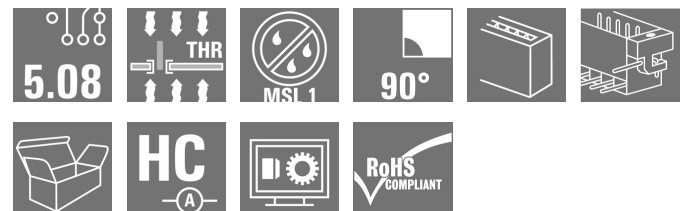


**OMNIMATE Signal - series BL/SL 5.08  
SL-SMT 5.08HC/09/90LF 3.2SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
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Fax: +49 5231 14-292083  
[www.weidmueller.com](http://www.weidmueller.com)



Similar to illustration

High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

**General ordering data**

Type	SL-SMT 5.08HC/09/90LF 3.2SN BK BX
Order No.	<a href="#">1780480000</a>
Version	PCB plug-in connector, male header, Solder flange, THT/THR solder connection, 5.08 mm, Number of poles: 9, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box
GTIN (EAN)	4032248165803
Qty.	30 pc(s).
Product data	IEC: 400 V / 27.5 A UL: 300 V / 18.5 A
Packaging	Box

Creation date May 3, 2020 1:35:52 PM CEST

# OMNIMATE Signal - series BL/SL 5.08

## SL-SMT 5.08HC/09/90LF 3.2SN BK BX

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## Technical data

### Dimensions and weights

Width	55.52 mm	Width (inches)	2.186 inch
Height	11.7 mm	Height (inches)	0.461 inch
Height of lowest version	8.5 mm	Depth	12 mm
Depth (inches)	0.472 inch	Net weight	5.24 g

### System specifications

Product family	OMNIMATE Signal - series BL/SL 5.08	Type of connection	Board connection
Mounting onto the PCB	THT/THR solder connection	Pitch in mm (P)	5.08 mm
Pitch in inches (P)	0.2 inch	Outgoing elbow	90°
Number of poles	9	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Solder pin length tolerance	0 / -0.3 mm
Tolerance of solder pin position	± 0.1 mm	Solder pin dimensions	d = 1.2 mm, Octagonal
Solder eyelet hole diameter (D)	1.5 mm	Solder eyelet hole diameter tolerance (D)	+ 0.1 mm
L1 in mm	40.64 mm	L1 in inches	1.6 inch
Number of rows	1	Pin series quantity	1
Volume resistance	≤ 5mΩ	Can be coded	Yes
Plugging cycles	25	Plugging force/pole, max.	9 N
Pulling force/pole, max.	7 N		

### Material data

Insulating material	LCP GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIla
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	CuMg	Contact surface	tinned
Layer structure of solder connection	1-3 µm Ni / 2-4 µm Sn matt	Layer structure of plug contact	1-3 µm Ni / 2-4 µm Sn matt
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)	27.5 A
Rated current, max. number of poles (Tu=20°C)	19 A	Rated current, min. number of poles (Tu=40°C)	24 A
Rated current, max. number of poles (Tu=40°C)	16.5 A	Rated voltage for surge voltage class / pollution degree II/2	400 V
Rated voltage for surge voltage class / pollution degree III/2	320 V	Rated voltage for surge voltage class / pollution degree III/3	250 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	4 kV		

**OMNIMATE Signal - series BL/SL 5.08  
SL-SMT 5.08HC/09/90LF 3.2SN BK BX**

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**Technical data****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) 18.5 A

Rated current (Use group D / CSA) 18.5 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) 18.5 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 35 mm

VPE width 115 mm

VPE height 165 mm

**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

- 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.

