

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 relay, 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 May 8, 2025 7:46:06 PM CEST

Catalogue status 26.04.2025 / 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	20.5 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 a
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Control side

Rated control voltage	48...60 V DC $\pm 20\%$	Nominal control current	3.7 mA DC
Power rating	≤ 170 mW	Status indicator	Green LED
Protective circuit	Varistor, Reverse polarity protection	Input frequency	10 Hz

Load side

Rated switching voltage	24...230 V AC	Continuous current	0.1 A (AC1)
Rated switching current	100 mA	Load category	AC1
Max. switching voltage, AC	230 V	Switch-on delay	≤ 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		

Further details of approvals / standards

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	ETIM 9.0	EC001504
ETIM 10.0	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
ECLASS 13.0	27-37-16-04	ECLASS 14.0	27-37-16-04
ECLASS 15.0	27-37-16-04		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
REACH SVHC	Lead 7439-92-1
SCIP	9e2cbc49-76d9-4611-b8ec-5b4f549a0aa9

Approvals

Approvals



Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319228/-T1z1mm-S800/
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E223474

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Technical data

Downloads

Approval/Certificate/Document of Con-
formity[EU Konformitätserklärung / EU Declaration of Conformity](#)

Engineering Data

[CAD data – STEP](#)

User Documentation

[Beipackzettel / Package Insert – multilingual](#)

Catalogues

[Catalogues in PDF-format](#)

Brochures

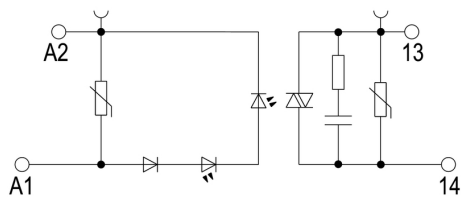
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Drawings

Wiring diagram

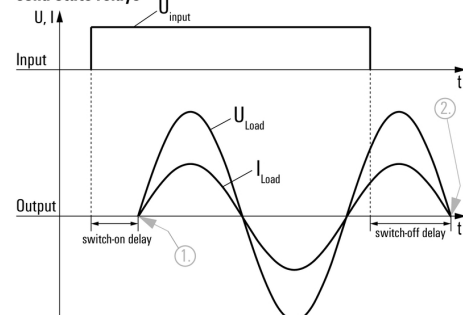


Schaltsymbol

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 this solid-state relays.

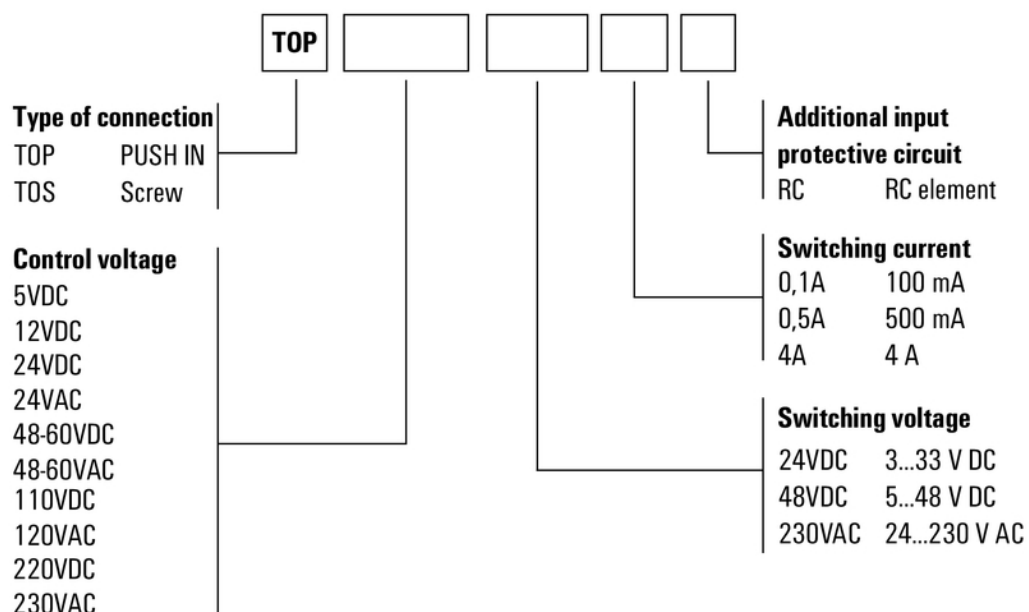
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Drawings

Miscellaneous



Type codes