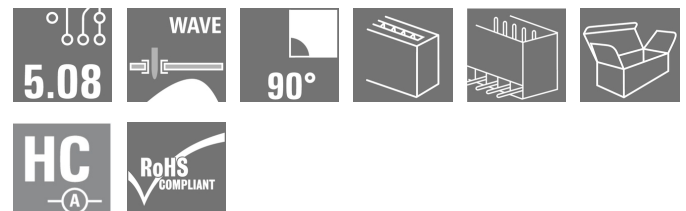


**OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/03/90G 3.2SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 1429-0  
Fax: +49 5231 14292083  
www.weidmueller.com



Pin headers made from glass-fibre-reinforced plastic with 90° wire outlet; optimised for wave soldering. The flange variant (F) can be screwed onto the respective counter piece or the circuit board. There is no need for an extra screw to connect the circuit board when the solder flange (LF) version is used. This also protects the solder points from mechanical strain. All pin headers can be manually coded or ordered pre-coded. HC = High Current.

**General ordering data**

Type	SL 5.08HC/03/90G 3.2SN BK BX
Order No.	<a href="#">1155330000</a>
Version	PCB plug-in connector, male header, closed side, THT solder connection, 5.08 mm, No. of poles: 3, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box
GTIN (EAN)	4050118050578
Qty.	100 pc(s).
Product data	IEC: 400 V / 24 A UL: 300 V / 18.5 A
Packaging	Box

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

Net weight	1.58 g
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**System specifications**

Product family	OMNIMATE Signal - series BL/SL 5.08	Type of connection	Pin connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	5.08 mm
Pitch in inches (P)	0.2 inch	Outgoing elbow	90°
No. of poles	3	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	± 0.1 mm	Solder pin dimensions	d = 1.2 mm, Octagonal
Solder pin dimensions = d tolerance	0 / -0.03 mm	Solder eyelet hole diameter (D)	1.3 mm
Solder eyelet hole diameter tolerance (D)	+ 0,1 mm	L1 in mm	10.16 mm
L1 in inches	0.4 inch	Number of rows	1
Pin series quantity	1	Can be coded	Yes
Plugging cycles	25	Packaging	Box

**Material data**

Insulating material	PA GF	Colour	Black
Colour chart (similar)	RAL 9011	Insulating material group	II
CTI	≥ 550	Insulation resistance	≥ 10 <sup>8</sup> Ω
UL 94 flammability rating	V-0	Contact material	Copper alloy
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.	55 °C	Max. relative humidity during storage	80 %
Operating temperature, min.	-50 °C	Operating temperature, max.	100 °C
Temperature range, installation, min.	-25 °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)	24 A
Rated current, max. no. of poles (Ta = 20°C)	19 A	Rated current, min. no. of poles (Ta = 40°C)	21 A
Rated current, max. no. of poles (Ta = 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		

**Rated data acc. to CSA**

Rated voltage (Use group B)	300 V	Rated voltage (use group D)	300 V
Rated current (use group B)	18.5 A	Rated current (use group D)	10 A

**Data sheet**

**OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/03/90G 3.2SN BK BX**

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**Technical data**

**Rated data acc. to UL 1059**

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (use group B)	300 V	Rated voltage (use group D)	300 V
Rated current (use group B)	18.5 A	Rated current (use group D)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

**Classifications**

ETIM 4.0	EC002637	ETIM 5.0	EC002637
ETIM 6.0	EC002637	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
- Additional colours on request
  - Gold-plated contact surfaces on request
  - Rated current related to rated cross-section & min. No. of poles.
  - P on drawing = pitch
  - Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.

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 5.08  
SL 5.08HC/03/90G 3.2SN BK BX**

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**Technical data****Downloads**

Approval/Certificate/Document of  
Conformity

[Declaration of the Manufacturer](#)

Brochure/Catalogue

[FL DRIVES EN](#)  
[MB DEVICE MANUF. EN](#)  
[FL DRIVES DE](#)  
[CAT 2 PORTFOLIOGUIDE EN](#)  
[FL BUILDING SAFETY EN](#)  
[FL APPL LED LIGHTING EN](#)  
[FL INDUSTR.CONTROLS EN](#)  
[FL MACHINE SAFETY EN](#)  
[FL HEATING ELECTR EN](#)  
[FL APPL INVERTER EN](#)  
[FL BASE STATION EN](#)  
[FL ELEVATOR EN](#)  
[FL POWER SUPPLY EN](#)  
[FL 72H SAMPLE SER EN](#)  
[PO OMNIMATE EN](#)

