

MOS 24VDC/12-300VDC 1A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Compact and powerful solid-state relays in terminal block format

Saving space in the panel is becoming more and more important, and requires increasingly compact components. With the compact and powerful MICROOPTO solid-state relays, you benefit from our decades of experience in manufacturing products in terminal block format. The MICROOPTO family comprises high-quality solid-state relays for application-specific problem solving and delivers high performance in a width of just 6.1 mm. The wide range of accessories from plug-in cross-connections to end-to-end marking solutions makes it particularly versatile. Thanks to international approvals, they can be used worldwide. Reliable function is ensured by the integrated protective suppressor circuit for inputs and outputs.

General ordering data

| | |
|---------------------|---|
| Version | MICROOPTO, Solid-state relay, Rated control voltage: 24 V DC $\pm 20\%$, Rated switching voltage: 12...300 V DC, Continuous current: 1 A, Screw connection |
| Order No. | 8937830000 |
| Type | MOS 24VDC/12-300VDC 1A |
| GTIN (EAN) | 4032248716050 |
| Qty. | 1 items |
| Delivery status | This article will no longer be available in the future. |
| Last order date | 2026-04-29T00:00:00+02:00 |
| Alternative product | TOPL 24VDC 300VDC 1A |

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Technical data

Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate no. (cULus) E141197

Dimensions and weights

| | | | |
|------------|---------|-----------------|-------------|
| Depth | 97.8 mm | Depth (inches) | 3.8504 inch |
| Height | 88.1 mm | Height (inches) | 3.4685 inch |
| Width | 6.1 mm | Width (inches) | 0.2402 inch |
| Net weight | 37 g | | |

Temperatures

| | | | |
|-----------------------|----------------|---------------------|---|
| Storage temperature | -40 °C...80 °C | Ambient temperature | -25 °C...60 °C |
| Operating temperature | | Humidity | 5-95% relative humidity, Tu = 55°C, without condensation |

Probability of failure

MTTF 467 a

Environmental Product Compliance

| | |
|--------------------------------------|--------------------------------------|
| RoHS Compliance Status | Compliant with exemption |
| RoHS Exemption (if applicable/known) | 7a, 7c1 |
| REACH SVHC | Lead 7439-92-1 |
| SCIP | d32f8e61-6733-45d6-9062-c95f9903aad6 |

Control side

| | | | |
|-----------------------|---------------------------------------|---------------------------------------|--------------------|
| Rated control voltage | 24 V DC \pm 20 % | Rated control voltage (control input) | 24 V DC \pm 20 % |
| Power rating | 0.36 W | Status indicator | Green LED |
| Protective circuit | Varistor, Reverse polarity protection | Input frequency | 50...60Hz |

Load side

| | | | |
|---|-------------------------------|---------------------------|------------------------------|
| Rated switching voltage | 12...300 V DC | Continuous current | 1 A |
| Max. switching current | 1,5 A | Load category | LC A |
| Pulse load, max. current | 27 A (10 ms) | Switch-on delay | <18 μ s |
| Switch-off delay | <1 ms | Voltage drop at max. load | \leq 0.4 V |
| Leakage current | <1 μ A | Short-circuit-proof | No |
| Protective circuit, load side | Varistor, Free-wheeling diode | Contact type | 1 NO contact (POWER MOS-FET) |
| max. switching frequency (DC control voltage) | 60 Hz | | |

General data

Mounting rail TS 35

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Technical data

| | | | |
|------------------------------------|--------------------------|---------|--|
| Colour | black | | |
| UL 94 flammability rating | V-0 | | |
| 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 | 3 KVe _{ff} / 1 Min. | Dielectric strength to mounting rail | 4 kVe _{ff} / 1 Min. |
| Impulse withstand voltage | 2.5 kV (1.2/50 µs) | Protection degree | IP20 |

Further details of approvals / standards

| | | | |
|-----------------------|------------|-------------------------|---------|
| Certificate No. (DNV) | TAE000033E | Certificate no. (cULus) | E141197 |
|-----------------------|------------|-------------------------|---------|

Connection data

| | | | |
|---|---------------------|---|---------------------|
| Wire connection method | Screw connection | Stripping length, rated connection | 7 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 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 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 |

Important note

| | |
|---------------------|---|
| Product information | The cable lengths must not exceed 30 m. |
|---------------------|---|

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 | | |

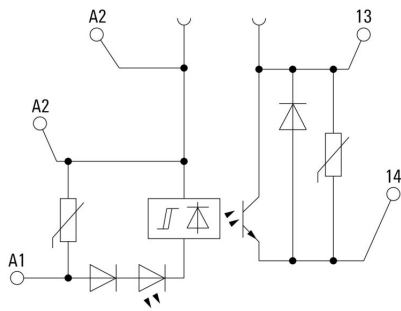
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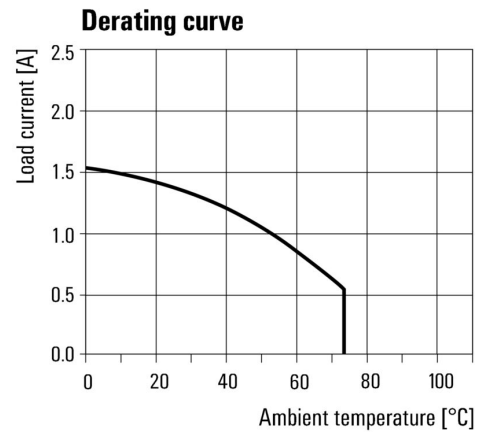
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Drawings

