

**TERMOPTO  
TOP 120VAC/230VAC 0,1A**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
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TERMOPTO solid-state relay 230 VAC 0.1 A output version,

with AC or DC input, available in different versions:

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

**General ordering data**

Type	TOP 120VAC/230VAC 0,1A
Order No.	<a href="#">8951280000</a>
Version	TERMOPTO, solid-state relays, 1 NO contact (Triac (zero-cross switch)), Rated control voltage: 120 V AC $\pm 20\%$ , Rated switching voltage: 24...230 V AC, Continuous current: 100 mA, PUSH IN
GTIN (EAN)	4032248742059
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	8.5 mA AC
Power rating	$\leq 1$ VA	Cut-in / dropout voltage	96 V / 48 V AC
Status indicator	Green LED	Protective circuit	Varistor, Rectifier

**Load side**

Rated switching voltage	24...230 V AC	Continuous current	100 mA
Rated switching current	100 mA	Load category	AC1
Switch-on delay	< 22 ms	Switch-off delay	< 18 ms
Voltage drop at max. load	< 1.8 V	Leakage current	< 1 mA
Short-circuit-proof	No	Protective circuit, load side	Varistor, RC element
max. switching frequency (AC control voltage)	10 Hz		

**Contact data**

Contact type	1 NO contact (Triac (zero-cross switch))
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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		

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**Technical data****Further details of approvals / standards**

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

Approvals



ROHS	Conform
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**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>

Creation date July 2, 2018 9:49:39 AM CEST

Catalogue status 29.06.2018 / We reserve the right to make technical changes.

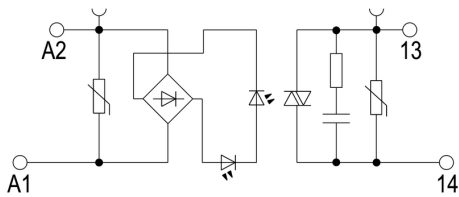
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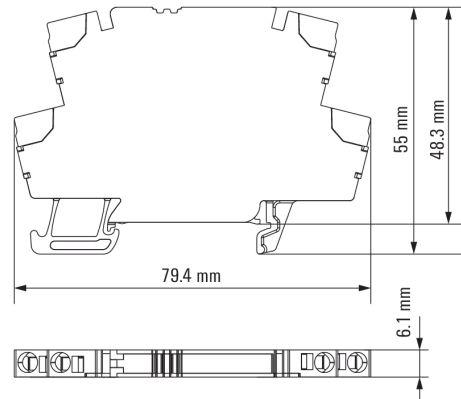
**Drawings**

**Wiring diagram**

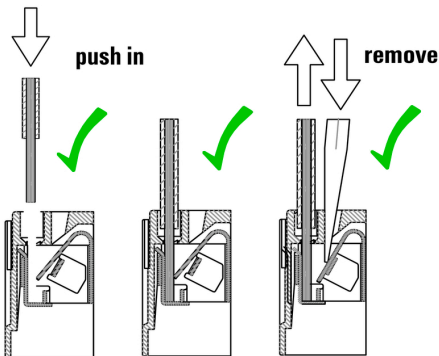


Schaltsymbol

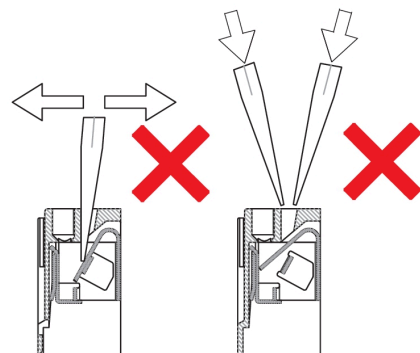
**Dimensional drawing**



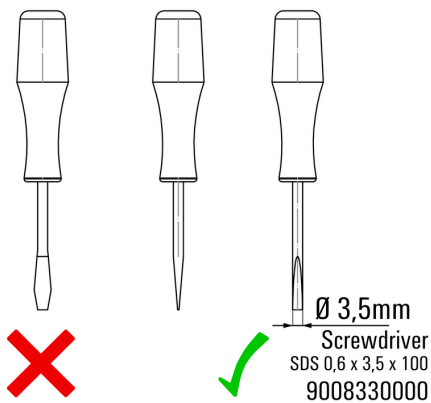
**Correct handling PUSH IN connection**



**Wrong handling PUSH IN connection**



**Recommended screwdriver**

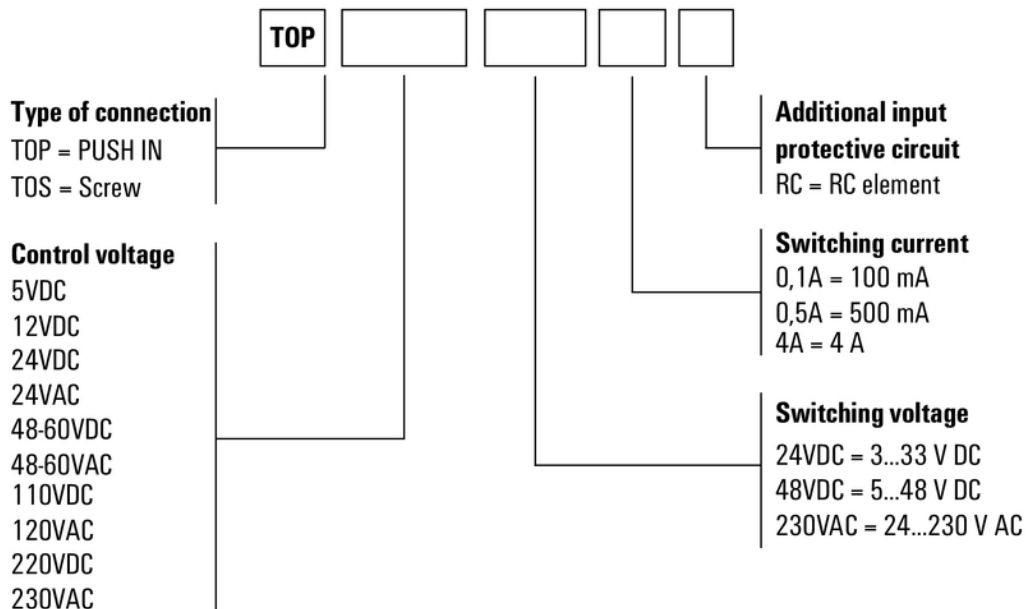


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**Drawings**

**Miscellaneous**



Type codes