

**TRZ 24VDC ACT****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image**

Similar to illustration

- 1 NO contact
- Contact material: AgNi
- Wiring optimized 24 V DC actuator version: Bridgeable, potential-free connection in the output (CC)

**General ordering data**

|            |                                                                                                                                                                                            |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version    | TERMSERIES, Relay module, Number of contacts: 1, NO contact AgNi, Rated control voltage: 24 V DC $\pm 20\%$ , Continuous current: 6 A, Tension-clamp connection, Test button available: No |
| Order No.  | <a href="#">1391670000</a>                                                                                                                                                                 |
| Type       | TRZ 24VDC ACT                                                                                                                                                                              |
| GTIN (EAN) | 4050118192049                                                                                                                                                                              |
| Qty.       | 10 pc(s).                                                                                                                                                                                  |

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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 | 30 g    |                 |            |

## Temperatures

|                     |                                                                      |                       |                |
|---------------------|----------------------------------------------------------------------|-----------------------|----------------|
| Storage temperature | -40 °C...85 °C                                                       | Operating temperature | -40 °C...60 °C |
| Humidity            | 5-95% relative humidity, T <sub>u</sub> = 40°C, without condensation |                       |                |

## 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 |
| AWG 14                                        |                                    |                                                   |
| Pollution severity level                      | 2                                  |                                                   |

## Control side

|                                       |                                                  |                                                                                |           |
|---------------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------|-----------|
| Rated control voltage                 | 24 V DC $\pm$ 20 %                               | Rated current DC                                                               | 11.5 mA   |
| Power rating                          | 280 mW                                           | Status indicator                                                               | Green LED |
| Protective circuit                    | Free-wheeling 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                 | 250 V AC                                | Continuous current                      | 6 A                                  |
| Max. switching frequency at rated load  | 0.1 Hz                                  | Max. switching voltage, AC              | 250 V                                |
| Max. switching voltage, DC              | 250 V                                   | Inrush current                          | 20 A / 20 ms                         |
| AC switching capacity (resistive), max. | 1500 VA                                 | DC switching capacity (resistive), max. | 144 W @ 24 V                         |
| Switch-on delay                         | $\leq$ 6 ms                             | Switch-off delay                        | $\leq$ 16 ms                         |
| Contact type                            | 1 NO contact (AgNi)                     | Mechanical service life                 | 5 x 10 <sup>6</sup> switching cycles |
| Min. switching power                    | 1 mA @ 24 V, 10 mA @ 12 V, 100 mA @ 5 V |                                         |                                      |

## General data

|                                      |                                |                |  |
|--------------------------------------|--------------------------------|----------------|--|
| Operating altitude                   | $\leq$ 2000 m, above sea level |                |  |
| Version                              | Actuator version               |                |  |
| Rail                                 | TS 35                          |                |  |
| Test button available                | No                             |                |  |
| Mechanical switch position indicator | 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 | ≥ 6 mm                       |
| Dielectric strength for control side - load side | 4 kV <sub>eff</sub> / 1 Min. | Type of isolation at input and output                         | reinforced insulation        |
| Dielectric strength of open contact              | 1 kV <sub>eff</sub> / 1 min  | 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                                                                  | 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>      | Blade size                                                                              | 0.6 x 3.5 mm         |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC001437    | ETIM 7.0    | EC001437    |
| ETIM 8.0    | EC001437    | ETIM 9.0    | EC001437    |
| ETIM 10.0   | EC001437    | ECLASS 9.0  | 27-37-16-01 |
| ECLASS 9.1  | 27-37-16-01 | ECLASS 10.0 | 27-37-16-01 |
| ECLASS 11.0 | 27-37-16-01 | ECLASS 12.0 | 27-37-16-01 |
| ECLASS 13.0 | 27-37-16-01 | ECLASS 14.0 | 27-37-16-01 |
| ECLASS 15.0 | 27-37-16-01 |             |             |

