

TOS 24-230VUC 24VDC5A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



Similar to illustration

- 1 NO contact (MOS-FET)
- 12.8 mm wide
- 5 A DC output current
- Unique multi-voltage input from 24 to 230 V UC

General ordering data

| | |
|------------|--|
| Version | TERMSERIES, Solid-state relay, Rated control voltage: 24...230 V UC $\pm 10\%$, Rated switching voltage: 3...33 V DC, Continuous current: 5 A, Screw connection |
| Order No. | 1990970000 |
| Type | TOS 24-230VUC 24VDC5A |
| GTIN (EAN) | 4050118379297 |
| Qty. | 10 pc(s). |

Creation date April 20, 2022 10:04:38 AM CEST

Catalogue status 08.04.2022 / We reserve the right to make technical changes.

TOS 24-230VUC 24VDC5A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data

Dimensions and weights

| | | | |
|------------|---------|-----------------|------------|
| Depth | 87.8 mm | Depth (inches) | 3.457 inch |
| Height | 89.6 mm | Height (inches) | 3.528 inch |
| Width | 12.8 mm | Width (inches) | 0.504 inch |
| Net weight | 60 g | | |

Temperatures

| | | | |
|---------------------|--|-----------------------|----------------|
| Storage temperature | -40 °C...70 °C | Operating temperature | -20 °C...40 °C |
| Humidity | 5-95% relative humidity, T _u = 40°C, without condensation | | |

Probability of failure

| | |
|------|-----------|
| MTTF | 773 Years |
|------|-----------|

Environmental Product Compliance

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

Rated data UL

| | | | |
|---|--------|------------------------------------|--|
| Ambient temperature (operational), max. 40 °C | | Connection cross-section AWG, min. | AWG 26 |
| Connection cross-section AWG, max. | AWG 14 | Type of conductor | rigid copper conductor, flexible copper conductor |
| Tightening torque, max. | 0.4 Nm | Pollution severity level | 2 |

Control side

| | | | |
|---|--|---------------------------------------|---|
| Rated control voltage | 24...230 V UC ±10 % | Nominal control current | 22.4 mA DC @ 24 V DC, 22.6 mA AC @ 24 V AC, 2.4 mA DC @ 230 V DC, 4.6 mA AC @ 230 V AC |
| Power rating | 540 mW @ 24 V DC, 545 mVA @ 24 V AC, 550 mW @ 230 V DC, 1.1 VA @ 230 V AC | Pull-in/drop-out voltage, typ. | 12 V / 6 V AC 12 V / 5 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 | 24 V DC |

Load side

| | | | |
|--|---------------------|--|------------------------|
| Rated switching voltage | 3...33 V DC | Continuous current | 5 A |
| Rated switching current | 5 A | Inrush current | 15 A / 10 ms |
| Switch-on delay | ≤ 10 ms | Switch-off delay | < 100 ms |
| Voltage drop at max. load | ≤ 0.3 V | Leakage current | < 10 µA |
| Min. switching current | 1 mA | Short-circuit-proof | No |
| Protective circuit, load side | Free-wheeling diode | Contact type | 1 NO contact (MOS-FET) |
| max. switching frequency (AC control voltage) | 3 Hz | max. switching frequency (DC control voltage) | 3 Hz |

General data

| | |
|-----------------------|-------|
| Rail | TS 35 |
| Test button available | No |

Creation date April 20, 2022 10:04:38 AM CEST

Catalogue status 08.04.2022 / We reserve the right to make technical changes.

2

TOS 24-230VUC 24VDC5A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

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

| | | | |
|--|-----------------------|---|------------------------------|
| 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 |

Further details of approvals / standards

| | | | |
|-------------------------|------------|-------------------------|---------|
| 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 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 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 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. | 0.25 mm ² | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 2.5 mm ² |
| Conductor cross-section, flexible, AEH (DIN 46228-1), min. | 0.25 mm ² | Conductor cross-section, flexible, AEH (DIN 46228-1), max. | 2.5 mm ² |
| Wire connection cross section, finely stranded, two clampable wires, min. | 0.5 mm ² | Wire cross-section, finely stranded, two clampable wires, max. | 1 mm ² |
| Twin wire-end ferrules, min. | 0.5 mm ² | Twin wire-end ferrules, max. | 1 mm ² |
| Blade size | size PHO | 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 | | |

Approvals

Approvals



| | |
|-----------------------|---------|
| ROHS | Conform |
| UL File Number Search | E141197 |

Creation date April 20, 2022 10:04:38 AM CEST

Catalogue status 08.04.2022 / We reserve the right to make technical changes.