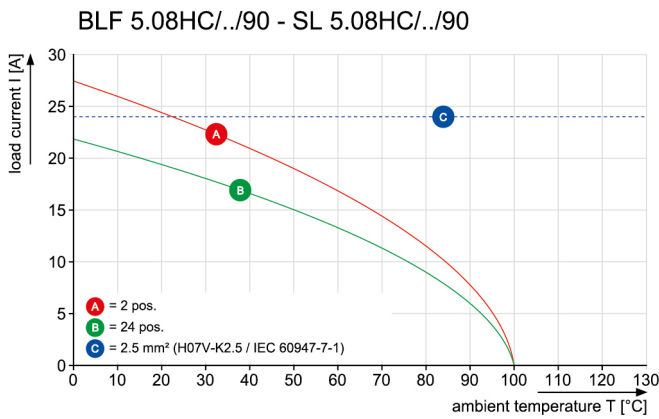
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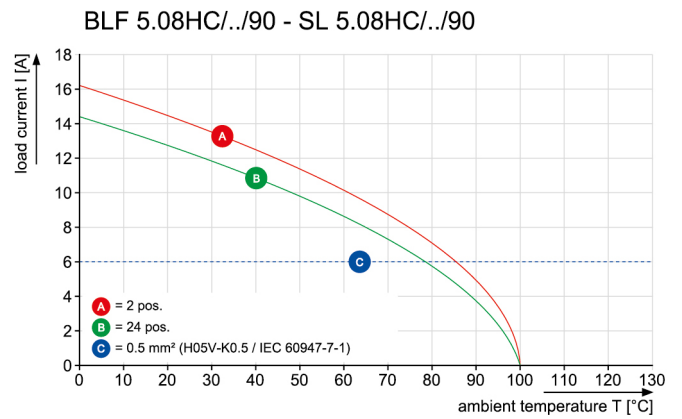
**Drawings**

**Dimensional drawing**

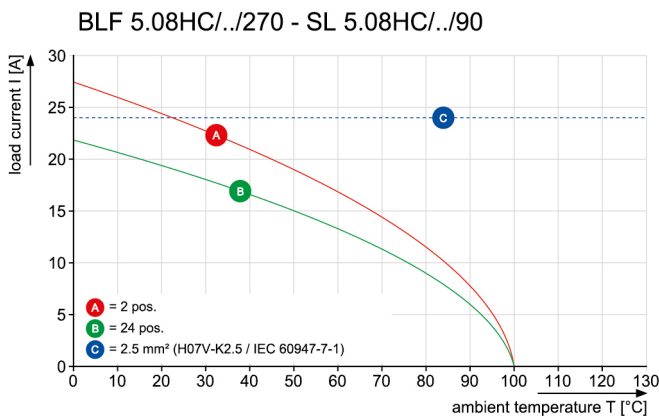
**Graph**



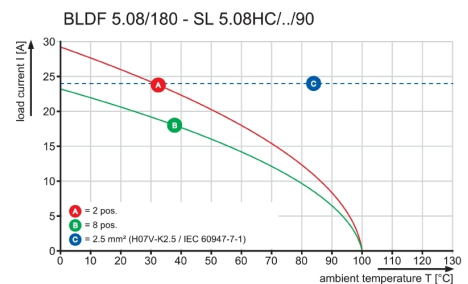
**Graph**



**Graph**



**Graph**



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**Mating connector (fully pluggable)**
**BLDT 5.08B**


Female plugs with two clamping-yoke screw connections per pole for wire connections with 90° and 270° outlet directions. The female plugs provide space for labelling and can be coded.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLDT 5.08/03/-B SN OR BX	<a href="#">1651750000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 180°, Clamping yoke connection, Clamping range, rated connection, max.: 3.31 mm <sup>2</sup> , Box	4008190400439 90	pc(s).	IEC: 400 V / 14 A / 0.2 - 2.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 12	Box
Discontinued	2014-05-20T00:00:00+02:00	BLDT 5.08/03/-B SN BK BX	<a href="#">1673790000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 180°, Clamping yoke connection, Clamping range, rated connection, max.: 3.31 mm <sup>2</sup> , Box	40081904355 16	100 pc(s).

