

**LXXX 15.00/04/90 4.5SN TGY BX PRT****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

Similar to illustration

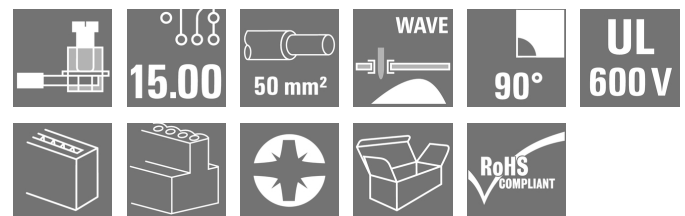
The high-current PCB connection for more power on board: 150 A / 1000 V with wires up to 50 mm<sup>2</sup>, transmitted right to the PCB!

The LXXX 15.0 – with its proven steel clamping-yoke technology in a compact standard housing – integrates the latest market requirements for security, power density and miniaturization in power electronics. It connects these requirements into an efficient solution for the entire value-creation chain – including development, production, installation and maintenance.

The function and form of the application's connection method plays a key role. It influences the application's design, reliability, usability and costs. With the Substitution of

For example, with the replacement of complex constructions involving bolts or bus bars, the PCB can be transformed into a system platform that is both consistent and sustainable into the future – even for high-current applications.

The LXXX 15.0 reduces size and complexity while at the same time improving application integration. In so doing, it fulfils the requirements of power electronics better than the established mechanisms and connection elements.

**General ordering data**

|              |                                                                                                                                                                                                          |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version      | Printed circuit board terminals, 15.00 mm, Number of poles: 4, 90°, Solder pin length (l): 4.5 mm, tinned, Traffic grey (RAL), Clamping yoke connection, Clamping range, max. : 50 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">1228650000</a>                                                                                                                                                                               |
| Type         | LXXX 15.00/04/90 4.5SN TGY BX PRT                                                                                                                                                                        |
| GTIN (EAN)   | 4050118013108                                                                                                                                                                                            |
| Qty.         | 10 pc(s).                                                                                                                                                                                                |
| Product data | IEC: 1000 V / 150 A / 0.5 - 50 mm <sup>2</sup><br>UL: 600 V / 126 A / AWG 20 - AWG 1                                                                                                                     |
| Packaging    | Box                                                                                                                                                                                                      |

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## Technical data

## Dimensions and weights

|                          |            |                 |            |
|--------------------------|------------|-----------------|------------|
| Depth                    | 31 mm      | Depth (inches)  | 1.22 inch  |
| Height                   | 56 mm      | Height (inches) | 2.205 inch |
| Height of lowest version | 51.5 mm    | Width           | 61 mm      |
| Width (inches)           | 2.402 inch | Net weight      | 117 g      |

## System parameters

|                                 |                              |                                            |                          |
|---------------------------------|------------------------------|--------------------------------------------|--------------------------|
| Product family                  | OMNIMATE Power - series LXXX | Wire connection method                     | Clamping yoke connection |
| Mounting onto the PCB           | THT solder connection        | Conductor outlet direction                 | 90°                      |
| Pitch in mm (P)                 | 15 mm                        | Pitch in inches (P)                        | 0.591 "                  |
| Number of poles                 | 4                            | Pin series quantity                        | 1                        |
| Fitted by customer              | No                           | Number of rows                             | 1                        |
| Solder pin length (l)           | 4.5 mm                       | Solder pin dimensions                      | 1.2 x 1.2 mm             |
| Solder eyelet hole diameter (D) | 1.6 mm                       | Solder eyelet hole diameter tolerance (D)+ | 0,1 mm                   |
| Number of solder pins per pole  | 4                            | Screwdriver blade                          | 1.2 x 6.5                |
| Screwdriver blade standard      | DIN 5264                     | Tightening torque, min.                    | 2.5 Nm                   |
| Tightening torque, max.         | 4 Nm                         | Clamping screw                             | M 6                      |
| Stripping length                | 18 mm                        | L1 in mm                                   | 45 mm                    |
| L1 in inches                    | 1.772 "                      | Protection degree                          | IP20                     |

