

TERMOPTO TOS 120VAC/48VDC 0.5A RC

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16

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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

Order No.	1180290000
Type	TOS 120VAC/48VDC 0.5A RC
Version	TERMOPTO, Solid-state relay, Rated control voltage: 120 V AC $\pm 20\%$, Rated switching voltage: 5...48 V DC, Rated switching current: 500 mA, Screw connection
GTIN (EAN)	4032248100057
Qty.	10 pc(s).

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Technical data
Dimensions and weights

Width	6.1 mm	Height	74.5 mm
Depth	55 mm	Net weight	20.6 g

Temperatures

Operating temperature	-20 °C...+60 °C	Storage temperature	-40 °C...+80 °C
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Probability of failure

MTTF	2,500 Years
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Connection data

Clamping range, rated connection	2.5 mm ²	Clamping range, rated connection, min.	0.5 mm ²
Clamping range, rated connection, max.	4 mm ²	Tightening torque, min.	0.4 Nm
Tightening torque, max.	0.6 Nm	Stripping length, rated connection	9 mm

Control side

Rated control voltage	120 V AC ±20 %	Nominal control current	6.4 mA AC
Power rating	≤ 0.61 VA	Input frequency	< 10 Hz
Cut-in (switch-on) voltage	≥ 102 V AC	Dropout voltage	≤ 48 V AC
Protective circuit, control side	RC element	Status display on control side	Green LED

Load side

Rated switching voltage	5...48 V DC	Continuous current	500 mA
Rated switching current	500 mA	Switch-on delay	< 12.6 ms
Switch-off delay	< 20.8 ms	Load category	DC1
Leakage current	< 10 µA	Protective circuit, load side	Diode
Voltage drop at max. load	< 1 V	Load side status indicator	No
Short-circuit-proof	No		

General data

Solid-state type	Transistor	No. of poles	1
Conductor connection system	Screw connection	Humidity	5...95 % rel. humidity T _u = 40 °C, no condensation
UL 94 flammability rating		V-0	Standards

Insulation coordination

Rated voltage	300 V	Clearance and creepage distances for control side - load side	> 3 mm
Impulse withstand voltage	4 kV (1.2/50 µs)	Pollution severity	2
Surge voltage category	III		

Further details of approvals

Standards	DIN EN 50178, IEC 62314, UL508
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Technical data**Classifications**

ETIM 3.0	EC001504	eClass 5.1	27-27-09-90
eClass 6.0	27-27-09-90	eClass 7.0	27-27-09-90

Approvals

Approvals

**Downloads**Declaration of Conformity [K305_02_11.pdf](#)

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Drawings**Electric symbol****120 V...230 V AC**