Wiring diagram

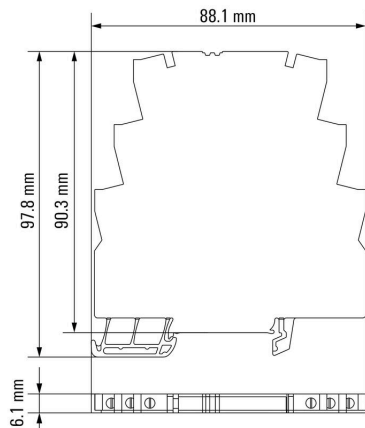


Graph



Deratingkurve

Dimensional drawing



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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 thickness (A): 0.6 mm | |
| GTIN (EAN) | 4050118895568 | | |
| Qty. | 1 ST | | |
| Type | SDIS 0.6X3.5X100 | Version | |
| Order No. | 2749810000 | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm | |
| GTIN (EAN) | 4050118897012 | | |
| Qty. | 1 ST | | |

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General ordering data

| | | | |
|------------|----------------------------|--|--|
| Type | MOS FEED THROUGH | Version | |
| Order No. | 8973450000 | MICROOPTO, Feed-through terminal, Screw connection | |
| GTIN (EAN) | 4032248799534 | | |
| Qty. | 1 ST | | |

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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 thickness (A): 0.6 mm | |
| GTIN (EAN) | 4050118896350 | | |
| Qty. | 1 ST | | |

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General ordering data

| | | | |
|------------|----------------------------|--|--|
| Type | MOS SUPPLY | Version | |
| Order No. | 8973460000 | MICROOPTO, Supply module, Screw connection | |
| GTIN (EAN) | 4032248799541 | | |
| Qty. | 1 ST | | |

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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. | 1527930000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: 2, Pitch in mm (P): 6.10, Insulated: Yes, Width: 9.9 mm |
| GTIN (EAN) | 4050118332766 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/2 RD | Version |
| Order No. | 2460450000 | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 2, Pitch in mm (P): 6.10, Insulated: Yes, Width: 9.9 mm |
| GTIN (EAN) | 4050118476149 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/2 BL | Version |
| Order No. | 1528040000 | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 2, Pitch in mm (P): 6.10, Insulated: Yes, Width: 9.9 mm |
| GTIN (EAN) | 4050118332773 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/2 SW | Version |
| Order No. | 1793970000 | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248233762 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/3 | Version |
| Order No. | 1527940000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: 3, Pitch in mm (P): 6.10, Insulated: Yes, Width: 16 mm |
| GTIN (EAN) | 4050118332865 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/3 RD | Version |
| Order No. | 2460810000 | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 3, Pitch in mm (P): 6.10, Insulated: Yes, Width: 16 mm |
| GTIN (EAN) | 4050118476231 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/3 BL | Version |
| Order No. | 1528080000 | Cross-connector (terminal), Plugged, blue, 32 A, Number of poles: 3, Pitch in mm (P): 6.10, Insulated: Yes, Width: 16 mm |
| GTIN (EAN) | 4050118333008 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/3 SW | Version |
| Order No. | 1794000000 | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248233793 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/4 | Version |
| Order No. | 1527970000 | Cross-connector (terminal), Plugged, orange, 32 A, Number of poles: 4, Pitch in mm (P): 6.10, Insulated: Yes, Width: 22.1 mm |
| GTIN (EAN) | 4050118332889 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/4 RD | Version |
| Order No. | 2460800000 | Cross-connector (terminal), Plugged, red, 32 A, Number of poles: 4, Pitch in mm (P): 6.10, Insulated: Yes, Width: 22.1 mm |
| GTIN (EAN) | 4050118476224 | |
| Qty. | 60 ST | |

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| Type | ZQV 4N/4 BL | Version |
| Order No. | 1528120000 | 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/4 SW | Version |
| Order No. | 1794030000 | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248233915 | |
| Qty. | 60 ST | |
| Type | ZQV 4N/10 | Version |
| Order No. | 1528090000 | 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/10 RD | Version |
| Order No. | 2460740000 | 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/10 BL | Version |
| Order No. | 1528230000 | 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 | |
| Type | ZQV 4N/10 SW | Version |
| Order No. | 1794060000 | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248234059 | |
| Qty. | 20 ST | |
| Type | ZQV 4N/20 GE | Version |
| Order No. | 1909020000 | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248535644 | |
| Qty. | 20 ST | |
| Type | ZQV 4N/20 RT | Version |
| Order No. | 1909150000 | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248535934 | |
| Qty. | 20 ST | |
| Type | ZQV 4N/20 BL | Version |
| Order No. | 1909100000 | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248535774 | |
| Qty. | 20 ST | |
| Type | ZQV 4N/20 SW | Version |
| Order No. | 1909120000 | W-Series, Cross-connector, 32 A |
| GTIN (EAN) | 4032248535804 | |
| Qty. | 20 ST | |

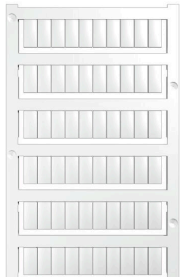
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Accessories

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 ST | |