

## TOS 12VDC/48VDC 0,5A

Weidmüller Interfaces GmbH & Co. KG

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Similar to illustration

- 1 NO contact (Transistor)
- 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: 12 V DC $\pm 20\%$ , Rated switching voltage: 5...48 V DC, Continuous current: 500 mA, Screw connection
Order No.	<a href="#">8950910000</a>
Type	TOS 12VDC/48VDC 0,5A
GTIN (EAN)	4032248741755
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	20.9 g		

**Temperatures**

Storage temperature	-40 °C...80 °C	Operating temperature	-20 °C...60 °C
Humidity	5-95% relative humidity, T <sub>v</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	12 V DC ±20 %	Nominal control current	7.8 mA DC
Power rating	< 95 mW	Pull-in/drop-out voltage, typ.	9.6 V / 3 V DC
Status indicator	Green LED	Protective circuit	Varistor, Reverse polarity protection

**Load side**

Rated switching voltage	5...48 V DC	Continuous current	500 mA
Rated switching current	500 mA	Load category	DC1
Switch-on delay	< 20 µs	Switch-off delay	< 200 µs
Voltage drop at max. load	< 1 V	Leakage current	< 10 µA
Short-circuit-proof	No	Protective circuit, load side	Free-wheeling diode
Contact type	1 NO contact (Transistor)	max. switching frequency (DC control voltage)	200 Hz

**General data**

Rail	TS 35
Test button available	No
Colour	black
UL94 flammability rating component	Component UL94 flammability rating
	Housing 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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Catalogue status 23.09.2022 / We reserve the right to make technical changes.

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

Standards IEC 623 14, UL508 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 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	

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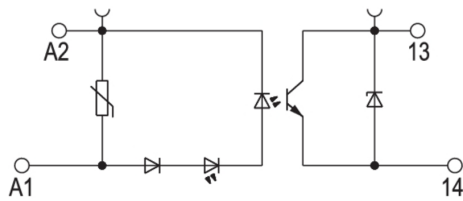
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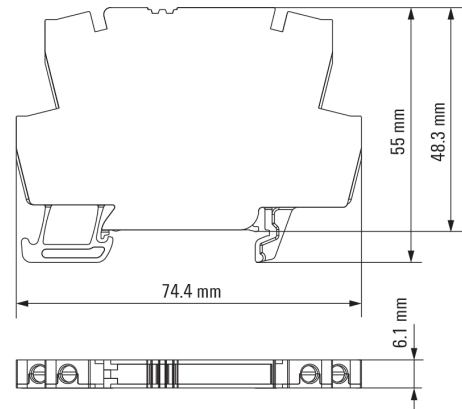
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**Drawings**[info@weidmueller.com](mailto:info@weidmueller.com)**Wiring diagram**

Schaltsymbol

**Dimensional drawing**

**Data sheet**

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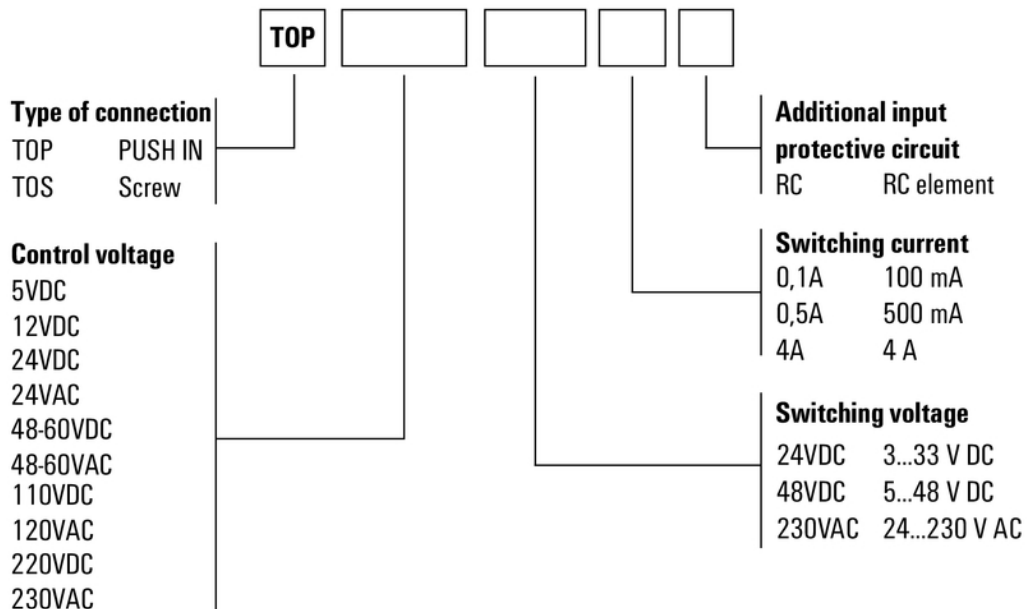
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**Drawings**

**Miscellaneous**



Type codes