

TERMOPTO

TOS 24VDC/24VDC 4A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

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Similar to illustration

The TERMOPTO solid-state relay module is used in industrial applications where electrical isolation and signal conditioning without switching amplification is sufficient. The compact design in terminal-block format saves space on the terminal rail and offers the option of a pluggable cross-connection.

The option between 10 input voltages and 3 output voltages as well as screw or PUSH IN connection enables 60 versions for various applications.

The integrated protective circuit ensures sufficient protection in applications with ohmic as well as slightly inductive and capacitive loads. For purely inductive, capacitive or comparable loads with high switch-on and switch-off peaks, such as solenoid valves or filament lamps, ensure that the module is dimensioned appropriately or an additional safeguard is used.



General ordering data

Type	TOS 24VDC/24VDC 4A
Order No.	1275100000
Version	TERMOPTO, solid-state relays, 1 NO contact (MOS-FET), Rated control voltage: 24 V DC $\pm 20\%$, Rated switching voltage: 3...33 V DC, Continuous current: 4 A, Screw connection
GTIN (EAN)	4050118065053
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	20.8 g		

Temperatures

Humidity	5-95% relative humidity, $T_u = 40^\circ\text{C}$, 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	1,188 Years
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Control side

Rated control voltage	24 V DC $\pm 20\%$	Nominal control current	7 mA DC
Power rating	$\leq 170\text{ mW}$	Cut-in / dropout voltage	16.8 V / 6 V DC
Status indicator	Green LED	Protective circuit	Varistor, Reverse polarity protection

Load side

Rated switching voltage	3...33 V DC	Continuous current	4 A
Load category	DC1	Switch-on delay	< 12 ms
Switch-off delay	< 14 ms	Voltage drop at max. load	90 mV
Leakage current	< 10 μA	Short-circuit-proof	No
Protective circuit, load side	Varistor	max. switching frequency (DC control voltage)	10 Hz

Contact data

Contact type	1 NO contact (MOS-FET)
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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		

Creation date April 26, 2020 4:32:01 PM CEST

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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
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

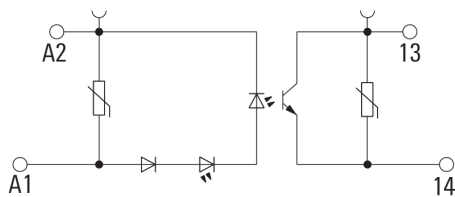
Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Brochure/Catalogue	CAT 4.2 ELECTR 18/19 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Beipackzettel / Package Insert - multilingual

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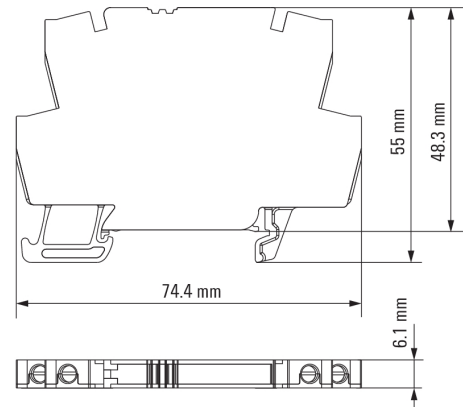
Drawings

Wiring diagram



Schaltsymbol

Dimensional drawing

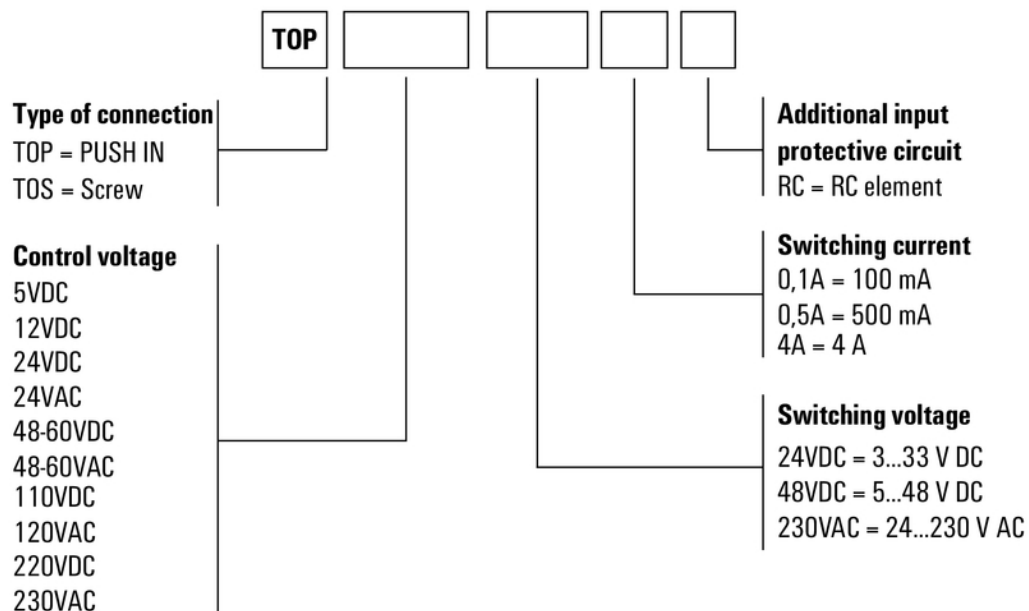


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Drawings

Miscellaneous



Type codes