

**TOZ 5VDC 48VDC0,1A****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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 relay, Rated control voltage: 5 V DC $\pm 20\%$ , Rated switching voltage: 3... 48 V DC, Continuous current: 100 mA, Tension-clamp connection |
| Order No.  | <a href="#">1127030000</a>                                                                                                                                            |
| Type       | TOZ 5VDC 48VDC0,1A                                                                                                                                                    |
| GTIN (EAN) | 4032248908868                                                                                                                                                         |
| Qty.       | 10 pc(s).                                                                                                                                                             |

Creation date September 16, 2022 12:54:09 AM CEST

Catalogue status 09.09.2022 / 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     | 90.5 mm | Height (inches) | 3.563 inch |
| Width      | 6.4 mm  | Width (inches)  | 0.252 inch |
| Net weight | 29 g    |                 |            |

## 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 | 3,920 Years |
|------|-------------|

## Environmental Product Compliance

|            |                |      |                                      |
|------------|----------------|------|--------------------------------------|
| REACH SVHC | Lead 7439-92-1 | SCIP | 9e2cbc49-76d9-4611-b8ec-5b4f549a0aa9 |
|------------|----------------|------|--------------------------------------|

## 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 |
| Pollution severity level                      | 2      |                                    |                                                      |

## Control side

|                                                                                   |                   |                                       |                                                     |
|-----------------------------------------------------------------------------------|-------------------|---------------------------------------|-----------------------------------------------------|
| Rated control voltage                                                             | 5 V DC $\pm 20\%$ | Nominal control current               | 7 mA DC ( $\pm 20\%$ )                              |
| Power rating                                                                      | 35 mW             | Pull-in/drop-out voltage, typ.        | 2.7 V / 1.65 V DC                                   |
| Status indicator                                                                  | Green LED         | Protective circuit                    | Free-wheeling diode,<br>Reverse polarity protection |
| Coil voltage of the replacement relay<br>deviating from the rated control voltage | No                | Coil voltage of the replacement relay | 5 V DC                                              |

## Load side

|                         |                                      |                                                  |                        |
|-------------------------|--------------------------------------|--------------------------------------------------|------------------------|
| Rated switching voltage | 3... 48 V DC                         | Continuous current                               | 100 mA                 |
| Rated switching current | 100 mA                               | Switch-on delay                                  | $\leq 10\ \mu\text{s}$ |
| Switch-off delay        | $\leq 70\ \mu\text{s}$               | Voltage drop at max. load                        | $\leq 1\ \text{V}$     |
| Leakage current         | $< 10\ \mu\text{A}$                  | Min. switching current                           | 500 $\mu\text{A}$      |
| Short-circuit-proof     | No                                   | Protective circuit, load side                    | Free-wheeling diode    |
| Contact type            | 1 NO contact (Bipolar<br>transistor) | max. switching frequency (DC control<br>voltage) | 10 Hz                  |

## General data

|                                    |                          |                |
|------------------------------------|--------------------------|----------------|
| Rail                               | TS 35                    |                |
| Test button available              | No                       |                |
| Colour                             | black                    |                |
| UL94 flammability rating component | Component                | Housing        |
|                                    | UL94 flammability rating | V-0            |
|                                    | Component                | Retaining clip |
|                                    | UL94 flammability rating | V-0            |

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## Insulation coordination

|                                                  |                       |                                                               |                              |
|--------------------------------------------------|-----------------------|---------------------------------------------------------------|------------------------------|
| Rated voltage                                    | 300 V                 | Pollution severity                                            | 2                            |
| Surge voltage category                           | III                   | 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)      | Protection degree                                             | IP20                         |

## Further details of approvals / standards

|                         |            |                         |         |
|-------------------------|------------|-------------------------|---------|
| Certificate No. (DNVGL) | TAA00001E5 | Certificate no. (cULus) | E141197 |
|-------------------------|------------|-------------------------|---------|

## Connection data

|                                                                                         |                          |                                                                                         |                      |
|-----------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------|----------------------|
| Wire connection method                                                                  | Tension-clamp connection | Stripping length, rated connection                                                      | 8 mm                 |
| 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. | 0.14 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.                              | 0.14 mm <sup>2</sup> |
| Conductor cross-section, flexible, AEH (DIN 46228-1), max.                              | 1.5 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                                                                              | 0.6 x 3.5 mm         |
| Gauge to IEC 60947-1                                                                    | A1, B1                   |                                                                                         |                      |

## 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 | ECLASS 12.0 | 27-37-16-04 |

## Approvals

Approvals



|                         |            |
|-------------------------|------------|
| ROHS                    | Conform    |
| UL File Number Search   | UL Website |
| Certificate no. (cULus) | E141197    |

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## Technical data

### Downloads

|                                             |                                                                         |
|---------------------------------------------|-------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a> |
| Engineering Data                            | <a href="#">CAD data – 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                                   |                                                                         |

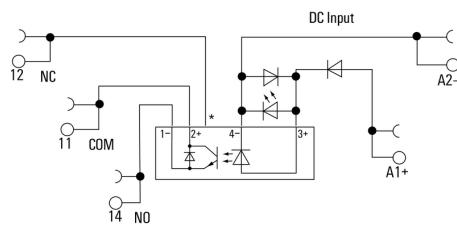
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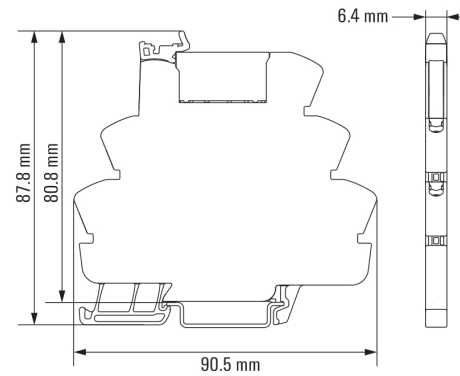
# Drawings

## Wiring diagram



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

## Dimensional drawing



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## Drawings

## Miscellaneous

## Type code TERMSERIES solid-state relay versions



Type codes