

**TRS T 24VDC 1CO M3**
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**


Timing relay for control signal adaptation with additional functions

Timing relays are used to coordinate fast switching processes in control systems, among other things. TERMSERIES TIMER timing relays have a on-delay, which allows for the delayed switch-on of machines, the cascaded start-up of system components or the delayed activation of consumers such as pumps or valves. They also have the One Shot and blinker functions. TERMSERIES TIMER timing relays in compact 6.4 mm terminal block format are available with either a screw connection or a PUSH IN wire connection. The timing functions and time ranges can be conveniently adjusted via the DIP switches on the side. The power supply and the respective switching status can be checked at a glance by means of the clearly visible duo LED on the ejection lever. International approvals in accordance with EN 61812 mean that they can be used anywhere in the world. TERMSERIES TIMER is compatible with the wide range of TERMSERIES accessories, thereby ensuring high levels of flexibility and simple integration into existing systems.

- Integration of additional timing functions in 6 mm TERMSERIES version
- Standard-compliant timing relays according to EN 61812
- Simple setting of timing functions and time ranges

- Integrated status LED (duo-LED in the ejection lever) for power supply and switching status

**General ordering data**

|            |                                                                                                                                                                         |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version    | TERMSERIES, Multifunction timing relay, Number of contacts: 1, CO contact, AgSnO, Rated control voltage: 24 V DC $\pm 20\%$ , Continuous current: 6 A, Screw connection |
| Order No.  | <a href="#">2639560000</a>                                                                                                                                              |
| Type       | TRS T 24VDC 1CO M3                                                                                                                                                      |
| GTIN (EAN) | 4050118715569                                                                                                                                                           |
| Qty.       | 10 pc(s).                                                                                                                                                               |

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## Technical data

## Dimensions and weights

|            |        |                 |            |
|------------|--------|-----------------|------------|
| Depth      | 88 mm  | Depth (inches)  | 3.465 inch |
| Height     | 90 mm  | Height (inches) | 3.543 inch |
| Width      | 6.4 mm | Width (inches)  | 0.252 inch |
| Net weight | 33.7 g |                 |            |

## Temperatures

|                     |                                                                            |                       |                |
|---------------------|----------------------------------------------------------------------------|-----------------------|----------------|
| Storage temperature | -40 °C...85 °C                                                             | Operating temperature | -20 °C...60 °C |
| Humidity            | 5-95% relative humidity,<br>T <sub>u</sub> = 40°C, without<br>condensation |                       |                |

## Environmental Product Compliance

|            |                |      |                                      |
|------------|----------------|------|--------------------------------------|
| REACH SVHC | Lead 7439-92-1 | SCIP | 9e2cbc49-76d9-4611-b8ec-5b4f549a0aa9 |
|------------|----------------|------|--------------------------------------|

## Rated data UL

|                                               |        |                                    |                                                      |
|-----------------------------------------------|--------|------------------------------------|------------------------------------------------------|
| Ambient temperature (operational), max. 60 °C |        | Connection cross-section AWG, min. | AWG 26                                               |
| Connection cross-section AWG, max.            | AWG 14 | Type of conductor                  | rigid copper conductor,<br>flexible copper conductor |
| Tightening torque, max.                       | 0.4 Nm | Pollution severity level           | 2                                                    |

## Control side

|                                       |                                |                                                                                   |                                                                                                                                                    |
|---------------------------------------|--------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated control voltage                 | 24 V DC $\pm$ 20 %             | Rated current DC                                                                  | 11.5 mA                                                                                                                                            |
| Power rating                          |                                | Status indicator                                                                  | Duo-LED orange: relay<br>output on, Green duo-<br>LED lit: supply voltage on,<br>Green duo-LED flashes:<br>incorrect configuration, no<br>function |
|                                       | 280 mW                         |                                                                                   |                                                                                                                                                    |
| Protective circuit                    | Free-wheeling diode            | Coil voltage of the replacement relay<br>deviating from the rated control voltage | No                                                                                                                                                 |
| Coil voltage of the replacement relay | 24 V DC                        | Time ranges                                                                       | 0.01 s - 0.1 s, 0.1 s - 1 s, 1<br>s - 10 s, 10 s - 100 s                                                                                           |
| Setting tolerance                     | 5 %                            | Max. reset time after voltage interruption                                        | 50 ms                                                                                                                                              |
| Basic accuracy                        | $\leq$ 5% (of scale-end value) | Min. pulse duration                                                               | 50 ms                                                                                                                                              |
| Repeat accuracy                       | $\pm$ 1 %                      |                                                                                   |                                                                                                                                                    |

## 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                         |
| Contact type                            | 1 CO contact (AgSnO)                       | Mechanical service life                 | 5 x 10 <sup>6</sup> switching cycles |
| Min. switching power                    | 1 mA @ 24 V, 10 mA @ 12<br>V, 100 mA @ 5 V |                                         |                                      |

