

## TERMOPTO TOP 120VAC/48VDC 0,5A

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 16

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Germany

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TERMOPTO solid-state relay, 5 to 48 V DC 0.5 A output version,

with AC or DC input, available in different versions:

- With PUSH IN connection
- In 6.1 mm width
- With various input protective circuits (free-wheel diode, varistor, RC filter)
- Pluggable cross-connections
- Enclosed design

### General ordering data

Type	TOP 120VAC/48VDC 0,5A
Order No.	<a href="#">8951080000</a>
Version	TERMOPTO, solid-state relais, 1 NO contact (Transistor), Rated control voltage: 120 V AC $\pm 20\%$ , Rated switching voltage: 5...48 V DC, Continuous current: 500 mA, PUSH IN
GTIN (EAN)	4032248741854
Qty.	10 pc(s).

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

Width	6.1 mm	Width (inches)	0.24 inch
Height	79.4 mm	Height (inches)	3.126 inch
Depth	55 mm	Depth (inches)	2.165 inch
Net weight	19.8 g		

**Temperatures**

Humidity	5–95% rel. humidity, $T_u = 40^\circ\text{C}$ , no condensation	Operating temperature, max.	60 °C
Operating temperature, min.	-20 °C	Storage temperature, max.	80 °C
Storage temperature, min.	-40 °C	Operating temperature	-20 °C...60 °C
Storage temperature	-40 °C...80 °C		

**Probability of failure**

MTTF	2,500 Years
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**Control side**

Rated control voltage	120 V AC $\pm 20\%$	Nominal control current	2.9 mA AC
Power rating	$\leq 0.3$ VA	Cut-in / dropout voltage	102 V / 48 V AC
Status indicator	Green LED	Protective circuit	Varistor, Rectifier

**Load side**

Rated switching voltage	5...48 V DC	Continuous current	500 mA
Rated switching current	500 mA	Load category	DC1
Switch-on delay	< 12 ms	Switch-off delay	< 14 ms
Voltage drop at max. load	< 1 V	Leakage current	< 10 $\mu\text{A}$
Short-circuit-proof	No	Protective circuit, load side	Free-wheel diode
max. switching frequency (AC control voltage)	10 Hz		

**Contact data**

Contact type	1 NO contact (Transistor)
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**General data**

Mounting rail	TS 35	Colour	Black
UL 94 flammability rating	V-0		

**Insulation coordination**

Rated voltage	300 V	Pollution severity	2
Surge voltage category	III	Clearance and creepage distances for control side - load side	> 3 mm
Dielectric strength for control side - load side	1.2 kV <sub>eff</sub> / 1 min.	Impulse withstand voltage	4 kV (1.2/50 $\mu\text{s}$ )
Protection degree	IP20		

**Further details of approvals / standards**

Standards	DIN EN 50178, IEC 62314, UL508	Certificate no. (cULus)	E223474
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**Technical data****Connection data**

Wire connection method	PUSH IN	Stripping length, rated connection	10 mm
Clamping range, rated connection	1.5 mm <sup>2</sup>	Clamping range, min.	0.5 mm <sup>2</sup>
Clamping range, max.	2.5 mm <sup>2</sup>	Wire connection cross section AWG, min.	AWG 20
Wire connection cross section AWG, max.	AWG 14	Wire cross-section, solid, min.	0.5 mm <sup>2</sup>
Wire cross-section, solid, max.	1.5 mm <sup>2</sup>	Wire connection cross-section, finely stranded, min.	0.5 mm <sup>2</sup>
Wire connection cross section, finely stranded, max.	1.5 mm <sup>2</sup>	Wire cross-section, finely stranded, min. (AWG)	AWG 20
Wire cross-section, finely stranded, max. (AWG)	AWG 14	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.5 mm <sup>2</sup>
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	1.5 mm <sup>2</sup>	Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.5 mm <sup>2</sup>
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	1.5 mm <sup>2</sup>	Blade size	0.6 x 3.5 mm

**Classifications**

ETIM 3.0	EC001504	ETIM 4.0	EC001504
ETIM 5.0	EC001504	ETIM 6.0	EC001504
eClass 5.1	27-27-09-90	eClass 6.2	27-27-09-90
eClass 7.1	27-27-09-90	eClass 8.1	27-27-09-90
eClass 9.0	27-27-09-90	eClass 9.1	27-37-16-04

**Product information**

Descriptive text technical data      Accessories and dimensioned drawings: refer to the TERMOPTO Accessories page.

