
Discontinued	2014-05-20T00:00:00+02:00	BL-I/O 3.50/30FP SN LTGY BX	<a href="#">1965930000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 30, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248657599	20 pc(s).

**OMNIMATE Signal - series BL/SL 3.50  
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Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

**Mating connector (conditionally pluggable)**
**BL-I/O 3.5/30 F PNP LED**


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL-I/O 3.50/30F PNP LED SN LTGY BX	<a href="#">1965970000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 30, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248657735	20 pc(s).	IEC: / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box
BL-I/O 3.50/30F PNP LED SN BK BX	<a href="#">1789110000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 30, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248208043	20 pc(s).	IEC: / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box
BL-I/O 3.50/30FP PNP LED SN BK BX	<a href="#">1789100000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 30, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248208036	20 pc(s).	IEC: / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box
Discontinued	2014-05-20T00:00:00+02:00	BL-I/O 3.50/30FP PNP LED SN LTGY BX	<a href="#">1965990000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 30, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248657759	20 pc(s).

**OMNIMATE Signal - series BL/SL 3.50  
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D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

**Mating connector (conditionally pluggable)**
**BL-I/O 3.5/30 NPN LED**


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL-I/O 3.50/30F NPN LED SN BK BX	<a href="#">1938020000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 30, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248610235	20 pc(s).	IEC: / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box
Discontinued	2014-05-20T00:00:00+02:00	BL-I/O 3.50/30F NPN LED SN LTGY BX	<a href="#">1965980000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 30, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248657742	20 pc(s).

**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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL 3.50/10/180F SN BK BX	<a href="#">1615860000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190063269	42 pc(s).	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 28 - AWG 14	Box
BL 3.50/10/180F SN OR BX	<a href="#">1606720000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection,	4008190062422	42 pc(s).	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 28 - AWG 14	Box

**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/10/180 3.2SN OR BX**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
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**Mating connector (conditionally pluggable)**

Clamping range, max. : 1.5  
mm<sup>2</sup>, Box

Discontinued	2016-04-08T00:00:00+02:00	BL 3.50/10/180F SN OR BX PRT	<a href="#">1701730000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190908058	50 pc(s).
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**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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL 3.50/10/90F SN BK BX	<a href="#">1639320000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 90°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190276867	42 pc(s).	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 8 A / AWG 28 - AWG 14	Box
BL 3.50/10/90F SN OR BX	<a href="#">1639090000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 90°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190276638	42 pc(s).	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 8 A / AWG 28 - AWG 14	Box

**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/10/180 3.2SN OR BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 16  
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 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
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**Mating connector (conditionally pluggable)****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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL 3.50/10/270F SN BK BX	<a href="#">1640240000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 270°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	400819027781942	pc(s).	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 8 A / AWG 28 - AWG 14	Box
BL 3.50/10/270F SN OR BX	<a href="#">1640010000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 270°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	400819027756742	pc(s).	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 8 A / AWG 28 - AWG 14	Box

**BLZF 3.5/180LH**

Female connectors with tension clamp system for connecting cables in 3.50 pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLZF 3.50/10/180LH SN OR BX	<a href="#">1691650000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Tension clamp connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	400819037361050	pc(s).	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 14	Box
Discontinued	2016-04-08T00:00:00+02:00	BLZF 3.50/10/180LH SN BK BX	<a href="#">1691880000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Tension clamp connection,	4008190373856	50 pc(s).

**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/10/180 3.2SN OR BX**

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**Mating connector (conditionally pluggable)**

Clamping range,  
max. : 1.5 mm<sup>2</sup>,  
Box

**BL-I/O 3.5/10 NPN LED**


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

**General ordering data**

Delivery status Available until	Type	Order No.	Version	GTIN (EAN)	Qty.
Discontinued 2014-05-20T00:00:00+02:00	BL-I/O 3.50/10F NPN LED SN LTGY BX	<a href="#">1965950000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248657711	20 pc(s).
BL-I/O 3.50/10F NPN LED SN BK BX	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	<a href="#">1938010000</a>	4032248610228 20 pc(s).	IEC: / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box

**BLZF 3.5/180F**


Female connectors with tension clamp system for connecting cables in 3.50 pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLZF 3.50/10/180F SN OR BX	<a href="#">1690960000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Tension clamp connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190329471	150 pc(s).	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 14	Box

**OMNIMATE Signal - series BL/SL 3.50  
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**Mating connector (conditionally pluggable)**

BLZF 3.50/10/180F SN BK BX	<a href="#">1691190000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Tension clamp connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190329730 50 pc(s).	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 14	Box
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**BL-I/O 3.5/10 F PNP LED**


Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL-I/O 3.50/10F PNP LED SN LTGY BX	<a href="#">1965940000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248657605 20 pc(s).		IEC: / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box
BL-I/O 3.50/10FP PNP LED SN BK BX	<a href="#">1789080000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248208012 20 pc(s).		IEC: / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box
Discontinued	2014-05-20T00:00:00+02:00	BL-I/O 3.50/10FP PNP LED SN LTGY BX	<a href="#">1965960000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248657728	20 pc(s).
BL-I/O 3.50/10F PNP LED SN BK BX	<a href="#">1789090000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248208029 20 pc(s).		IEC: / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box

**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/10/180 3.2SN OR BX**

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

**Mating connector (conditionally pluggable)**
**BL-I/O 3.5/10**

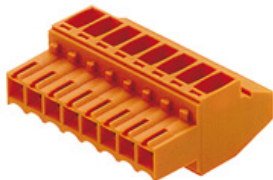

Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL-I/O 3.50/10F SN LTGY BX	<a href="#">1871690000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	403224845119720	20 pc(s).	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box
Discontinued	2014-05-20T00:00:00+02:00	BL-I/O 3.50/10FP SN LTGY BX	<a href="#">1965890000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248657551	20 pc(s).
BL-I/O 3.50/10F SN BK BX	<a href="#">1779880000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248165209	20 pc(s).	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box
BL-I/O 3.50/10FP SN BK BX	<a href="#">1779870000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4032248165193	20 pc(s).	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm <sup>2</sup> UL: 50 V / 5 A / AWG 24 - AWG 16	Box

**OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/10/180 3.2SN OR BX**

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

**Mating connector (fully 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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL 3.50/10/90 SN OR BX	<a href="#">1638630000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 90°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190276171	48 pc(s).	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 8 A / AWG 28 - AWG 14	Box
BL 3.50/10/90 SN BK BX	<a href="#">1638860000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 90°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190276409	48 pc(s).	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 8 A / AWG 28 - AWG 14	Box

**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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL 3.50/10/180LH SN BK BX	<a href="#">1687960000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190853518	42 pc(s).	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 28 - AWG 14	Box
BL 3.50/10/180LH SN OR BX	<a href="#">1687730000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190853280	42 pc(s).	IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 28 - AWG 14	Box

**OMNIMATE Signal - series BL/SL 3.50  
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**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

**Mating connector (fully 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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL 3.50/10/180 SN OR BX	<a href="#">1597440000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190192013 48 pc(s).		IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 28 - AWG 14	Box
BL 3.50/10/180 SN OR BX PRT	<a href="#">1740681001</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190961633 48 pc(s).		IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 28 - AWG 14	Box
BL 3.50/10/180 SN DKGX BX	<a href="#">1606570000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190039851 48 pc(s).		IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 28 - AWG 14	Box
BL 3.50/10/180 SN BK BX	<a href="#">1610200000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190126940 48 pc(s).		IEC: 320 V / 17 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 28 - AWG 14	Box

**OMNIMATE Signal - series BL/SL 3.50  
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**Weidmüller Interface GmbH & Co. KG**  
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Germany  
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www.weidmueller.com

**Mating connector (fully pluggable)**
**BLZF 3.5/180**


Female connectors with tension clamp system for connecting cables in 3.50 pitch. They provide space for labelling and can be coded.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLZF 3.50/10/180 SN BK BX	<a href="#">1690500000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Tension clamp connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190329013	50 pc(s).	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 14	Box
BLZF 3.50/10/180 SN OR BX	<a href="#">1690270000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Tension clamp connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190328764	50 pc(s).	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 14	Box
BLZF 3.50/10/180 SN DKGN BX	<a href="#">1690730000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, Tension clamp connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190329242	50 pc(s).	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 14	Box

**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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL 3.50/10/270 SN BK BX	<a href="#">1639780000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 270°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	4008190277338	48 pc(s).	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 8 A / AWG 28 - AWG 14	Box

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Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
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**Mating connector (fully pluggable)**

BL 3.50/10/270 SN OR BX	<a href="#">1639550000</a>	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 270°, Clamping yoke connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box	400819027710948 pc(s).	IEC: 320 V / 12 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 8 A / AWG 28 - AWG 14	Box
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## OMNIMATE Signal - series BL/SL 3.50 SL 3.50/10/180 3.2SN OR BX

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 D-32758 Detmold  
 Germany  
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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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BL SL 3.5 KO OR	<a href="#">1693430000</a>	PCB plug-in connector, Accessories, Coding element, Orange, No. of poles: 1	4008190867447	100 pc(s).	UL:	Box
BL SL 3.5 KO SW	<a href="#">1610100000</a>	PCB plug-in connector, Accessories, Coding element, Black, No. of poles: 1	4008190187637	100 pc(s).	UL:	Box

