

**TOS 24VDC/48VDC 0,5A****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 relay, 1 NO contact (Transistor), Rated control voltage: 24 V DC $\pm 20\%$ , Rated switching voltage: 5...48 V DC, Continuous current: 500 mA, Screw connection |
| Order No.  | <a href="#">8950920000</a>                                                                                                                                                             |
| Type       | TOS 24VDC/48VDC 0,5A                                                                                                                                                                   |
| GTIN (EAN) | 4032248742288                                                                                                                                                                          |
| Qty.       | 10 pc(s).                                                                                                                                                                              |

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Catalogue status 22.10.2021 / 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 |
| Width      | 6.1 mm  | Width (inches)  | 0.24 inch  |
| Net weight | 20.9 g  |                 |            |

## 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

|                       |                    |                                |                                       |
|-----------------------|--------------------|--------------------------------|---------------------------------------|
| Rated control voltage | 24 V DC $\pm$ 20 % | Nominal control current        | 7 mA DC                               |
| Power rating          | $\leq$ 170 mW      | Pull-in/drop-out voltage, typ. | 19.2 V / 6 V DC                       |
| Status indicator      | Green LED          | Protective circuit             | Varistor, Reverse polarity protection |

## Load side

|                                               |                           |                     |                    |
|-----------------------------------------------|---------------------------|---------------------|--------------------|
| Rated switching voltage                       | 5...48 V DC               | Continuous current  | 0.5 A (DC1)        |
| Voltage drop at max. load                     | < 1 V                     | Leakage current     | < 10 $\mu$ A       |
| Switch-on delay                               | < 20 $\mu$ s              | Switch-off delay    | $\leq$ 600 $\mu$ s |
| max. switching frequency (DC control voltage) | 200 Hz                    | Load category       | DC1                |
| Protective circuit, load side                 | Free-wheeling diode       | Short-circuit-proof | No                 |
| Contact type                                  | 1 NO contact (Transistor) |                     |                    |

## General data

|                                    |                          |         |
|------------------------------------|--------------------------|---------|
| Rail                               | TS 35                    |         |
| 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 kV <sub>eff</sub> / 1 min. | Impulse withstand voltage                                     | 4 kV (1.2/50 $\mu$ s) |
| Protection degree                                | IP20                           |                                                               |                       |

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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    |
| ETIM 8.0    | 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>           |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                |
| Brochures                                   |                                                                         |

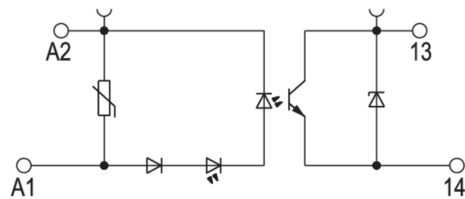
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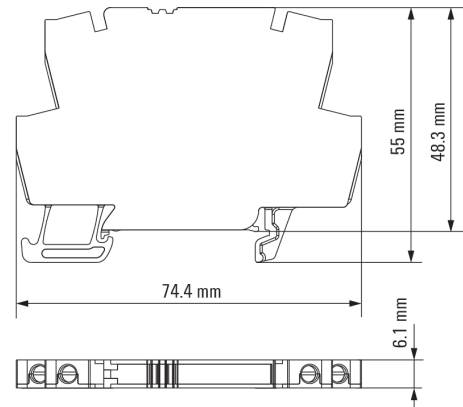
## Drawings

### Wiring diagram



Schaltsymbol

### Dimensional drawing



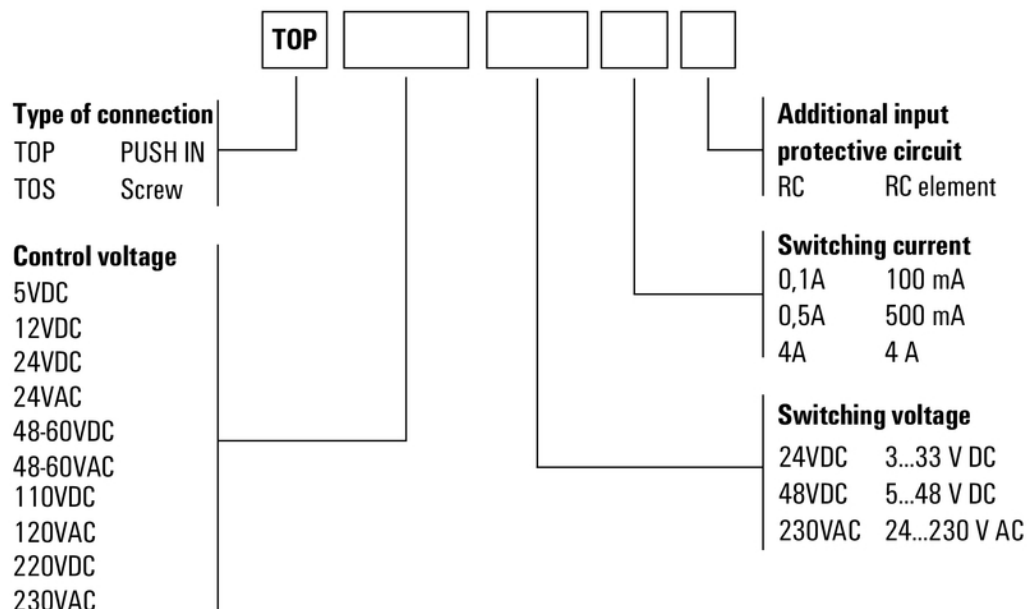
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## Drawings

## Miscellaneous



Type codes