

**TPS 5.08/04/90 5.0SN GN BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**General ordering data**

|              |                                                                                    |
|--------------|------------------------------------------------------------------------------------|
| Order No.    | <a href="#">2651920000</a>                                                         |
| Type         | TPS 5.08/04/90 5.0SN GN BX                                                         |
| GTIN (EAN)   | 4050118635058                                                                      |
| Qty.         | 192 pc(s).                                                                         |
| Product data | IEC: 630 V / 20 A / 0.05 - 4 mm <sup>2</sup><br>UL: 300 V / 15 A / AWG 30 - AWG 12 |
| Packaging    | Box                                                                                |

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## Technical data

## Dimensions and weights

|            |       |
|------------|-------|
| Net weight | 7.8 g |
|------------|-------|

## System parameters

|                                 |                             |                                |                          |
|---------------------------------|-----------------------------|--------------------------------|--------------------------|
| Product family                  | OMNIMATE basic – Series TPS | Wire connection method         | Clamping yoke connection |
| Mounting onto the PCB           | THT solder connection       | Conductor outlet direction     | 90°                      |
| Pitch in mm (P)                 | 5.08 mm                     | Pitch in inches (P)            | 0.2 inch                 |
| Number of poles                 | 4                           | Pin series quantity            | 1                        |
| Solder pin length (l)           | 5 mm                        | Solder pin dimensions          | 0.8 x 1.0 mm             |
| Solder eyelet hole diameter (D) | 1.5 mm                      | Number of solder pins per pole | 1                        |
| Screwdriver blade               | 0.6 x 3.5                   | Tightening torque, min.        | 0.5 Nm                   |
| Tightening torque, max.         | 0.55 Nm                     | Clamping screw                 | M 3                      |
| Stripping length                | 8.5 mm                      | L1 in mm                       | 15.24 mm                 |
| L1 in inches                    | 0.6 inch                    |                                |                          |

## Material data

|                             |          |                             |              |
|-----------------------------|----------|-----------------------------|--------------|
| Insulating material         | PA       | Colour                      | Pale green   |
| Colour chart (similar)      | RAL 6021 | Insulating material group   | I            |
| UL 94 flammability rating   | V-0      | Contact material            | Copper alloy |
| Contact surface             | tinned   | Tinning type                | matt         |
| Storage temperature, min.   | -40 °C   | Storage temperature, max.   | 70 °C        |
| Operating temperature, min. | -40 °C   | Operating temperature, max. | 105 °C       |

## Conductors suitable for connection

|                                                 |                      |                                                 |                     |
|-------------------------------------------------|----------------------|-------------------------------------------------|---------------------|
| Clamping range, min.                            | 0.2 mm <sup>2</sup>  | Clamping range, max.                            | 4 mm <sup>2</sup>   |
| Wire connection cross section AWG, min.         | AWG 30               | Wire connection cross section AWG, max.         | AWG 12              |
| Solid, min. H05(07) V-U                         | 0.05 mm <sup>2</sup> | Solid, max. H05(07) V-U                         | 2.5 mm <sup>2</sup> |
| Flexible, min. H05(07) V-K                      | 0.2 mm <sup>2</sup>  | Flexible, max. H05(07) V-K                      | 4 mm <sup>2</sup>   |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.2 mm <sup>2</sup>  | w. plastic collar ferrule, DIN 46228 pt 4, max. | 2.5 mm <sup>2</sup> |
| w. wire end ferrule, DIN 46228 pt 1, min.       | 0.2 mm <sup>2</sup>  | w. wire end ferrule, DIN 46228 pt 1, max.       | 2.5 mm <sup>2</sup> |

## Rated data acc. to IEC

|                                                                           |       |                                                                       |       |
|---------------------------------------------------------------------------|-------|-----------------------------------------------------------------------|-------|
| Rated current, min. number of poles (Tu=20°C)                             | 20 A  | Rated voltage for surge voltage class / pollution degree II/2         | 630 V |
| Rated voltage for surge voltage class / pollution degree III/2            | 400 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  |                                                                       |       |

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## Rated data acc. to UL 1059

|                                       |                                                                                   |                                       |        |
|---------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------|--------|
| Institute (UR)                        |  | Certificate No. (UR)                  | E60693 |
| Institute (cURus)                     |  | Certificate No. (cURus)               | 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) | 15 A                                                                              | Rated current (Use group D / UL 1059) | 10 A   |
| Wire cross-section, AWG, min.         | AWG 30                                                                            | Wire cross-section, AWG, max.         | AWG 12 |
| Reference to approval values          | Specifications are maximum values, details - see approval certificate.            |                                       |        |

