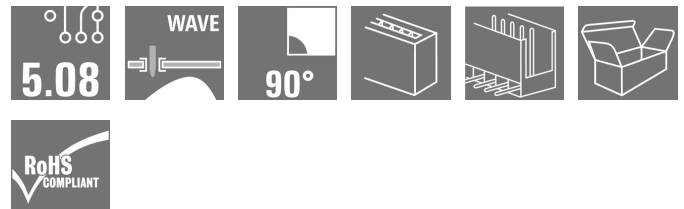


## OMNIMATE Signal - series BLA/SLA 5.08 SLA 03/90 3.2SN OR BX

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

### Product image



Similar to illustration

Dimensionally stable, angled, codable male connector from the Unimate range of plugs with integral aid to prevent wrong connections. Available with open or closed sides. Fixing blocks can be attached to the closed version. The solder pin length of 3.2 mm has been optimised for wave soldering. Supplied in cardboard box.

### General ordering data

Type	SLA 03/90 3.2SN OR BX
Order No.	<a href="#">1238160000</a>
Version	PCB plug-in connector, male header, open side, THT solder connection, 5.08 mm, No. of poles: 3, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box
GTIN (EAN)	4008190079413
Qty.	100 pc(s).
Product data	IEC: 400 V / 17.5 A UL: 300 V / 10 A
Packaging	Box

**OMNIMATE Signal - series BLA/SLA 5.08**  
**SLA 03/90 3.2SN OR BX**

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

Width	15.24 mm	Width (inches)	0.6 inch
Height	12.6 mm	Height (inches)	0.496 inch
Height of lowest version	9.4 mm	Depth	12 mm
Depth (inches)	0.472 inch	Net weight	1.48 g

**System specifications**

Product family	OMNIMATE Signal - series BLA/SLA 5.08	Type of connection	Board 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	Tolerance of solder pin position	± 0.1 mm
Solder pin dimensions	d = 1.2 mm, Octagonal	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	Touch-safe protection acc. to DIN VDE 57 106	Safe from back-of-hand touch
Volume resistance	5.50 mΩ	Can be coded	Yes
Plugging cycles	25	Pulling force/pole, max.	2 N

**Material data**

Insulating material	PBT GF	Colour code	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
CTI	≥ 200	Insulation strength	≥ 10 <sup>8</sup> Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	CuSn	Contact surface	tinned
Storage temperature, min.	-25 °C	Storage temperature, max.	55 °C
Max. relative humidity during storage	80 %	Operating temperature, min.	-50 °C
Operating temperature, max.	120 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	120 °C		

**Rated data acc. to IEC**


tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. no. of poles (Tu=20°C)	17.5 A
Rated current, max. no. of poles (Tu=20°C)	12.5 A	Rated current, min. no. of poles (Tu=40°C)	16 A
Rated current, max. no. of poles (Tu=40°C)	11 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	Short-time withstand current resistance	3 x 1s with 100 A

## OMNIMATE Signal - series BLA/SLA 5.08 SLA 03/90 3.2SN OR BX

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### Technical data

#### Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	12400-158
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.		

#### Packaging

Packaging	Box	VPE length	58 mm
VPE width	62 mm	VPE height	156 mm

#### 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>
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.

**Data sheet****OMNIMATE Signal - series BLA/SLA 5.08  
SLA 03/90 3.2SN OR BX**

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Klingenbergstraße 16  
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**Technical data****Approvals**

Approvals



ROHS

Conform

**Downloads**Approval/Certificate/Document of  
Conformity[Declaration of the Manufacturer](#)

Brochure/Catalogue

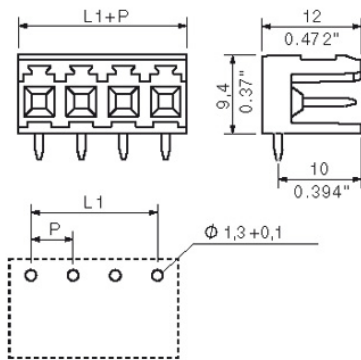
[FL DRIVES EN](#)  
[MB DEVICE MANUF. EN](#)  
[FL DRIVES DE](#)  
[FL BUILDING SAFETY EN](#)  
[FL APPL LED LIGHTING EN](#)  
[FLIndustr.CONTROLS EN](#)  
[FL MACHINE SAFETY EN](#)  
[FL HEATING ELECTR EN](#)  
[FL APPL INVERTER EN](#)  
[FL\\_BASE\\_STATION EN](#)  
[FL ELEVATOR EN](#)  
[FL POWER SUPPLY EN](#)  
[FL 72H SAMPLE SER EN](#)  
[PO OMNIMATE EN](#)

