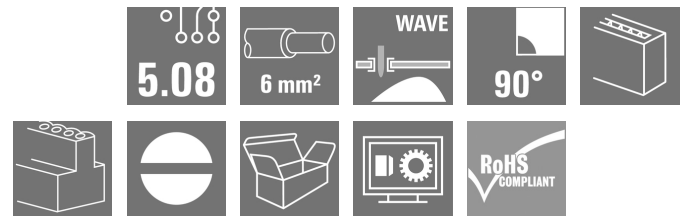


LL1N 5.08/06/90 3.2SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image**

Low single-tier and multi-tier PCB terminals featuring proven clamping-yoke connections, in 5.00mm and 5.08mm pitch, with 90° conductor outlet direction. Suitable for conductor cross-sections up to 6.0 mm².

General ordering data

| | |
|--------------|---|
| Version | Printed circuit board terminals, 5.08 mm, Number of poles: 6, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Clamping yoke connection, Clamping range, max. : 6 mm², Box |
| Order No. | 1975400000 |
| Type | LL1N 5.08/06/90 3.2SN OR BX |
| GTIN (EAN) | 4032248672622 |
| Qty. | 50 pc(s). |
| Product data | IEC: 500 V / 32.5 A / 0.5 - 6 mm² UL: 300 V / 20 A / AWG 26 - AWG 12 |
| Packaging | Box |

Creation date July 8, 2024 5:23:50 AM CEST

Catalogue status 29.06.2024 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

| | | | |
|--------------------------|------------|-----------------|------------|
| Depth | 10.84 mm | Depth (inches) | 0.427 inch |
| Height | 34.3 mm | Height (inches) | 1.35 inch |
| Height of lowest version | 31.1 mm | Width | 31.12 mm |
| Width (inches) | 1.225 inch | Net weight | 7.34 g |

System parameters

| | | | |
|--|-----------------------------|---|--------------------------|
| Product family | OMNIMATE Signal - series LL | Wire connection method | Clamping yoke connection |
| Property, clamping point | WireReady | Mounting onto the PCB | THT solder connection |
| Conductor outlet direction | 90° | Pitch in mm (P) | 5.08 mm |
| Pitch in inches (P) | 0.2 " | Number of poles | 6 |
| Pin series quantity | 1 | Fitted by customer | Yes |
| Number of rows | 1 | Max. adjacent poles per row | 12 |
| Solder pin length (l) | 3.2 mm | Solder pin dimensions | 0.75 x 0.9 mm |
| Solder eyelet hole diameter (D) | 1.3 mm | Solder eyelet hole diameter tolerance (D)+ 0,1 mm | |
| Number of solder pins per pole | 1 | Screwdriver blade | 0.6 x 3.5 |
| Screwdriver blade standard | DIN 5264 | Tightening torque, min. | 0.5 Nm |
| Tightening torque, max. | 0.6 Nm | Clamping screw | M 3 |
| Stripping length | 6 mm | L1 in mm | 25.4 mm |
| L1 in inches | 1 " | Touch-safe protection acc. to DIN VDE 0470 | IP 20 |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch | Protection degree | IP20 |

Material data

| | | | |
|---------------------------------------|------------------|---------------------------------------|--------|
| Insulating material | Wemid (PA) | Colour | orange |
| Colour chart (similar) | RAL 2000 | Insulating material group | I |
| Comparative Tracking Index (CTI) | ≥ 600 | UL 94 flammability rating | V-0 |
| Contact material | Cu-alloy | Contact surface | tinned |
| Coating | 4-6 µm SN | Tinning type | matt |
| Layer structure of solder connection | 4...6 µm Sn matt | Storage temperature, min. | -40 °C |
| Storage temperature, max. | 70 °C | Operating temperature, min. | -50 °C |
| Operating temperature, max. | 120 °C | Temperature range, installation, min. | -25 °C |
| Temperature range, installation, max. | 120 °C | | |

Conductors suitable for connection

| | |
|---|----------------------|
| Clamping range, min. | 0.08 mm ² |
| Clamping range, max. | 6 mm ² |
| Wire connection cross section AWG, min. | AWG 26 |
| Wire connection cross section AWG, max. | AWG 12 |
| Solid, min. H05(07) V-U | 0.5 mm ² |
| Solid, max. H05(07) V-U | 6 mm ² |
| Flexible, min. H05(07) V-K | 0.5 mm ² |
| Flexible, max. H05(07) V-K | 4 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm ² min. | |
| w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² max. | |
| w. wire end ferrule, DIN 46228 pt 1, 0.5 mm ² min. | |

