

**TOS 120VAC/48VDC 0.5A RC**

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

www.weidmueller.com



Similar to illustration

- 1 NO contact (Transistor)
- Ensures wear- and maintenance-free potential separation in compact terminal block format
- Suitable accessories from the cross-connection to the marker
- Integrated protective circuit for inputs and outputs

**General ordering data**

|                     |   |
|---------------------|---|
| Version             | TERMOPTO, Solid-state relay, Rated control voltage: 120 V AC $\pm 20\%$ , Rated switching voltage: 5...48 V DC, Continuous current: 0.5 A, Screw connection |
| Order No.           | <a href="#">1180290000</a>  |
| Type                | TOS 120VAC/48VDC 0.5A RC  |
| GTIN (EAN)          | 4032248100057   |
| Qty.                | 10 items  |
| Delivery status     | This article will no longer be available in the future.   |
| Last order date     | 2026-10-31T00:00:00+01:00   |
| Alternative product |   |

Creation date 30.04.2026 07:01:20 MEZ

Catalogue status / Drawings

## TOS 120VAC/48VDC 0.5A RC

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Technical data

## Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate no. (cULus) E223474

## Dimensions and weights

|            |         |                 |             |
|------------|---------|-----------------|-------------|
| Depth      | 55 mm   | Depth (inches)  | 2.1654 inch |
| Height     | 74.4 mm | Height (inches) | 2.9291 inch |
| Width      | 6.1 mm  | Width (inches)  | 0.2402 inch |
| Net weight | 20.4 g  |                 |             |

## Temperatures

|                       |                |                     |  |
|-----------------------|----------------|---------------------|--|
| Storage temperature   | -40 °C...80 °C | Ambient temperature | -20 °C...60 °C   |
| Operating temperature |                | Humidity            | 5-95% relative humidity,<br>Tu = 40°C, without<br>condensation |

## Probability of failure

MTTF 2500 a

## 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 |

## Control side

|                       |                       |                         |           |
|-----------------------|-----------------------|-------------------------|-----------|
| Rated control voltage | 120 V AC $\pm$ 20 %   | Nominal control current | 6.4 mA AC |
| Power rating          | $\leq$ 0.61 VA        | Status indicator        | Green LED |
| Protective circuit    | RC element, Rectifier | Input frequency         | 10 Hz     |

## Load side

|   |               |                           |                           |
|---|---------------|---------------------------|---------------------------|
| Rated switching voltage                       | 5...48 V DC   | Continuous current        | 0.5 A (DC1)               |
| Rated switching current                       | 500 mA        | Load category             | DC1                       |
| Max. switching voltage, DC                    | 48 V          | Switch-on delay           | <12.6 ms                  |
| Switch-off delay                              | <20.8 ms      | Voltage drop at max. load | <1 V                      |
| Leakage current                               | <10 $\mu$ A   | Short-circuit-proof       | No                        |
| Protective circuit, load side                 | Diode circuit | Contact type              | 1 NO contact (Transistor) |
| max. switching frequency (AC control voltage) | 10 Hz         |                           |                           |

## General data

|                                    |                   |
|------------------------------------|-------------------|
| Mounting rail                      | TS 35             |
| Colour                             | black             |
| UL94 flammability rating component | Component Housing |

## TOS 120VAC/48VDC 0.5A RC

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26  
D-32758 Detmold  
Germany

www.weidmueller.com

## Technical data

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 | > 3 mm           |
| Dielectric strength for control side - load side | 1.2 kVeff / 1 min. | Impulse withstand voltage                                     | 4 kV (1.2/50 µs) |
| Protection degree                                | IP20               |   |                  |

### Further details of approvals / standards

|                         |         |
|-------------------------|---------|
| Certificate no. (cULus) | E223474 |
|-------------------------|---------|

### Connection data

|   |                     |   |                     |
|---|---------------------|---|---------------------|
| Wire connection method  | Screw connection    | Stripping length, rated connection  | 9 mm                |
| Tightening torque, min.   | 0.4 Nm              | Tightening torque, max.   | 0.6 Nm              |
| Clamping range, rated connection  | 2.5 mm <sup>2</sup> | Clamping range, min.  | 0.5 mm <sup>2</sup> |
| Clamping range, max.  | 4 mm <sup>2</sup>   | Wire connection cross section AWG, min.   | AWG 20              |
| Wire connection cross section AWG, max.   | AWG 12              | Wire cross-section, solid, min.   | 0.5 mm <sup>2</sup> |
| Wire cross-section, solid, max.   | 4 mm <sup>2</sup>   | Wire connection cross section, finely stranded, min.                                    | 0.5 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 20              |
| Wire cross-section, finely stranded, max. (AWG)   | AWG 12              | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 0.5 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.                              | 0.5 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 8.0    | EC001504    | ETIM 9.0    | EC001504    |
| ETIM 10.0   | EC001504    | ECLASS 14.0 | 27-37-16-04 |
| ECLASS 15.0 | 27-37-16-04 |             |             |