## Material data

|                                       |                                  |                                       |                    |
|---------------------------------------|----------------------------------|---------------------------------------|--------------------|
| Insulating material                   | Wemid (PA)                       | Colour                                | Traffic grey (RAL) |
| Colour chart (similar)                | RAL 7042                         | Insulating material group             | I                  |
| Comparative Tracking Index (CTI)      | ≥ 600                            | UL 94 flammability rating             | V-0                |
| Contact material                      | Cu-alloy                         | Contact surface                       | tinned             |
| Layer structure of solder connection  | 1.5...3 µm Ni / 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.                                                | 0.5 mm <sup>2</sup> |
| Clamping range, max.                                                | 50 mm <sup>2</sup>  |
| Wire connection cross section AWG, min.                             | AWG 20              |
| Wire connection cross section AWG, max.                             | AWG 1               |
| Solid, min. H05(07) V-U                                             | 0.5 mm <sup>2</sup> |
| Solid, max. H05(07) V-U                                             | 16 mm <sup>2</sup>  |
| Stranded, min. H07V-R                                               | 6 mm <sup>2</sup>   |
| Stranded, max. H07V-R                                               | 50 mm <sup>2</sup>  |
| Flexible, min. H05(07) V-K                                          | 0.5 mm <sup>2</sup> |
| Flexible, max. H05(07) V-K                                          | 35 mm <sup>2</sup>  |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm <sup>2</sup> min. |                     |
| w. plastic collar ferrule, DIN 46228 pt 4, 35 mm <sup>2</sup> max.  |                     |
| w. wire end ferrule, DIN 46228 pt 1, 0.5 mm <sup>2</sup> min.       |                     |
| w. wire end ferrule, DIN 46228 pt 1, 35 mm <sup>2</sup> max.        |                     |

Creation date July 15, 2025 10:00:33 PM CEST

Catalogue status 04.07.2025 / We reserve the right to make technical changes.

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|                                        |                                        |                              |                             |
|----------------------------------------|----------------------------------------|------------------------------|-----------------------------|
| Clampable conductor                    | Cross-section for conductor connection | Type                         | fine-wired                  |
|                                        |                                        | nominal                      | 2.5 mm <sup>2</sup>         |
| wire end ferrule                       |                                        | Stripping length             | nominal 20 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H2.5/25D BL</a> |
|                                        |                                        | Stripping length             | nominal 18 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H2.5/18</a>     |
| Cross-section for conductor connection |                                        | Type                         | fine-wired                  |
|                                        |                                        | nominal                      | 4 mm <sup>2</sup>           |
| wire end ferrule                       |                                        | Stripping length             | nominal 20 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H4.0/26D GR</a> |
|                                        |                                        | Stripping length             | nominal 18 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H4.0/18</a>     |
| Cross-section for conductor connection |                                        | Type                         | fine-wired                  |
|                                        |                                        | nominal                      | 6 mm <sup>2</sup>           |
| wire end ferrule                       |                                        | Stripping length             | nominal 20 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H6.0/26 SW</a>  |
|                                        |                                        | Stripping length             | nominal 18 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H6.0/18</a>     |
| Cross-section for conductor connection |                                        | Type                         | fine-wired                  |
|                                        |                                        | nominal                      | 10 mm <sup>2</sup>          |
| wire end ferrule                       |                                        | Stripping length             | nominal 21 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H10.0/28 EB</a> |
|                                        |                                        | Stripping length             | nominal 18 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H10.0/18</a>    |
| Cross-section for conductor connection |                                        | Type                         | fine-wired                  |
|                                        |                                        | nominal                      | 16 mm <sup>2</sup>          |
| wire end ferrule                       |                                        | Stripping length             | nominal 21 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H16.0/28 GN</a> |
|                                        |                                        | Stripping length             | nominal 18 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H16.0/18</a>    |
| Cross-section for conductor connection |                                        | Type                         | fine-wired                  |
|                                        |                                        | nominal                      | 1.5 mm <sup>2</sup>         |
| wire end ferrule                       |                                        | Stripping length             | nominal 20 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H1.5/24 R</a>   |
|                                        |                                        | Stripping length             | nominal 18 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H1.5/18</a>     |
| Cross-section for conductor connection |                                        | Type                         | fine-wired                  |
|                                        |                                        | nominal                      | 35 mm <sup>2</sup>          |
| wire end ferrule                       |                                        | Stripping length             | nominal 19 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H35.0/32D R</a> |
|                                        |                                        | Stripping length             | nominal 18 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H35.0/18</a>    |
| Cross-section for conductor connection |                                        | Type                         | fine-wired                  |
|                                        |                                        | nominal                      | 50 mm <sup>2</sup>          |
| wire end ferrule                       |                                        | Stripping length             | nominal 18 mm               |
|                                        |                                        | Recommended wire-end ferrule | <a href="#">H50.0/18</a>    |