## 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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## 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_319253/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319253/-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 Confirmation of Standards EN 45545-2</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                                   |                                                                                                              |

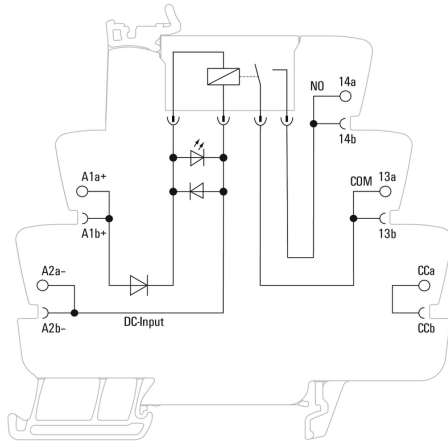
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## Drawings

## Wiring diagram

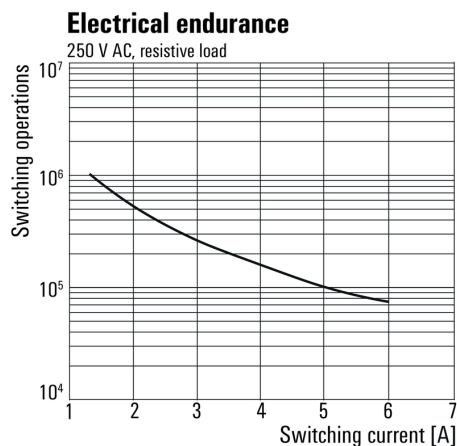


## Graph



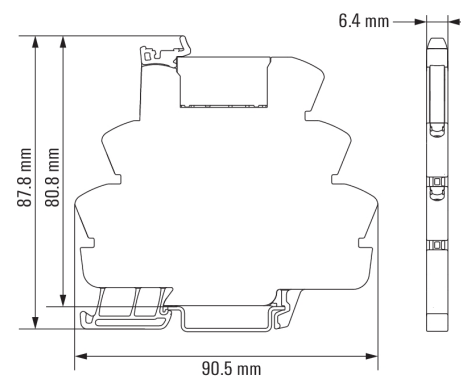
DC load limit curve

## Graph



Electrical service life 230 V AC resistive load  
 230 V AC resistive load

## Dimensional drawing

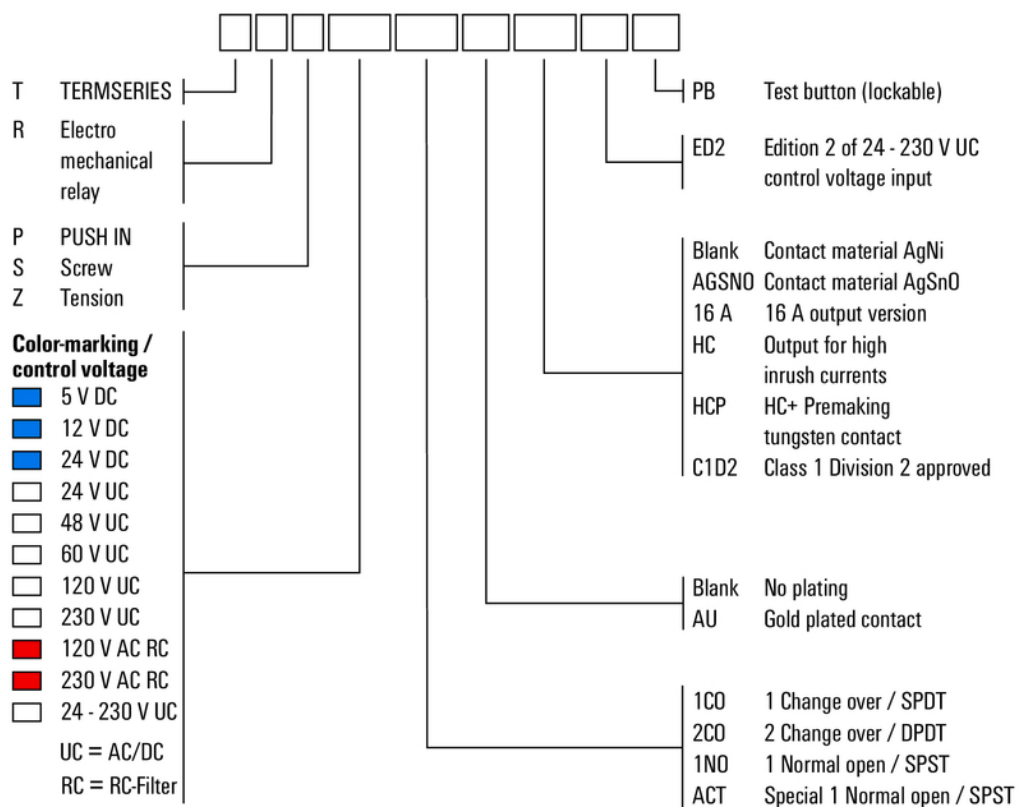


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**Drawings**
