

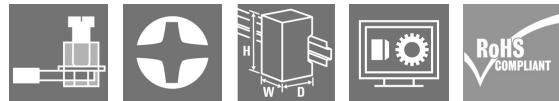
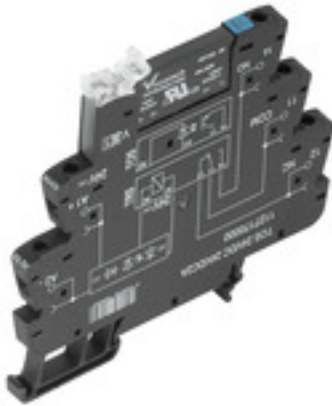
**TOS 24VDC 24VDC2A****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

- 1 NO contact (MOS-FET)
- 6.4 mm wide
- 2 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: 24 V DC $\pm 20\%$ , Rated switching voltage: 3...33 V DC, Continuous current: 2 A, Screw connection |
| Order No.  | <a href="#">1127170000</a>                                                                                                                                 |
| Type       | TOS 24VDC 24VDC2A                                                                                                                                          |
| GTIN (EAN) | 4032248908936                                                                                                                                              |
| Qty.       | 10 pc(s).                                                                                                                                                  |

## TOS 24VDC 24VDC2A

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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 |
| Width      | 6.4 mm  | Width (inches)  | 0.252 inch |
| Net weight | 32.2 g  |                 |            |

## Temperatures

|                     |                                                                         |                       |                |
|---------------------|-------------------------------------------------------------------------|-----------------------|----------------|
| Storage temperature | -40 °C...70 °C                                                          | Operating temperature | -20 °C...60 °C |
| Humidity            | 5-95% relative humidity, T <sub>u</sub><br>= 40°C, without condensation |                       |                |

## Probability of failure

|      |         |
|------|---------|
| MTTF | 1,077 a |
|------|---------|

## 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,<br>flexible copper conductor |
|                                               |                                    |                                                      |
| Tightening torque, max.                       | Pollution severity level           | 2                                                    |

## Control side

|                                                                                |                                                  |                                       |                           |
|--------------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------|---------------------------|
| Rated control voltage                                                          | 24 V DC $\pm 20\%$                               | Nominal control current               | 11.5 mA DC ( $\pm 10\%$ ) |
| Power rating                                                                   | 280 mW                                           | Status indicator                      | Green LED                 |
| Protective circuit                                                             | Free-wheeling diode, Reverse polarity protection | Input frequency                       | 300 Hz                    |
| 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                       | 3...33 V DC         | Continuous current  | 2 A                    |
| Rated switching current                       | 2 A                 | Inrush current      | 15 A / 10 ms           |
| Switch-on delay                               | $\leq 0,1$ ms       | Switch-off delay    | <1 ms                  |
| Voltage drop at max. load                     | $\leq 120$ mV       | Leakage current     | <10 $\mu$ A            |
| Min. switching current                        | 5 mA                | Short-circuit-proof | No                     |
| Protective circuit, load side                 | Free-wheeling diode | Contact type        | 1 NO contact (MOS-FET) |
| max. switching frequency (DC control voltage) | 300 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. (DNV) | 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>   |
| Blade size                                                                              | size PHO             |                                                                                         |                     |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC001504    | ETIM 7.0    | EC001504    |
| ETIM 8.0    | EC001504    | ETIM 9.0    | EC001504    |
| ETIM 10.0   | 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 |
| ECLASS 13.0 | 27-37-16-04 | ECLASS 14.0 | 27-37-16-04 |
| ECLASS 15.0 | 27-37-16-04 |             |             |

## Environmental Product Compliance

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| RoHS Compliance Status               | Compliant with exemption             |
| RoHS Exemption (if applicable/known) | 7a, 7cl                              |
| REACH SVHC                           | Lead 7439-92-1                       |
| SCIP                                 | 9e2cbc49-76d9-4611-b8ec-5b4f549a0aa9 |

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Approvals**

Approvals



|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approvals MAMID | <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/</a> <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319228/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319228/-T1z1mm-S800/</a> <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319234/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319234/-T1z1mm-S800/</a> <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319260/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319260/-T1z1mm-S800/</a> |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

|                       |            |
|-----------------------|------------|
| UL File Number Search | UL Website |
|-----------------------|------------|

|                         |         |
|-------------------------|---------|
| Certificate no. (cULus) | E141197 |
|-------------------------|---------|