## Packing

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 170 mm |
| VPE width | 135 mm | VPE height | 50 mm  |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002643    | ETIM 7.0    | 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 |

## Important note

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Notes | <ul style="list-style-type: none"> <li>• Only compatible with OMNIMATE basic products</li> <li>• P on drawing = pitch</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</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>• In the case of a two-pole terminal, the insulating body must be held against the terminal when tightening the screw.</li> <li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul> |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Approvals

|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| Approvals             |  |
| ROHS                  | Conform                                                                             |
| UL File Number Search | E60693                                                                              |

## Downloads

|                    |                                          |
|--------------------|------------------------------------------|
| Brochure/Catalogue | <a href="#">Catalogues in PDF-format</a> |
|--------------------|------------------------------------------|

Creation date April 16, 2021 7:14:58 AM CEST

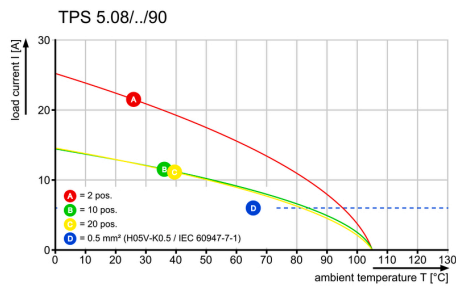
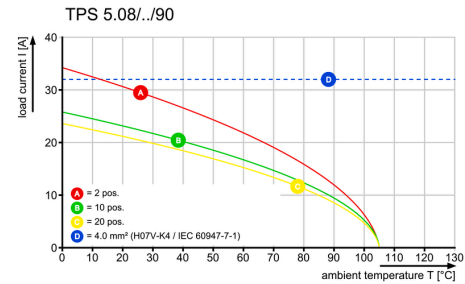
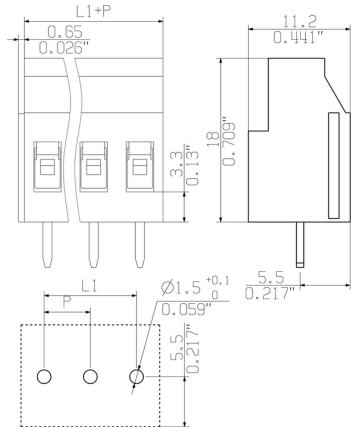
Catalogue status 09.04.2021 / We reserve the right to make technical changes.

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## Drawings



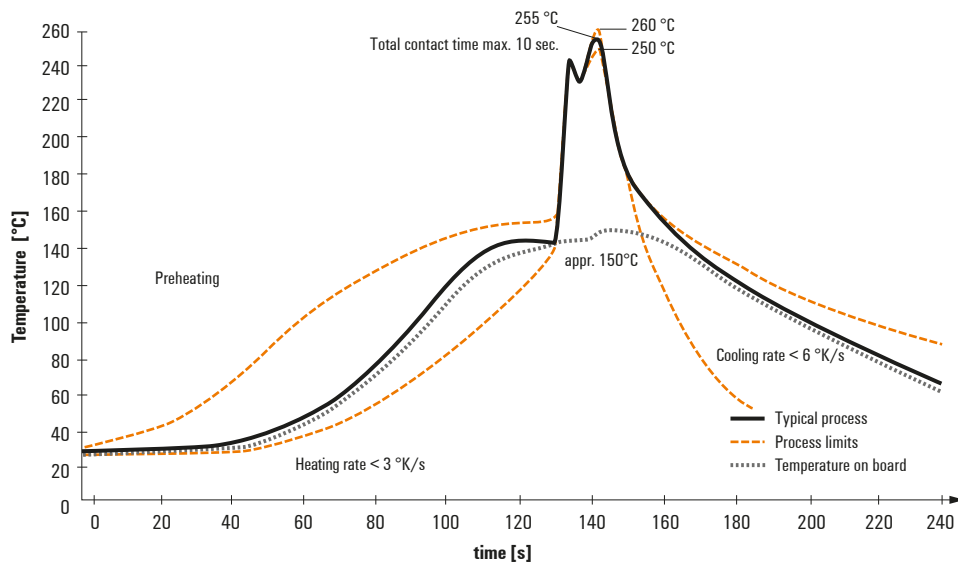
## Recommended wave soldering profiles

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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  $260\text{ °C}$ . In practice, the maximum soldering temperature is quite often well below the above maximum profile.

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