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**Technical data**

## 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=40°C)

150 A

Rated voltage for surge voltage class /  
pollution degree III/2

1,000 V

Rated impulse voltage for surge voltage  
class/ pollution degree II/2

8 kV

Rated impulse voltage for surge voltage  
class/ contamination degree III/3

8 kV

Rated current, min. number of poles  
(Tu=20°C)

150 A

Rated voltage for surge voltage class /  
pollution degree II/2

1,000 V

Rated voltage for surge voltage class /  
pollution degree III/3

1,000 V

Rated impulse voltage for surge voltage  
class/ pollution degree III/2

8 kV

**Rated data acc. to CSA**

Rated voltage (Use group B / CSA)

600 V

Rated voltage (Use group D / CSA)

600 V

Rated current (Use group C / CSA)

127 A

Wire cross-section, AWG, min.

AWG 20

Rated voltage (Use group C / CSA)

600 V

Rated current (Use group B / CSA)

127 A

Rated current (Use group D / CSA)

5 A

Wire cross-section, AWG, max.

AWG 1

**Rated data acc. to UL 1059**

Institute (UR)



Certificate No. (UR)

E60693

Rated voltage (Use group B / UL 1059)

600 V

Rated current (Use group B / UL 1059)

126 A

Wire cross-section, AWG, min.

AWG 20

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / UL 1059)

600 V

Rated current (Use group C / UL 1059)

126 A

Wire cross-section, AWG, max.

AWG 1

**Packing**

Packaging

Box

VPE length

253 mm

VPE width

97 mm

VPE height

62 mm

**Type tests**

Test: Durability of markings

Standard

DIN EN 60512-1-1 / 01.03

Test

mark of origin, type identification, type of material, pitch, date clock, approval marking CSA, approval marking UL, durability

Evaluation

available

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|                               |                |                                                                                    |
|-------------------------------|----------------|------------------------------------------------------------------------------------|
| Test: Clampable cross section | Standard       | DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02 |
|                               | Conductor type | Type of conductor and solid 0.5 mm <sup>2</sup> conductor cross-section            |
|                               |                | Type of conductor and stranded 0.5 mm <sup>2</sup> conductor cross-section         |
|                               |                | Type of conductor and solid 16 mm <sup>2</sup> conductor cross-section             |
|                               |                | Type of conductor and flexible 35 mm <sup>2</sup> conductor cross-section          |
|                               |                | Type of conductor and AWG 20/1 conductor cross-section                             |
|                               |                | Type of conductor and AWG 20/19 conductor cross-section                            |
|                               |                | Type of conductor and AWG 10/1 conductor cross-section                             |
|                               |                | Type of conductor and AWG 1/19 conductor cross-section                             |
|                               |                | Type of conductor and H07V-R50 conductor cross-section                             |
|                               |                | Type of conductor and H07V-K35 conductor cross-section                             |
|                               |                | Evaluation                                                                         |

