

## TOS 24VAC/230VAC 0,1A

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://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 relay, Rated control voltage: 24 V AC $\pm$ 20% , Rated switching voltage: 24...230 V AC, Continuous current: 100 mA, Screw connection
Order No.	<a href="#">8951220000</a>
Type	TOS 24VAC/230VAC 0,1A
GTIN (EAN)	4032248741991
Qty.	10 pc(s).

Creation date September 18, 2022 4:12:28 AM CEST

Catalogue status 09.09.2022 / 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
Width	6.1 mm	Width (inches)	0.24 inch
Net weight	20.3 g		

**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	SCIP	9e2cbc49-76d9-4611-b8ec-5b4f549a0aa9
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**Control side**

Rated control voltage	24 V AC ±20%	Nominal control current	8.8 mA AC
Power rating	≤ 0.2 VA	Pull-in/drop-out voltage, typ.	19.2 V / 9.6 V AC
Status indicator	Green LED	Protective circuit	Varistor, Rectifier

**Load side**

Rated switching voltage	24...230 V AC	Continuous current	100 mA
Rated switching current	100 mA	Load category	AC1
Switch-on delay	< 14 ms	Switch-off delay	< 16 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 (AC 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 <sub>eff</sub> / 1 min.	Impulse withstand voltage	4 kV (1.2/50 μs)
Protection degree	IP20		

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**Technical data****Further details of approvals / standards**

Standards	IEC 623 14, 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
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

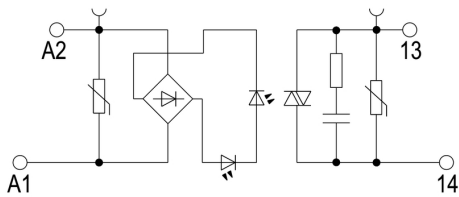


ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E223474

**Downloads**

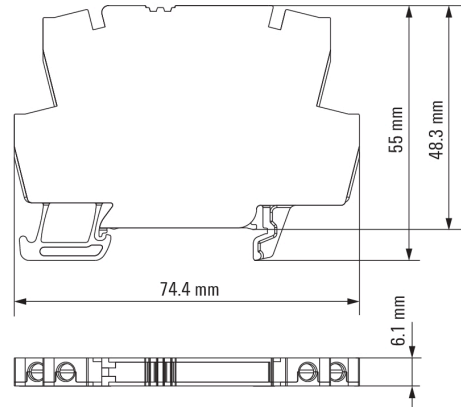
Approval/Certificate/Document of Conformity	<a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
User Documentation	<a href="#">Beipackzettel / Package Insert – multilingual</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	

**Wiring diagram**

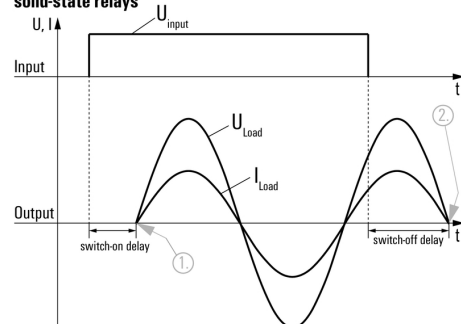


Schaltsymbol

**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.