



**THE DATASHEET OF
1275100000**



TERMOPTO TOS 24VDC/24VDC 4A

Weidmüller Interface GmbH & Co. KG
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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 relais, 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% 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	1,188 Years
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Control side

Rated control voltage	24 V DC $\pm 20\%$	Nominal control current	7 mA DC
Power rating	≤ 170 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
Rated switching 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

Mounting rail	TS 35	UL 94 flammability rating	V-0
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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		

Further details of approvals / standards

Standards	DIN EN 50178, IEC 62314, UL508	Certificate no. (cULus)	E223474
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Creation date April 13, 2018 10:30:17 PM CEST

Catalogue status 06.04.2018 / We reserve the right to make technical changes.

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Technical data**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 3.0	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



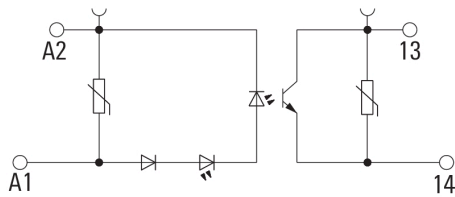
ROHS Conform

Downloads

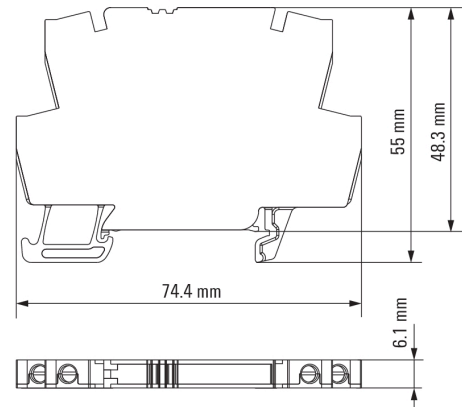
Approval/Certificate/Document of Conformity	DE_PA_5600_160301_001.pdf
Brochure/Catalogue	CAT 4.2 ELECTR 15/16 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Operating Instructions

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Drawings**Wiring diagram**

Schaltsymbol

Dimensional drawing

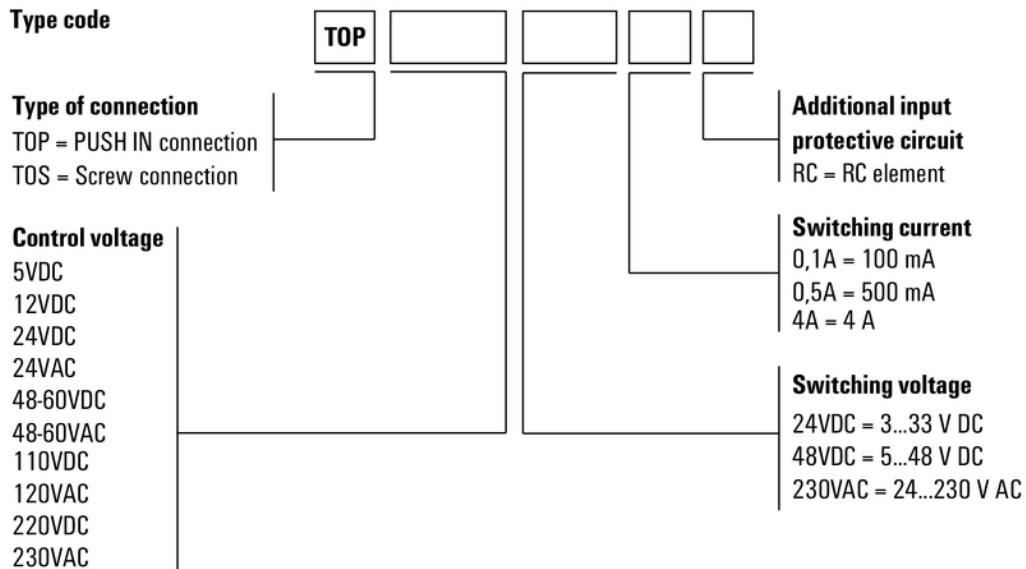
Data sheet

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Drawings

Miscellaneous



Type codes

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