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Technical data

w. wire end ferrule, DIN 46228 pt 1, max. 2.5 mm²

Plug gauge in accordance with EN 60999 a x b; ø 2.8 mm x 2.4 mm; 3.0 mm

| | | | | |
|---------------------|--|------------------------------|----------------------------|------|
| Clampable conductor | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 0.5 mm ² | |
| | wire end ferrule | Stripping length | nominal | 8 mm |
| | | Recommended wire-end ferrule | H0.5/12 OR | |
| | | Stripping length | nominal | 6 mm |
| | | Recommended wire-end ferrule | H0.5/6 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 0.75 mm ² | |
| | wire end ferrule | Stripping length | nominal | 8 mm |
| | | Recommended wire-end ferrule | H0.75/12 W | |
| | | Stripping length | nominal | 6 mm |
| | | Recommended wire-end ferrule | H0.75/6 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 1 mm ² | |
| | wire end ferrule | Stripping length | nominal | 8 mm |
| | | Recommended wire-end ferrule | H1.0/12 GE | |
| | | Stripping length | nominal | 6 mm |
| | | Recommended wire-end ferrule | H1.0/6 | |

Reference text Length of ferrules is to be chosen depending on the product and the rated voltage., The outside diameter of the plastic collar should not be larger than the pitch (P)

Rated data acc. to IEC

| | | | |
|---|------------------------|---|-------------------|
| tested acc. to standard | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C) | 32.5 A |
| Rated current, max. number of poles (Tu=20°C) | 26 A | Rated current, min. number of poles (Tu=40°C) | 27.5 A |
| Rated current, max. number of poles (Tu=40°C) | 22 A | Rated voltage for surge voltage class / pollution degree II/2 | 500 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 120 A |

Rated data acc. to CSA

| | | | |
|-----------------------------------|---|-----------------------------------|----------------|
| Institute (CSA) |  | Certificate No. (CSA) | 200039-1202191 |
| Rated voltage (Use group B / CSA) | 300 V | Rated voltage (Use group D / CSA) | 300 V |
| Rated current (Use group B / CSA) | 20 A | Rated current (Use group D / CSA) | 10 A |
| Wire cross-section, AWG, min. | AWG 26 | Wire cross-section, AWG, max. | AWG 12 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

LL1N 5.08/06/90 3.2SN OR BX

Weidmüller Interface GmbH & Co. KG

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D-32758 Detmold

Germany

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Technical data

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) 20 A

Rated current (Use group D / UL 1059) 10 A

Wire cross-section, AWG, min. AWG 26

Wire cross-section, AWG, max. AWG 12

Reference to approval values
Specifications are maximum values, details - see approval certificate.

Packing

Packaging Box

VPE length 195 mm

VPE width 135 mm

VPE height 40 mm

Classifications

ETIM 6.0 EC002643

ETIM 7.0 EC002643

ETIM 8.0 EC002643

ETIM 9.0 EC002643

ECLASS 9.0 27-44-04-01

ECLASS 9.1 27-44-04-01

ECLASS 10.0 27-44-04-01

ECLASS 11.0 27-46-01-01

ECLASS 12.0 27-46-01-01

ECLASS 13.0 27-46-01-01

Environmental Product Compliance

REACH SVHC

/

Important note

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.

Notes

- Rated current related to rated cross-section & min. No. of poles.
- Wire end ferrule without plastic collar to DIN 46228/1
- Wire end ferrule with plastic collar to DIN 46228/4
- 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.
- Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

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Technical data

Approvals

Approvals



| | |
|-----------------------|------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (UR) | E60693 |

Downloads

| | |
|---|--|
| Approval/Certificate/Document of Conformity | Declaration of the Manufacturer |
| Engineering Data | CAD data – STEP |
| Catalogues | Catalogues in PDF-format |
| Brochures | FL DRIVES EN FL ANALO.SIGN.CONV. EN MB DEVICE MANUF. EN FL DRIVES DE 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 PO OMNIMATE EN |

