

## TOP 12VDC/48VDC 0,1A

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Similar to illustration

## Wear-free potential isolation in terminal block format

In many applications, it is essential that relays for potential isolation and signal adjustment perform their tasks reliably and permanently. Instead of wear-prone electro-mechanical solutions, maintenance-free solid-state relays with integrated potential isolation are increasingly being used. TERMOPRO solid-state relays in terminal block format are the perfect solution for the simple and reliable decoupling of digital signals. Besides their particularly compact design, they are distinguished by their PUSH IN connection system, plug-in cross-connections and an optimal price/performance ratio. With TERMOPRO solid-state relays, you save space in the panel, reduce your service costs and sustainably increase plant availability. You also reduce the complexity of the required accessories as you can use components from the Weidmüller portfolio, from cross-connectors to markers.

- 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: 0.1 A, PUSH IN
Order No.	<a href="#">8950770000</a>
Type	TOP 12VDC/48VDC 0,1A
GTIN (EAN)	4032248742141
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	79.4 mm	Height (inches)	3.126 inch
Width	6.1 mm	Width (inches)	0.2402 inch
Net weight	19.6 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, 7cl
REACH SVHC	Lead 7439-92-1
SCIP	9e2cbc49-76d9-4611-b8ec-5b4f549a0aa9

## Control side

Rated control voltage	12 V DC $\pm$ 20 %	Rated control voltage (control input)	12 V DC $\pm$ 20 %
Nominal control current	7.8 mA DC	Power rating	<95 mW
Status indicator	Green LED	Protective circuit	Varistor, Reverse polarity protection
Input frequency	3 kHz		

## Load side

Rated switching voltage	5...48 V DC	Continuous current	0.1 A (DC1)
Rated switching current	100 mA	Load category	DC1
Max. switching voltage, DC	48 V	Switch-on delay	<13 $\mu$ s
Switch-off delay	<42 $\mu$ s	Voltage drop at max. load	<1 V
Leakage current	<10 $\mu$ A	Min. switching current	100 $\mu$ A
Short-circuit-proof	No	Protective circuit, load side	Free-wheeling diode
Contact type	1 NO contact (Transistor)	max. switching frequency (DC control voltage)	3000 Hz

## General data

Mounting rail TS 35

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**Technical data**

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
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**Connection data**

Wire connection method	PUSH IN	Stripping length, rated connection	10 mm
Clamping range, rated connection	1.5 mm <sup>2</sup>	Clamping range, min.	0.5 mm <sup>2</sup>
Clamping range, max.	2.5 mm <sup>2</sup>	Wire connection cross section AWG, min.	AWG 20
Wire connection cross section AWG, max.	AWG 14	Wire cross-section, solid, min.	0.5 mm <sup>2</sup>
Wire cross-section, solid, max.	1.5 mm <sup>2</sup>	Wire connection cross section, finely stranded, min.	0.5 mm <sup>2</sup>
Wire connection cross section, finely stranded, max.	1.5 mm <sup>2</sup>	Wire cross-section, finely stranded, min. (AWG)	AWG 20
Wire cross-section, finely stranded, max. (AWG)	AWG 14	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 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		

**Drawings**

**Wiring diagram**



Schaltymbol

**Dimensional drawing**



**Correct handling PUSH IN connection**



**Wrong handling PUSH IN connection**



**Recommended screwdriver**



**Miscellaneous**



Type codes