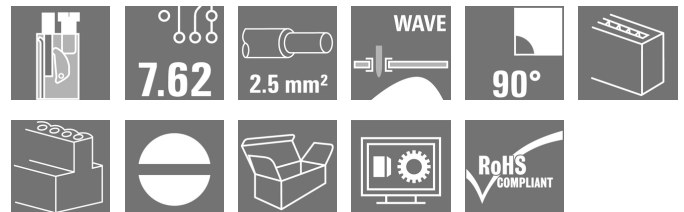


Data sheet

OMNIMATE Signal - series TOP1.5GS TOP1.5GS5/90 7 2STI OR

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Product image



Similar to illustration

Conductor entry and screw connection in the same direction on this PCB terminal with 7.62 mm pitch for conductor cross-sections up to 2.5 mm². Conductor outlet direction 90° and 180°.

General ordering data

Type	TOP1.5GS5/90 7 2STI OR
Order No.	0393660000
Version	Printed circuit board terminals, 7.62 mm, Number of poles: 5, 90°, Solder pin length (l): 3.5 mm, tinned, orange, TOP connection, Clamping range, max.: 2.5 mm ² , Box
GTIN (EAN)	4032248189175
Qty.	25 pc(s).
Product data	IEC: 1000 V / 24 A / 0.5 - 2.5 mm ² UL: 300 V / 10 A / AWG 26 - AWG 14
Packaging	Box

Creation date 20 April 2020 16:10:36 CEST

Data sheet

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Technical data

Dimensions and weights

Width	39.9 mm	Width (inches)	1.571 inch
Height	22 mm	Height (inches)	0.866 inch
Height of lowest version	18.5 mm	Depth	19.5 mm
Depth (inches)	0.768 inch	Net weight	20.52 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	90°
Pitch in mm (P)	7.62 mm	Pitch in inches (P)	0.3 inch
Number of poles	5	Fitted by customer	No
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	30.48 mm
L1 in inches	1.2 inch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	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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Catalogue status 17.04.2020 / We reserve the right to make technical changes.

Data sheet

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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, 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	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	630 V	Rated voltage for surge voltage class / pollution degree III/3	400 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	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	48 mm
VPE width	122 mm	VPE height	128 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	<ul style="list-style-type: none"> • 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

Downloads

Brochure/Catalogue

[FL DRIVES EN](#)
[FL ANALO.SIGN.CONV. EN](#)
[MB DEVICE MANUF. EN](#)
[FL DRIVES DE](#)
[CAT 2 PORTFOLIOGUIDE EN](#)
[FL BUILDING SAFETY EN](#)
[FL APPL LED LIGHTING EN](#)
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[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](#)

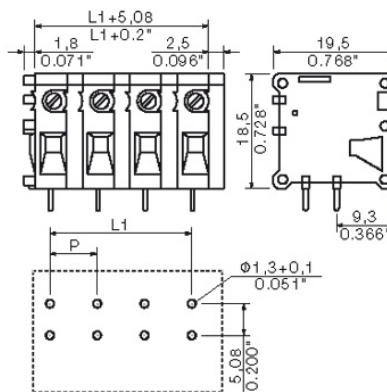
Data sheet

**OMNIMATE Signal - series TOP1.5GS
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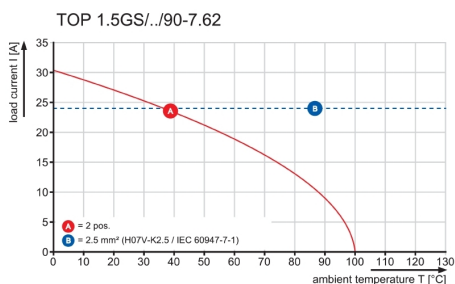
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Drawings

Dimensional drawing



Graph



MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE
 DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH
 THE GERMAN VERSION IS BINDING

Technical Data

Rev.