Engineering Data

[SLA.zip](#)

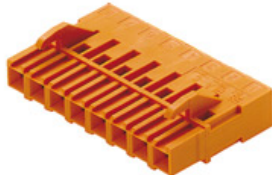
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**Drawings****Dimensional drawing**

**OMNIMATE Signal - series BLA/SLA 5.08  
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**Mating connector (conditionally pluggable)**
**BLAC R**


Female header with crimp connection system enable rational prefabrication of cable looms and guarantee a distinct cost-saving. The BLAC is also available with dovetail (B) for convenient attachment of fixing blocks. Supplied in cardboard box.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLAC 3R OR	<a href="#">1477960000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 180°, Crimp connection, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	4008190135959	100 pc(s).	IEC: 500 V / 20 A UL: 300 V / 10 A / AWG 26 - AWG 14	Box

**BLA B**

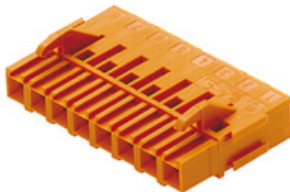

Female header with clamping yoke connection system. The principle of the vibration-proof screw connection and the Unimate range pin arrangement provides a unique security during operation. Also available with dovetail (B) for convenient attachment of fixing blocks. The BLA has a labelling panel and can be coded. Supplied in cardboard box.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLA 3B SN OR	<a href="#">1356160000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 180°, Screw connection, Clamping range, max. : 3.32 mm <sup>2</sup> , Box	4008190038236	108 pc(s).	IEC: 400 V / 17.5 A / 0.2 - 2.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 12	Box

**OMNIMATE Signal - series BLA/SLA 5.08  
SLA 03/90 3.2SN OR BX**

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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)**
**BLAC BR**


Female header with crimp connection system enable rational prefabrication of cable looms and guarantee a distinct cost-saving. The BLAC is also available with dovetail (B) for convenient attachment of fixing blocks. Supplied in cardboard box.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLAC 3BR OR	<a href="#">1478860000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 180°, Crimp connection, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	4008190091804	100 pc(s).	IEC: 500 V / 20 A UL: 300 V / 10 A / AWG 26 - AWG 14	Box

**BLAT B**


Female connectors with TOP connection system enable the clamping screw to be tightened parallel with the wire and so result in a high connection density. Also available with dovetail (B) for convenient attachment of fixing blocks. The BLAT has a labelling panel and can be coded. Supplied in cardboard box.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLAT 3B SN OR	<a href="#">1486660000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 180°, TOP connection, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	4008190031206	102 pc(s).	IEC: 400 V / 15 A / 0.2 - 2.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 14	Box

**OMNIMATE Signal - series BLA/SLA 5.08  
SLA 03/90 3.2SN OR BX**

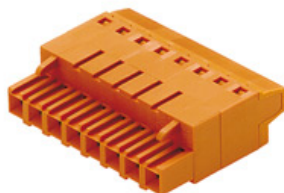
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Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

**Mating connector (fully pluggable)**
**BLA**


Female header with clamping yoke connection system. The principle of the vibration-proof screw connection and the Unimate range pin arrangement provides a unique security during operation. Also available with dovetail (B) for convenient attachment of fixing blocks. The BLA has a labelling panel and can be coded. Supplied in cardboard box.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLA 3 SN OR	<a href="#">1281860000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 180°, Screw connection, Clamping range, max. : 3.32 mm <sup>2</sup> , Box	4008190074630	120 pc(s).	IEC: 400 V / 17.5 A / 0.2 - 2.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 12	Box
BLA 3 SN GR	<a href="#">1281800000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 180°, Screw connection, Clamping range, max. : 3.32 mm <sup>2</sup> , Box	4008190065560	120 pc(s).	IEC: 400 V / 17.5 A / 0.2 - 2.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 12	Box
BLA 3 SN SW	<a href="#">1281810000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 180°, Screw connection, Clamping range, max. : 3.32 mm <sup>2</sup> , Box	4008190038571	120 pc(s).	IEC: 400 V / 17.5 A / 0.2 - 2.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 12	Box

