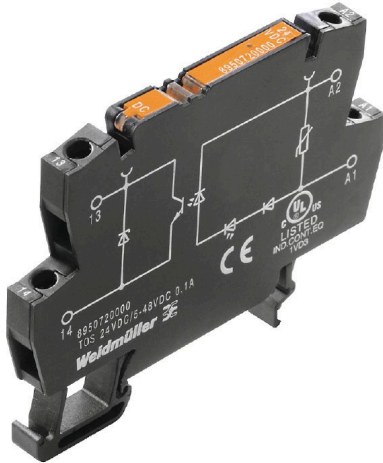


**TOS 24VDC/24VDC 4A****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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

Similar to illustration

- 1 NO contact (MOS-FET)
- 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: 24 V DC $\pm 20\%$ , Rated switching voltage: 3...33 V DC, Continuous current: 4 A, Screw connection |
| Order No.  | <a href="#">1275100000</a>                                                                                                                               |
| Type       | TOS 24VDC/24VDC 4A                                                                                                                                       |
| GTIN (EAN) | 4050118065053                                                                                                                                            |
| Qty.       | 10 items                                                                                                                                                 |

## TOS 24VDC/24VDC 4A

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 | 20.8 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 1188 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 | 24 V DC $\pm$ 20 %                       | Nominal control current | 7 mA DC   |
| Power rating          | $\leq$ 170 mW                            | Status indicator        | Green LED |
| Protective circuit    | Varistor, Reverse polarity<br>protection | Input frequency         | 10 Hz     |

## Load side

|                                                  |             |                           |                        |
|--------------------------------------------------|-------------|---------------------------|------------------------|
| Rated switching voltage                          | 3...33 V DC | Continuous current        | 4 A (DC1)              |
| Rated switching current                          | 4 A         | Load category             | DC1                    |
| Max. switching voltage, DC                       | 24 V        | Switch-on delay           | <12 ms                 |
| Switch-off delay                                 | <14 ms      | Voltage drop at max. load | 90 mV                  |
| Leakage current                                  | <10 $\mu$ A | Short-circuit-proof       | No                     |
| Protective circuit, load side                    | Varistor    | Contact type              | 1 NO contact (MOS-FET) |
| max. switching frequency (DC control<br>voltage) | 10 Hz       |                           |                        |

## General data

|                       |       |
|-----------------------|-------|
| Mounting rail         | TS 35 |
| Test button available | No    |

## TOS 24VDC/24VDC 4A

Weidmüller Interface GmbH &amp; 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     |

## 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                |
| 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 |             |             |

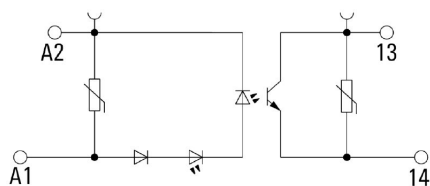
## TOS 24VDC/24VDC 4A

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

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

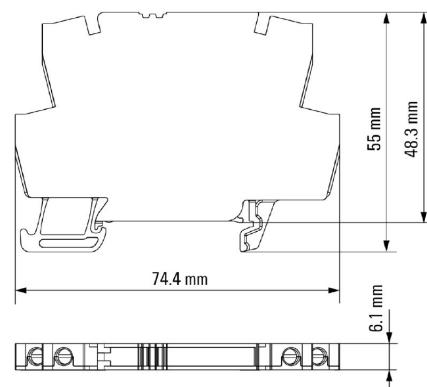
## Drawings

### Wiring diagram



Schaltsymbol

### Dimensional drawing



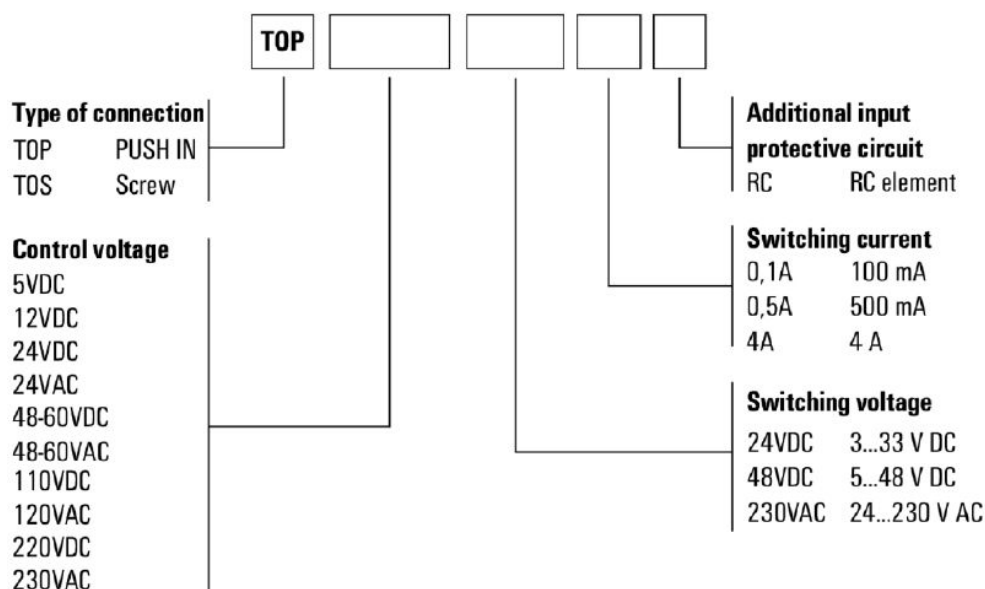
## TOS 24VDC/24VDC 4A

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

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

# Drawings

## Miscellaneous



Type codes

## TOS 24VDC/24VDC 4A

Weidmüller Interface GmbH &amp; 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/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 24VDC/24VDC 4A

**Weidmüller Interface GmbH & 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 24VDC/24VDC 4A

**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 24VDC/24VDC 4A**

**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                      |                                                                       |