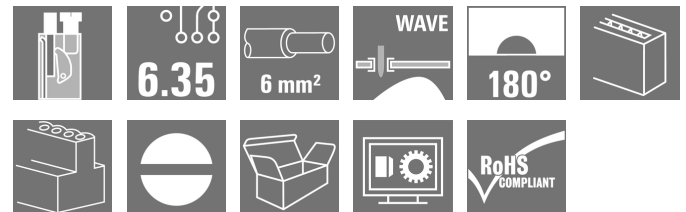


## OMNIMATE Signal - series TOP4G TOP4GS10/180 6.35 OR

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### Product image



Similar to illustration

Conductor entry and screw connection in the same direction on this PCB terminal with 6.35 mm pitch for conductor cross-sections up to 6.0 mm<sup>2</sup>. Conductor outlet direction 90° and 180°.

### General ordering data

|              |   |
|--------------|---|
| Type         | TOP4GS10/180 6.35 OR  |
| Order No.    | <a href="#">1786270000</a>  |
| Version      | Printed circuit board terminals, 6.35 mm, Number of poles: 10, 180°, Solder pin length (l): 3.5 mm, tinned, orange, TOP connection, Clamping range, max.: 6 mm <sup>2</sup> , Box |
| GTIN (EAN)   | 4032248200900   |
| Qty.         | 50 pc(s).   |
| Product data | IEC: 320 V / 26 A / 0.5 - 6 mm <sup>2</sup><br>UL: 300 V / 30 A / AWG 26 - AWG 10   |
| Packaging    | Box   |

Creation date May 3, 2020 2:27:40 PM CEST

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

|                          |            |                 |            |
|--------------------------|------------|-----------------|------------|
| Width                    | 65 mm      | Width (inches)  | 2.559 inch |
| Height                   | 29.5 mm    | Height (inches) | 1.161 inch |
| Height of lowest version | 26 mm      | Depth           | 26 mm      |
| Depth (inches)           | 1.024 inch | Net weight      | 76.34 g    |

**System parameters**

|                                 |                                |   |                |
|---------------------------------|--------------------------------|---|----------------|
| Product family                  | OMNIMATE Signal - series TOP4G | Wire connection method                    | TOP connection |
| Mounting onto the PCB           | THT solder connection          | Conductor outlet direction                | 180°           |
| Pitch in mm (P)                 | 6.35 mm                        | Pitch in inches (P)                       | 0.25 inch      |
| Number of poles                 | 10                             | Fitted by customer                        | No             |
| Solder pin length (l)           | 3.5 mm                         | Solder pin dimensions                     | 0.8 x 0.8 mm   |
| Solder eyelet hole diameter (D) | 1.3 mm                         | Solder eyelet hole diameter tolerance (D) | + 0,1 mm       |
| Number of solder pins per pole  | 2                              | 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                | 13 mm                          | L1 in mm                                  | 57.15 mm       |
| L1 in inches                    | 2.25 inch                      | Volume resistance                         | 1.40 mΩ        |

**Material data**

|                                       |          |                                       |                     |
|---------------------------------------|----------|---------------------------------------|---------------------|
| Insulating material                   | PA       | Colour                                | orange              |
| Colour chart (similar)                | RAL 2000 | Insulating material group             | I                   |
| Comparative Tracking Index (CTI)      | ≥ 600    | Insulation strength                   | ≥ 10 <sup>8</sup> Ω |
| UL 94 flammability rating             | V-2      | Contact material                      | E-Cu                |
| Contact surface                       | tinned   | Layer structure of solder connection  | 6-10 μm Sn          |
| Storage temperature, min.             | -25 °C   | Storage temperature, max.             | 50 °C               |
| Max. relative humidity during storage | 70 %     | Operating temperature, min.           | -50 °C              |
| Operating temperature, max.           | 100 °C   | Temperature range, installation, min. | -25 °C              |
| Temperature range, installation, max. | 100 °C   |                                       |                     |

**Conductors suitable for connection**

|   |                      |
|---|----------------------|
| Clamping range, min.  | 0.13 mm <sup>2</sup> |
| Clamping range, max.  | 6 mm <sup>2</sup>    |
| Wire connection cross section AWG, min.                             | AWG 26               |
| Wire connection cross section AWG, max.                             | AWG 10               |
| Solid, min. H05(07) V-U   | 0.5 mm <sup>2</sup>  |
| Solid, max. H05(07) V-U   | 6 mm <sup>2</sup>    |
| Flexible, min. H05(07) V-K  | 0.5 mm <sup>2</sup>  |
| Flexible, max. H05(07) V-K  | 4 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, 4 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, 4 mm <sup>2</sup> max.         |                      |
| Plug gauge in accordance with EN 60999 a x b; ø                     | 2.8 mm x 2.4 mm      |

