

## TOS 12VDC/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: 12 V DC $\pm 20\%$ , Rated switching voltage: 24...230 V AC, Continuous current: 100 mA, Screw connection
Order No.	<a href="#">8951110000</a>
Type	TOS 12VDC/230VAC 0,1A
GTIN (EAN)	4032248741885
Qty.	10 pc(s).

Creation date March 29, 2021 11:55:46 PM CEST

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

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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	20.4 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 <sub>u</sub> = 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	3.6 mA DC	Power rating	< 45 mW
Protective circuit	Varistor, Reverse polarity protection	Pull-in/drop-out voltage, typ.	9.6 V / 3 V DC
Rated control voltage	12 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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## Technical data

## Insulation coordination

Clearance and creepage distances for control side - load side	> 3 mm	Dielectric strength for control side - load side	1.2 kV <sub>eff</sub> / 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 <sup>2</sup>	Clamping range, min.	0.5 mm <sup>2</sup>
Clamping range, max.	4 mm <sup>2</sup>	Wire connection cross section AWG, min.	AWG 20
Wire connection cross section AWG, max.	AWG 12	Wire cross-section, solid, min.	0.5 mm <sup>2</sup>
Wire cross-section, solid, max.	4 mm <sup>2</sup>	Wire connection cross section, finely stranded, min.	0.5 mm <sup>2</sup>
Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>	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 <sup>2</sup>
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	1.5 mm <sup>2</sup>	Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.5 mm <sup>2</sup>
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	1.5 mm <sup>2</sup>	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

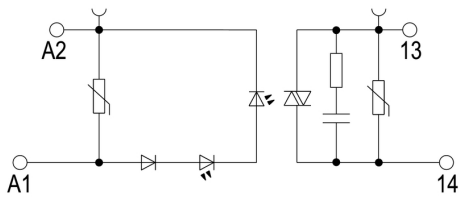
Approval/Certificate/Document of Conformity	<a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a>
Engineering Data	<a href="#">STEP</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
User Documentation	<a href="#">Beipackzettel / Package Insert - multilingual</a>

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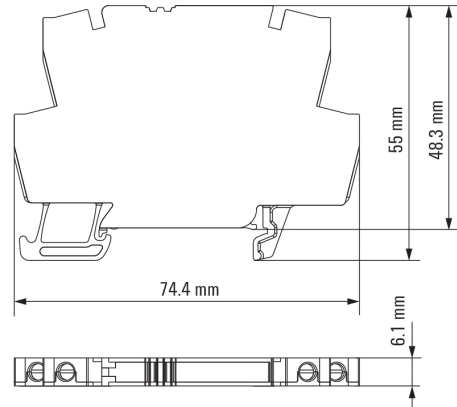
**Drawings**

**Wiring diagram**

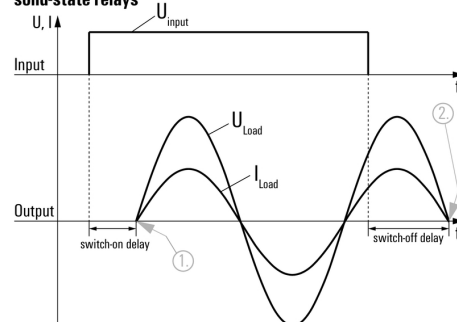


Schaltsymbol

**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.

**Data sheet**

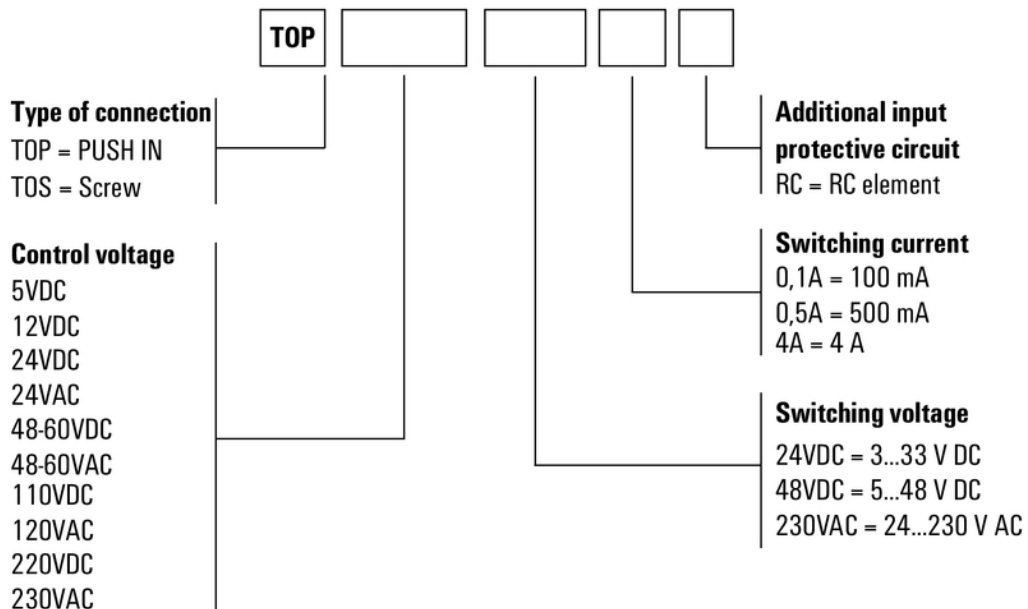
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**Drawings**

**Miscellaneous**



Type codes