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

## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/09/90LF 3.2SN BK BX

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## Technical data

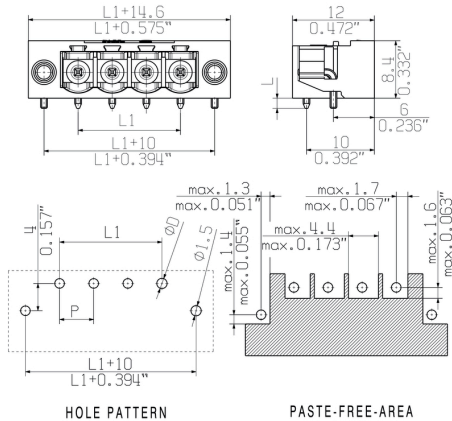
### Downloads

Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Brochure/Catalogue	<a href="#">FL DRIVES EN</a> <a href="#">MB SMT EN</a> <a href="#">FL DRIVES DE</a> <a href="#">MB DEVICE MANUF. EN</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="#">WSCAD</a>
Engineering Data	<a href="#">STEP</a>
White paper surface mount technology	<a href="#">Download Whitepaper</a>

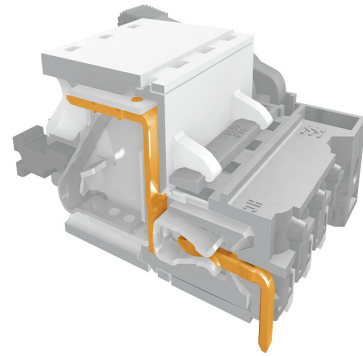
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## Drawings

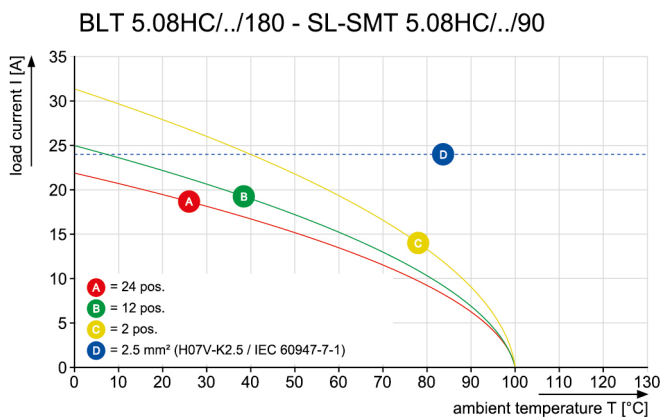
## Dimensional drawing



## Product benefits



## Graph



## Product benefits

### Safe power transmission

## Proven properties



**OMNIMATE Signal - series BL/SL 5.08**  
**SL-SMT 5.08HC/09/90LF 3.2SN BK BX**

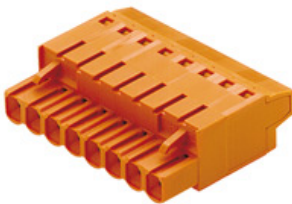
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**Mating connector (conditionally pluggable)**
**BLZ 5.00/270**


Female plugs with clamping-yoke screw for wire connection with 270° outlet direction. The female plugs provide space for labelling and can be coded.

**General ordering data**

Type	BLZ 5.00/09/270 SN DKGN ...	Version	Product data	Packaging
Order No.	<a href="#">1649960000</a>	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 9,	IEC: 400 V / 15 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190296544	270°, Clamping yoke connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	50 pc(s).	Box		

**BLT 5.08HC/180B**


Female plugs with TOP screw connection system for connecting wires with straight 180° outlet direction. The female connectors provide space for labelling and can be coded. HC = High Current.

**General ordering data**

Type	BLT 5.08HC/09/180B SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1502560000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 27 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190171117	180°, TOP connection, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	UL: 300 V / 17 A / AWG 26 - AWG 14	
Qty.	36 pc(s).			