**Approvals**

Approvals



ROHS      Conform

**Downloads**

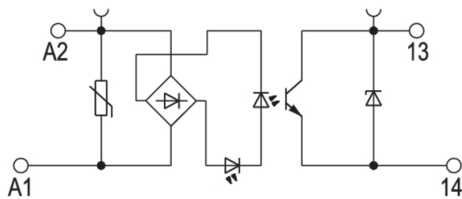
Approval/Certificate/Document of Conformity	<a href="#">DE_PA_5600_160301_001.pdf</a>
Brochure/Catalogue	<a href="#">CAT 4.2 ELECTR 18/19 EN</a>
Engineering Data	<a href="#">EPLAN.WSCAD</a>
Engineering Data	<a href="#">STEP</a>
User Documentation	<a href="#">Operating Instructions</a>

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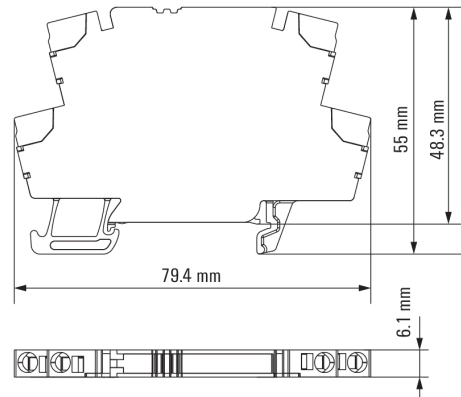
**Drawings**

**Wiring diagram**

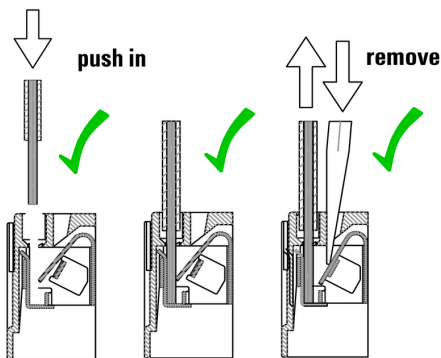


Schaltsymbol

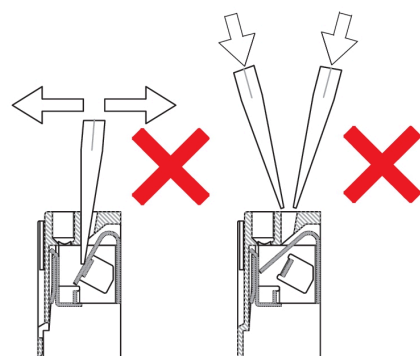
**Dimensional drawing**



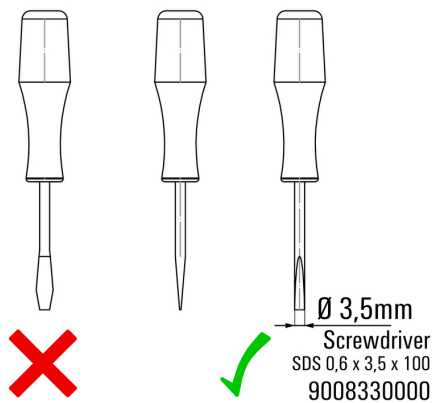
**Correct handling PUSH IN connection**



**Wrong handling PUSH IN connection**



**Recommended screwdriver**



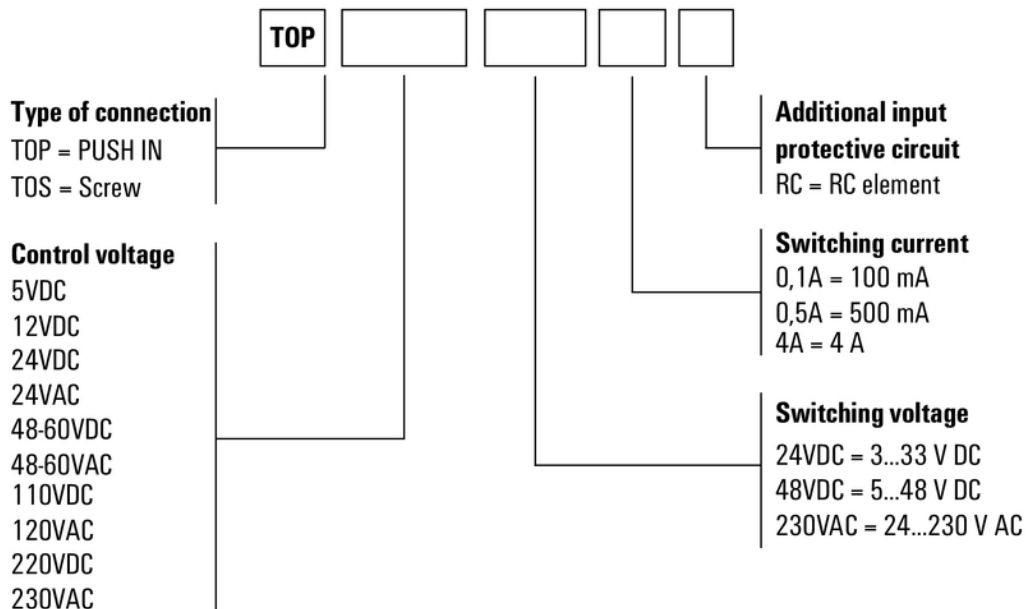
**Data sheet**

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**Drawings**

**Miscellaneous**



Type codes