

TOS 48-60VDC/230VAC 0,1A
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com


Similar to illustration

- 1 NO contact (Triac (zero-cross switch))
- Ensures wear- and maintenance-free potential separation in compact terminal block format
- Suitable accessories from the cross-connection to the marker
- Integrated protective circuit for inputs and outputs

General ordering data

Version	TERMOPTO, solid-state relais, 1 NO contact (Triac (zero-cross switch)), Rated control voltage: 48...60 V DC $\pm 20\%$, Rated switching voltage: 24...230 V AC, Continuous current: 100 mA, Screw connection
Order No.	8951130000
Type	TOS 48-60VDC/230VAC 0,1A
GTIN (EAN)	4032248741908
Qty.	10 pc(s).

Creation date March 29, 2021 11:55:56 PM CEST

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Technical data

Dimensions and weights

Depth	55 mm	Depth (inches)	2.165 inch
Height	74.4 mm	Height (inches)	2.929 inch
Net weight	20.5 g	Width	6.1 mm
Width (inches)	0.24 inch		

Temperatures

Storage temperature	-40 °C...80 °C	Operating temperature	-20 °C...60 °C
Humidity	5-95% relative humidity, T _u = 40°C, without condensation		

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

Nominal control current	3.7 mA DC	Power rating	≤ 170 mW
Protective circuit	Varistor, Reverse polarity protection	Pull-in/drop-out voltage, typ.	38.4 V / 12 V DC
Rated control voltage	48...60 V DC ± 20 %	Status indicator	Green LED

Load side

Continuous current	0.1 A (AC1)	Leakage current	< 1 mA
Load category	AC1	Min. switching current	2 mA
Protective circuit, load side	Varistor, RC element	Rated switching voltage	24...230 V AC
Short-circuit-proof	No	Switch-off delay	< 12 ms
Switch-on delay	< 10 ms	Voltage drop at max. load	< 1.8 V
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

Rail	TS 35	
Colour	black	
UL94 flammability rating component	Component	Housing
	UL94 flammability rating	V-0

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Insulation coordination

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)	Pollution severity	2
Protection degree	IP20	Rated voltage	300 V
Surge voltage category	III		

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	ECLASS 11.0	27-37-16-04

Approvals

Approvals



ROHS	Conform
UL File Number Search	E223474

Downloads

Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD
User Documentation	Beipackzettel / Package Insert – multilingual

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Catalogue status 12.03.2021 / We reserve the right to make technical changes.

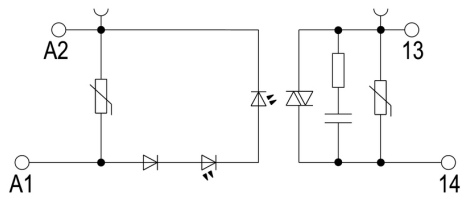
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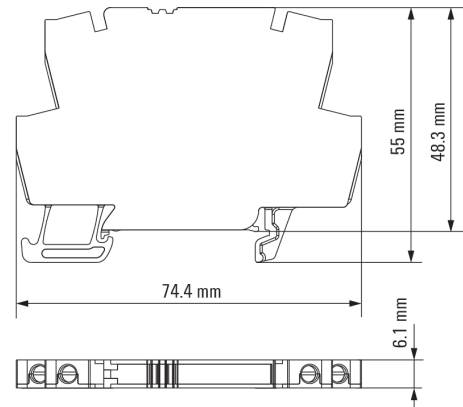
Drawings

Wiring diagram

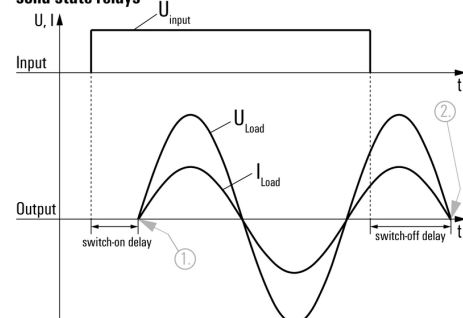


Schaltsymbol

Dimensional drawing



Signal characteristics of zero cross switching solid-state relays



Shown at an example with resistive load.
1. Switches on at first zero cross of mains voltage while control input gets signal.
2. Switches off at next zero cross of mains current after control input signal was switched off.
Switching DC voltages is not possible with zero cross switching solid-state relays.

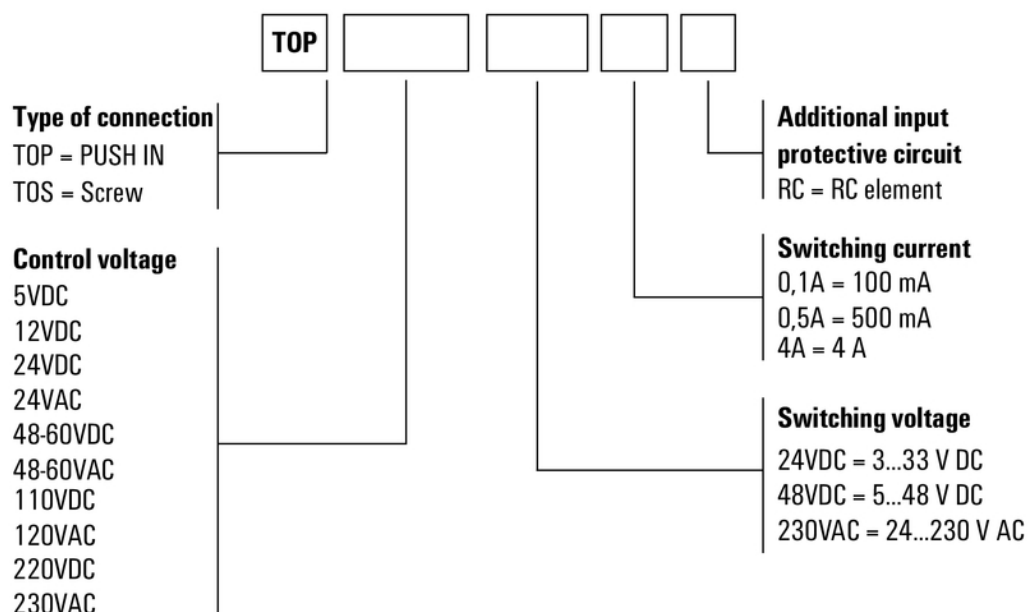
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Drawings

Miscellaneous



Type codes