

TERMOPTO

TOS 120VAC/48VDC 0,5A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

Fon: +49 5231 14-0

Fax: +49 5231 14-292083

www.weidmueller.com



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 120VAC/48VDC 0,5A
Order No.	8951040000
Version	TERMOPTO, solid-state relays, 1 NO contact (Transistor), Rated control voltage: 120 V AC $\pm 20\%$, Rated switching voltage: 5...48 V DC, Continuous current: 500 mA, Screw connection
GTIN (EAN)	4032248741809
Qty.	10 pc(s).

Creation date August 2, 2020 2:04:42 PM CEST

Catalogue status 24.07.2020 / We reserve the right to make technical changes.

TERMOPTO
TOS 120VAC/48VDC 0,5A

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

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, $T_u = 40^\circ\text{C}$, 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
------	-------------

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
------------	----------------

Control side

Rated control voltage	120 V AC $\pm 20\%$	Nominal control current	2.9 mA AC
Power rating	≤ 0.3 VA	Cut-in / dropout voltage	102 V / 48 V AC
Status indicator	Green LED	Protective circuit	Varistor, Rectifier

Load side

Rated switching voltage	5...48 V DC	Continuous current	500 mA
Load category	DC1	Switch-on delay	< 12 ms
Switch-off delay	< 14 ms	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 (AC control voltage)	10 Hz

Contact data

Contact type	1 NO contact (Transistor)
--------------	---------------------------

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 _{eff} / 1 min.	Impulse withstand voltage	4 kV (1.2/50 μs)
Protection degree	IP20		

TERMOPTO
TOS 120VAC/48VDC 0,5A

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

Technical data
Further details of approvals / standards

Standards	DIN EN 50178, IEC 62314, 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 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
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

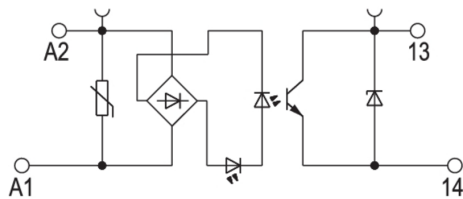
Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Brochure/Catalogue	CAT 4.2 ELECTR 18/19 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Beipackzettel / Package Insert – multilingual

TERMOPTO TOS 120VAC/48VDC 0,5A

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

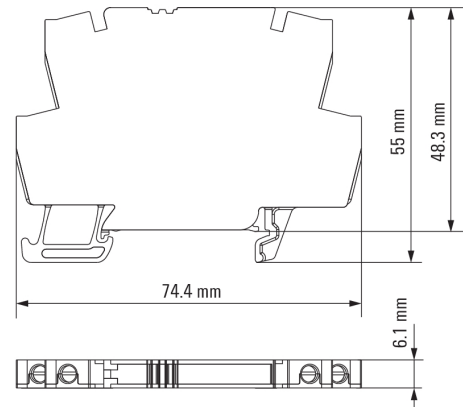
Drawings

Wiring diagram



Schaltsymbol

Dimensional drawing

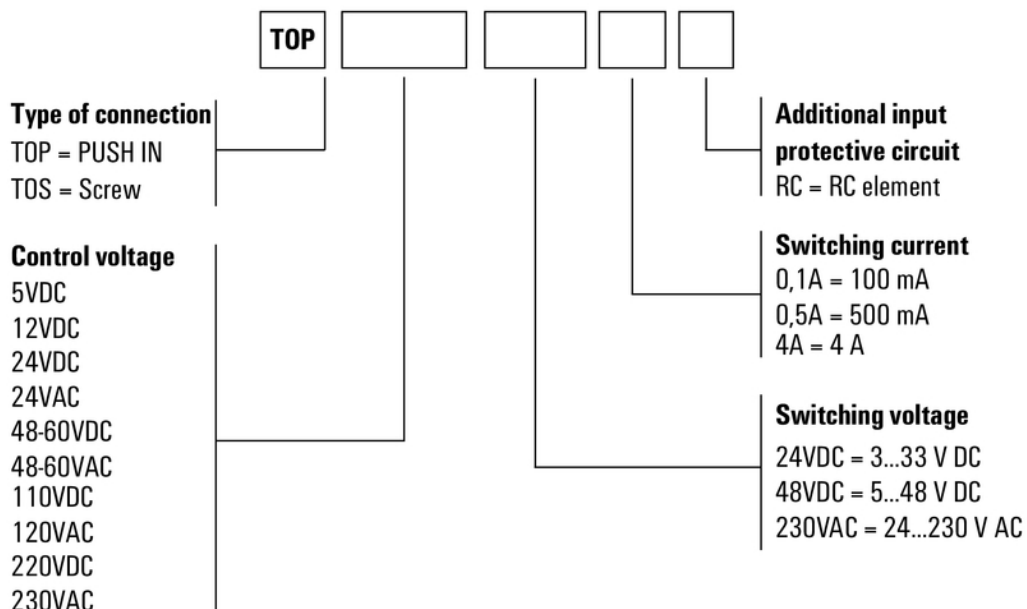


TERMOPTO TOS 120VAC/48VDC 0,5A

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Drawings

Miscellaneous



Type codes