

TERMOPTO
TOS 24VDC/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 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 24VDC/230VAC 0,1A
Order No.	8951120000
Version	TERMOPTO, solid-state relays, 1 NO contact (Triac (zero-cross switch)), Rated control voltage: 24 V DC $\pm 20\%$, Rated switching voltage: 24...230 V AC, Continuous current: 100 mA, Screw connection
GTIN (EAN)	4032248741892
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	20.5 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	24 V DC $\pm 20\%$	Nominal control current	3.6 mA DC
Power rating	$\leq 80\text{ mW}$	Cut-in / dropout voltage	19.2 V / 6 V DC
Protective circuit	Varistor, Reverse polarity protection		

Load side

Rated switching voltage	24...230 V AC	Continuous current	100 mA
Rated switching current	100 mA	Load category	AC1
Switch-on delay	$\leq 10\text{ ms}$	Switch-off delay	$< 12\text{ ms}$
Voltage drop at max. load	$< 1.8\text{ V}$	Leakage current	$< 1\text{ mA}$
Short-circuit-proof	No	Protective circuit, load side	Varistor, RC element
max. switching frequency (DC 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	$> 3\text{ mm}$
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 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

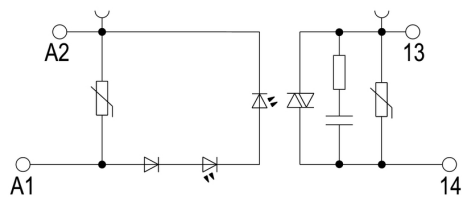
Approval/Certificate/Document of Conformity	DE_PA_5600_160301_001.pdf
Brochure/Catalogue	CAT 4.2 ELECTR 18/19 EN
Engineering Data	EPLAN_WSCAD
Engineering Data	STEP
User Documentation	Operating Instructions

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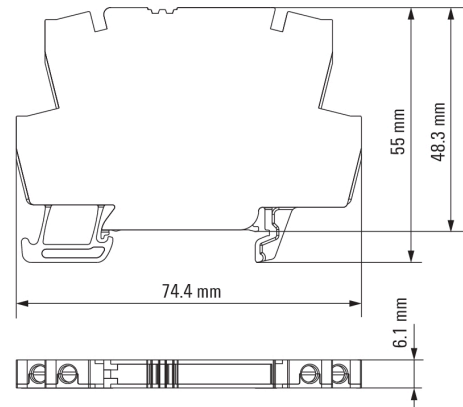
Drawings

Wiring diagram



Schaltsymbol

Dimensional drawing

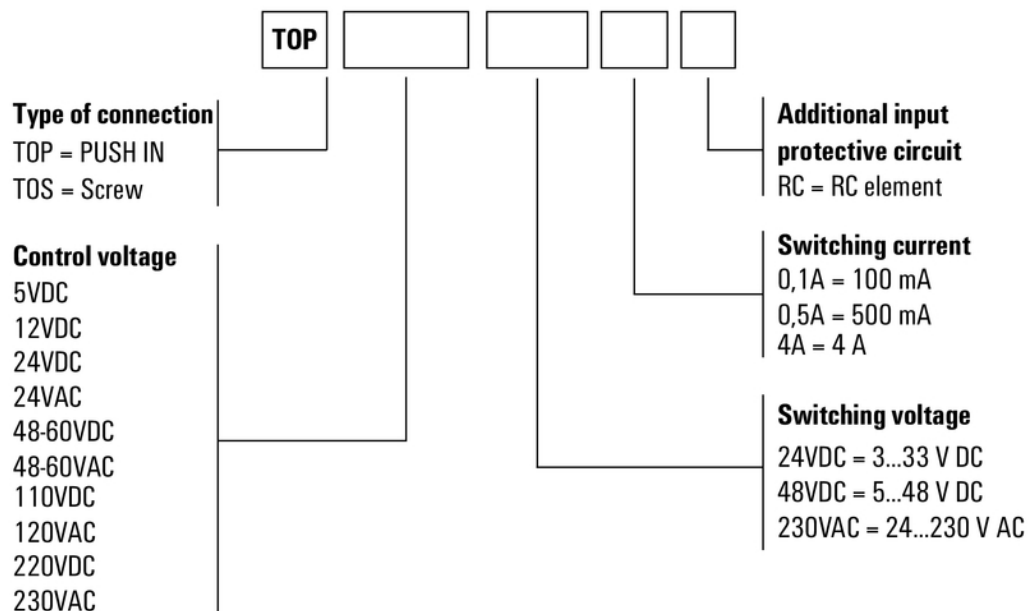


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Drawings

Miscellaneous



Type codes