

TERMOPTO TOP 24VDC/24VDC 4A

Weidmüller Interface GmbH & Co. KG
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Similar to illustration

The TERMOPTO solid-state relay module is used in industrial applications where electrical isolation and signal conditioning without switching amplification is sufficient. The compact design in terminal-block format saves space on the terminal rail and offers the option of a pluggable cross-connection.

The option between 10 input voltages and 3 output voltages as well as screw or PUSH IN connection enables 60 versions for various applications.

The integrated protective circuit ensures sufficient protection in applications with ohmic as well as slightly inductive and capacitive loads. For purely inductive, capacitive or comparable loads with high switch-on and switch-off peaks, such as solenoid valves or filament lamps, ensure that the module is dimensioned appropriately or an additional safeguard is used.

General ordering data

| | |
|------------|--|
| Type | TOP 24VDC/24VDC 4A |
| Order No. | 1254880000 |
| Version | TERMOPTO, solid-state relais, 1 NO contact (MOS-FET), Rated control voltage: 24 V DC $\pm 20\%$, Rated switching voltage: 3...33 V DC, Continuous current: 4 A, PUSH IN |
| GTIN (EAN) | 4050118047615 |
| Qty. | 10 pc(s). |

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Technical data**Dimensions and weights**

| | | | |
|------------|---------|-----------------|------------|
| Width | 6.1 mm | Width (inches) | 0.24 inch |
| Height | 79.4 mm | Height (inches) | 3.126 inch |
| Depth | 55 mm | Depth (inches) | 2.165 inch |
| Net weight | 19.5 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 | 1,188 Years |
|------|-------------|

Environmental Product Compliance

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

Control side

| | | | |
|-----------------------|---------------|--------------------------|---------------------------------------|
| Rated control voltage | 24 V DC ±20 % | Nominal control current | 7 mA DC |
| Power rating | ≤ 170 mW | Cut-in / dropout voltage | 16.8 V / 6 V DC |
| Status indicator | Green LED | Protective circuit | Varistor, Reverse polarity protection |

Load side

| | | | |
|-------------------------------|-------------|---|---------|
| Rated switching voltage | 3...33 V DC | Continuous current | 4 A |
| Load category | DC1 | Switch-on delay | < 12 ms |
| Switch-off delay | < 14 ms | Voltage drop at max. load | 90 mV |
| Leakage current | < 10 µA | Short-circuit-proof | No |
| Protective circuit, load side | Varistor | max. switching frequency (DC control voltage) | 10 Hz |

Contact data

| | |
|--------------|------------------------|
| Contact type | 1 NO contact (MOS-FET) |
|--------------|------------------------|

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 | | |

Creation date April 13, 2020 7:59:14 AM CEST

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Technical data
Further details of approvals / standards

| | | | |
|-----------|--------------------------------|-------------------------|---------|
| Standards | DIN EN 50178, IEC 62314, UL508 | Certificate no. (cULus) | E223474 |
|-----------|--------------------------------|-------------------------|---------|

Connection data

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

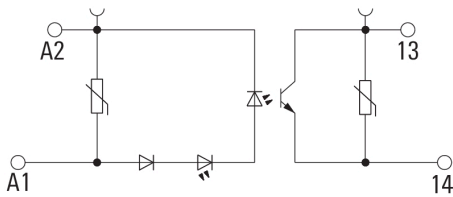
| | |
|---|---|
| Approval/Certificate/Document of Conformity | EU Konformitätserklärung / EU Declaration of Conformity |
| Brochure/Catalogue | CAT 4.2 ELECTR 18/19 EN |
| Engineering Data | EPLAN, WSCAD |
| Engineering Data | STEP |
| User Documentation | Beipackzettel / Package Insert - multilingual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

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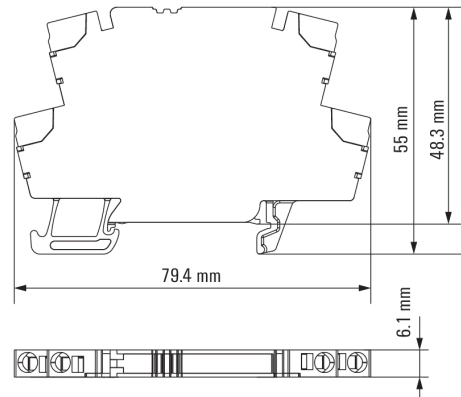
Drawings

Wiring diagram

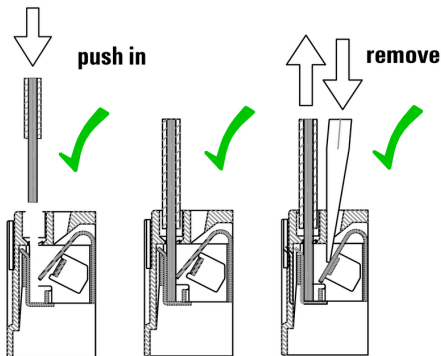


Schaltsymbol

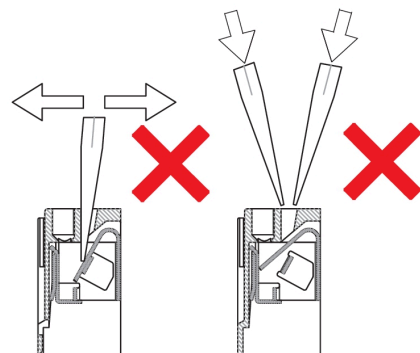
Dimensional drawing



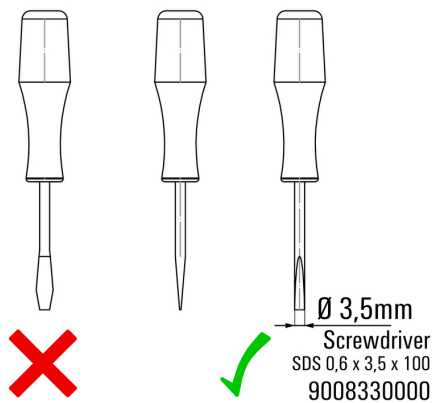
Correct handling PUSH IN connection



Wrong handling PUSH IN connection



Recommended screwdriver



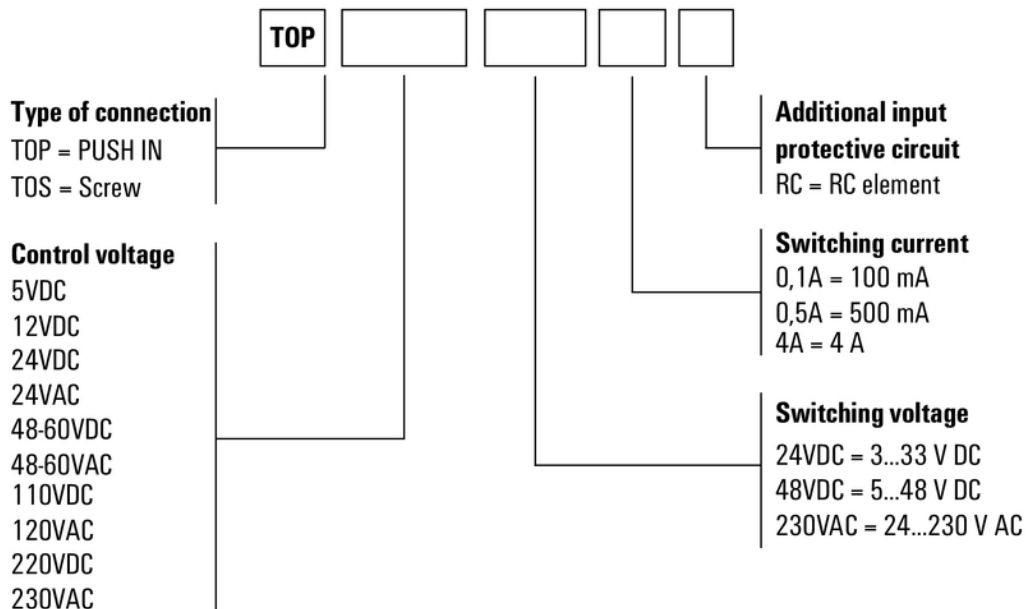
Data sheet

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Drawings

Miscellaneous



Type codes