

TOS 5VDC/48VDC 0,5A**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: 5 V DC $\pm 20\%$, Rated switching voltage: 5...48 V DC, Continuous current: 500 mA, Screw connection |
| Order No. | 8950900000 |
| Type | TOS 5VDC/48VDC 0,5A |
| GTIN (EAN) | 4032248742271 |
| Qty. | 10 pc(s). |

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Technical data

Dimensions and weights

| | | | |
|------------|---------|-----------------|------------|
| Depth | 55 mm | Depth (inches) | 2.165 inch |
| Height | 74.4 mm | Height (inches) | 2.929 inch |
| Width | 6.1 mm | Width (inches) | 0.24 inch |
| Net weight | 20.1 g | | |

Temperatures

| | | | |
|---------------------|---|-----------------------|----------------|
| Storage temperature | -40 °C...80 °C | Operating temperature | -20 °C...60 °C |
| Humidity | 5-95% relative humidity, T _u = 40°C, without condensation | | |

Probability of failure

| | |
|------|---------|
| MTTF | 2,500 a |
|------|---------|

Control side

| | | | |
|-----------------------|---------------------------------------|-------------------------|-----------|
| Rated control voltage | 5 V DC \pm 20 % | Nominal control current | 7.7 mA DC |
| Power rating | <40 mW | Status indicator | Green LED |
| Protective circuit | Varistor, Reverse polarity protection | Input frequency | 200 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 | <20 μ s |
| Switch-off delay | <200 μ s | Voltage drop at max. load | <1 V |
| Leakage current | <10 μ A | Short-circuit-proof | No |
| Protective circuit, load side | Free-wheeling diode | Contact type | 1 NO contact (Transistor) |
| max. switching frequency (DC control voltage) | 200 Hz | | |

General data

| | | |
|------------------------------------|--------------------------|---------|
| Rail | TS 35 | |
| Test button available | No | |
| 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 kV _{eff} / 1 min. | Impulse withstand voltage | 4 kV (1.2/50 μ s) |
| Protection degree | IP20 | | |

Further details of approvals / standards

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

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Technical data

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 ² | Clamping range, min. | 0.5 mm ² |
| Clamping range, max. | 4 mm ² | Wire connection cross section AWG, min. | AWG 20 |
| Wire connection cross section AWG, max. | AWG 12 | Wire cross-section, solid, min. | 0.5 mm ² |
| Wire cross-section, solid, max. | 4 mm ² | Wire connection cross section, finely stranded, min. | 0.5 mm ² |
| Wire connection cross section, finely stranded, max. | 2.5 mm ² | 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 ² |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 1.5 mm ² | Conductor cross-section, flexible, AEH (DIN 46228-1), min. | 0.5 mm ² |
| Conductor cross-section, flexible, AEH (DIN 46228-1), max. | 1.5 mm ² | Blade size | 0.6 x 3.5 mm |

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC001504 | ETIM 7.0 | EC001504 |
| ETIM 8.0 | EC001504 | ETIM 9.0 | 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 |

Environmental Product Compliance

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

Approvals

Approvals



| | |
|-------------------------|------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate no. (cULus) | E223474 |

Downloads

| | |
|---|---|
| Approval/Certificate/Document of Conformity | EU Konformitätserklärung / EU Declaration of Conformity |
| Engineering Data | CAD data – STEP |
| User Documentation | Beipackzettel / Package Insert – multilingual |
| Catalogues | Catalogues in PDF-format |
| Brochures | |

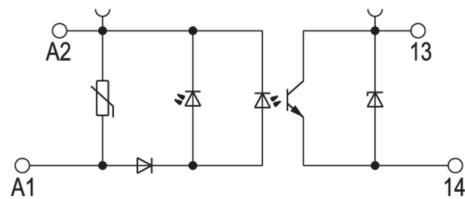
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Drawings

Wiring diagram



Schaltsymbol

Dimensional drawing



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Accessories

Slotted screwdriver



VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SDIS SLIM 0.6X3.5X100 | Version |
| Order No. | 2749610000 | Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade |
| GTIN (EAN) | 4050118896350 | thickness (A): 0.6 mm |
| Qty. | 1 pc(s). | |

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. | 1609900000 | WS, Terminal marker, 12 x 6 mm, Pitch in mm (P): 6.00 Weidmueller, |
| GTIN (EAN) | 4008190203467 | Allen-Bradley, white |
| Qty. | 600 pc(s). | |

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Accessories

4 mm²

The plug-in cross-connections feature easy handling and quick installation. This saves a great deal of time during installation in comparison with screwed solutions.

General ordering data

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

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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. | 2749340000 | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade |
| GTIN (EAN) | 4050118895568 | thickness (A): 0.6 mm |
| Qty. | 1 pc(s). | |

Slotted screwdriver

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SDIS 0.6X3.5X100 | Version |
| Order No. | 2749810000 | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade |
| GTIN (EAN) | 4050118897012 | thickness (A): 0.6 mm |
| Qty. | 1 pc(s). | |

