

## TOS 60VUC 48VDC0,1A

**Weidmüller Interface GmbH & Co. KG**

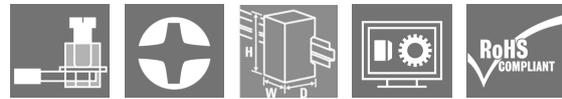
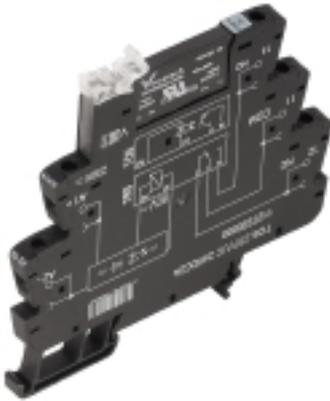
Klingenbergstraße 26

D-32758 Detmold

Germany

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

### Product image



Similar to illustration

- 1 NO contact (Bipolar transistor)
- 6.4 mm wide
- 0.1 A DC output current
- Unique multi-voltage input from 24 to 230 V UC
- Input voltages from 12 V DC to 230 V UC with coloured marking: AC: red, DC: blue, UC: white

### General ordering data

|            |   |
|------------|---|
| Version    | TERMSERIES, solid-state relays, 1 NO contact (Bipolar transistor), Rated control voltage: 60 V UC $\pm 10\%$ , Rated switching voltage: 0...48 V DC, Continuous current: 100 mA, Screw connection |
| Order No.  | <a href="#">1126970000</a>  |
| Type       | TOS 60VUC 48VDC0,1A   |
| GTIN (EAN) | 4032248908714   |
| 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          | 87.8 mm    | Depth (inches)  | 3.457 inch |
| Height         | 89.6 mm    | Height (inches) | 3.528 inch |
| Net weight     | 32.4 g     | Width           | 6.4 mm     |
| Width (inches) | 0.252 inch |                 |            |

**Temperatures**

|                     |  |                       |                |
|---------------------|--|-----------------------|----------------|
| Storage temperature | -40 °C...70 °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 | 1,623 Years |
|------|-------------|

**Environmental Product Compliance**

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

**Rated data UL**

|   |        |                                    |  |
|---|--------|------------------------------------|--|
| Ambient temperature (operational), max. 60 °C |        | Connection cross-section AWG, min. | AWG 26   |
| Connection cross-section AWG, max.            | AWG 14 | Type of conductor                  | rigid copper conductor,<br>flexible copper conductor |
| Tightening torque, max.                       | 0.4 Nm | Pollution severity level           | 2  |

**Control side**

|                                       |   |   |                                  |
|---------------------------------------|---|---|----------------------------------|
| Coil voltage of the replacement relay | 60 V DC                                 | Coil voltage of the replacement relay<br>deviating from the rated control voltage | Yes                              |
| Nominal control current               | 4.8 mA AC (±10 %), 2.5<br>mA DC (±10 %) | Power rating  | 150 mW, 290 mVA                  |
| Protective circuit                    | Rectifier                               | Pull-in/drop-out voltage, typ.  | 37 V / 20 V AC<br>35 V / 26 V DC |
| Rated control voltage                 | 60 V UC ± 10 %                          | Status indicator  | Green LED                        |

**Load side**

|  |         |  |                     |
|--|---------|--|---------------------|
| Continuous current                               | 0.1 A   | Leakage current                                  | < 10 µA             |
| Min. switching current                           | 500 µA  | Protective circuit, load side                    | Free-wheeling diode |
| Rated switching voltage                          | 48 V DC | Short-circuit-proof                              | No                  |
| Switch-off delay                                 | < 10 ms | Switch-on delay                                  | < 6.5 ms            |
| Voltage drop at max. load                        | ≤ 1 V   | max. switching frequency (AC control<br>voltage) | 3 Hz                |
| max. switching frequency (DC control<br>voltage) | 10 Hz   |  |                     |

**Contact data**

|              |                                      |
|--------------|--------------------------------------|
| Contact type | 1 NO contact (Bipolar<br>transistor) |
|--------------|--------------------------------------|

**General data**

|      |       |
|------|-------|
| Rail | TS 35 |
|------|-------|

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## Technical data

|                                    |                          |                |  |
|------------------------------------|--------------------------|----------------|--|
| Colour                             | black                    |                |  |
| UL94 flammability rating component | Component                | Housing        |  |
|                                    | UL94 flammability rating | V-0            |  |
|                                    | Component                | Retaining clip |  |
|                                    | UL94 flammability rating | V-0            |  |

## Insulation coordination

|   |                              |  |                       |
|---|------------------------------|--|-----------------------|
| Clearance and creepage distances for control side - load side | ≥ 5.5 mm                     | Dielectric strength for control side - load side | 2.5 kV <sub>eff</sub> |
| Dielectric strength to mounting rail                          | 4 kV <sub>eff</sub> / 1 Min. | Impulse withstand voltage                        | 6 kV (1.2/50 μs)      |
| Pollution severity  | 2                            | Protection degree                                | IP20                  |
| Rated voltage   | 300 V                        | Surge voltage category                           | III                   |

## Further details of approvals / standards

|                         |              |                         |            |
|-------------------------|--------------|-------------------------|------------|
| Standards               | DIN EN 50178 | Certificate No. (DNVGL) | TAA00001E5 |
| Certificate no. (cULus) | E141197      |                         |            |