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**Technical data**

Test for damage to and accidental loosening of conductors

|                |                                                                            |
|----------------|----------------------------------------------------------------------------|
| Standard       | DIN EN 60999-1 section 9.5 / 12.00                                         |
| Requirement    | 0.3 kg                                                                     |
| Conductor type | Type of conductor and solid 0.5 mm <sup>2</sup> conductor cross-section    |
|                | Type of conductor and stranded 0.5 mm <sup>2</sup> conductor cross-section |
|                | Type of conductor and AWG 20/1 conductor cross-section                     |
|                | Type of conductor and AWG 20/19 conductor cross-section                    |
| Evaluation     | passed                                                                     |
| Requirement    | 1.4 kg                                                                     |
| Conductor type | Type of conductor and AWG 10/1 conductor cross-section                     |
| Evaluation     | passed                                                                     |
| Requirement    | 2.0 kg                                                                     |
| Conductor type | Type of conductor and stranded 10 mm <sup>2</sup> conductor cross-section  |
| Evaluation     | passed                                                                     |
| Requirement    | 8,6 kg                                                                     |
| Conductor type | Type of conductor and AWG 1/19 conductor cross-section                     |
| Evaluation     | not checked                                                                |
| Requirement    | 8,6 kg                                                                     |
| Conductor type | Type of conductor and flexible 35 mm <sup>2</sup> conductor cross-section  |
| Evaluation     | passed                                                                     |

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|               |                |                                                                            |
|---------------|----------------|----------------------------------------------------------------------------|
| Pull-out test | Standard       | DIN EN 60999 section 8.5 / 04.94                                           |
|               | Requirement    | ≥20 N                                                                      |
|               | Conductor type | Type of conductor and solid 0.5 mm <sup>2</sup> conductor cross-section    |
|               |                | Type of conductor and stranded 0.5 mm <sup>2</sup> conductor cross-section |
|               |                | Type of conductor and AWG 20/1 conductor cross-section                     |
|               |                | Type of conductor and AWG 20/19 conductor cross-section                    |
|               | Evaluation     | passed                                                                     |
|               | Requirement    | ≥80 N                                                                      |
|               | Conductor type | Type of conductor and AWG 10/1 conductor cross-section                     |
|               |                |                                                                            |
|               | Evaluation     | passed                                                                     |
|               | Requirement    | ≥ 90N                                                                      |
|               | Conductor type | Type of conductor and stranded 10 mm <sup>2</sup> conductor cross-section  |
|               |                |                                                                            |
|               | Evaluation     | passed                                                                     |
|               | Requirement    | > 236 N                                                                    |
|               | Conductor type | Type of conductor and AWG 1/19 conductor cross-section                     |
|               |                |                                                                            |
|               | Evaluation     | not checked                                                                |
|               | Requirement    | > 190 N                                                                    |
|               | Conductor type | Type of conductor and flexible 35 mm <sup>2</sup> conductor cross-section  |
|               |                |                                                                            |
|               | Evaluation     | passed                                                                     |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002643    | ETIM 7.0    | EC002643    |
| ETIM 8.0    | EC002643    | ETIM 9.0    | EC002643    |
| ETIM 10.0   | 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 | ECLASS 14.0 | 27-46-01-01 |
| ECLASS 15.0 | 27-46-01-01 |             |             |

## Approvals

Approvals



|                       |                                                                                                                                                                             |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approvals MAMID       | <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319262/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319262/-T1z1mm-S800/</a> |
| ROHS                  | Conform                                                                                                                                                                     |
| UL File Number Search | UL Website                                                                                                                                                                  |
| Certificate No. (UR)  | E60693                                                                                                                                                                      |