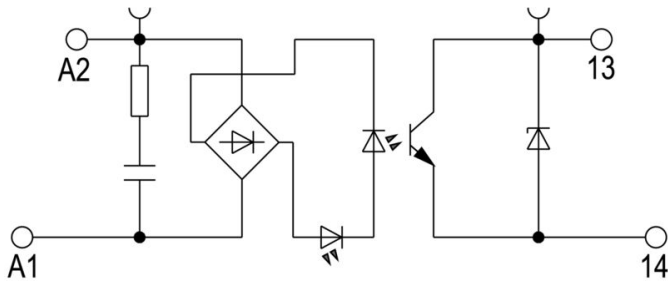
**TOS 120VAC/48VDC 0.5A RC**

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

[www.weidmueller.com](http://www.weidmueller.com)

**Drawings**

**Wiring diagram**



Schaltsymbol

**Dimensional drawing**



**TOS 120VAC/48VDC 0.5A RC**

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

**Drawings**

www.weidmueller.com

**Miscellaneous**



Type codes

## TOS 120VAC/48VDC 0.5A RC

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

## Accessories

www.weidmueller.com

## Cross-connections



The distribution or multiplication of a potential to adjoining terminal blocks is realized via a cross-connection. Additional wiring effort can be easily avoided. Even if the poles are broken out, contact reliability in the terminal blocks is still ensured. Our portfolio offers pluggable and screwable cross-connection systems for modular terminal blocks.

## General ordering data

|            |                            |                                 |
|------------|----------------------------|---------------------------------|
| Type       | ZQV 4N/20 GE               | Version                         |
| Order No.  | <a href="#">1909020000</a> | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248535644              |                                 |
| Qty.       | 20 ST                      |                                 |
| Type       | ZQV 4N/20 RT               | Version                         |
| Order No.  | <a href="#">1909150000</a> | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248535934              |                                 |
| Qty.       | 20 ST                      |                                 |
| Type       | ZQV 4N/20 BL               | Version                         |
| Order No.  | <a href="#">1909100000</a> | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248535774              |                                 |
| Qty.       | 20 ST                      |                                 |
| Type       | ZQV 4N/2 SW                | Version                         |
| Order No.  | <a href="#">1793970000</a> | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248233762              |                                 |
| Qty.       | 60 ST                      |                                 |
| Type       | ZQV 4N/3 SW                | Version                         |
| Order No.  | <a href="#">1794000000</a> | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248233793              |                                 |
| Qty.       | 60 ST                      |                                 |
| Type       | ZQV 4N/4 SW                | Version                         |
| Order No.  | <a href="#">1794030000</a> | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248233915              |                                 |
| Qty.       | 60 ST                      |                                 |
| Type       | ZQV 4N/10 SW               | Version                         |
| Order No.  | <a href="#">1794060000</a> | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248234059              |                                 |
| Qty.       | 20 ST                      |                                 |
| Type       | ZQV 4N/20 SW               | Version                         |
| Order No.  | <a href="#">1909120000</a> | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248535804              |                                 |
| Qty.       | 20 ST                      |                                 |

## TOS 120VAC/48VDC 0.5A RC

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Accessories

## Slotted screwdriver



Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

## General ordering data

|            |                            |   |  |
|------------|----------------------------|---|--|
| Type       | SDS 0.6X3.5X100            | Version   |  |
| Order No.  | <a href="#">2749340000</a> | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm   |  |
| GTIN (EAN) | 4050118895568              |   |  |
| Qty.       | 1 ST                       |   |  |
| Type       | SDIS SLIM 0.6X3.5X100      | Version   |  |
| Order No.  | <a href="#">2749610000</a> | Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm |  |
| GTIN (EAN) | 4050118896350              |   |  |
| Qty.       | 1 ST                       |   |  |
| Type       | SDIS 0.6X3.5X100           | Version   |  |
| Order No.  | <a href="#">2749810000</a> | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm   |  |
| GTIN (EAN) | 4050118897012              |   |  |
| Qty.       | 1 ST                       |   |  |

## Blank



WS markers are the perfect match for the W-series connectors. Thanks to their system compatibility, the WS tags can also be used with the I-series and the Z-series. The large marking surfaces do not only permit long character strings but also multi-line text. WS markers are ideal for labels with long, customised character strings. Thanks to the proven MultiCard format, printing with PrintJet CONNECT oder/or Plotter is possible.