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### General data

|                                      |                           |                             |       |
|--------------------------------------|---------------------------|-----------------------------|-------|
| Operating altitude                   | ≤ 2000 m, above sea level | Suitable for front mounting | No    |
| Rail                                 | TS 35                     | Test button available       | No    |
| Mechanical switch position indicator | No                        | Colour                      | black |
| UL 94 flammability rating            | V-0                       |                             |       |

### Insulation coordination

|                                                  |                              |                                                               |                             |
|--------------------------------------------------|------------------------------|---------------------------------------------------------------|-----------------------------|
| Rated voltage                                    | 250 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. | 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

|                         |                             |                         |            |
|-------------------------|-----------------------------|-------------------------|------------|
| Standards               | EN 61812-1:2011, UL 61010-1 | 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 <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.                              | 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>   |
| Twin wire-end ferrules, min.                                                            | 0.5 mm <sup>2</sup>  | Twin wire-end ferrules, max.                                                            | 1 mm <sup>2</sup>   |
| Blade size                                                                              | size PH0             | Gauge to IEC 60947-1                                                                    | A1, B1              |

### Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC001439    | ETIM 7.0    | EC001439    |
| ETIM 8.0    | EC001439    | ECLASS 9.0  | 27-37-16-05 |
| ECLASS 9.1  | 27-37-16-05 | ECLASS 10.0 | 27-37-16-05 |
| ECLASS 11.0 | 27-37-16-05 | ECLASS 12.0 | 27-37-16-05 |

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

Approvals



|                         |            |
|-------------------------|------------|
| 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>                                                                                                                                                         |
| Engineering Data                            | <a href="#">EPLAN</a>                                                                                                                                                                   |
| User Documentation                          | <a href="#">Beschreibung der Zeitfunktionen - Deutsch</a><br><a href="#">Declaration of timing functions - English</a><br><a href="#">Beipackzettel / Package Insert – multilingual</a> |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                                                                                                                                |

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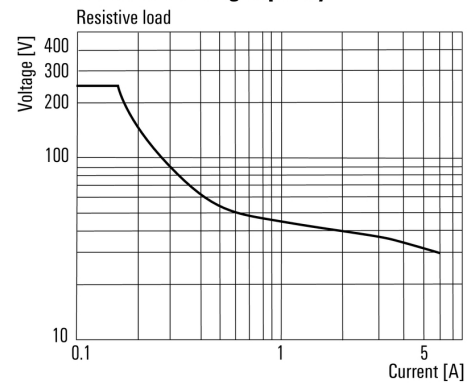
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## Drawings

### Graph

#### DC load breaking capacity

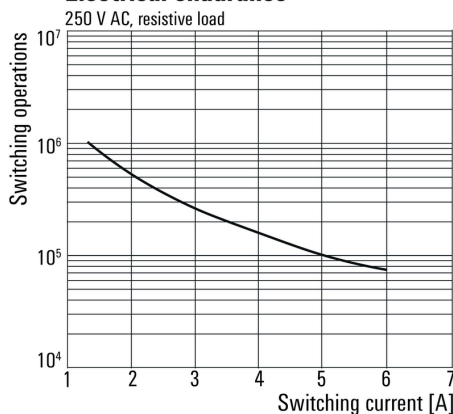


DC load limit curve

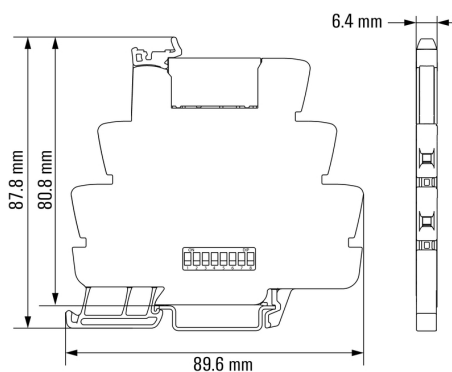
Resistive load

### Graph

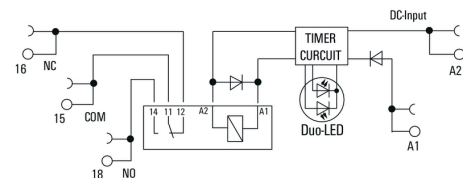
#### Electrical endurance


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

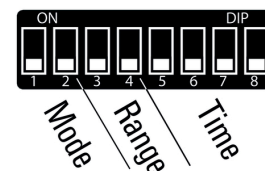
### Dimensional drawing



### Wiring diagram



### Graph



■ = On (DIP-switch turned to ON-position)

| Mode     | 1 | 2 |
|----------|---|---|
| On Delay | ■ | ■ |
| One Shot | ■ |   |
| Blinker  |   | ■ |
| Range    | 3 | 4 |
| 10-100s  | ■ | ■ |
| 1-10s    | ■ |   |
| 0.1-1s   |   | ■ |
| 10-100ms |   |   |