**BLAT**


Female connectors with TOP connection system enable the clamping screw to be tightened parallel with the wire and so result in a high connection density. Also available with dovetail (B) for convenient attachment of fixing blocks. The BLAT has a labelling panel and can be coded. Supplied in cardboard box.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BLAT 3 SN OR	<a href="#">1484360000</a>	PCB plug-in connector, female plug, 5.08 mm, No. of poles: 3, 180°, TOP connection, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	4008190003562	120 pc(s).	IEC: 400 V / 15 A / 0.2 - 2.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 14	Box



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Klingenbergstraße 16  
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Germany  
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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**

Delivery status	Available until	Type	Order No.	Version	GTIN (EAN)	Qty.
Discontinued	2010-05-31T00:00:00+02:00	SLA FLAT 4TE 3.8/1	<a href="#">1578250000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent, No. of poles: 1	4008190047474	100 pc(s).
SLA FLA 9.8/1	<a href="#">1483260000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent, No. of poles: 1	4008190167363	100 pc(s).		Box
Discontinued	2014-05-20T00:00:00+02:00	SLA FLA 3.8/1	<a href="#">1482860000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent, No. of poles: 1	4008190115500	100 pc(s).
Discontinued	2014-05-20T00:00:00+02:00	SLA FLAT 4TE 2.3/1	<a href="#">1596880000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent, No. of poles: 1	4008190157784	100 pc(s).

**Data sheet**

**OMNIMATE Signal - series BLA/SLA 5.08  
SLA 03/90 3.2SN OR BX**

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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.