Material data

Insulation material type	PA 66
Insulation material colours	S 33230
Insulation material flammability class	UL94 V-2
Insulation resistance	10 ³ MOhm
Contact base material	CuZn
Contact plating (mating end)	Tin-plated
Contact plating (solder end)	n/a

System characteristic values

together with counterpart

Pitch P	mm/inch	7.62 / 0.3
Number of rows		1
Dielectric strength (r.m.s withstand voltage)	kV	2.5
Conductor connection methode		TOP connection
Plug in force (max.)	N/pole	n/a
Pull out force (max.)	N/pole	n/a
Through resistance (typical)	mOhm	0.9
Operating temperature range	°C	-20....+100
Degree of protection acc. to VDE 0106 (plugged/unplugged)		finger safe
Degree of protection acc. to DIN EN 60529 (plugged/unplugged)		IP20
Solder pin length L	mm/inch	3.5
PCB hole diameter D (wave soldering)	mm/inch	1.3
PCB hole diameter D (reflow soldering)	mm/inch	n/a
Resistance to soldering heat acc. to DIN IEC 60512-6	°C/sec	260/10
Resistance to soldering heat acc. to EN 61760-1	°C/sec	n/a
Solderability classification acc. to EN 61760-1		n/a
Solder connection type		wave soldering
Solder pin diameter d (max.)	mm/inch	1.28/0.05

Application notes

Coding possibility	yes/no	no
Joinable without loss of pitch	yes/no	no
Manual assembly of modules	yes/no	yes
Max. number of poles	n	12

IEC 664-1 / VDE0110 (4.97) rated data

Rated cross section acc. to EN 60999	mm ²	1.5
Rated current @ 20°C ambient (together with)	A	16
Rated current @ 40°C ambient (together with)	A	xxx
Overvoltage category / Pollution degree	III/3 III/2 II/2	
Rated voltage	V	500 630 1000
Rated impulse voltage	kV	6.0 6.0 6.0

UL 1059 rated data



File No.: E60693

Rated voltage	V	300	300
Rated current	A	10	10
Clamping range	mm ² / AWG	0.5...1.5/26..14	

CSA C22.2 rated data



File No.: LR12400

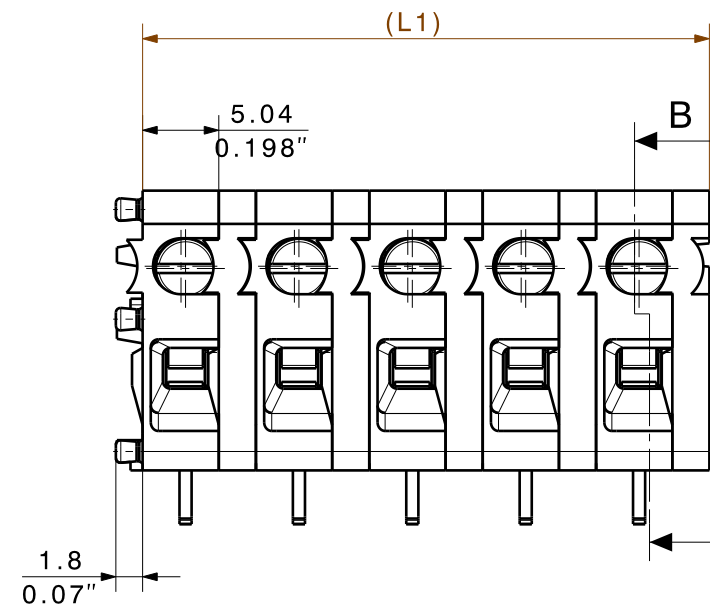
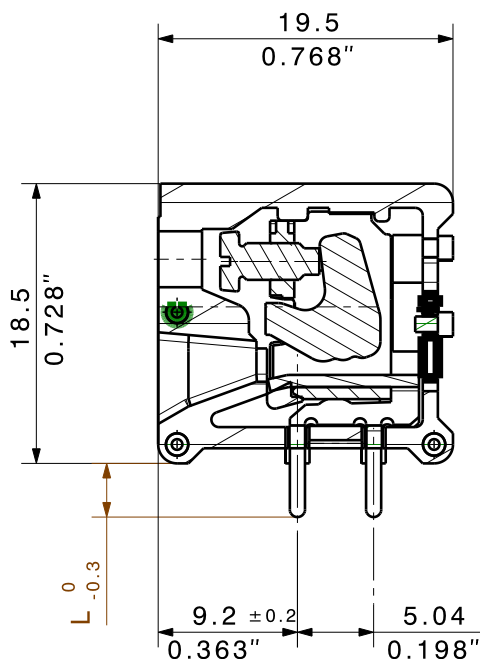
Rated voltage	V	300	300
Rated current	A	10	10
Clamping range	mm ² / AWG	0.5.....1.5/26....14	

