

TERMOPTO TOS 120VAC/48VDC 0.5A RC

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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Similar to illustration

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

with AC or DC input, available in different versions:

- With screw 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	TOS 120VAC/48VDC 0.5A RC
Order No.	1180290000
Version	TERMOPTO, solid-state relays, 1 NO contact (Transistor), Rated control voltage: 120 V AC $\pm 20\%$, Rated switching voltage: 5...48 V DC, Continuous current: 500 mA, Screw connection
GTIN (EAN)	4032248100057
Qty.	10 pc(s).

Creation date April 14, 2020 12:50:34 AM CEST

Catalogue status 03.04.2020 / We reserve the right to make technical changes.

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Technical data
Dimensions and weights

Width	6.1 mm	Width (inches)	0.24 inch
Height	74.4 mm	Height (inches)	2.929 inch
Depth	55 mm	Depth (inches)	2.165 inch
Net weight	20.4 g		

Temperatures

Humidity	5-95% relative humidity, T _u = 40°C, without 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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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Control side

Rated control voltage	120 V AC ±20 %	Nominal control current	6.4 mA AC
Power rating	≤ 0.61 VA	Cut-in / dropout voltage	102 V / 48 V AC
Status indicator	Green LED	Protective circuit	RC element, Rectifier

Load side

Rated switching voltage	5...48 V DC	Continuous current	500 mA
Load category	DC1	Switch-on delay	< 12.6 ms
Switch-off delay	< 20.8 ms	Voltage drop at max. load	< 1 V
Leakage current	< 10 µA	Short-circuit-proof	No
Protective circuit, load side	Diode circuit	max. switching frequency (AC control voltage)	10 Hz

Contact data

Contact type	1 NO contact (Transistor)
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General data

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 _{eff} / 1 min.	Impulse withstand voltage	4 kV (1.2/50 µs)
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	Screw connection	Stripping length, rated connection	9 mm
Tightening torque, min.	0.4 Nm	Tightening torque, max.	0.6 Nm
Clamping range, rated connection	2.5 mm ²	Clamping range, min.	0.5 mm ²
Clamping range, max.	4 mm ²	Wire connection cross section AWG, min.	AWG 20
Wire connection cross section AWG, max.	AWG 12	Wire cross-section, solid, min.	0.5 mm ²
Wire cross-section, solid, max.	4 mm ²	Wire connection cross-section, finely stranded, min.	0.5 mm ²
Wire connection cross section, finely stranded, max.	2.5 mm ²	Wire cross-section, finely stranded, min. (AWG)	AWG 20
Wire cross-section, finely stranded, max. (AWG)	AWG 12	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.5 mm ²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	1.5 mm ²	Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.5 mm ²
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	1.5 mm ²	Blade size	0.6 x 3.5 mm

Classifications

ETIM 6.0	EC001504	ETIM 7.0	EC001504
eClass 9.0	27-37-16-04	eClass 9.1	27-37-16-04
eClass 10.0	27-37-16-04		

Approvals

Approvals



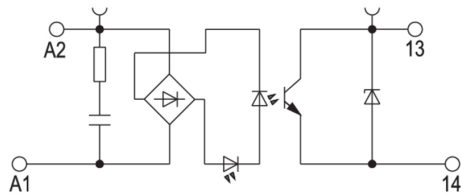
ROHS Conform

Downloads

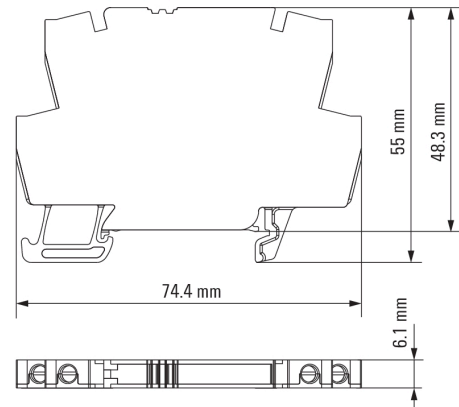
Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Brochure/Catalogue	CAT 4.2 ELECTR 18/19 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Beipackzettel / Package Insert – multilingual

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Drawings**Wiring diagram**

Schaltsymbol

Dimensional drawing

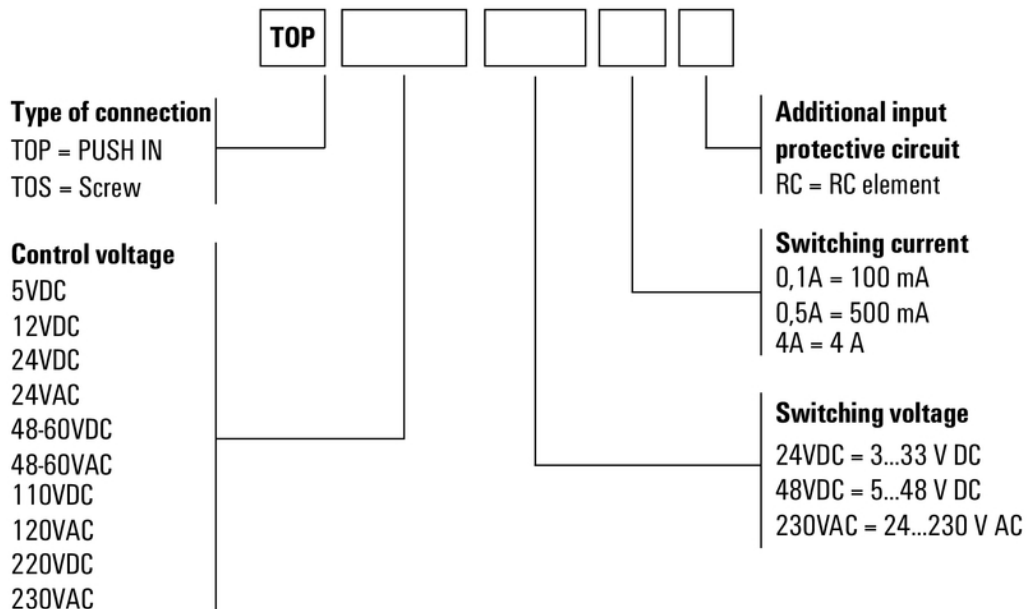
Data sheet

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Drawings

Miscellaneous



Type codes