**BLZP 5.08HC/225B SN**


Clamping-yoke connection with right-angled (90° or 270°) or angled (225°) 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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLZP 5.08HC/03/225B SN BK BX	<a href="#">1945990000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 225°, Clamping yoke connection, Clamping range, rated connection, max.: 4 mm <sup>2</sup> , Box	403224862 15 14	108 pc(s).	IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup> UL: 300 V / 15 A / AWG 26 - AWG 12	Box

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**Mating connector (fully pluggable)**

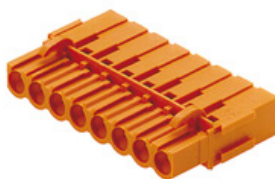
BLZP 5.08HC/03/225B SN OR BX	<a href="#">1945760000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 225°, Clamping yoke connection, Clamping range, rated connection, max.: 4 mm <sup>2</sup> , Box	4032248621231 108 pc(s).	IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup> UL: 300 V / 15 A / AWG 26 - AWG 12	Box
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**BLL 5.08/180B**


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

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLL 5.08/03/180B 3.2SN OR BX	<a href="#">1682740000</a>	PCB plug-in connector, female header, Dovetails for fixing blocks, THT solder connection, 5.08 mm, No. of poles: 3, 180°, Solder pin length (l): 3.2 mm, tinned, Orange, Box	4008190474508 108 pc(s).		IEC: 400 V / 23 A UL: 300 V / 15 A	Box

**BLC 5.08BR**


Female plugs with crimp wire connection system. The female plugs provide space for labelling and can be coded.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLC 5.08/03/180BR BK BX	<a href="#">1712120000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 180°, Crimp connection, Clamping range, rated connection, max.: 2.5 mm <sup>2</sup> , Box	4008190935139 100 pc(s).		IEC: 400 V / 21 A UL: 300 V / 10 A / AWG 26 - AWG 14	Box
BLC 5.08/03/180BR OR BX	<a href="#">1649380000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 180°, Crimp connection, Clamping	4008190294489 100 pc(s).		IEC: 400 V / 21 A UL: 300 V / 10 A / AWG 26 - AWG 14	Box

Creation date November 17, 2017 4:42:20 AM CET

**OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/03/90G 3.2SN BK BX**

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[www.weidmueller.com](http://www.weidmueller.com)

**Mating connector (fully pluggable)**

range, rated connection,  
max.: 2.5 mm<sup>2</sup>, Box

**OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/03/90G 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**

Delivery status	Available until	Type	Order No.	Version	GTIN (EAN)	Qty.
Discontinued	2010-05-31T00:00:00+02:00	SL FLA 1.5/24	<a href="#">1595850000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent, No. of poles: 1	4008190092573	10 pc(s).
		SL FLA 1.5/1	<a href="#">1580100000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent, No. of poles: 1	UL:	Box
		SL FLA 2,3/1	<a href="#">1636670000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent, No. of poles: 1	UL:	Box
		SL FLA 2,3/24	<a href="#">1636680000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent, No. of poles: 1	UL:	Box
Discontinued	2010-05-31T00:00:00+02:00	SL FLA 3.8/24	<a href="#">1595860000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent, No. of poles: 1	4008190140892	10 pc(s).
		SL FLA 3.8/1	<a href="#">1580100000</a>	PCB plug-in connector, Accessories, Flood-light	UL:	Box

## Data sheet

### OMNIMATE Signal - series BL/SL 5.08 SL 5.08HC/03/90G 3.2SN BK BX

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## Accessories

		display, Transparent, No. of poles: 1				
SL FLA 9.0/1	<a href="#">1580120000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent, No. of poles: 1	4008190031909 100 pc(s).	UL:		Box
Discontinued	2010-05-31T00:00:00+02:00	SL FLA 9.0/24	<a href="#">1595870000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent, No. of poles: 1	4008190079796	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	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLZ/SL KO BK BX	<a href="#">1545710000</a>	PCB plug-in connector, Accessories, Coding element, Black, No. of poles: 1	4008190087142 50 pc(s).		UL:	Box
BLZ/SL KO OR BX	<a href="#">1573010000</a>	PCB plug-in connector, Accessories, Coding element, Orange, No. of poles: 1	4008190048396 100 pc(s).		UL:	Box

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**Accessories**
**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	Packaging
SL AT SW	<a href="#">1770240000</a>	PCB plug-in connector, Accessories, Partition element, Black, No. of poles: 1	4032248117710	100 pc(s).	UL:	Box
SL AT OR	<a href="#">1598300000</a>	PCB plug-in connector, Accessories, Partition element, Orange, No. of poles: 1	4008190189266	100 pc(s).	UL:	Box

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**Accessories**

**Blocks for PCB mounting**



**Minor component, major effect:**

Clip-on attachment elements increase the mechanical resilience of the whole plug connection by

- securing the male connectors to the circuit board
- providing a vibration-proof connection between the sockets and the male connectors

Clip-on or pre-assembled - always the right solution:

- Hard-wearing, precise fitting dovetail joint
- Hard-wearing metal threaded inserts
- Suitable for all outlet directions

Maximum stability, minimum effort:

- Extremely resilient for frequent fastening operations
- Complete set for easy selection

