

TOS 110VDC/230VAC 0,1A**Weidmüller Interfaces GmbH & Co. KG**

Postfach 3030

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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 relay, Rated control voltage: 110 V DC $\pm 20\%$, Rated switching voltage: 24...230 V AC, Continuous current: 100 mA, Screw connection
Order No.	8951140000
Type	TOS 110VDC/230VAC 0,1A
GTIN (EAN)	4032248741915
Qty.	10 pc(s).

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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
Width	6.1 mm	Width (inches)	0.24 inch
Net weight	20.5 g		

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

Rated control voltage	110 V DC $\pm$ 20 %	Nominal control current	3.6 mA DC
Power rating	$\leq$ 360 mW	Pull-in/drop-out voltage, typ.	88 V / 27.5 V DC
Status indicator	Green LED	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 ms	Switch-off delay	< 12 ms
Voltage drop at max. load	< 1.8 V	Leakage current	< 1 mA
Min. switching current	2 mA	Short-circuit-proof	No
Protective circuit, load side	Varistor, RC element	Contact type	1 NO contact (Triac (zero-cross switch))
max. switching frequency (DC control voltage)	10 Hz		

General data

Rail	TS 35	
Test button available	No	
Colour	black	
UL94 flammability rating component	Component	Housing
	UL94 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 μ s)
Protection degree	IP20		

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Technical data

Further details of approvals / standards

Standards	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
ETIM 8.0	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	ECLASS 12.0	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	CAD data – STEP
Engineering Data	EPLAN, WSCAD
User Documentation	Beipackzettel / Package Insert – multilingual
Catalogues	Catalogues in PDF-format
Brochures	

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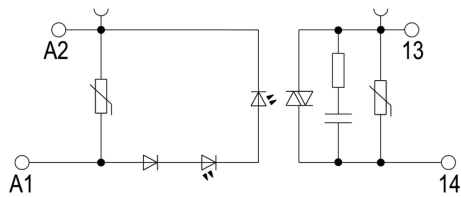
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Drawings

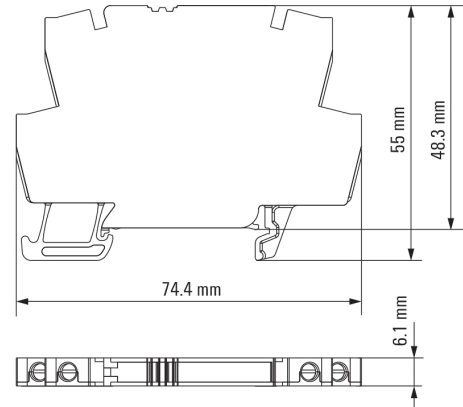
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Wiring diagram

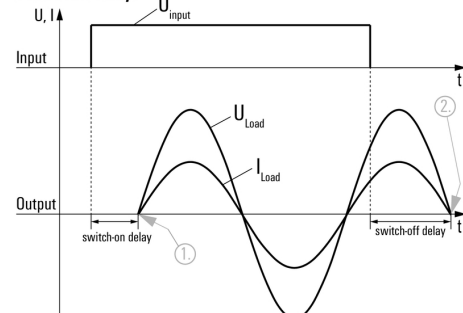


Schaltsymbol

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 this solid-state relays.

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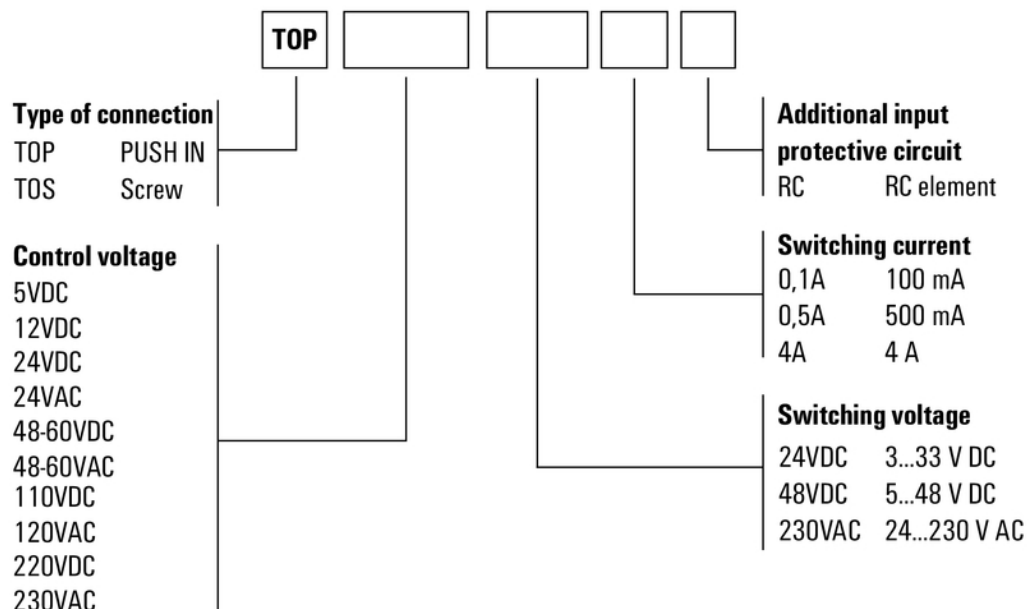
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Drawings

Miscellaneous



Type codes