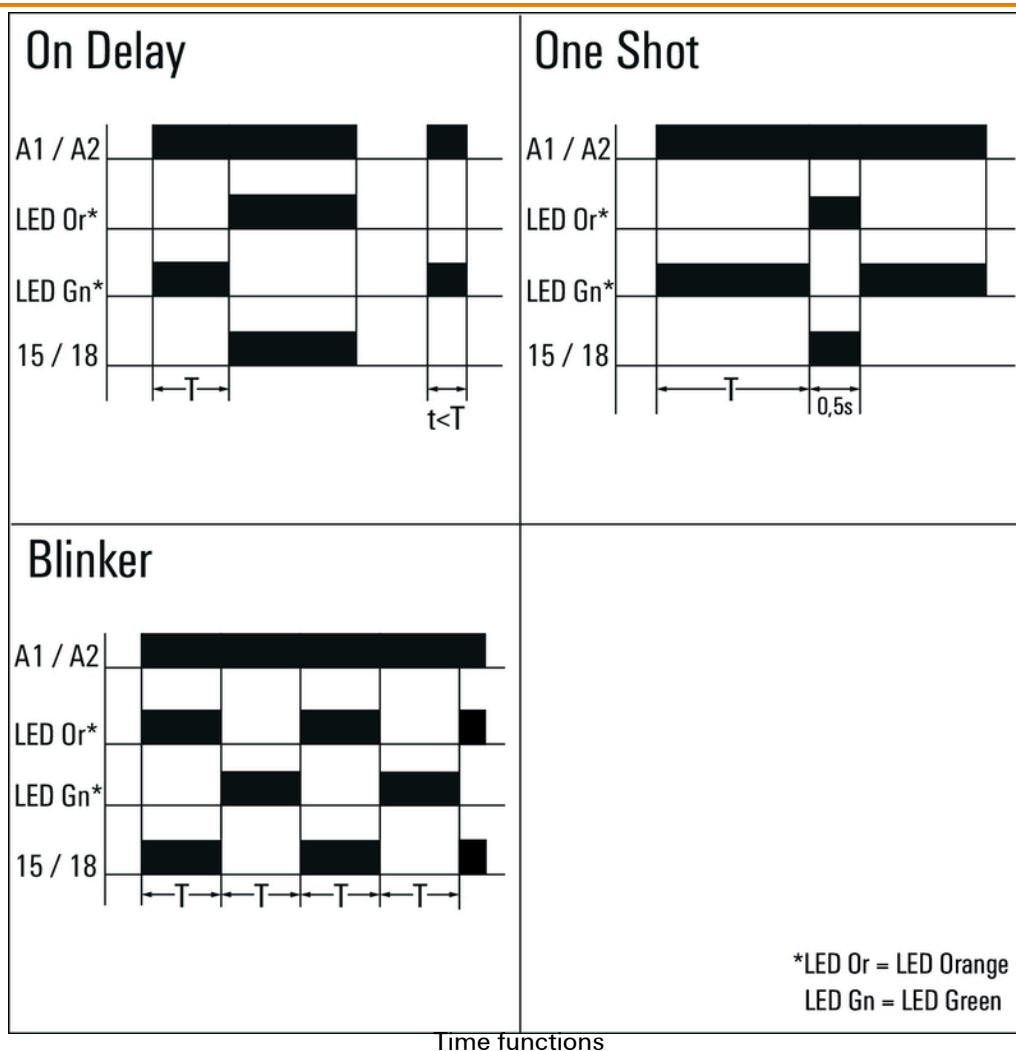
| Time | 5 | 6 | 7 | 8 |
|------|---|---|---|---|
| 0.1  |   |   |   | ■ |
| 0.2  |   |   |   |   |
| 0.3  |   |   | ■ |   |
| 0.4  |   |   | ■ | ■ |
| 0.5  |   | ■ |   |   |
| 0.6  |   | ■ | ■ | ■ |
| 0.7  |   |   | ■ |   |
| 0.8  |   |   | ■ | ■ |
| 0.9  | ■ |   |   |   |
| 1.0  | ■ |   |   | ■ |

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**Drawings**
**Graph**
**Graph**


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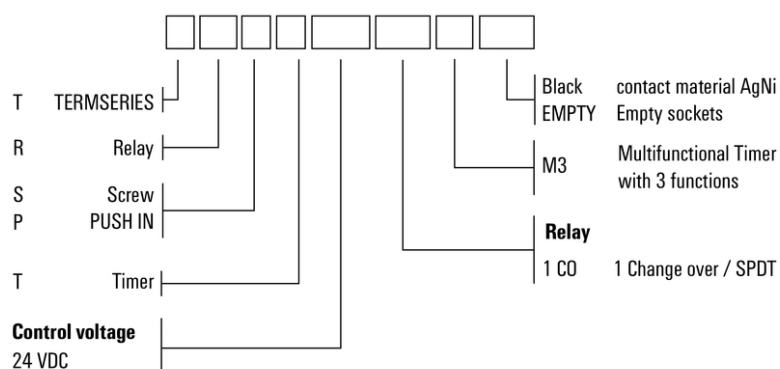
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## Drawings

## Type codes



## Miscellaneous

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