## Connection data

|   |                      |   |                     |
|---|----------------------|---|---------------------|
| Wire connection method  | Screw connection     | Stripping length, rated connection  | 8 mm                |
| Tightening torque, max.   | 0.4 Nm               | Clamping range, rated connection  | 1.5 mm <sup>2</sup> |
| Clamping range, min.  | 0.14 mm <sup>2</sup> | Clamping range, max.  | 2.5 mm <sup>2</sup> |
| Wire connection cross section AWG, min.   | AWG 26               | Wire connection cross section AWG, max.   | AWG 14              |
| Wire cross-section, solid, min.   | 0.14 mm <sup>2</sup> | Wire cross-section, solid, max.   | 2.5 mm <sup>2</sup> |
| Wire cross-section, solid, min. (AWG)   | AWG 26               | Wire cross-section, solid, max. (AWG)   | AWG 14              |
| Wire connection cross section, finely stranded, min.                                    | 0.14 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 26               | Wire cross-section, finely stranded, max. (AWG)   | AWG 14              |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 0.25 mm <sup>2</sup> | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 2.5 mm <sup>2</sup> |
| Conductor cross-section, flexible, AEH (DIN 46228-1), min.                              | 0.25 mm <sup>2</sup> | Conductor cross-section, flexible, AEH (DIN 46228-1), max.                              | 2.5 mm <sup>2</sup> |
| Wire connection cross section, finely stranded, two clampable wires, min.               | 0.5 mm <sup>2</sup>  | Wire cross-section, finely stranded, two clampable wires, max.                          | 1 mm <sup>2</sup>   |
| Twin wire-end ferrules, min.  | 0.5 mm <sup>2</sup>  | Twin wire-end ferrules, max.  | 1 mm <sup>2</sup>   |
| Blade size  | size PHO             | Gauge to IEC 60947-1  | A1, B1              |

## 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 | E141197 |

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**Data sheet****TOS 60VUC 48VDC0,1A**

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**Technical data****Downloads**

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|   |   |
|---|---|
| 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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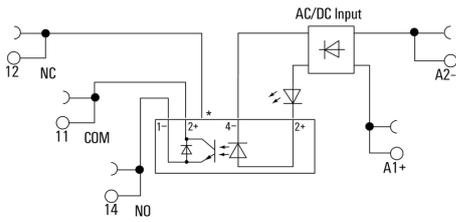
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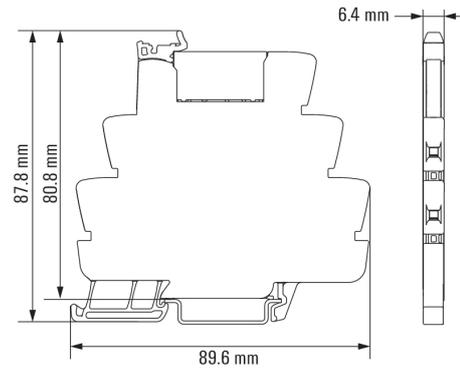
**Drawings**

**Wiring diagram**



\*Contact is assembled in socket but not used with solid-state relays

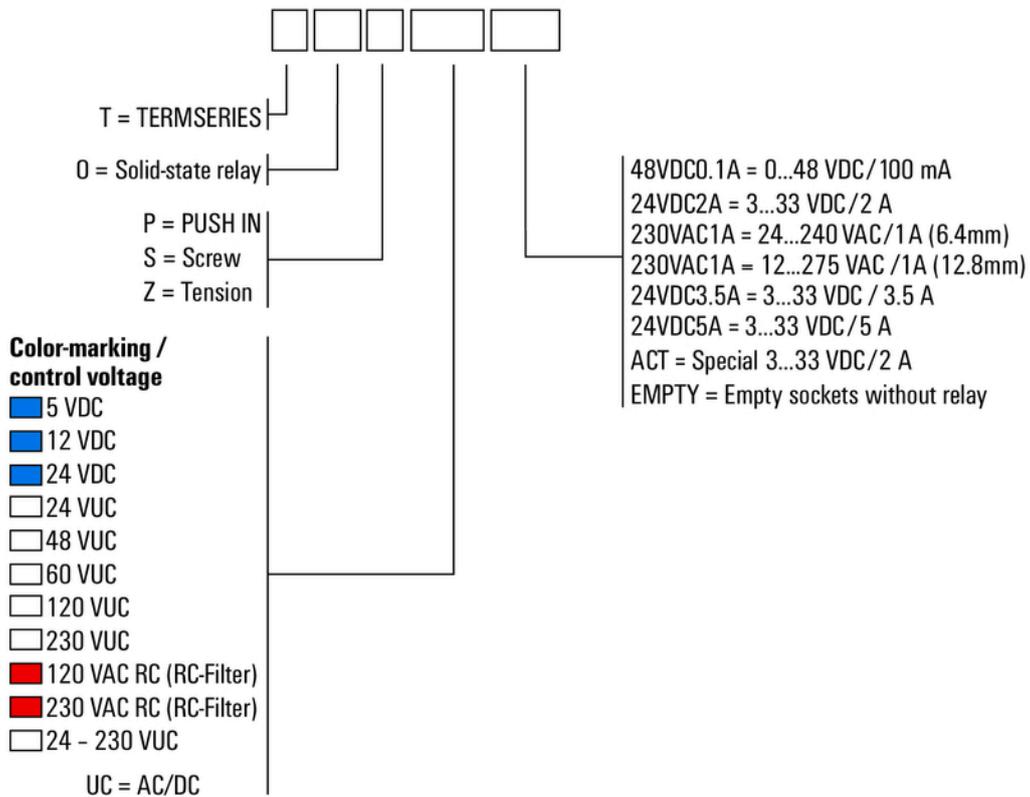
**Dimensional drawing**



**Drawings**

**Miscellaneous**

**Type code TERMSERIES solid-state relay versions**



Type codes