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Accessories

4 mm²

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General ordering data

| | | |
|------------|----------------------------|---|
| Type | ZQV 4N/4 BL | Version |
| Order No. | 1528120000 | Cross-connector (terminal), Plugged, Number of poles: 4, Pitch in mm |
| GTIN (EAN) | 4050118332872 | (P): 6.10, Insulated: Yes, 32 A, blue |
| Qty. | 60 pc(s). | |
| Type | ZQV 4N/2 | Version |
| Order No. | 1527930000 | Cross-connector (terminal), Plugged, Number of poles: 2, Pitch in mm |
| GTIN (EAN) | 4050118332766 | (P): 6.10, Insulated: Yes, 32 A, orange |
| Qty. | 60 pc(s). | |
| Type | ZQV 4N/3 | Version |
| Order No. | 1527940000 | Cross-connector (terminal), Plugged, Number of poles: 3, Pitch in mm |
| GTIN (EAN) | 4050118332865 | (P): 6.10, Insulated: Yes, 32 A, orange |
| Qty. | 60 pc(s). | |
| Type | ZQV 4N/3 RD | Version |
| Order No. | 2460810000 | Cross-connector (terminal), Plugged, Number of poles: 3, Pitch in mm |
| GTIN (EAN) | 4050118476231 | (P): 6.10, 32 A, red |
| Qty. | 60 pc(s). | |
| Type | ZQV 4N/4 RD | Version |
| Order No. | 2460800000 | Cross-connector (terminal), Plugged, Number of poles: 4, Pitch in mm |
| GTIN (EAN) | 4050118476224 | (P): 6.10, Insulated: Yes, 32 A, red |
| Qty. | 60 pc(s). | |
| Type | ZQV 4N/2 BL | Version |
| Order No. | 1528040000 | Cross-connector (terminal), Plugged, Number of poles: 2, Pitch in mm |
| GTIN (EAN) | 4050118332773 | (P): 6.10, Insulated: Yes, 32 A, blue |
| Qty. | 60 pc(s). | |
| Type | ZQV 4N/4 | Version |
| Order No. | 1527970000 | Cross-connector (terminal), Plugged, Number of poles: 4, Pitch in mm |
| GTIN (EAN) | 4050118332889 | (P): 6.10, Insulated: Yes, 32 A, orange |
| Qty. | 60 pc(s). | |
| Type | ZQV 4N/10 RD | Version |
| Order No. | 2460740000 | Cross-connector (terminal), Plugged, Number of poles: 10, Pitch in mm |
| GTIN (EAN) | 4050118476163 | (P): 6.10, 32 A, red |
| Qty. | 20 pc(s). | |
| Type | ZQV 4N/10 | Version |
| Order No. | 1528090000 | Cross-connector (terminal), Plugged, Number of poles: 10, Pitch in mm |
| GTIN (EAN) | 4050118332896 | (P): 6.10, Insulated: Yes, 32 A, orange |
| Qty. | 20 pc(s). | |
| Type | ZQV 4N/2 RD | Version |
| Order No. | 2460450000 | Cross-connector (terminal), Plugged, Number of poles: 2, Pitch in mm |
| GTIN (EAN) | 4050118476149 | (P): 6.10, 32 A, red |
| Qty. | 60 pc(s). | |

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www.weidmueller.com**Accessories**

| | | |
|------------|----------------------------|--|
| Type | ZQV 4N/3 BL | Version |
| Order No. | 1528080000 | Cross-connector (terminal), Plugged, Number of poles: 3, Pitch in mm |
| GTIN (EAN) | 4050118333008 | (P): 6.10, Insulated: Yes, 32 A, blue |
| Qty. | 60 pc(s). | |

| | | |
|------------|----------------------------|---|
| Type | ZQV 4N/10 BL | Version |
| Order No. | 1528230000 | Cross-connector (terminal), Plugged, Number of poles: 10, Pitch in mm |
| GTIN (EAN) | 4050118333138 | (P): 6.10, Insulated: Yes, 32 A, blue |
| Qty. | 20 pc(s). | |

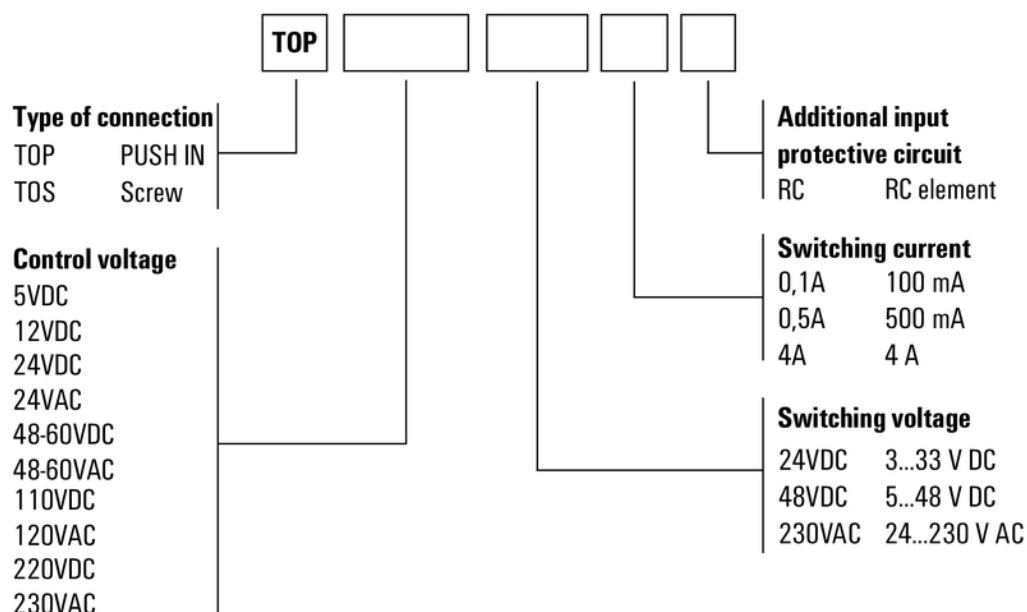
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Drawings

Miscellaneous



Type codes