

TERMSERIES TOZ 24VDC 230VAC1A

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TERMSERIES complete solid-state relay modules 12 to 275 V AC 1 A output versions consisting of a solid-state relay and a base with DC or UC input; available in different designs:

- With tension-clamp connection
- In 12.8 mm width
- Optionally with multiple-voltage input: 24 to 230 V UC
- Optionally with free-wheel diode on input
- Illuminated ejection lever

General ordering data

| | |
|------------|---|
| Type | TOZ 24VDC 230VAC1A |
| Order No. | 1127700000 |
| Version | TERMSERIES, solid-state relays, 1 NO contact (Triac (zero-cross switch)), Rated control voltage: 24 V DC $\pm 20\%$, Rated switching voltage: 12...275 V AC, Continuous current: 1 A, Tension clamp connection |
| GTIN (EAN) | 4032248909391 |
| Qty. | 10 pc(s). |

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Technical data**Dimensions and weights**

| | | | |
|------------|---------|-----------------|------------|
| Width | 12.8 mm | Width (inches) | 0.504 inch |
| Height | 90.5 mm | Height (inches) | 3.563 inch |
| Depth | 87.8 mm | Depth (inches) | 3.457 inch |
| Net weight | 51.8 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. | 85 °C |
| Storage temperature, min. | -40 °C | Operating temperature | -20 °C...60 °C |
| Storage temperature | -40 °C...85 °C | | |

Probability of failure

| | |
|------|-------------|
| MTTF | 1,109 Years |
|------|-------------|

Control side

| | | | |
|--|--------------------|---------------------------------------|---|
| Rated control voltage | 24 V DC $\pm 20\%$ | Nominal control current | 10 mA DC $\pm 20\%$ |
| Power rating | 240 mW | Cut-in / dropout voltage | 15 V / 5 V DC |
| Status indicator | Green LED | Protective circuit | Free-wheel diode, Reverse polarity protection |
| Coil voltage of the replacement relay deviating from the rated control voltage | No | Coil voltage of the replacement relay | 24 V DC |

Load side

| | | | |
|---|---------------------|--------------------------------|--------------|
| Rated switching voltage | 12...275 V AC | Continuous current | 1 A |
| Rated switching current | 1 A | Inrush current | 15 A / 10 ms |
| Switch-on delay | < 1 ms | Switch-off delay | < 4 ms |
| Voltage drop at max. load | $\leq 1.1\text{ V}$ | Leakage current | < 1.5 mA |
| Min. switching current | 50 mA | Short-circuit-proof | No |
| Protective circuit, load side | RC element | Output voltage frequency range | 50 / 60 Hz |
| max. switching frequency (DC control voltage) | 3 Hz | | |

Contact data

| | |
|--------------|--|
| Contact type | 1 NO contact (Triac (zero-cross switch)) |
|--------------|--|

General data

| | | | |
|---------------|-------|---------------------------|-----|
| Mounting rail | TS 35 | 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 | $\geq 5.5\text{ mm}$ |
| 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 April 13, 2018 10:28:32 PM CEST

Catalogue status 06.04.2018 / We reserve the right to make technical changes.

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Technical data
Further details of approvals / standards

| | |
|-----------|--------------|
| Standards | DIN EN 50178 |
|-----------|--------------|

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 | | |

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: SSR 10 - 32 VDC/ 12 - 275 VAC 3A Orderno.: 1132290000 |
| Descriptive text technical data | Accessories and dimensional drawings: refer to the TERMSERIES Accessories page. |

Approvals

Approvals



| | |
|------|---------|
| ROHS | Conform |
|------|---------|

Downloads

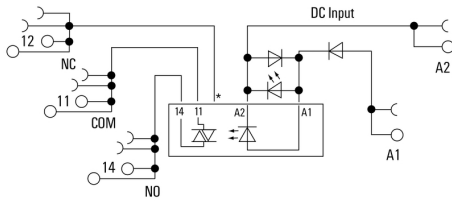
| | |
|---|---|
| Approval/Certificate/Document of Conformity | DE_PA_5600_160229_002.pdf |
| Brochure/Catalogue | CAT 4.2 ELECTR 15/16 EN |
| Engineering Data | EPLAN, WSCAD |
| User Documentation | Operating Instructions |

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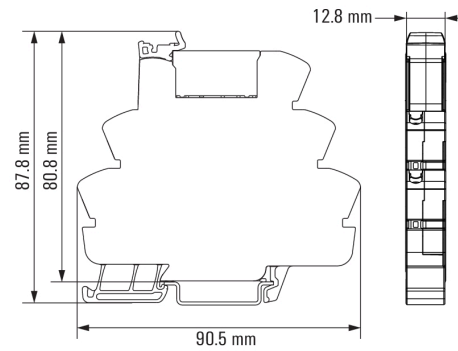
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Drawings**Wiring diagram**

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

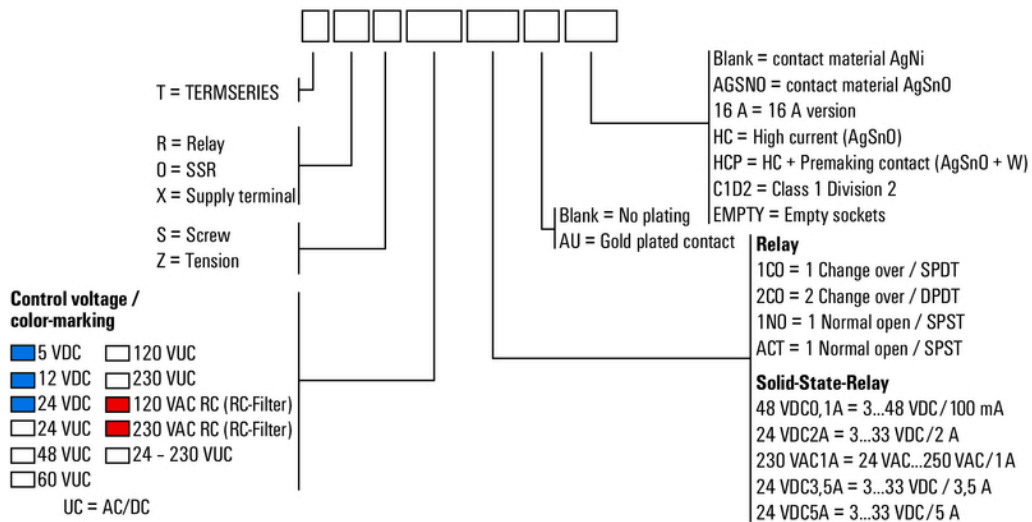
Dimensional drawing

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Drawings

Miscellaneous



Type codes