TOS 24-230VUC 24VDC5A

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Technical data**Downloads**

| | |
|---|---|
| Approval/Certificate/Document of Conformity | EU Konformitätserklärung / EU Declaration of Conformity |
| Engineering Data | CAD data – STEP |
| Engineering Data | EPLAN, WSCAD |
| User Documentation | Beipackzettel / Package Insert – multilingual |
| Catalogues | Catalogues in PDF-format |
| Brochures | |

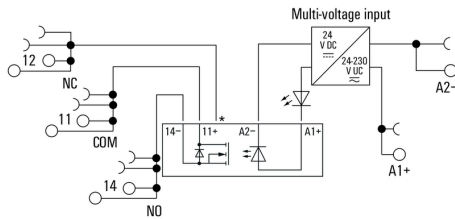
TOS 24-230VUC 24VDC5A

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

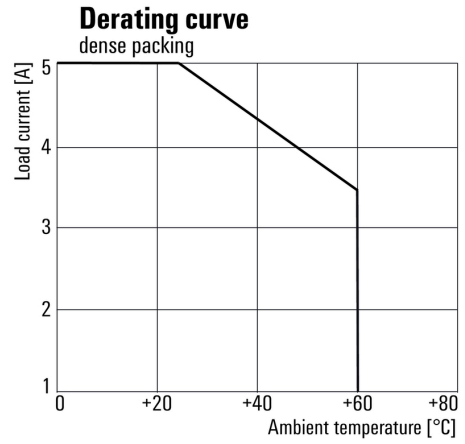
Drawings

Wiring diagram

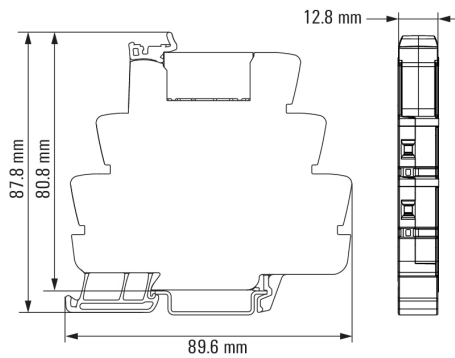


*Contact is assembled in socket but not used with solid-state relays

Derating curve

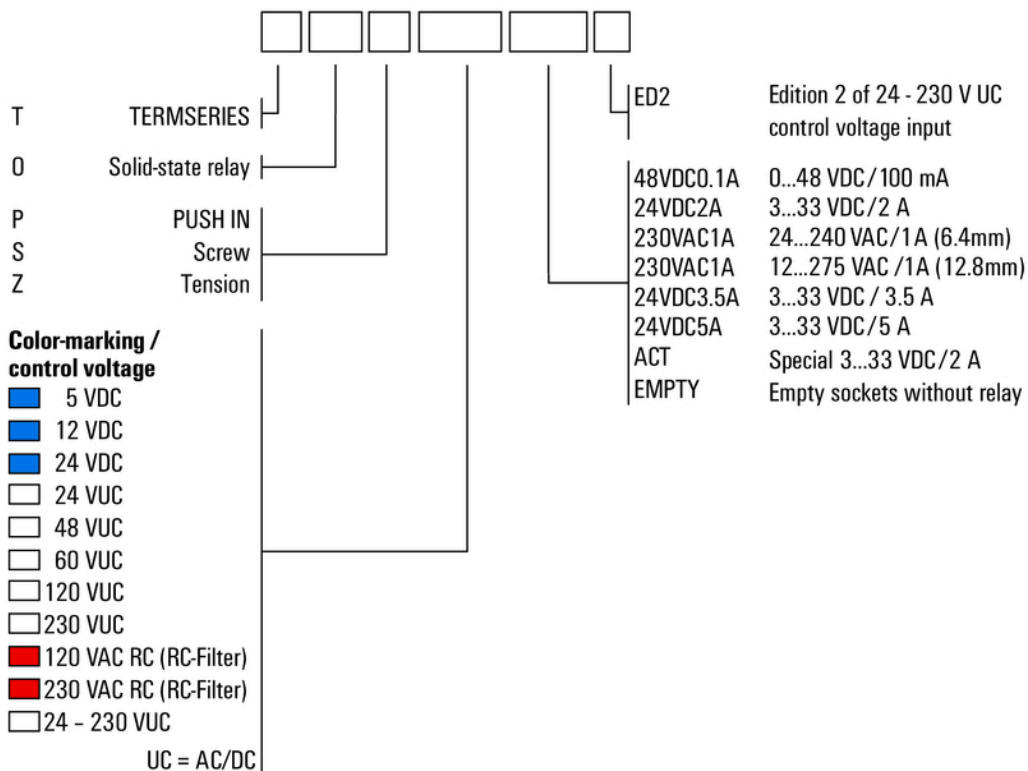


Dimensional drawing



Miscellaneous

Type code TERMSERIES solid-state relay versions



Type codes