## Additional accessories



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

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	Order No.	Version	GTIN (EAN)	Qty.	Product data
BL/SL 3.50 VR OR BX	<a href="#">1669310000</a>	PCB plug-in connector, Accessories, Latches, Orange, No. of poles: 1	4008190428488	100 pc(s).	UL:

**Data sheet****OMNIMATE Signal - series BL/SL 3.50  
SL 3.50/10/180 3.2SN OR BX**

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

**Accessories**

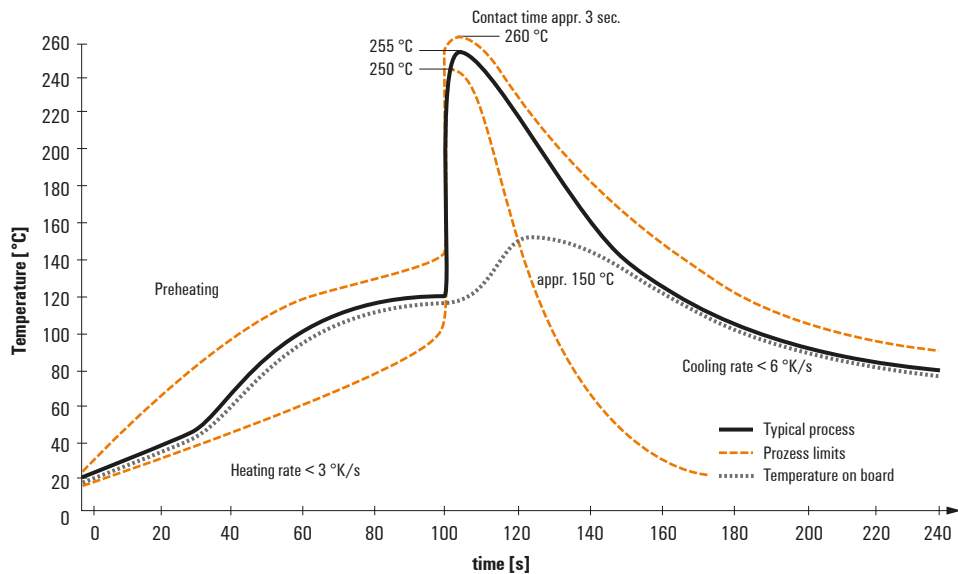
BL/SL 3.50 [1669300000](#)  
VR BK BX

PCB plug-in connector, 4008190428471 100 pc(s). UL:  
Accessories, Latches, Black,  
No. of poles: 1

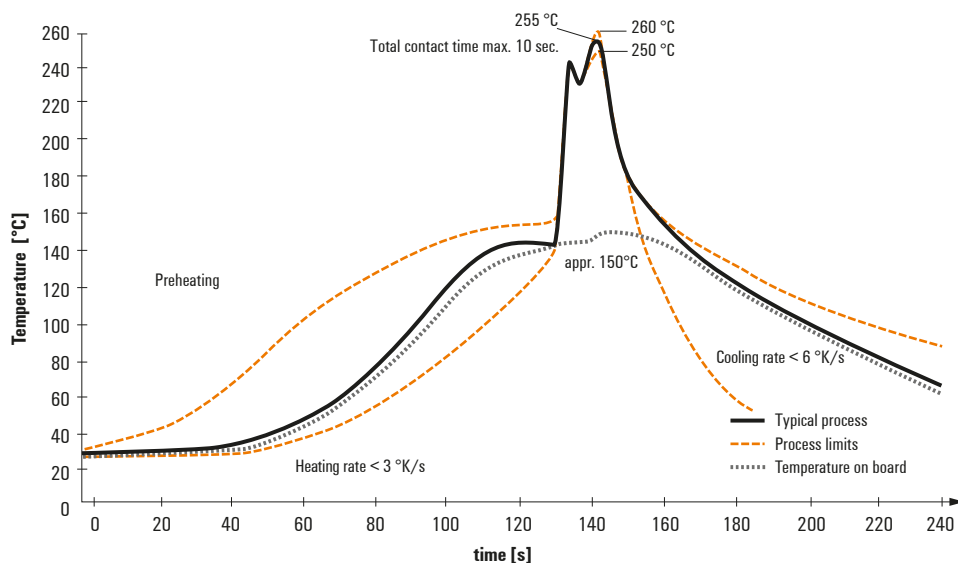
## Recommended wave soldering profiles

**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.