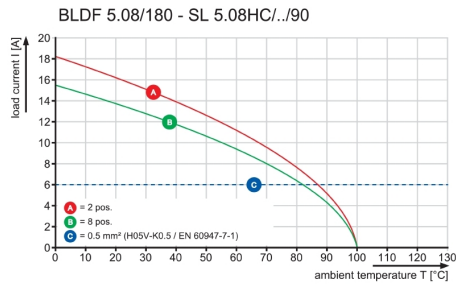
The result: soldering points, contacts and overall module are more resilient against mechanical stress such as vibrations and tensile loads.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
SLA BB11R SW	<a href="#">1692340000</a>	PCB plug-in connector, Accessories, Mounting block, Black, No. of poles: 1	4008190864965	20 pc(s).	UL:	Box
SLA BB11R OR	<a href="#">1604120000</a>	PCB plug-in connector, Accessories, Mounting block, Orange, No. of poles: 1	4008190182977	20 pc(s).	UL:	Box

**Data sheet****OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/03/90G 3.2SN BK BX**

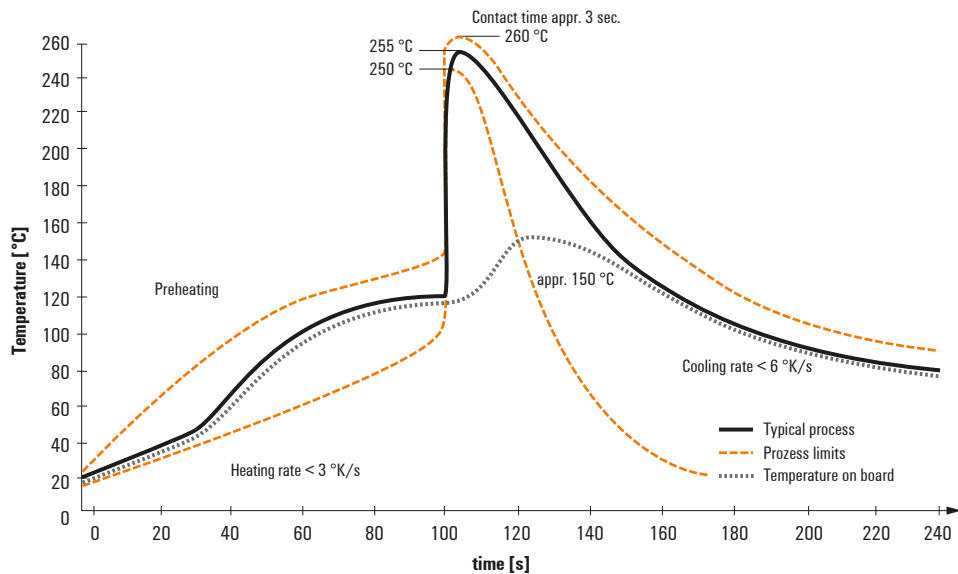
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**Drawings****Graph**

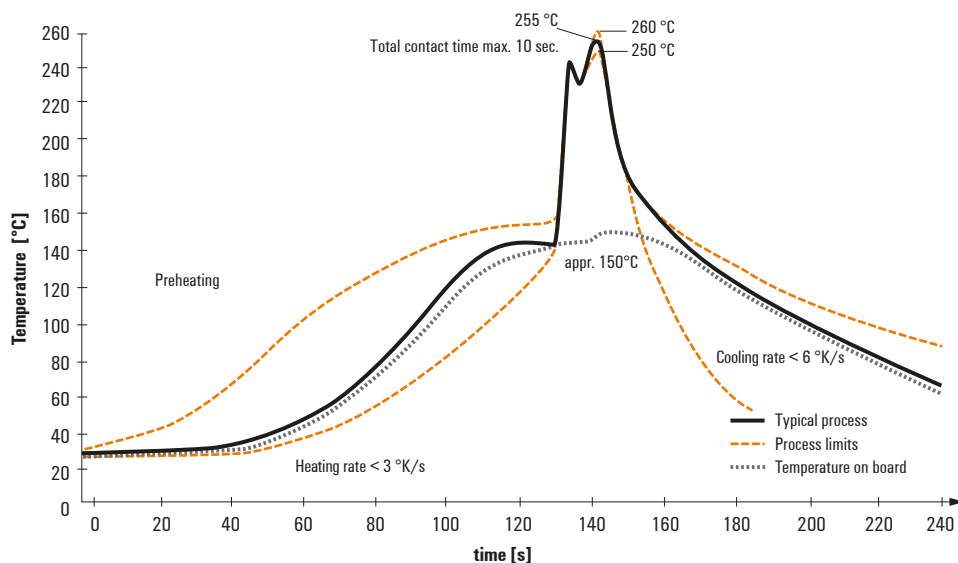
## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
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 Fax: +49 5231 14-292083  
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### Single Wave:



### Double Wave:



### Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.