Packaging

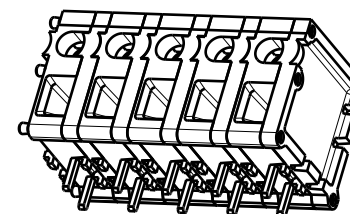
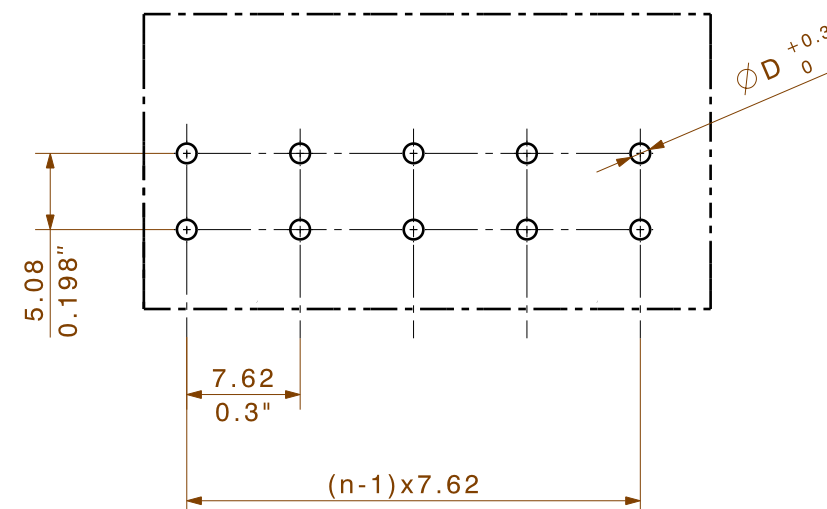
carton

Downloads

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Drilling Diagram



12	91,44	3,600
11	83,82	3,300
10	76,20	3,000
9	68,58	2,700
8	60,96	2,400
7	53,34	2,100
6	45,72	1,800
5	38,10	1,500
4	30,48	1,200
3	22,86	0,900
2	15,24	0,600
1	7,62	0,300
n	L1 [mm]	L1 [Inch]

02 Zeichnung komplett überarbeitet

- Without locking latches
- Sum of ambient temperature and temperature rise
- Recommendation for manual assembly
- Recommendation for automatic assembly
- Recommendation for wave soldering
- Recommendation for reflow soldering
- Referred to rated cross section and minimum pole number

n.a. = not applicable

Subject to technical changes

For the mounting of PCBs, it should be noted that the rated data stated here relates only to the PCB components alone. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

METRIC TOLERANCES: X. = ±0.3 X.X = ±0.1 X.XX = ±0.05		35928/5 05.09.06 KRUG_M 01		CAT.NO.: C 33230 02	
METRIC/INCH DIMENSIONS		MODIFICATION		DRAWING NO. 3 OF 4 SHEETS ISSUE NO.	
SCALE: 2:1 SUPERSEDES: SUPERSEDED BY:		DATE 06.04.2004 05.09.2006		NAME HEINEL_M KRUG_M HECKERT_M GUENTHER_W	
				PRODUCT FILE:	



