

**TOS 48-60VDC/48VDC 0,1A****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

Similar to illustration

- 1 NO contact (Transistor)
- 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 relais, 1 NO contact (Transistor), Rated control voltage: 48...60 V DC $\pm 20\%$ , Rated switching voltage: 5...48 V DC, Continuous current: 100 mA, Screw connection |
| Order No.  | <a href="#">8950730000</a>                                                                                                                                                                   |
| Type       | TOS 48-60VDC/48VDC 0,1A                                                                                                                                                                      |
| GTIN (EAN) | 4032248742103                                                                                                                                                                                |
| Qty.       | 10 pc(s).                                                                                                                                                                                    |

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Catalogue status 12.03.2021 / We reserve the right to make technical changes.

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## Technical data

## Dimensions and weights

|                |           |                 |            |
|----------------|-----------|-----------------|------------|
| Depth          | 55 mm     | Depth (inches)  | 2.165 inch |
| Height         | 74.4 mm   | Height (inches) | 2.929 inch |
| Net weight     | 20.8 g    | Width           | 6.1 mm     |
| Width (inches) | 0.24 inch |                 |            |

## Temperatures

|                     |                                                                            |                       |                |
|---------------------|----------------------------------------------------------------------------|-----------------------|----------------|
| Storage temperature | -40 °C...80 °C                                                             | Operating temperature | -20 °C...60 °C |
| Humidity            | 5-95% relative humidity,<br>T <sub>u</sub> = 40°C, without<br>condensation |                       |                |

## Probability of failure

|      |             |
|------|-------------|
| MTTF | 2,500 Years |
|------|-------------|

## Environmental Product Compliance

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

## Control side

|                         |                                          |                                |                  |
|-------------------------|------------------------------------------|--------------------------------|------------------|
| Nominal control current | 4.3 mA DC                                | Power rating                   | < 200 mW         |
| Protective circuit      | Varistor, Reverse polarity<br>protection | Pull-in/drop-out voltage, typ. | 38.4 V / 12 V DC |
| Rated control voltage   | 48...60 V DC ± 20 %                      | Status indicator               | Green LED        |

## Load side

|                                                  |                     |                           |             |
|--------------------------------------------------|---------------------|---------------------------|-------------|
| Continuous current                               | 0.1 A (DC1)         | Leakage current           | < 10 µA     |
| Load category                                    | DC1                 | Min. switching current    | 100 µA      |
| Protective circuit, load side                    | Free-wheeling diode | Rated switching voltage   | 5...48 V DC |
| Short-circuit-proof                              | No                  | Switch-off delay          | < 310 µs    |
| Switch-on delay                                  | < 170 µs            | Voltage drop at max. load | < 1 V       |
| max. switching frequency (DC control<br>voltage) | 500 Hz              |                           |             |

## Contact data

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

## General data

|                                    |                          |         |  |
|------------------------------------|--------------------------|---------|--|
| Rail                               | TS 35                    |         |  |
| Colour                             | black                    |         |  |
| UL94 flammability rating component | Component                | Housing |  |
|                                    | UL94 flammability rating | V-0     |  |

## Insulation coordination

|                                                                  |                  |                                                     |                                |
|------------------------------------------------------------------|------------------|-----------------------------------------------------|--------------------------------|
| Clearance and creepage distances for<br>control side - load side | > 3 mm           | Dielectric strength for control side - load<br>side | 1.2 kV <sub>eff</sub> / 1 min. |
| Impulse withstand voltage                                        | 4 kV (1.2/50 µs) | Pollution severity                                  | 2                              |
| Protection degree                                                | IP20             | Rated voltage                                       | 300 V                          |
| Surge voltage category                                           | III              |                                                     |                                |

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## 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 <sup>2</sup> | Clamping range, min.                                                                    | 0.5 mm <sup>2</sup> |
| Clamping range, max.                                                                    | 4 mm <sup>2</sup>   | Wire connection cross section AWG, min.                                                 | AWG 20              |
| Wire connection cross section AWG, max.                                                 | AWG 12              | Wire cross-section, solid, min.                                                         | 0.5 mm <sup>2</sup> |
| Wire cross-section, solid, max.                                                         | 4 mm <sup>2</sup>   | Wire connection cross section, finely stranded, min.                                    | 0.5 mm <sup>2</sup> |
| Wire connection cross section, finely stranded, max.                                    | 2.5 mm <sup>2</sup> | 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 <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 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 | ECLASS 11.0 | 27-37-16-04 |

## Approvals

Approvals



|                       |         |
|-----------------------|---------|
| ROHS                  | Conform |
| UL File Number Search | E223474 |

## Downloads

|                                             |                                                                         |
|---------------------------------------------|-------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a> |
| Engineering Data                            | <a href="#">STEP</a>                                                    |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                            |
| User Documentation                          | <a href="#">Beipackzettel / Package Insert – multilingual</a>           |

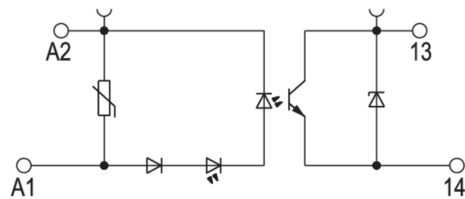
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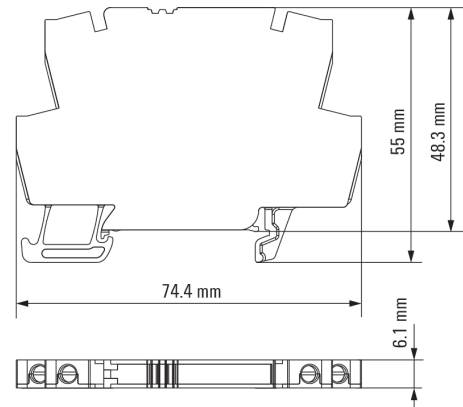
## Drawings

### Wiring diagram



Schaltsymbol

### Dimensional drawing



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## Drawings

## Miscellaneous



Type codes