**OMNIMATE Signal - series BL/SL 5.08  
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**Mating connector (conditionally pluggable)**
**BLL 5.08/180**


Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

**General ordering data**

Type	BLL 5.08/09/180 4.5SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1646210000</a>	PCB plug-in connector, female header, closed side, THT solder	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190285555	connection, 5.08 mm, Number of poles: 9, 180°, Solder pin length (l):	UL: 300 V / 15 A	
Qty.	50 pc(s).	4.5 mm, tinned, orange, Box		
Type	BLL 5.08/09/180 4.5SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1646320000</a>	PCB plug-in connector, female header, closed side, THT solder	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190285661	connection, 5.08 mm, Number of poles: 9, 180°, Solder pin length (l):	UL: 300 V / 15 A	
Qty.	50 pc(s).	4.5 mm, tinned, black, Box		

**BLZ 5.00/180**


Female plugs with clamping-yoke screw for wire connection with straight (180°) outlet direction. The female plugs provide space for labelling and can be coded.

**General ordering data**

Type	BLZ 5.00/09/180 SN DKGN ...	Version	Product data	Packaging
Order No.	<a href="#">1646890000</a>	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 9,	IEC: 400 V / 19 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190288150	180°, Clamping yoke connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	50 pc(s).	Box		

## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/09/90LF 3.2SN BK BX

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### Mating connector (fully pluggable)

#### BLZP 5.08HC/180F SN



Female plug with clamping-yoke screw system for connecting wires with straight (180°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

#### General ordering data

Type	BLZP 5.08HC/09/180F SN ...	Version	Product data	Packaging
Order No.	<a href="#">1944160000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248618743	180°, Clamping yoke connection, Clamping range, max.: 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			
Type	BLZP 5.08HC/09/180F SN ...	Version	Product data	Packaging
Order No.	<a href="#">1944400000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248618972	180°, Clamping yoke connection, Clamping range, max.: 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			

#### BLF 5.08HC/180LR SN



Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

#### General ordering data

Type	BLF 5.08HC/09/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1014190000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 24 A / 0.2 - 2.5 mm²	Box
GTIN (EAN)	4032248723140	180°, PUSH IN, Spring connection, Clamping range, max.: 3.31 mm², UL: 300 V / 18.5 A / AWG 26 - AWG 12		
Qty.	30 pc(s).	Box	12	
Type	BLF 5.08HC/09/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1014450000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 24 A / 0.2 - 2.5 mm²	Box
GTIN (EAN)	4032248722914	180°, PUSH IN, Spring connection, Clamping range, max.: 3.31 mm², UL: 300 V / 18.5 A / AWG 26 - AWG 12		
Qty.	30 pc(s).	Box	12	



## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/09/90LF 3.2SN BK BX

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### Mating connector (fully pluggable)

#### BLF 5.08HC/270LR SN



Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

#### General ordering data

Type	BLF 5.08HC/09/270LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1983150000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248687244	270°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> , UL: 300 V / 18.5 A / AWG 26 - AWG		
Qty.	30 pc(s).	Box	12	
Type	BLF 5.08HC/09/270LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1982380000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248686476	270°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> , UL: 300 V / 18.5 A / AWG 26 - AWG		
Qty.	30 pc(s).	Box	12	

#### BLZP 5.08HC/270F SN



Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

#### General ordering data

Type	BLZP 5.08HC/09/270F SN ...	Version	Product data	Packaging
Order No.	<a href="#">1950650000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248629022	270°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			
Type	BLZP 5.08HC/09/270F SN ...	Version	Product data	Packaging
Order No.	<a href="#">1950380000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248628506	270°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			

**OMNIMATE Signal - series BL/SL 5.08  
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**Mating connector (fully pluggable)**
**BLL 5.08/90FI**


Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

**General ordering data**

Type	BLL 5.08/09/90FI 3.2SN ...	Version	Product data	Packaging
Order No.	<a href="#">1843820000</a>	PCB plug-in connector, female header, Inverted flange, THT solder connection, 5.08 mm, Number of poles: 9, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box	IEC: 400 V / 23 A UL: 300 V / 15 A	Box
GTIN (EAN)	4032248355570			
Qty.	30 pc(s).			

**BLT 5.08HC/180F**


Female plugs with TOP screw connection system for connecting wires with straight outlet direction and screw flange. The female connectors provide space for labelling and can be coded. HC = High Current.