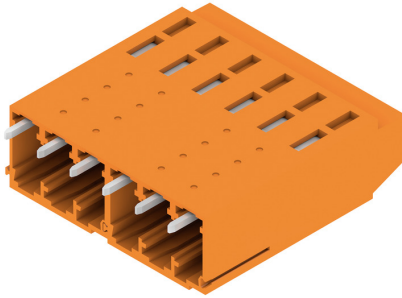
LL1N 5.08/06/90 3.2SN OR BX

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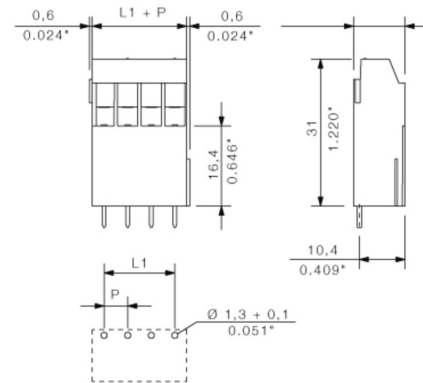
www.weidmueller.com

Drawings

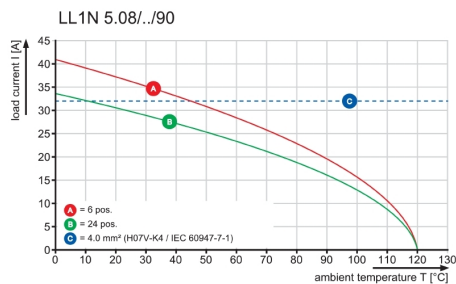
Product image



Dimensional drawing



Graph



LL1N 5.08/06/90 3.2SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Accessories****Slotted screwdriver**

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

| | | |
|------------|----------------------------|--------------------------|
| Type | SDIS 0.6X3.5X100 | Version |
| Order No. | 9008390000 | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056354 | |
| Qty. | 1 pc(s). | |

Slotted screwdriver

Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

General ordering data

| | | |
|------------|----------------------------|--------------------------|
| Type | SDS 0.6X3.5X200 | Version |
| Order No. | 9010110000 | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248300754 | |
| Qty. | 1 pc(s). | |

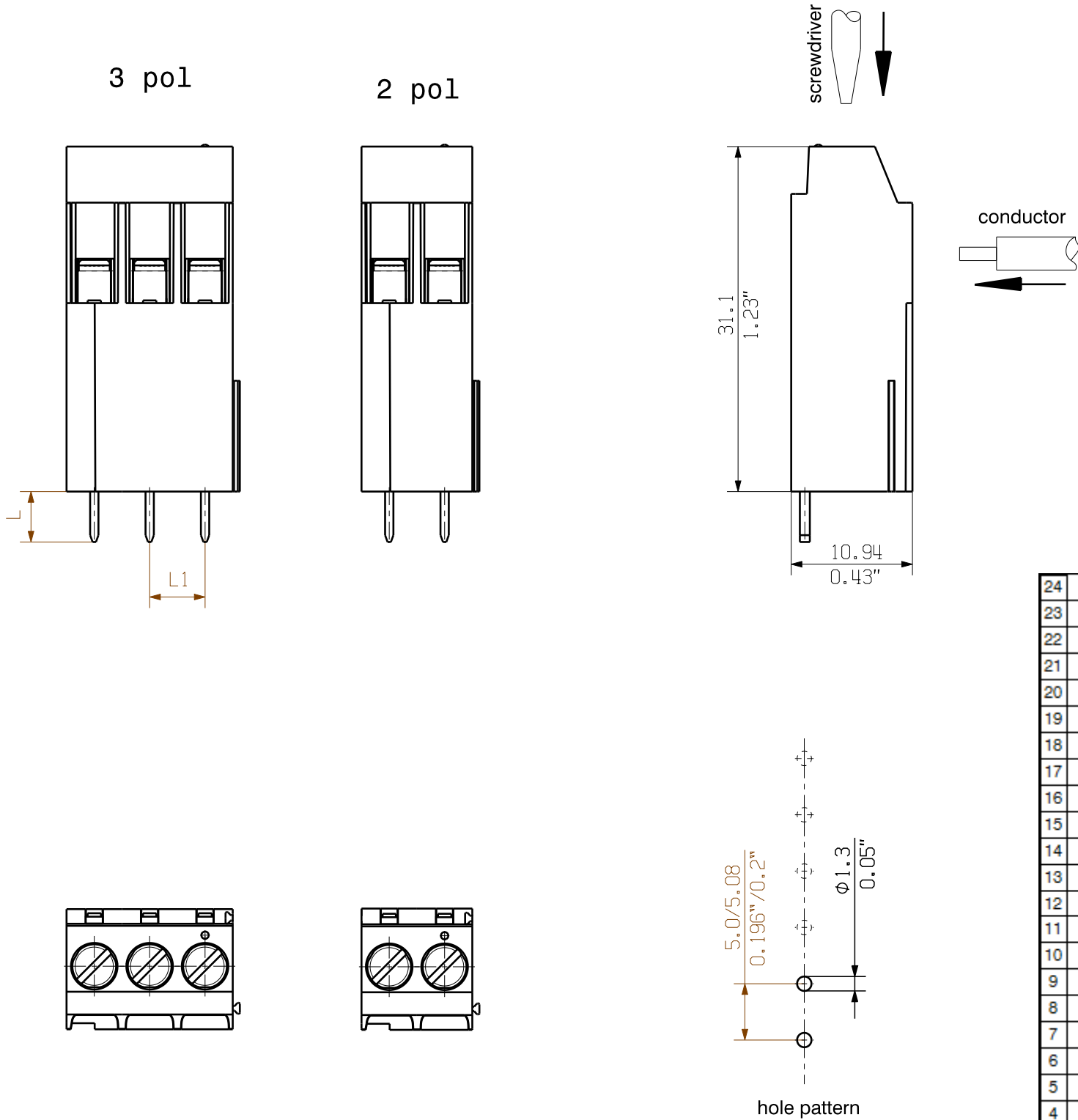
| | | |
|------------|----------------------------|--------------------------|
| Type | SDS 0.6X3.5X100 | Version |
| Order No. | 9008330000 | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056286 | |
| Qty. | 1 pc(s). | |

