

TERMOPTO TOS 110VDC/48VDC 0,1A

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 0.1 A output version,

with AC or DC input, available in different versions:

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

General ordering data

| | |
|------------|--|
| Type | TOS 110VDC/48VDC 0,1A |
| Order No. | 8950740000 |
| Version | TERMOPTO, solid-state relais, 1 NO contact (Transistor), Rated control voltage: 110 V DC $\pm 20\%$, Rated switching voltage: 5...48 V DC, Continuous current: 100 mA, Screw connection |
| GTIN (EAN) | 4032248742110 |
| Qty. | 10 pc(s). |

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Catalogue status 17.04.2020 / We reserve the right to make technical changes.

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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 | 21 g | | |

Temperatures

| | | | |
|-----------------------------|--|-----------------------------|----------------|
| Humidity | 5-95% relative humidity, T _u = 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 |
|------|-------------|

Environmental Product Compliance

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

Control side

| | | | |
|-----------------------|----------------|--------------------------|---------------------------------------|
| Rated control voltage | 110 V DC ±20 % | Nominal control current | 2.6 mA DC |
| Power rating | < 280 mW | Cut-in / dropout voltage | 88 V / 27.5 V DC |
| Status indicator | No | Protective circuit | Varistor, Reverse polarity protection |

Load side

| | | | |
|---|-------------|-------------------------------|---------------------|
| Rated switching voltage | 5...48 V DC | Continuous current | 100 mA |
| Load category | DC1 | Switch-on delay | < 170 µs |
| Switch-off delay | < 310 µs | Voltage drop at max. load | < 1 V |
| Leakage current | < 10 µA | Min. switching current | 100 µA |
| Short-circuit-proof | No | Protective circuit, load side | Free-wheeling diode |
| max. switching frequency (DC control voltage) | 500 Hz | | |

Contact data

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

General data

| | | | |
|---------------------------|-------|--------|-------|
| Rail | TS 35 | Colour | black |
| UL 94 flammability rating | V-0 | | |

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Technical data**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 | | |

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



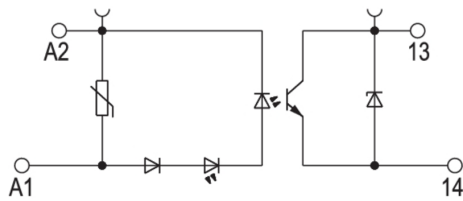
ROHS Conform

Data sheet**TERMOPTO
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www.weidmueller.com**Technical data****Downloads**

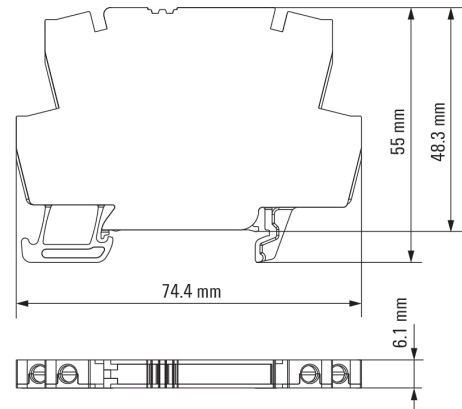
| | |
|---|---|
| Approval/Certificate/Document of Conformity | EU Konformitätserklärung / EU Declaration of Conformity |
| Brochure/Catalogue | CAT 4.2 ELECTR 18/19 EN |
| Engineering Data | EPLAN, WSCAD |
| Engineering Data | STEP |
| User Documentation | Beipackzettel / Package Insert – multilingual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

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Drawings**Wiring diagram**

Schaltsymbol

Dimensional drawing

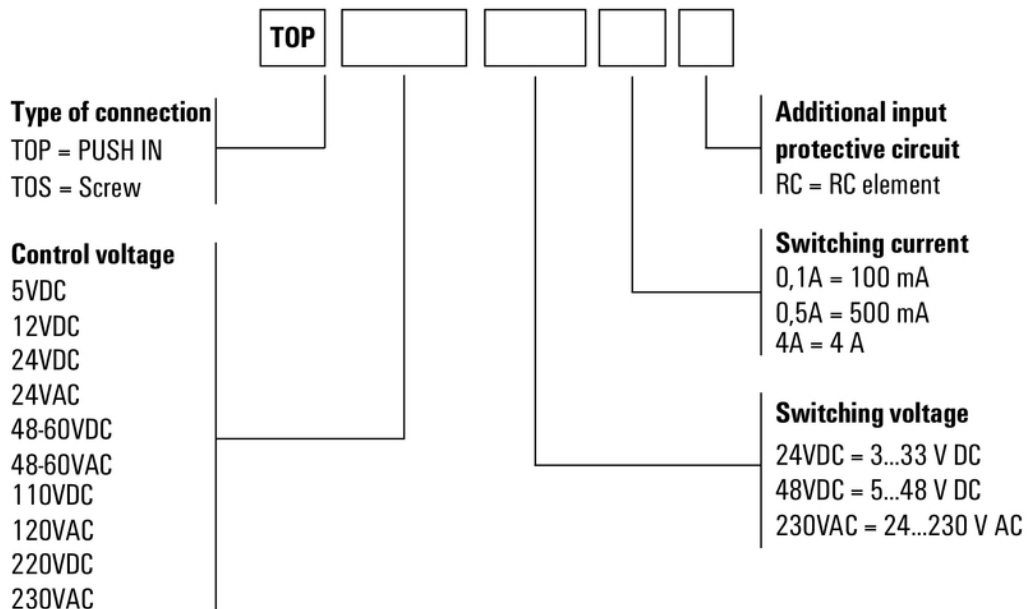
Data sheet

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Drawings

Miscellaneous



Type codes