**General ordering data**

Type	BLT 5.08HC/09/180F SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1844290000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9, 180°, TOP connection, Clamping range, max. : 2.5 mm², Box	IEC: 400 V / 27 A / 0.2 - 2.5 mm² UL: 300 V / 17 A / AWG 26 - AWG 14	Box
GTIN (EAN)	4032248356225			
Qty.	30 pc(s).			
Type	BLT 5.08HC/09/180F SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1844060000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9, 180°, TOP connection, Clamping range, max. : 2.5 mm², Box	IEC: 400 V / 27 A / 0.2 - 2.5 mm² UL: 300 V / 17 A / AWG 26 - AWG 14	Box
GTIN (EAN)	4032248355983			
Qty.	30 pc(s).			

## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/09/90LF 3.2SN BK BX

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### Mating connector (fully pluggable)

#### BLF 5.08HC/90LR SN



Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

#### General ordering data

Type	BLF 5.08HC/09/90LR SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1002350000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248694518	90°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	30 pc(s).	Box	12	
Type	BLF 5.08HC/09/90LR SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1000480001</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248690442	90°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	30 pc(s).	Box	12	

#### BLF 5.08HC/180F SN



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In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

#### General ordering data

Type	BLF 5.08HC/09/180F SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1013160000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248720910	180°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	30 pc(s).	Box	12	

## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/09/90LF 3.2SN BK BX

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### Mating connector (fully pluggable)

Type	BLF 5.08HC/09/180F SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1012720000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248720361	180°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	30 pc(s).	Box	12	

### BLT 5.08HC/180LR



Female plugs with TOP screw connection system for connecting wires with straight wire outlet and release latch mechanism. The female connectors provide space for labelling and can be coded. HC = High Current.

#### General ordering data

Type	BLT 5.08HC/09/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1890290000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 27 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248498772	180°, TOP connection, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	UL: 300 V / 17 A / AWG 26 - AWG 14	
Qty.	30 pc(s).			

Type	BLT 5.08HC/09/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1894200000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 27 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248508549	180°, TOP connection, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	UL: 300 V / 17 A / AWG 26 - AWG 14	
Qty.	30 pc(s).			

### BLZP 5.08HC/90LR



Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

#### General ordering data

Type	BLZP 5.08HC/09/90LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1087100000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248853847	90°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			

Type	BLZP 5.08HC/09/90LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1087320000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248853953	90°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			

## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/09/90LF 3.2SN BK BX

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www.weidmueller.com

### Mating connector (fully pluggable)

#### BLZP 5.08HC/270LR SN



Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

#### General ordering data

Type	BLZP 5.08HC/09/270LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1947600000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248623891	270°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			
Type	BLZP 5.08HC/09/270LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1947830000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248624324	270°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			

#### BLZP 5.08HC/90F SN



Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

#### General ordering data

Type	BLZP 5.08HC/09/90F SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1950110000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248628049	90°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			
Type	BLZP 5.08HC/09/90F SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1949870000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248627790	90°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			

## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/09/90LF 3.2SN BK BX

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### Mating connector (fully pluggable)

#### BLZP 5.08HC/180LR SN



Female plug with clamping-yoke screw system for connecting wires with straight (180°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

#### General ordering data

Type	BLZP 5.08HC/09/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1945130000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248620272	180°, Clamping yoke connection, Clamping range, max.: 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			
Type	BLZP 5.08HC/09/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1944900000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248619924	180°, Clamping yoke connection, Clamping range, max.: 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			

#### BLF 5.08HC/270F SN



Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

#### General ordering data

Type	BLF 5.08HC/09/270F SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1982960000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 24 A / 0.2 - 2.5 mm²	Box
GTIN (EAN)	4032248687053	270°, PUSH IN, Spring connection, Clamping range, max.: 3.31 mm², Box	UL: 300 V / 18.5 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			
Type	BLF 5.08HC/09/270F SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1982190000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 24 A / 0.2 - 2.5 mm²	Box
GTIN (EAN)	4032248686285	270°, PUSH IN, Spring connection, Clamping range, max.: 3.31 mm², Box	UL: 300 V / 18.5 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			



## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/09/90LF 3.2SN BK BX

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### Mating connector (fully pluggable)

#### BLF 5.08HC/90F SN



Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

#### General ordering data

Type	BLF 5.08HC/09/90F SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1000290001</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248690251	90°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	30 pc(s).	Box	12	
Type	BLF 5.08HC/09/90F SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1002160000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 9,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248694310	90°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	30 pc(s).	Box	12	

## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/09/90LF 3.2SN BK BX

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## 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 FLA 3.8/1	Version	Product data	Packaging
Order No.	<a href="#">1580110000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190050740	Number of poles: 1		
Qty.	100 pc(s).			
Type	SL FLA 2,3/1	Version	Product data	Packaging
Order No.	<a href="#">1636670000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190409975	Number of poles: 1		
Qty.	100 pc(s).			
Type	SL FLA 2,3/24	Version	Product data	Packaging
Order No.	<a href="#">1636680000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190409968	Number of poles: 1		
Qty.	10 pc(s).			
Type	SL FLA 3.8/24	Version	Product data	
Order No.	<a href="#">1595860000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190140892	Number of poles: 1		
Qty.	10 pc(s).			
Type	SL FLA 9.0/24	Version	Product data	
Order No.	<a href="#">1595870000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190079796	Number of poles: 1		
Qty.	10 pc(s).			
Type	SL FLA 9.0/1	Version	Product data	Packaging
Order No.	<a href="#">1580120000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190031909	Number of poles: 1		
Qty.	100 pc(s).			



## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/09/90LF 3.2SN BK BX

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### Accessories

Type	SL FLA 1.5/1	Version	Product data	Packaging
Order No.	<a href="#">1580100000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190152475	Number of poles: 1		
Qty.	100 pc(s).			
Type	SL FLA 1.5/24	Version	Product data	
Order No.	<a href="#">1595850000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190092573	Number of poles: 1		
Qty.	10 pc(s).			

### 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	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	<a href="#">1573010000</a>	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			
Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	<a href="#">1545710000</a>	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			

## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/09/90LF 3.2SN BK BX

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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.

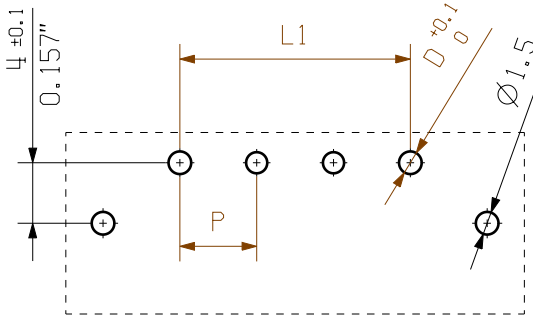
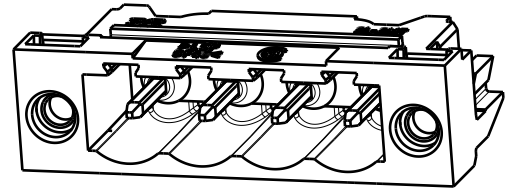
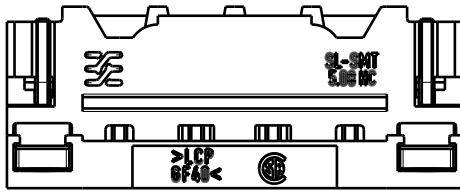
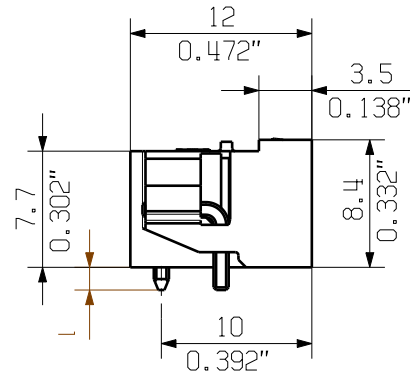
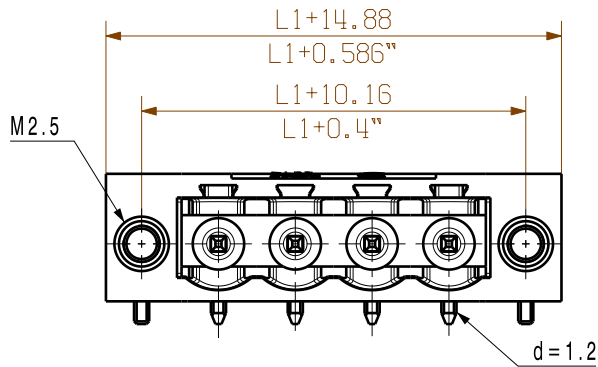
A system is not a system without small but useful details:

- 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 clip-on connection or mounting for male and female connectors

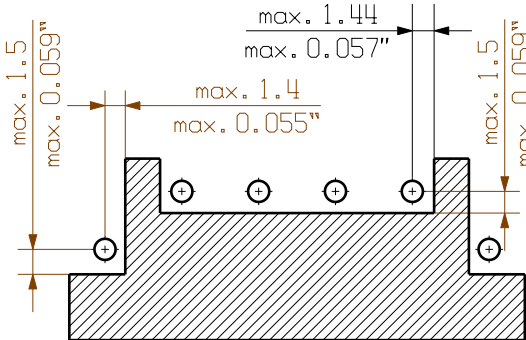
In tandem with the manufacturing process and application - more accessories = smaller workload

### General ordering data

Type	SL AT SW	Version	Product data	Packaging
Order No.	<a href="#">1770240000</a>	PCB plug-in connector, Accessories, Spacer, black, Number of poles: 1		Box
GTIN (EAN)	4032248117710			
Qty.	100 pc(s).			
Type	SL AT OR	Version	Product data	Packaging
Order No.	<a href="#">1598300000</a>	PCB plug-in connector, Accessories, Spacer, orange, Number of poles: 1		Box
GTIN (EAN)	4008190189266			
Qty.	100 pc(s).			



hole pattern



paste-free-area

D = 1.5/0.059" (REFLOW SOLDERING)  
RECOMMENDATION FOR AUTOMATIC ASSEMBLY

n = Polzahl / no of poles

P = Raster / pitch

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone.

The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110.

The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

shown: SL-SMT 5.08HC/04/90LF

24	116.84	4.600	+/- 0.2
23	111.76	4.400	
22	106.68	4.200	
21	101.60	4.000	
20	96.52	3.800	
19	91.44	3.600	+/- 0.15
18	86.36	3.400	
17	81.28	3.200	
16	76.20	3.000	
15	71.12	2.800	
14	66.04	2.600	+/- 0.1
13	60.96	2.400	
12	55.88	2.200	
11	50.80	2.000	
10	45.72	1.800	
9	40.64	1.600	+/- 0.1
8	35.56	1.400	
7	30.48	1.200	
6	25.40	1.000	
5	20.32	0.800	
4	15.24	0.600	+/- 0.1
3	10.16	0.400	
2	5.08	0.200	
1	tolerance		
no of poles	L1 [mm]	L1 [inch]	tolerance L1

4.5	0.1/-0.3
3.2	0.1/-0.3
2.1	0.1/-0.3
1.5	-0.3
1	tolerance

	DIN ISO 2768-m		Cat.no.: .		
	106339/4	30.07.18 HERTEL_S	01		
Modification					
	Date	Name	<b>SL-SMT 5.08HC/.. /90...</b> STIFTELEISTE MALE HEADER		
	Drawn	29.11.2007			HELIS_MA
	Responsible				HERTEL_S
	Checked	01.08.2018			KOCH_JG
Supersedes: .	Approved	LANG_T	Product file: SL-SMT 5.08		

2 33262 31  
 Drawing no. Issue no.  
 Sheet 03 of 04 sheets

## Recommended wave soldering profiles

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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.

## Recommended reflow soldering profile

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## 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.