TERMOPTO
TOS 24VAC/48VDC 0,1A

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
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Similar to illustration

TERMOPTO solid-state-relay 5 to 48 V DC 0.1 A output version,
with AC or DC input, available in different versions:

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

General ordering data

Type	TOS 24VAC/48VDC 0,1A
Order No.	8950820000
Version	TERMOPTO, solid-state relais, 1 NO contact (Transistor), Rated control voltage: 24 V AC ±20% , Rated switching voltage: 5...48 V DC, Continuous current: 100 mA, Screw connection
GTIN (EAN)	4032248742196
Qty.	10 pc(s).

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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	20.7 g		

Temperatures

Humidity	5–95% rel. humidity, T_u = 40°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

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1

Control side

Rated control voltage	24 V AC ±20%	Nominal control current	7.4 mA AC
Power rating	< 0.18 VA	Cut-in / dropout voltage	21.6 V / 9.6 V AC
Status indicator	Green LED	Protective circuit	Varistor, Rectifier

Load side

Rated switching voltage	5...48 V DC	Continuous current	100 mA
Rated switching current	100 mA	Load category	DC1
Switch-on delay	< 12 ms	Switch-off delay	< 14 ms
Voltage drop at max. load	< 1 V	Leakage current	< 10 µA
Min. switching current	100 µA	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)

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_{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

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 mm²	Clamping range, min.	0.5 mm²
Clamping range, max.	4 mm²	Wire connection cross section AWG, min.	AWG 20
Wire connection cross section AWG, max.	AWG 12	Wire cross-section, solid, min.	0.5 mm²
Wire cross-section, solid, max.	4 mm²	Wire connection cross-section, finely stranded, min.	0.5 mm²
Wire connection cross section, finely stranded, max.	2.5 mm²	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 mm²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	1.5 mm²	Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.5 mm²
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	1.5 mm²	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

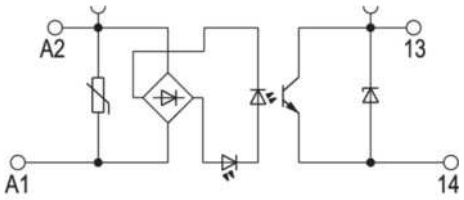
Approval/Certificate/Document of Conformity	DE_PA_5600_160301_001.pdf
Brochure/Catalogue	CAT 4.2 ELECTR 18/19 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Operating Instructions

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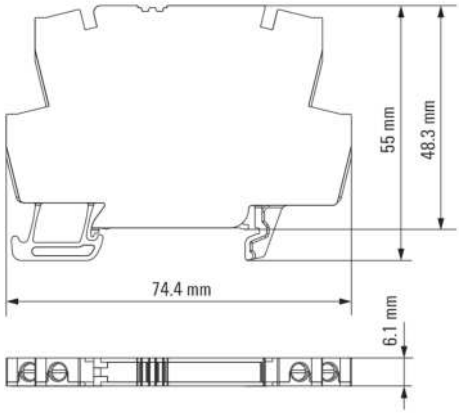
Drawings

Wiring diagram



Schaltsymbol

Dimensional drawing

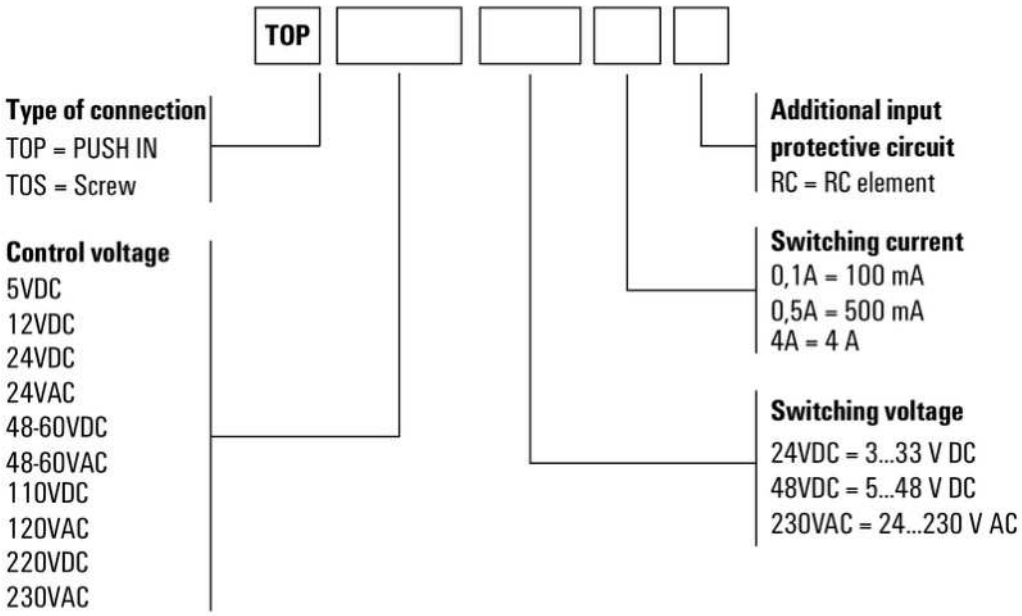


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Drawings

Miscellaneous



Type codes