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**Technical data**

|  |  |                              |                             |
|--|--|------------------------------|-----------------------------|
| Clampable conductor                    | Cross-section for conductor connection   | Type                         | fine-wired                  |
|  |  | nominal                      | 0.5 mm <sup>2</sup>         |
| wire end ferrule                       |  | Stripping length             | nominal 14 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H0.5/18 OR</a>  |
| Cross-section for conductor connection | Type   | fine-wired                   |                             |
|  | nominal  | 1 mm <sup>2</sup>            |                             |
| wire end ferrule                       |  | Stripping length             | nominal 15 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H1.0/18 GE</a>  |
| Cross-section for conductor connection | Type   | fine-wired                   |                             |
|  | nominal  | 1.5 mm <sup>2</sup>          |                             |
| wire end ferrule                       |  | Stripping length             | nominal 15 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H1.5/18D SW</a> |
|  |  | Stripping length             | nominal 12 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H1.5/12</a>     |
| Cross-section for conductor connection | Type   | fine-wired                   |                             |
|  | nominal  | 0.75 mm <sup>2</sup>         |                             |
| wire end ferrule                       |  | Stripping length             | nominal 14 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H0.75/18 W</a>  |
| Cross-section for conductor connection | Type   | fine-wired                   |                             |
|  | nominal  | 2.5 mm <sup>2</sup>          |                             |
| wire end ferrule                       |  | Stripping length             | nominal 14 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H2.5/19D BL</a> |
|  |  | Stripping length             | nominal 12 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H2.5/12</a>     |
| Cross-section for conductor connection | Type   | fine-wired                   |                             |
|  | nominal  | 4 mm <sup>2</sup>            |                             |
| wire end ferrule                       |  | Stripping length             | nominal 12 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H4.0/12</a>     |
|  |  | Stripping length             | nominal 14 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H4.0/20D GR</a> |
| 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) |                              |                             |
| Max. clamping range                    | 6 mm <sup>2</sup>  |                              |                             |

**Rated data acc. to IEC**

|   |                        |   |        |
|---|------------------------|---|--------|
| tested acc. to standard   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 26 A   |
| Rated current, min. number of poles (Tu=40°C)                             | 32 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 320 V  |
| Rated voltage for surge voltage class / pollution degree III/2            | 320 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 320 V  |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 2.5 kV                 | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 2.5 kV |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 2.5 kV                 |   |        |

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**Technical data****Rated data acc. to CSA**

Institute (CSA)



Certificate No. (CSA)

154685-1501716

|                                   |  |
|-----------------------------------|--|
| Rated voltage (Use group B / CSA) | 300 V  |
| Rated current (Use group B / CSA) | 25 A   |
| Wire cross-section, AWG, min.     | AWG 26   |
| Reference to approval values      | Specifications are maximum values, details - see approval certificate. |

|                                   |        |
|-----------------------------------|--------|
| Rated voltage (Use group D / CSA) | 300 V  |
| Rated current (Use group D / CSA) | 10 A   |
| Wire cross-section, AWG, max.     | AWG 10 |

**Rated data acc. to UL 1059**

|                                       |        |
|---------------------------------------|--------|
| Rated voltage (Use group B / UL 1059) | 300 V  |
| Rated current (Use group B / UL 1059) | 30 A   |
| Wire cross-section, AWG, min.         | AWG 26 |

|                                       |        |
|---------------------------------------|--------|
| Rated voltage (Use group D / UL 1059) | 300 V  |
| Rated current (Use group D / UL 1059) | 10 A   |
| Wire cross-section, AWG, max.         | AWG 10 |

**Packing**

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 100 mm |
| VPE width | 185 mm | VPE height | 205 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 | UNSPSC     | 30-21-18-01 |

**Notes**

Notes

- Additional colours on request
- 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
- Crimp form A for wire end ferrules with PZ 6/5 crimping tool are recommended for the largest cable sizes.
- 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

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**

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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](#)
- [CAT 2 PORTFOLIOGUIDE 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

[EPLAN\\_WSCAD](#)

Engineering Data

[STEP](#)

User Documentation

[QR-Code product handling video](#)

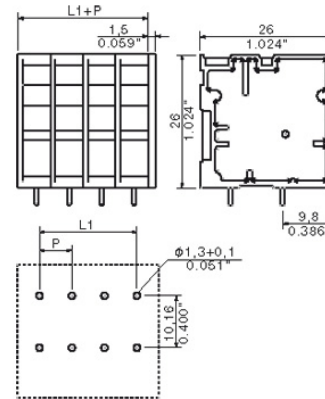
**Data sheet**

**OMNIMATE Signal - series TOP4G  
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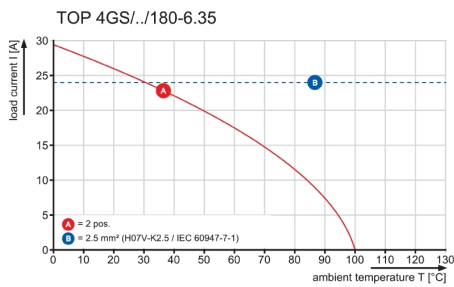
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**Drawings**

**Dimensional drawing**



**Graph**



## 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°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.