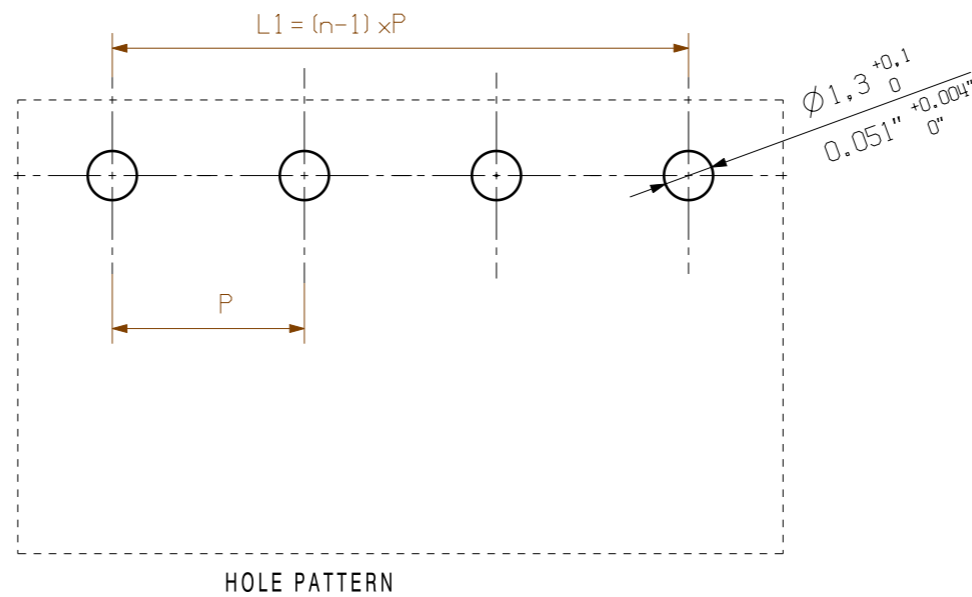
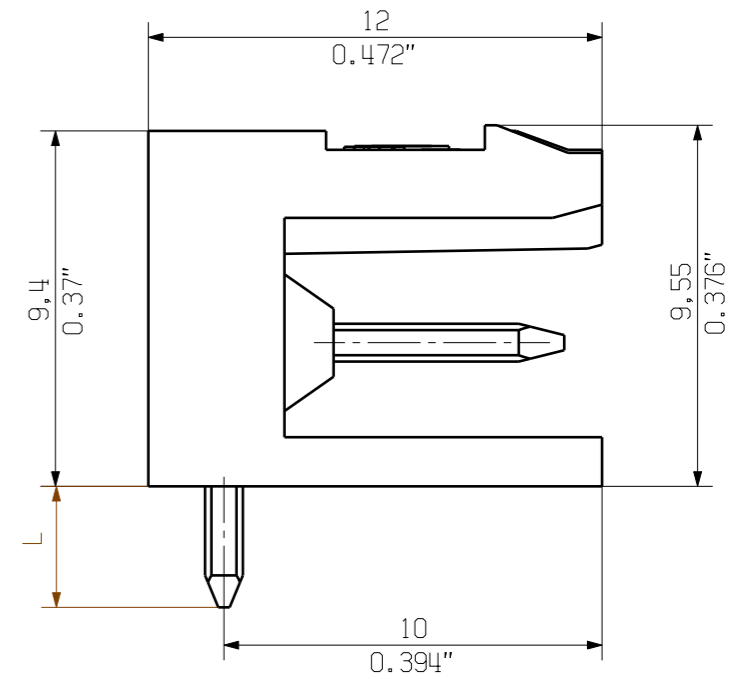
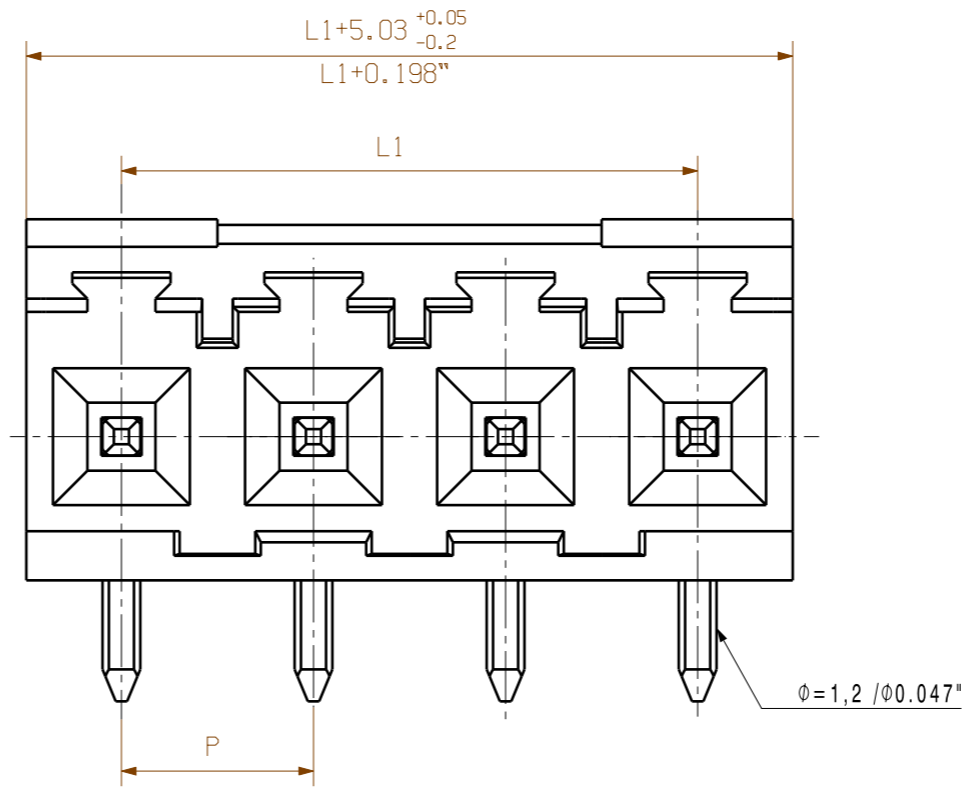
Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

**General ordering data**

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
SLA KO	<a href="#">1323560000</a>	PCB plug-in connector, Accessories, Coding element, white, No. of poles: 1	4008190428389	100 pc(s).		Box

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L = PIN LENGTH  
 P = PITCH  
 n = NO. OF POLES

SHOWN : SLA 04/90 3.2

3,2	0,1 -0,3
4,5	0,1 -0,3
<b>PINLÄNGE L</b>	<b>TOLERANZ</b>
<b>PIN LENGTH L</b>	<b>TOLERANCE</b>

24	116,84	4,600
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
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
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
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
3	10,16	0,400
2	5,08	0,200
n	L1 [mm]	L1 [Inch]

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.

General tolerance: DIN ISO 2768-mK		101264/4 19.02.18 HERTEL_S 00		Cat.no.: .	
		Modification			
		Drawn	Date	Name	<b>3 27741</b> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">15</span>
Scale: 5:1	Responsible	22.03.2010	HERTEL_S	Drawing no. <b>3 27741</b> Issue no. <b>15</b>	
	Checked	27.02.2018	HERTEL_S	Sheet 01 of 01 sheets	
Supersedes: .	Approved		LANG_T	<b>SLA .. / 90...</b> STIFTLISTE PIN HEADER	
Product file: SLA			7123		

## 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.