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## Technical data

## Environmental Product Compliance

|                        |                             |
|------------------------|-----------------------------|
| RoHS Compliance Status | Compliant without exemption |
| REACH SVHC             | No SVHC above 0.1 wt%       |

## 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          | <ul style="list-style-type: none"> <li>• Additional variants on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</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> <li>• IP 20 from 16 mm<sup>2</sup> to 50 mm<sup>2</sup></li> <li>• The test point can only be used as potential-pickup point.</li> <li>• Wire-end ferrules are mandatory for stranded wires with more than 19 strands.</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul> |

## Downloads

|                             |                                                                                                                                                                                      |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Change Notification | <a href="#">Optimierung des QR-Codes auf den Produkten der OMNIMATE Power Leiterplattenanschlussklemmen</a><br><a href="#">Optimization QR- Code on OMNIMATE POWER PCB Terminals</a> |
| Catalogues                  | <a href="#">Catalogues in PDF-format</a>                                                                                                                                             |
| Brochures                   | <a href="#">FL DRIVES EN</a><br><a href="#">FL DRIVES DE</a>                                                                                                                         |



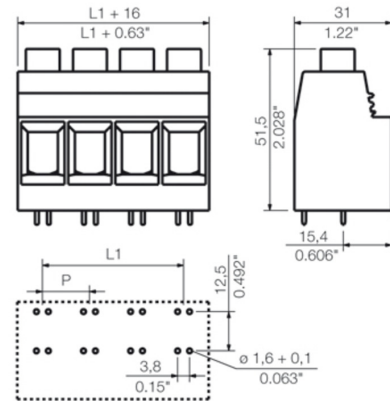
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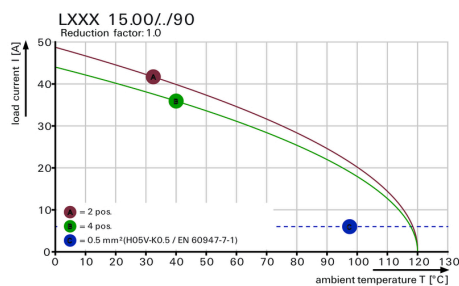
www.weidmueller.com

