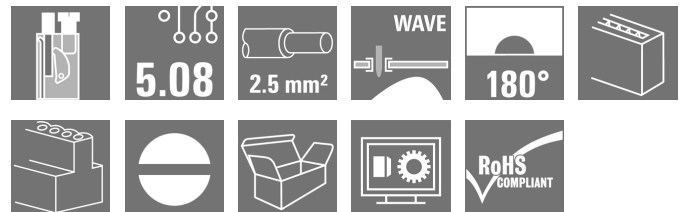


Data sheet

OMNIMATE Signal - series TOP1.5GS TOP1.5GS6/180 5 2STI OR

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
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www.weidmueller.com

Product image



Similar to illustration

Conductor entry and screw connection in the same direction on this PCB terminal with 5.08 mm pitch for conductor cross-sections up to 2.5 mm². Conductor outlet direction 90° and 180°.

General ordering data

| | |
|--------------|--|
| Type | TOP1.5GS6/180 5 2STI OR |
| Order No. | 0597460000 |
| Version | Printed circuit board terminals, 5.08 mm, Number of poles: 6, 180°, Solder pin length (l): 4.5 mm, tinned, orange, TOP connection, Clamping range, max.: 2.5 mm ² , Box |
| GTIN (EAN) | 4008 190006297 |
| Qty. | 50 pc(s). |
| Product data | IEC: 630 V / 24 A / 0.5 - 2.5 mm ² UL: 300 V / 10 A / AWG 26 - AWG 14 |
| Packaging | Box |

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Technical data

Dimensions and weights

| | | | |
|--------------------------|------------|-----------------|------------|
| Width | 32.28 mm | Width (inches) | 1.271 inch |
| Height | 24 mm | Height (inches) | 0.945 inch |
| Height of lowest version | 19.5 mm | Depth | 18.5 mm |
| Depth (inches) | 0.728 inch | Net weight | 21.52 g |

System parameters

| | | | |
|--|-----------------------------------|--|----------------|
| Product family | OMNIMATE Signal - series TOP1.5GS | Wire connection method | TOP connection |
| Mounting onto the PCB | THT solder connection | Conductor outlet direction | 180° |
| Pitch in mm (P) | 5.08 mm | Pitch in inches (P) | 0.2 inch |
| Number of poles | 6 | Fitted by customer | No |
| Solder pin length (l) | 4.5 mm | Solder pin dimensions | 0.8 x 1.0 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. | 0.4 Nm |
| Tightening torque, max. | 0.5 Nm | Clamping screw | M 2.5 |
| Stripping length | 10 mm | L1 in mm | 25.4 mm |
| L1 in inches | 1 inch | Touch-safe protection acc. to DIN VDE 0470 | IP 20 |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch | Volume resistance | 1.20 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 ⁸ Ω |
| UL 94 flammability rating | V-2 | Contact material | CuZn |
| Contact surface | tinned | Layer structure of solder connection | 1.5-3 μm Ni / 4-6 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 ² |
| Clamping range, max. | 2.5 mm ² |
| Wire connection cross section AWG, min. | AWG 26 |
| Wire connection cross section AWG, max. | AWG 14 |
| Solid, min. H05(07) V-U | 0.5 mm ² |
| Solid, max. H05(07) V-U | 2.5 mm ² |
| Flexible, min. H05(07) V-K | 0.5 mm ² |
| Flexible, max. H05(07) V-K | 2.5 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, min. | 0.5 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, max. | 2.5 mm ² |

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Technical data

Plug gauge in accordance with EN 60999 a x b; ø

2.4 mm x 1.5 mm

| Clampable conductor | Cross-section for conductor connection | Type | fine-wired |
|--|--|------------------------------|----------------------------|
| | | nominal | 0.5 mm ² |
| wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H0.5/16 OR |
| | | nominal | 10 mm |
| | | Recommended wire-end ferrule | H0.5/10 |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 0.75 mm ² | |
| wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H0.75/16 W |
| | | nominal | 10 mm |
| | | Recommended wire-end ferrule | H0.75/10 |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 1 mm ² | |
| wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H1.0/16D R |
| | | nominal | 10 mm |
| | | Recommended wire-end ferrule | H1.0/10 |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 1.5 mm ² | |
| wire end ferrule | Stripping length | nominal | 10 mm |
| | | Recommended wire-end ferrule | H1.5/10 |
| | | nominal | 12 mm |
| | | Recommended wire-end ferrule | H1.5/16 R |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 2.5 mm ² | |
| wire end ferrule | Stripping length | nominal | 10 mm |
| | Recommended wire-end ferrule | H2.5/10 | |

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

2.5 mm²

Rated data acc. to IEC

tested acc. to standard

IEC 60664-1, IEC 61984

| | | | |
|---|--------|---|-------------------|
| Rated current, max. number of poles (Tu=20°C) | 19 A | Rated current, min. number of poles (Tu=20°C) | 24 A |
| Rated current, max. number of poles (Tu=40°C) | 16 A | Rated current, min. number of poles (Tu=40°C) | 21 A |
| Rated voltage for surge voltage class / pollution degree III/2 | 320 V | Rated voltage for surge voltage class / pollution degree II/2 | 630 V |
| Rated impulse voltage for surge voltage class/ pollution degree II/2 | 2.5 kV | Rated voltage for surge voltage class / pollution degree III/3 | 250 V |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 2.5 kV | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 2.5 kV |
| | | Short-time withstand current resistance | 3 x 1s with 120 A |

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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) | 10 A |
| Wire cross-section, AWG, min. | AWG 26 |

| | |
|-----------------------------------|--------|
| Rated voltage (Use group D / CSA) | 300 V |
| Rated current (Use group D / CSA) | 10 A |
| Wire cross-section, AWG, max. | AWG 14 |

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

Rated data acc. to UL 1059

| | |
|---------------------------------------|--------|
| Rated voltage (Use group B / UL 1059) | 300 V |
| Rated current (Use group B / UL 1059) | 10 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 14 |

Packing

| | | | |
|-----------|--------|------------|--------|
| Packaging | Box | VPE length | 48 mm |
| VPE width | 134 mm | VPE height | 200 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.

