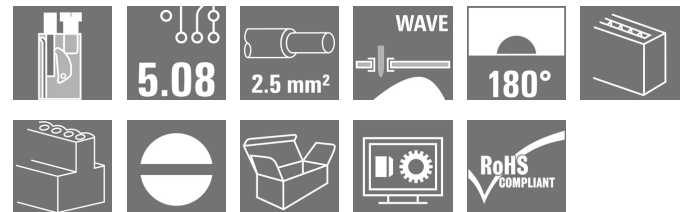


**TOP1.5GS9/180 5 2STI OR**
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://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 mm<sup>2</sup>. Conductor outlet direction 90° and 180°.

**General ordering data**

|              |                                                                                                                                                                                    |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version      | Printed circuit board terminals, 5.08 mm, Number of poles: 9, 180°, Solder pin length (l): 4.5 mm, tinned, orange, TOP connection, Clamping range, max.: 2.5 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">1474660000</a>                                                                                                                                                         |
| Type         | TOP1.5GS9/180 5 2STI OR                                                                                                                                                            |
| GTIN (EAN)   | 4008190014070                                                                                                                                                                      |
| Qty.         | 20 pc(s).                                                                                                                                                                          |
| Product data | IEC: 630 V / 24 A / 0.5 - 2.5 mm <sup>2</sup><br>UL: 300 V / 10 A / AWG 26 - AWG 14                                                                                                |
| Packaging    | Box                                                                                                                                                                                |

Creation date January 26, 2022 2:55:45 AM CET

## TOP1.5GS9/180 5 2STI OR

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## Technical data

## Dimensions and weights

|                          |            |                 |            |
|--------------------------|------------|-----------------|------------|
| Depth                    | 18.5 mm    | Depth (inches)  | 0.728 inch |
| Height                   | 24 mm      | Height (inches) | 0.945 inch |
| Height of lowest version | 19.5 mm    | Width           | 47.52 mm   |
| Width (inches)           | 1.871 inch | Net weight      | 31.75 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                            | 9                                 | Pin series quantity                          | 1                      |
| 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                                   | 40.64 mm                          | L1 in inches                                 | 1.6 inch               |
| 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                              | 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                       | 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.             | -40 °C |
| Storage temperature, max.             | 70 °C                       | 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.                                                | 2.5 mm <sup>2</sup>  |
| 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 <sup>2</sup>  |
| Solid, max. H05(07) V-U                                             | 2.5 mm <sup>2</sup>  |
| Flexible, min. H05(07) V-K                                          | 0.5 mm <sup>2</sup>  |
| Flexible, max. H05(07) V-K                                          | 2.5 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, 2.5 mm <sup>2</sup> max. |                      |
| w. wire end ferrule, DIN 46228 pt 1, min.                           | 0.5 mm <sup>2</sup>  |
| w. wire end ferrule, DIN 46228 pt 1, max.                           | 2.5 mm <sup>2</sup>  |
| Plug gauge in accordance with EN 60999 a x b; ø                     | 2.4 mm x 1.5 mm      |

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## Technical data

|                     |                                                                                                                                                                        |                              |                            |       |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------|-------|
| Clampable conductor | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                 |       |
|                     |                                                                                                                                                                        | nominal                      | 0.5 mm²                    |       |
|                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                    | 12 mm |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.5/16 OR</a> |       |
|                     |                                                                                                                                                                        | Stripping length             | nominal                    | 10 mm |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.5/10</a>    |       |
|                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                 |       |
|                     |                                                                                                                                                                        | nominal                      | 0.75 mm²                   |       |
|                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                    | 12 mm |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.75/16 W</a> |       |
|                     |                                                                                                                                                                        | Stripping length             | nominal                    | 10 mm |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.75/10</a>   |       |
|                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                 |       |
|                     |                                                                                                                                                                        | nominal                      | 1 mm²                      |       |
|                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                    | 12 mm |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.0/16D R</a> |       |
|                     |                                                                                                                                                                        | Stripping length             | nominal                    | 10 mm |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.0/10</a>    |       |
|                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                 |       |
|                     |                                                                                                                                                                        | nominal                      | 1.5 mm²                    |       |
|                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                    | 10 mm |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.5/10</a>    |       |
|                     |                                                                                                                                                                        | Stripping length             | nominal                    | 12 mm |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.5/16 R</a>  |       |
|                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                 |       |
|                     |                                                                                                                                                                        | nominal                      | 2.5 mm²                    |       |
|                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                    | 10 mm |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H2.5/10</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) |                              |                            |       |

## Rated data acc. to IEC

|                                                                           |                        |  |                                                                       |                   |
|---------------------------------------------------------------------------|------------------------|--|-----------------------------------------------------------------------|-------------------|
| tested acc. to standard                                                   | IEC 60664-1, IEC 61984 |  | Rated current, min. number of poles (Tu=20°C)                         | 24 A              |
| Rated current, max. number of poles (Tu=20°C)                             | 19 A                   |  | Rated current, min. number of poles (Tu=40°C)                         | 21 A              |
| Rated current, max. number of poles (Tu=40°C)                             | 16 A                   |  | Rated voltage for surge voltage class / pollution degree II/2         | 630 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      | 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                 |  | 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