**Downloads**

|                                             |                                                                         |
|---------------------------------------------|-------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a> |
|---------------------------------------------|-------------------------------------------------------------------------|

|                  |                                 |
|------------------|---------------------------------|
| Engineering Data | <a href="#">CAD data – STEP</a> |
|------------------|---------------------------------|

|                    |                                                               |
|--------------------|---------------------------------------------------------------|
| User Documentation | <a href="#">Beipackzettel / Package Insert – multilingual</a> |
|--------------------|---------------------------------------------------------------|

|            |                                          |
|------------|------------------------------------------|
| Catalogues | <a href="#">Catalogues in PDF-format</a> |
|------------|------------------------------------------|

|           |  |
|-----------|--|
| Brochures |  |
|-----------|--|

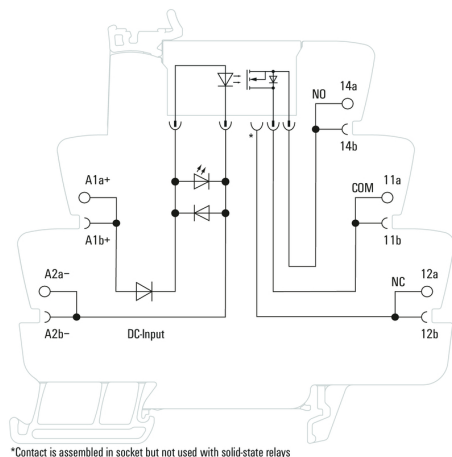
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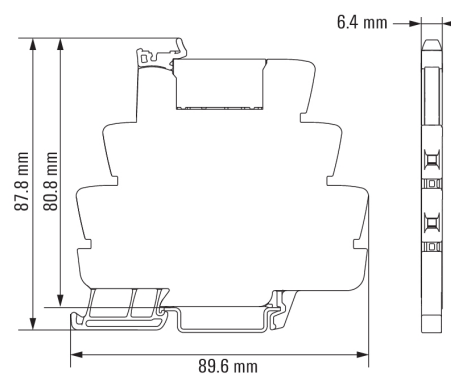
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## Drawings

### Wiring diagram



### Dimensional drawing



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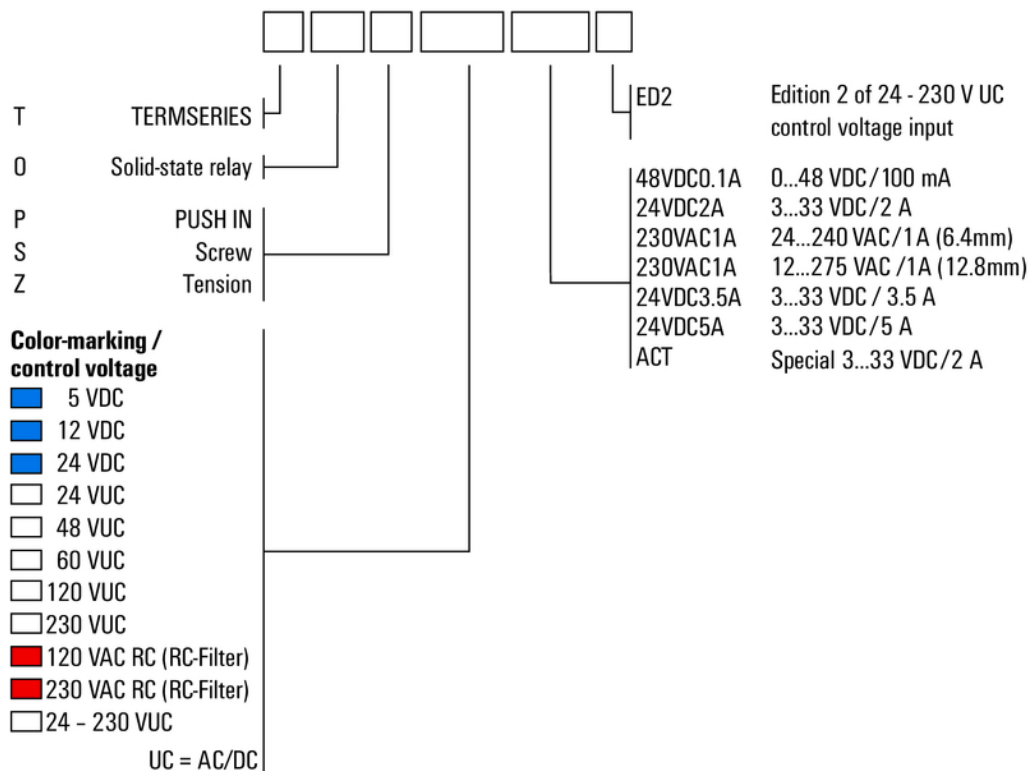
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## Drawings

## Miscellaneous

## Type code TERMSERIES solid-state relay versions



Type codes