# Drawings

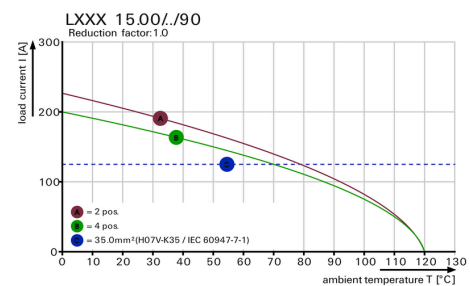
## Dimensional drawing



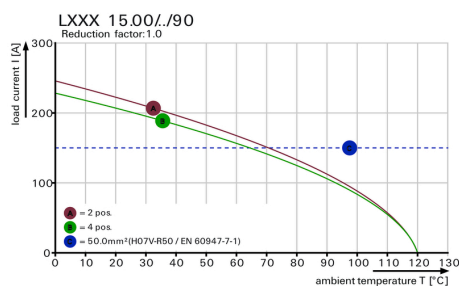
## Graph



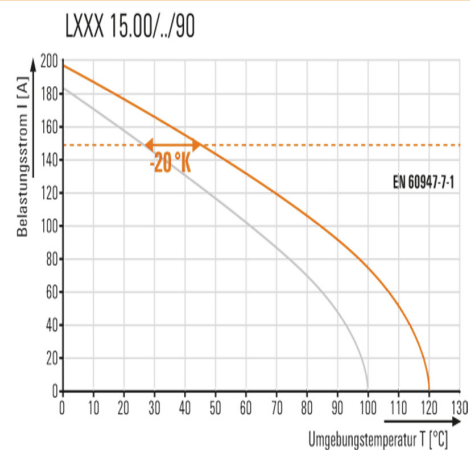
## Graph



## Graph



## Product benefits



Increased power reserves  
Optimised application safety

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## Drawings

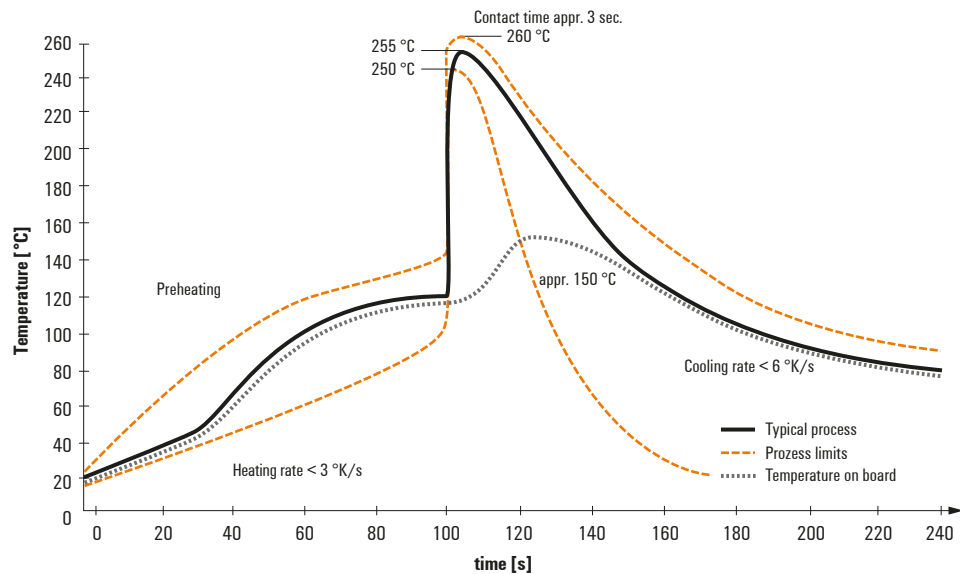


Standard-compliant integration

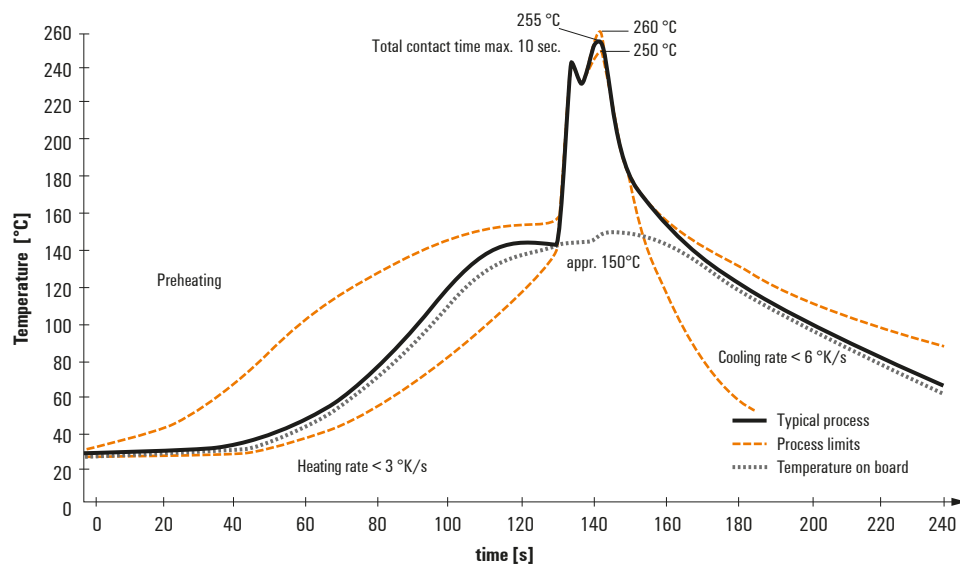
## Recommended wave soldering profiles

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Fon: +49 5231 14-0  
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.

We reserve the right to make technical changes.