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 14

## 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 107 mm

VPE width 99 mm

VPE height 60 mm

## Classifications

ETIM 6.0 EC002643

ETIM 8.0 EC002643

ECLASS 9.1 27-44-04-01

ECLASS 11.0 27-46-01-01

ETIM 7.0 EC002643

ECLASS 9.0 27-44-04-01

ECLASS 10.0 27-44-04-01

## 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

- 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.
- Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Approvals**

Approvals



ROHS

Conform

**Downloads**

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Engineering Data                            | <a href="#">CAD data – STEP</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Brochures                                   | <a href="#">FL DRIVES EN</a><br><a href="#">FL ANALO.SIGN.CONV. EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">FL BUILDING SAFETY EN</a><br><a href="#">FL APPL LED LIGHTING EN</a><br><a href="#">FLIndustr.CONTROLS EN</a><br><a href="#">FL MACHINE SAFETY EN</a><br><a href="#">FL HEATING ELECTR EN</a><br><a href="#">FL APPL INVERTER EN</a><br><a href="#">FL BASE STATION EN</a><br><a href="#">FL ELEVATOR EN</a><br><a href="#">FL POWER SUPPLY EN</a><br><a href="#">FL 72H SAMPLE SER EN</a><br><a href="#">PO OMNIMATE EN</a><br><a href="#">PO OMNIMATE EN</a> |

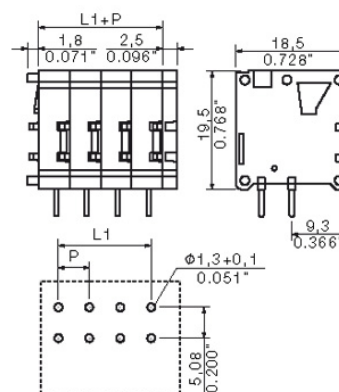
## TOP1.5GS9/180 5 2STI OR

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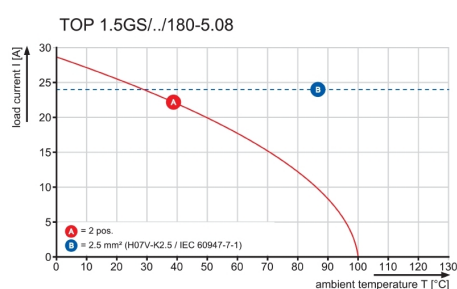
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# Drawings

## Dimensional drawing



## Graph



**TOP1.5GS9/180 5 2STI OR****Weidmüller Interface GmbH & Co. KG**

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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Mounting blocks****Minor component, major effect:**

Clip-on attachment elements increase the mechanical resilience of the circuit board terminals.

Clip-on or pre-assembled - always the right solution:

- Hard-wearing, precise fitting dovetail joint
- Hard-wearing metal threaded inserts
- Suitable for all outlet directions

Maximum stability, minimum effort:

- Extremely resilient for frequent fastening operations
- Complete set for easy selection

The result: soldering points, contacts and overall module are more resilient against mechanical stress such as vibrations and tensile loads.

**General ordering data**

| Type       | TOP1.5GS BB OR             | Version                                                               | Product data | Packaging |
|------------|----------------------------|-----------------------------------------------------------------------|--------------|-----------|
| Order No.  | <a href="#">1539860000</a> | Printed circuit board terminals, Accessories, Mounting block, orange, |              | Box       |
| GTIN (EAN) | 4008190061692              | Number of poles: 1                                                    |              |           |
| Qty.       | 20 pc(s).                  |                                                                       |              |           |

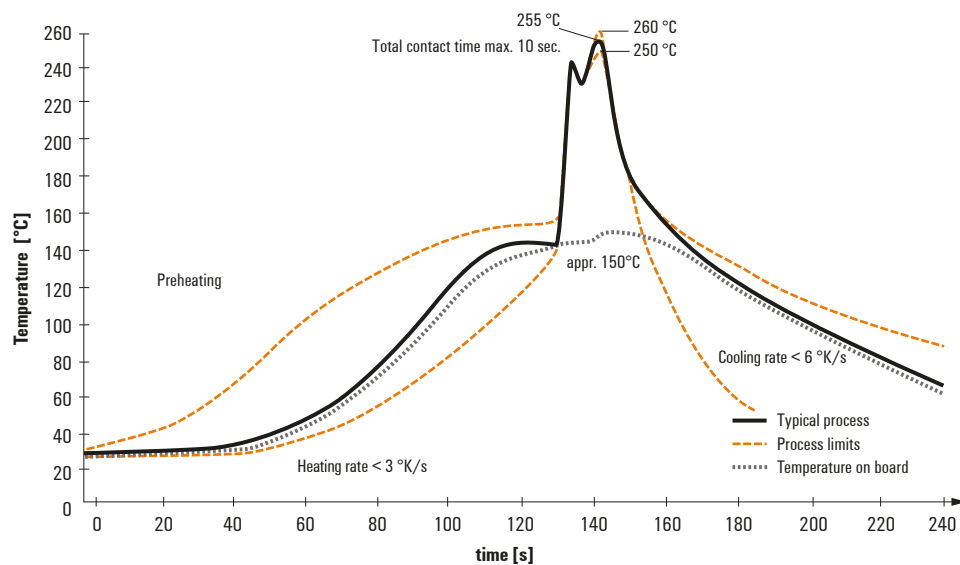
## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
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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.



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