

**TERMOPTO  
TOS 220VDC/48VDC 0,5A**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
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Similar to illustration

TERMOPTO solid-state relay, 5 to 48 V DC 0.5 A output version,

with AC or DC input, available in different versions:

- With screw connection
- In 6.1 mm width
- With various input protective circuits (free-wheel diode, varistor, RC filter)
- Pluggable cross-connections
- Enclosed design

**General ordering data**

Type	TOS 220VDC/48VDC 0,5A
Order No.	<a href="#">8950950000</a>
Version	TERMOPTO, solid-state relais, 1 NO contact (Transistor), Rated control voltage: 220 V DC +10 % / -15 % , Rated switching voltage: 5...48 V DC, Continuous current: 500 mA, Screw connection
GTIN (EAN)	4032248742318
Qty.	10 pc(s).

Creation date August 8, 2020 4:38:51 PM CEST

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**Technical data****Dimensions and weights**

Width	6.1 mm	Width (inches)	0.24 inch
Height	74.4 mm	Height (inches)	2.929 inch
Depth	55 mm	Depth (inches)	2.165 inch
Net weight	20.9 g		

**Temperatures**

Humidity	5-95% relative humidity, T <sub>u</sub> = 40°C, without condensation	Operating temperature, max.	60 °C
Operating temperature, min.	-20 °C	Storage temperature, max.	80 °C
Storage temperature, min.	-40 °C	Operating temperature	-20 °C...60 °C
Storage temperature	-40 °C...80 °C		

**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**

Rated control voltage	220 V DC +10 % / -15 %	Nominal control current	1.65 mA DC
Power rating	≤ 360 mW	Cut-in / dropout voltage	187 V / 55 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
Load category	DC1	Switch-on delay	< 18 µs
Switch-off delay	< 340 µs	Voltage drop at max. load	< 1 V
Leakage current	< 10 µA	Short-circuit-proof	No
Protective circuit, load side	Free-wheeling diode	max. switching frequency (DC control voltage)	200 Hz

**Contact data**

Contact type	1 NO contact (Transistor)
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**General data**

Rail	TS 35	Colour	black
UL 94 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	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		

**Approvals**

Approvals



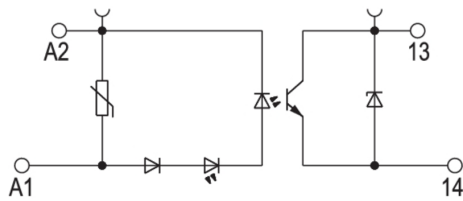
ROHS Conform

**Downloads**

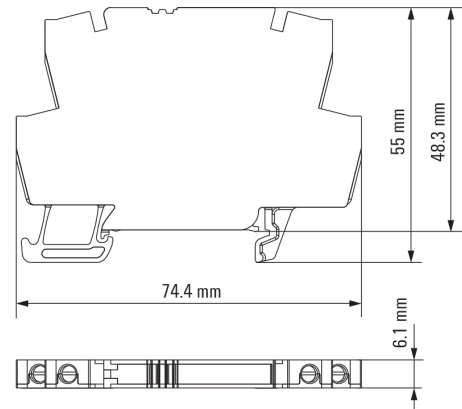
Approval/Certificate/Document of Conformity	<a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a>
Brochure/Catalogue	<a href="#">CAT 4.2 ELECTR 18/19 EN</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
Engineering Data	<a href="#">STEP</a>
User Documentation	<a href="#">Beipackzettel / Package Insert – multilingual</a>

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**Drawings****Wiring diagram**

Schaltsymbol

**Dimensional drawing**

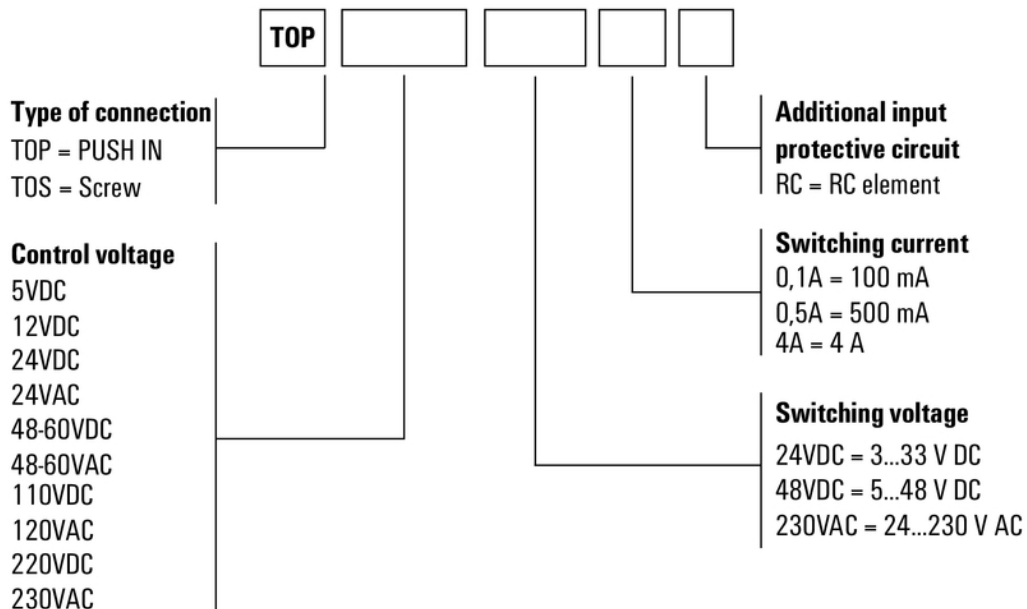
**Data sheet**

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**Drawings**

**Miscellaneous**



Type codes