- Can be fitted in strips or individually
- Markers in proven MultiCard format

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

## General ordering data

|            |                            |   |  |
|------------|----------------------------|---|--|
| Type       | WS 12/6 MC NE WS           | Version   |  |
| Order No.  | <a href="#">1609900000</a> | WS, Terminal marker, 12 x 6 mm, Pitch in mm (P): 6.00 Weidmueller, Allen-Bradley, white |  |
| GTIN (EAN) | 4008190203467              |   |  |
| Qty.       | 600 ST                     |   |  |

## TOS 120VAC/48VDC 0.5A RC

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

www.weidmueller.com

## Accessories

## Cross-connections



The distribution or multiplication of a potential to adjoining terminal blocks is realized via a cross-connection. Additional wiring effort can be easily avoided. Even if the poles are broken out, contact reliability in the terminal blocks is still ensured. Our portfolio offers pluggable and screwable cross-connection systems for modular terminal blocks.

## General ordering data

|            |                            |  |
|------------|----------------------------|--|
| Type       | ZQV 4N/2                   | Version  |
| Order No.  | <a href="#">1527930000</a> | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles:  |
| GTIN (EAN) | 4050118332766              | 2, Pitch in mm (P): 6.10, Insulated: Yes, Width: 9.9 mm              |
| Qty.       | 60 ST                      |  |
| Type       | ZQV 4N/3                   | Version  |
| Order No.  | <a href="#">1527940000</a> | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles:  |
| GTIN (EAN) | 4050118332865              | 3, Pitch in mm (P): 6.10, Insulated: Yes, Width: 16 mm               |
| Qty.       | 60 ST                      |  |
| Type       | ZQV 4N/4                   | Version  |
| Order No.  | <a href="#">1527970000</a> | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles:  |
| GTIN (EAN) | 4050118332889              | 4, Pitch in mm (P): 6.10, Insulated: Yes, Width: 22.1 mm             |
| Qty.       | 60 ST                      |  |
| Type       | ZQV 4N/10                  | Version  |
| Order No.  | <a href="#">1528090000</a> | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles:  |
| GTIN (EAN) | 4050118332896              | 10, Pitch in mm (P): 6.10, Insulated: Yes, Width: 58.7 mm            |
| Qty.       | 20 ST                      |  |
| Type       | ZQV 4N/2 RD                | Version  |
| Order No.  | <a href="#">2460450000</a> | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 2,  |
| GTIN (EAN) | 4050118476149              | Pitch in mm (P): 6.10, Insulated: Yes, Width: 9.9 mm                 |
| Qty.       | 60 ST                      |  |
| Type       | ZQV 4N/3 RD                | Version  |
| Order No.  | <a href="#">2460810000</a> | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 3,  |
| GTIN (EAN) | 4050118476231              | Pitch in mm (P): 6.10, Insulated: Yes, Width: 16 mm                  |
| Qty.       | 60 ST                      |  |
| Type       | ZQV 4N/4 RD                | Version  |
| Order No.  | <a href="#">2460800000</a> | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 4,  |
| GTIN (EAN) | 4050118476224              | Pitch in mm (P): 6.10, Insulated: Yes, Width: 22.1 mm                |
| Qty.       | 60 ST                      |  |
| Type       | ZQV 4N/10 RD               | Version  |
| Order No.  | <a href="#">2460740000</a> | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 10, |
| GTIN (EAN) | 4050118476163              | Pitch in mm (P): 6.10, Insulated: Yes, Width: 58.7 mm                |
| Qty.       | 20 ST                      |  |
| Type       | ZQV 4N/2 BL                | Version  |
| Order No.  | <a href="#">1528040000</a> | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 2, |
| GTIN (EAN) | 4050118332773              | Pitch in mm (P): 6.10, Insulated: Yes, Width: 9.9 mm                 |
| Qty.       | 60 ST                      |  |
| Type       | ZQV 4N/3 BL                | Version  |
| Order No.  | <a href="#">1528080000</a> | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 3, |
| GTIN (EAN) | 4050118333008              | Pitch in mm (P): 6.10, Insulated: Yes, Width: 16 mm                  |
| Qty.       | 60 ST                      |  |

## TOS 120VAC/48VDC 0.5A RC

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

[www.weidmueller.com](http://www.weidmueller.com)

## Accessories

|            |                            |   |
|------------|----------------------------|---|
| Type       | ZQV 4N/4 BL                | Version   |
| Order No.  | <a href="#">1528120000</a> | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 4,  |
| GTIN (EAN) | 4050118332872              | Pitch in mm (P): 6.10, Insulated: Yes, Width: 22.1 mm                 |
| Qty.       | 60 ST                      |   |
| Type       | ZQV 4N/10 BL               | Version   |
| Order No.  | <a href="#">1528230000</a> | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 10, |
| GTIN (EAN) | 4050118333138              | Pitch in mm (P): 6.10, Insulated: Yes, Width: 58.7 mm                 |
| Qty.       | 20 ST                      |   |