

TERMSERIES TOZ 230VUC 48VDC0,1A

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com



TERMSERIES complete solid-state relay modules 3 to 48 V DC 0.1 A output versions consisting of a solid-state relay and a base with AC/DC/UC input; available in different designs:

- With tension-clamp connection
- In 6.4 mm width
- Optionally with multiple-voltage input: 24 to 230 V UC
- With various protective circuits in the input (free-wheel diode, RC element)
- Illuminated ejection lever

General ordering data

| | |
|------------|--|
| Type | TOZ 230VUC 48VDC0,1A |
| Order No. | 1127100000 |
| Version | TERMSERIES, solid-state relays, 1 NO contact (Bipolar transistor), Rated control voltage: 230 V UC $\pm 10\%$, Rated switching voltage: 0...48 V DC, Continuous current: 100 mA, Tension clamp connection |
| GTIN (EAN) | 4032248908578 |
| Qty. | 10 pc(s). |

Data sheet

TERMSERIES TOZ 230VUC 48VDC0,1A

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

Technical data

Dimensions and weights

| | | | |
|------------|---------|-----------------|------------|
| Width | 6.4 mm | Width (inches) | 0.252 inch |
| Height | 90.5 mm | Height (inches) | 3.563 inch |
| Depth | 87.8 mm | Depth (inches) | 3.457 inch |
| Net weight | 30.4 g | | |

Temperatures

| | | | |
|-----------------------------|---|-----------------------------|----------------|
| Humidity | 5–95% rel. humidity, $T_u = 40^\circ\text{C}$, no condensation | Operating temperature, max. | 60 °C |
| Operating temperature, min. | -20 °C | Storage temperature, max. | 70 °C |
| Storage temperature, min. | -40 °C | Operating temperature | -20 °C...60 °C |
| Storage temperature | -40 °C...70 °C | | |

Probability of failure

| | |
|------|-------------|
| MTTF | 1,197 Years |
|------|-------------|

Control side

| | | | |
|--|---------------------|---------------------------------------|---|
| Rated control voltage | 230 V UC $\pm 10\%$ | Nominal control current | 3.5 mA AC ($\pm 30\%$), 3 mA DC ($\pm 30\%$) |
| Power rating | 0.8 VA / 660 mW | Cut-in / dropout voltage | 159 V / 99 V AC 145 V / 128 V DC |
| Status indicator | Green LED | Protective circuit | Rectifier |
| Coil voltage of the replacement relay deviating from the rated control voltage | Yes | Coil voltage of the replacement relay | 60 V DC |

Load side

| | | | |
|---|--------------------|---|-------------------|
| Rated switching voltage | 0...48 V DC | Continuous current | 100 mA |
| Rated switching current | 100 mA | Switch-on delay | < 7 ms |
| Switch-off delay | < 10 ms | Voltage drop at max. load | ≤ 1 V |
| Leakage current | < 10 μA | Min. switching current | 500 μA |
| Short-circuit-proof | No | Protective circuit, load side | Free-wheel diode |
| max. switching frequency (AC control voltage) | 3 Hz | max. switching frequency (DC control voltage) | 3 Hz |

Contact data

| | |
|--------------|-----------------------------------|
| Contact type | 1 NO contact (Bipolar transistor) |
|--------------|-----------------------------------|

General data

| | | | |
|---------------------------|-------|--------|-------|
| Mounting 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 | ≥ 5.5 mm |
| Dielectric strength for control side - load side | 2.5 kV _{eff} | Dielectric strength to mounting rail | 4 kV _{eff} / 1 min. |
| Impulse withstand voltage | 6 kV (1.2/50 μs) | Protection degree | IP20 |

Creation date July 2, 2018 9:48:50 AM CEST

**TERMSERIES
TOZ 230VUC 48VDC0,1A**

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

Technical data**Further details of approvals / standards**

| | | | |
|-----------|--------------|-------------------------|---------|
| Standards | DIN EN 50178 | 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 ² | Clamping range, min. | 0.14 mm ² |
| Clamping range, max. | 2.5 mm ² | Wire connection cross section AWG, min. | AWG 26 |
| Wire connection cross section AWG, max. | AWG 14 | Wire cross-section, solid, min. | 0.14 mm ² |
| Wire cross-section, solid, max. | 2.5 mm ² | Wire connection cross-section, finely stranded, min. | 0.14 mm ² |
| Wire connection cross section, finely stranded, max. | 2.5 mm ² | 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 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. | 0.14 mm ² |
| Conductor cross-section, flexible, AEH (DIN 46228-1), max. | 1.5 mm ² | Twin wire-end ferrules, min. | 0.5 mm ² |
| Twin wire-end ferrules, max. | 1 mm ² | Blade size | 0.6 x 3.5 mm |
| Gauge to IEC 60947-1 | A1, B1 | | |

Rated data UL

| | | |
|---|------------------------------------|---|
| Ambient temperature (operational), max. 60 °C | Connection cross-section AWG, min. | AWG 26 |
| Connection cross-section AWG, max. | Type of conductor | rigid copper conductor, flexible copper conductor |
| Pollution severity level | | 2 |

Classifications

| | | | |
|------------|-------------|------------|-------------|
| ETIM 4.0 | EC001504 | ETIM 5.0 | EC001504 |
| ETIM 6.0 | EC001504 | eClass 6.2 | 27-27-09-90 |
| eClass 7.1 | 27-27-09-90 | eClass 8.1 | 27-27-09-90 |
| eClass 9.0 | 27-27-09-90 | eClass 9.1 | 27-37-16-04 |

Product information

| | |
|---------------------------------|---|
| Descriptive text ordering data | Spare solid-state relay Type: SSS 60 V/24 V 0.1A DC Orderno.: 4061230000 |
| Descriptive text technical data | Accessories and dimensional drawings: refer to the TERMSERIES Accessories page. |

Approvals

Approvals



ROHS Conform

Creation date July 2, 2018 9:48:50 AM CEST

Catalogue status 29.06.2018 / We reserve the right to make technical changes.

3

Data sheet**TERMSERIES**
TOZ 230VUC 48VDC0,1A**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com**Technical data****Downloads**

| | |
|---|---|
| Approval/Certificate/Document of Conformity | DE_PA_5600_160229_002.pdf |
| Brochure/Catalogue | CAT 4.2 ELECTR 18/19 EN |
| Engineering Data | EPLAN, WSCAD |
| User Documentation | Operating Instructions |

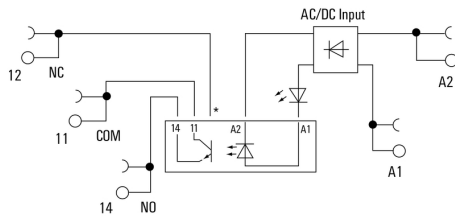
Data sheet

**TERMSERIES
TOZ 230VUC 48VDC0,1A**

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

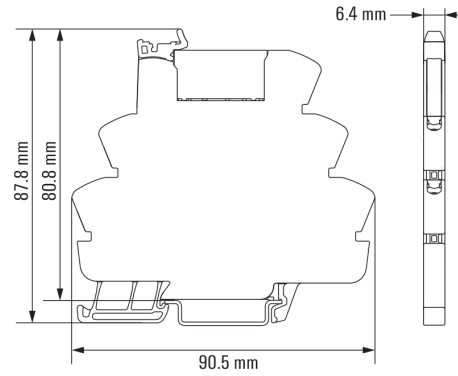
Drawings

Wiring diagram



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

Dimensional drawing



**TERMSERIES
TOZ 230VUC 48VDC0,1A**

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

Drawings

Miscellaneous



Type codes