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Dimensions without tolerances are no check dimensions

The English version is binding



| | | | | | |
|----|---------|-----------|----|---------|-----------|
| 24 | 116,84 | 4,600 | 24 | 115,00 | 4,528 |
| 23 | 111,76 | 4,400 | 23 | 110,00 | 4,331 |
| 22 | 106,68 | 4,200 | 22 | 105,00 | 4,134 |
| 21 | 101,60 | 4,000 | 21 | 100,00 | 3,937 |
| 20 | 96,52 | 3,800 | 20 | 95,00 | 3,740 |
| 19 | 91,44 | 3,600 | 19 | 90,00 | 3,543 |
| 18 | 86,36 | 3,400 | 18 | 85,00 | 3,346 |
| 17 | 81,28 | 3,200 | 17 | 80,00 | 3,150 |
| 16 | 76,20 | 3,000 | 16 | 75,00 | 2,953 |
| 15 | 71,12 | 2,800 | 15 | 70,00 | 2,756 |
| 14 | 66,04 | 2,600 | 14 | 65,00 | 2,559 |
| 13 | 60,96 | 2,400 | 13 | 60,00 | 2,362 |
| 12 | 55,88 | 2,200 | 12 | 55,00 | 2,165 |
| 11 | 50,80 | 2,000 | 11 | 50,00 | 1,969 |
| 10 | 45,72 | 1,800 | 10 | 45,00 | 1,772 |
| 9 | 40,64 | 1,600 | 9 | 40,00 | 1,575 |
| 8 | 35,56 | 1,400 | 8 | 35,00 | 1,378 |
| 7 | 30,48 | 1,200 | 7 | 30,00 | 1,181 |
| 6 | 25,40 | 1,000 | 6 | 25,00 | 0,984 |
| 5 | 20,32 | 0,800 | 5 | 20,00 | 0,787 |
| 4 | 15,24 | 0,600 | 4 | 15,00 | 0,591 |
| 3 | 10,16 | 0,400 | 3 | 10,00 | 0,394 |
| 2 | 5,08 | 0,200 | 2 | 5,00 | 0,197 |
| n | L1 [mm] | L1 [Inch] | 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.

Weidmueller 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

91592/5
15.02.17 HELIS_MA

00

Modification

Drawn

02.01.2007

KRUG_M

Responsible

KRUG_M

Checked

17.02.2017

HELIS_MA

Approved

LANG_T

Cat.no.: .

Weidmüller

3 42533

03

Drawing no.

Issue no.

Sheet 00

of 00

sheets

Scale: 2:1

Supersedes: .

LL1N 5.0x

LEITERPLATTENKLEMME

PCB TERMINAL

Product file: LL5.0x 3Stock

7191

Recommended wave soldering profiles

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Klingenbergstraße 16
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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.

We reserve the right to make technical changes.