

TOP1.5GS12/90 5 2STI OR

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

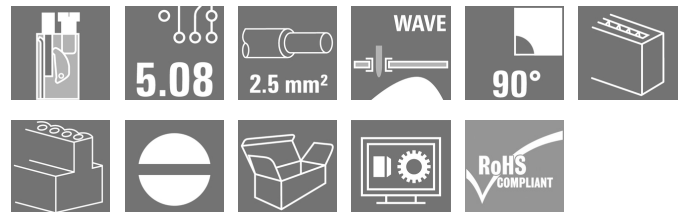
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Product image



Similar to illustration

Do not use product for new developments



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

Version	Printed circuit board terminals, 5.08 mm, Number of poles: 12, 90°, Solder pin length (l): 3.5 mm, tinned, orange, TOP connection, Clamping range, max.: 2.5 mm ² , Box
Order No.	0594360000
Type	TOP1.5GS12/90 5 2STI OR
GTIN (EAN)	4008 1908 75206
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

Creation date December 4, 2023 1:30:04 PM CET
 Available until 2023-03-31

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Technical data
Dimensions and weights

Depth	19.5 mm	Depth (inches)	0.768 inch
Height	22 mm	Height (inches)	0.866 inch
Height of lowest version	18.5 mm	Width	65.18 mm
Width (inches)	2.566 inch	Net weight	41.6 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	90°
Pitch in mm (P)	5.08 mm	Pitch in inches (P)	0.2 inch
Number of poles	12	Pin series quantity	1
Fitted by customer	No	Number of rows	1
Solder pin length (l)	3.5 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	55.88 mm
L1 in inches	2.2 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 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, min.	0.5 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm ²
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
		Stripping length	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
		Stripping length	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
		Stripping length	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
		Stripping length	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)

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 voltage (Use group D / CSA) 300 V

Rated current (Use group B / CSA) 10 A

Rated current (Use group D / CSA) 10 A

Wire cross-section, AWG, min. AWG 26

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 voltage (Use group D / UL 1059) 300 V

Rated current (Use group B / UL 1059) 10 A

Rated current (Use group D / UL 1059) 10 A

Wire cross-section, AWG, min. AWG 26

Wire cross-section, AWG, max. AWG 14

Packing

Packaging Box

VPE length 211 mm

VPE width 144 mm

VPE height 73 mm

Classifications

ETIM 6.0	EC002643	ETIM 7.0	EC002643
ETIM 8.0	EC002643	ETIM 9.0	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	27460101

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 variants 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 maximum humidity 70%, 36 months

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Technical data**Approvals**

Approvals



ROHS

Conform

Downloads

Engineering Data	CAD data – STEP
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN FL ANALO.SIGN.CONV. EN MB DEVICE MANUF. EN FL DRIVES DE FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FLIndustr.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL_INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN PO OMNIMATE EN

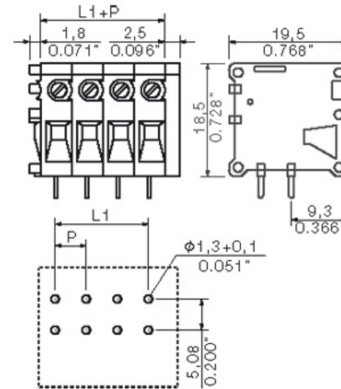
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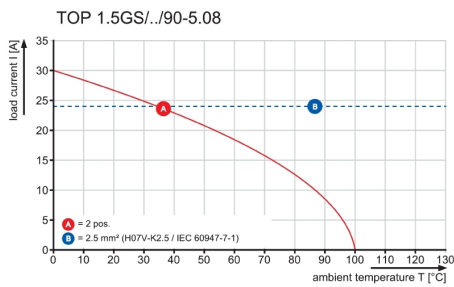
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Drawings

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.