TOP 1.5 GS /90 2STI

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Wave Solder Profile

Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG

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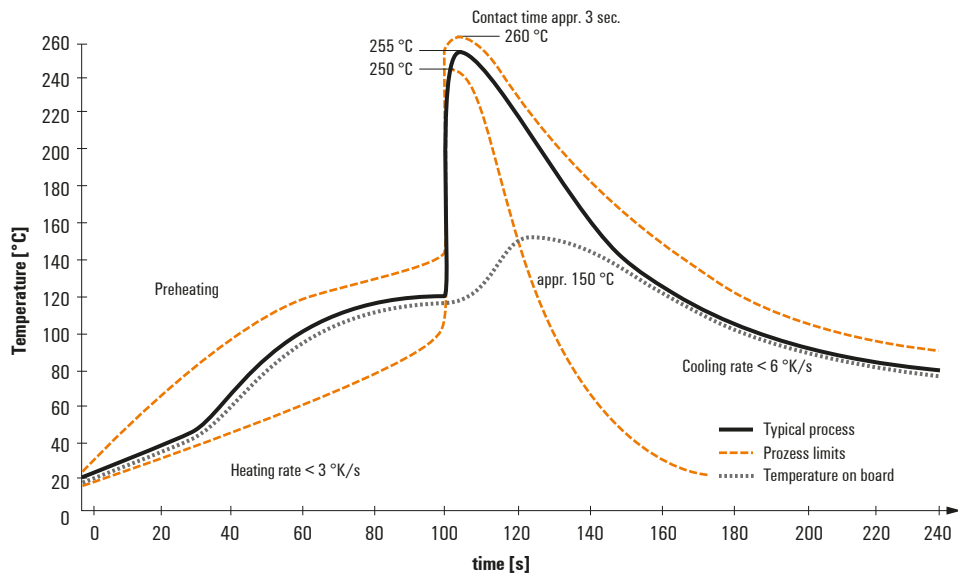
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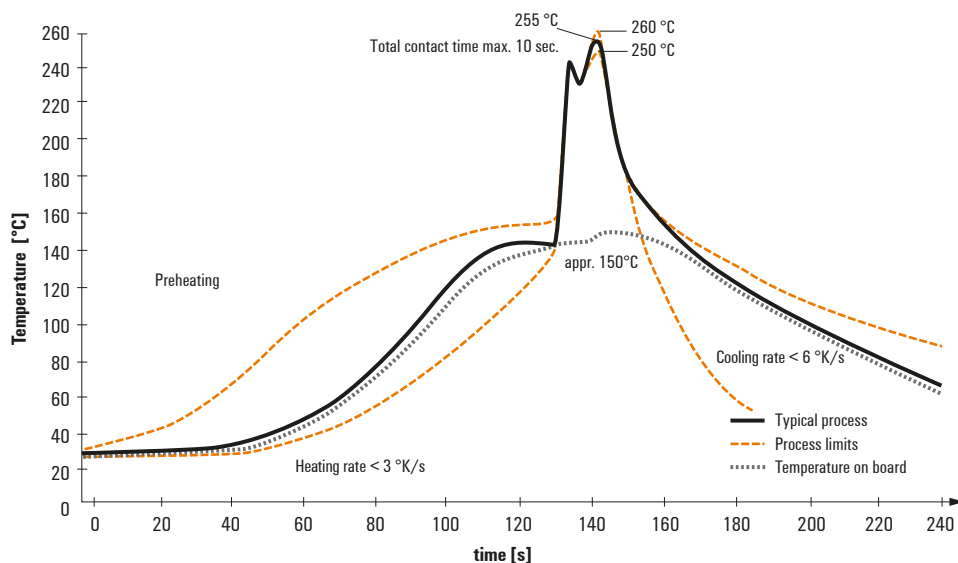
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Single Wave:



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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