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Technical data

Approvals

Approvals



ROHS

Conform

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Brochure/Catalogue

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Engineering Data

[EPLAN, WSCAD](#)

Engineering Data

[STEP](#)

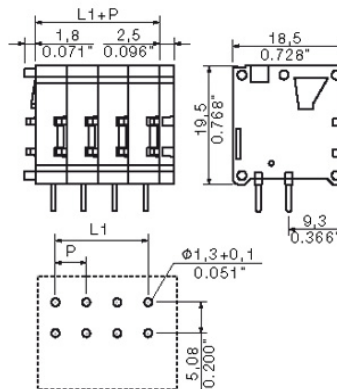
Data sheet

**OMNIMATE Signal - series TOP1.5GS
TOP1.5GS6/180 5 2STI OR**

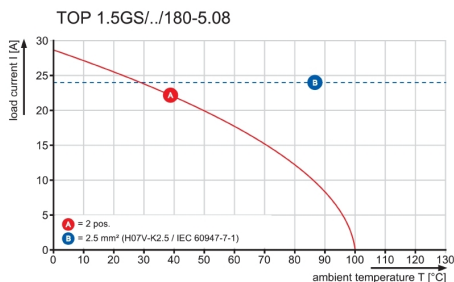
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Drawings

Dimensional drawing



Graph



Wave Solder Profile

Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16

D-32758 Detmold

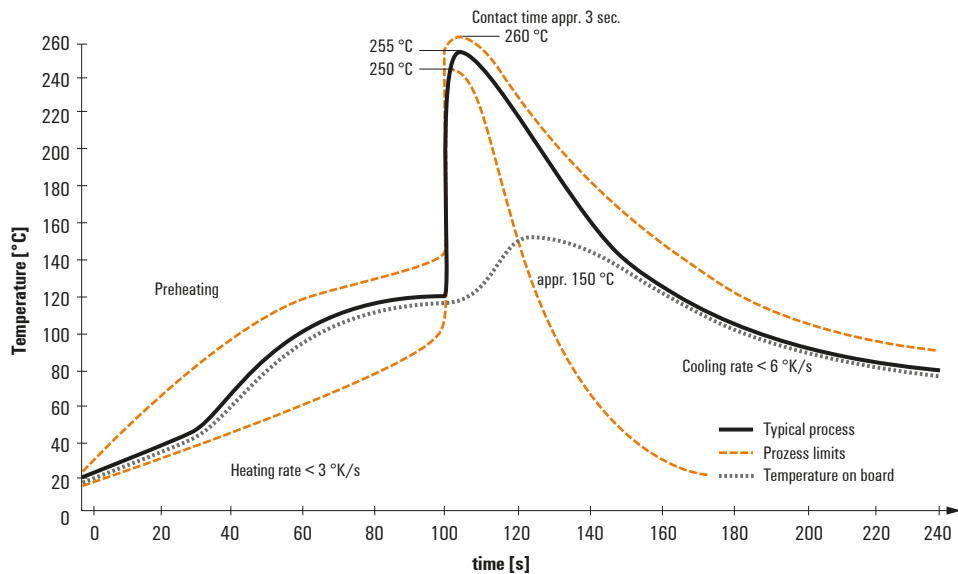
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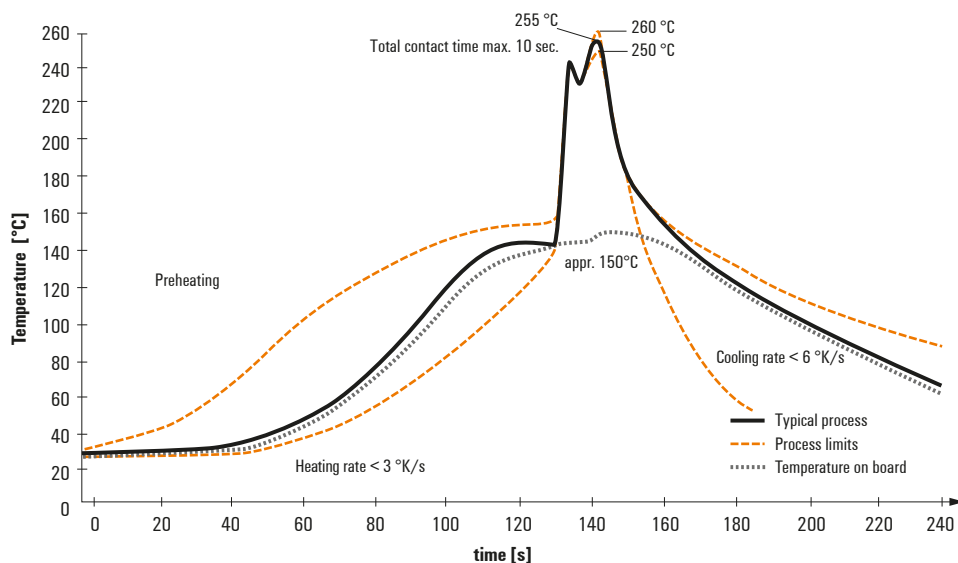
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Single Wave:



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.



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