**Miscellaneous**
**Type code TERMSERIES electromechanical relay versions**


Type codes

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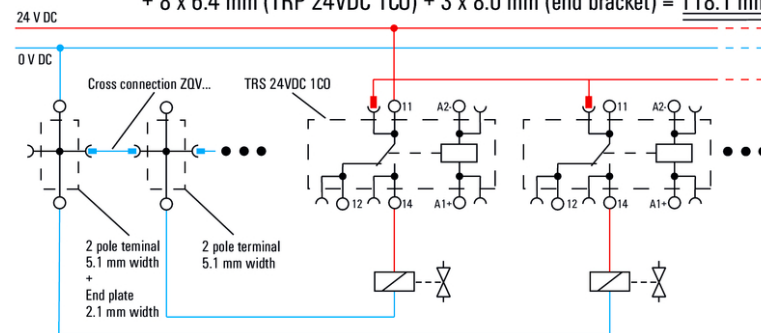
## Drawings

## Space requirement for an 8-channel system

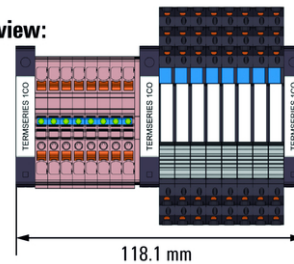
## with a standard TERMSERIES 1CO relay

Example of output wiring to show the difference in 8 loads to be wired:

Result width = 8 x 5.1 mm (2-pole terminal block) + 1 x 2.1 mm (end plate)

+ 8 x 6.4 mm (TRP 24VDC 1CO) + 3 x 8.0 mm (end bracket) = 118.1 mm

## Space requirement top view:

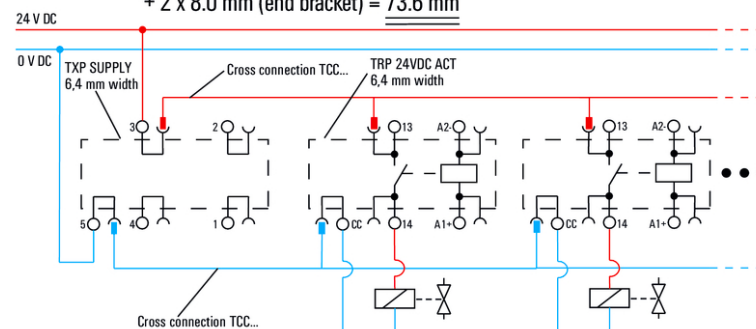


## Space requirement for an 8-channel system

## with TERMSERIES ACT version relays and supply terminals

Example of output wiring to show the difference in 8 loads to be wired:

Result width = 1 x 6.4 mm (TRP SUPPLY) + 8 x 6.4 mm (TRP 24VDC ACT)

+ 2 x 8.0 mm (end bracket) = 73.6 mm

## Space requirement top view:

