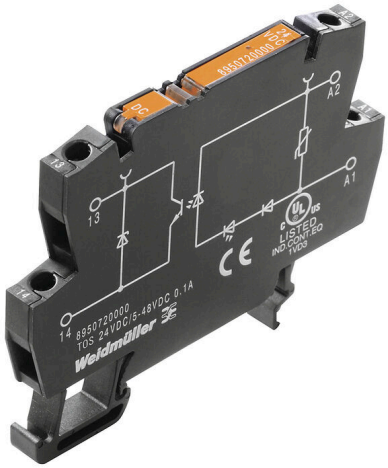
Data sheet

TOS 220VDC/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: 220 V DC +10 % / -15 % , Rated switching voltage: 24...230 V AC, Continuous current: 0.1 A, Screw connection
Order No.	8951150000
Type	TOS 220VDC/230VAC 0,1A
GTIN (EAN)	4032248741922
Qty.	10 items

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Technical data

Approvals

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

Dimensions and weights

Depth	55 mm	Depth (inches)	2.1654 inch
Height	74.4 mm	Height (inches)	2.9291 inch
Width	6.1 mm	Width (inches)	0.2402 inch
Net weight	20.4 g		

Temperatures

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

Probability of failure

MTTF	2500 a

Environmental Product Compliance

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

Control side

Rated control voltage	220 V DC +10 % / -15 %	Rated control voltage (control input)	220 V DC +10 % / -15 %
Nominal control current	2.9 mA DC	Power rating	≤ 640 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

Mounting rail	TS 35

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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 kVeff / 1 min.	Impulse withstand voltage	4 kV (1.2/50 µs)
Protection degree	IP20		

Further details of approvals / standards

Certificate no. (cULus)	E223474

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 mm²	Clamping range, min.	0.5 mm²
Clamping range, max.	4 mm²	Wire connection cross section AWG, min.	AWG 20
Wire connection cross section AWG, max.	AWG 12	Wire cross-section, solid, min.	0.5 mm²
Wire cross-section, solid, max.	4 mm²	Wire connection cross section, finely stranded, min.	0.5 mm²
Wire connection cross section, finely stranded, max.	2.5 mm²	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 mm²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	1.5 mm²	Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.5 mm²
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	1.5 mm²	Blade size	0.6 x 3.5 mm

Classifications

ETIM 8.0	EC001504	ETIM 9.0	EC001504
ETIM 10.0	EC001504	ECLASS 14.0	27-37-16-04
ECLASS 15.0	27-37-16-04		

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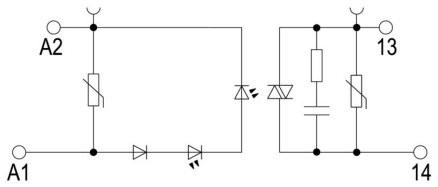
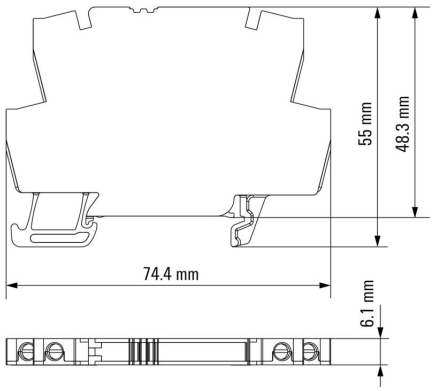
Drawings

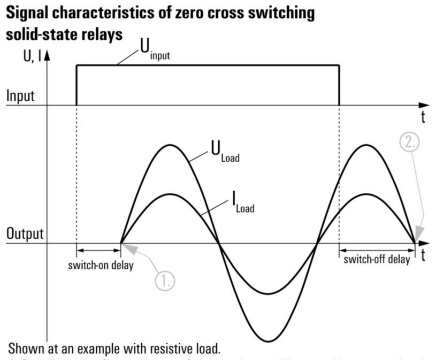
Wiring diagram



Schaltsymbol

Dimensional drawing





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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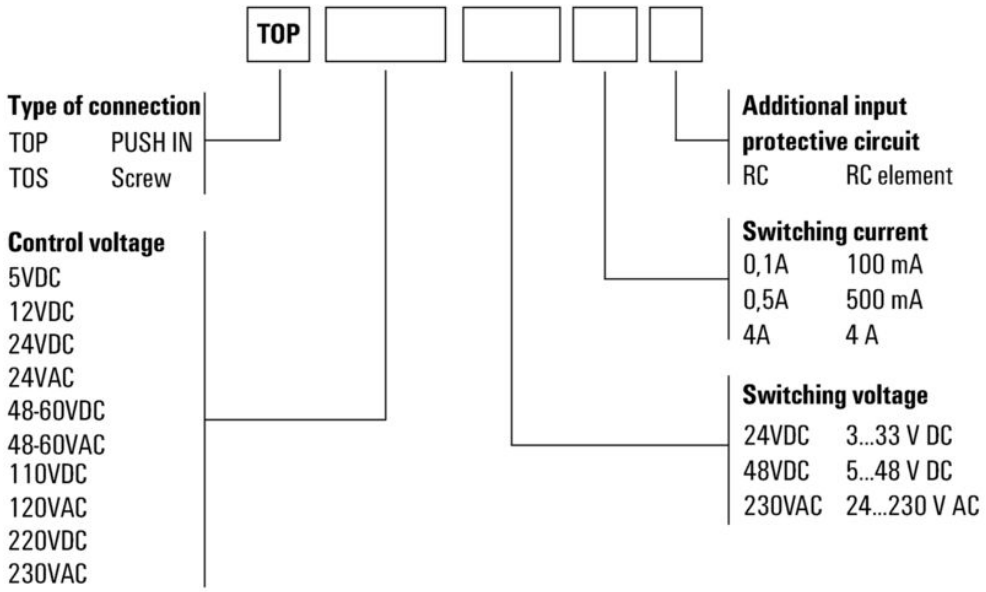
Miscellaneous



Type codes