

TOS 24VDC/48VDC 0,1A

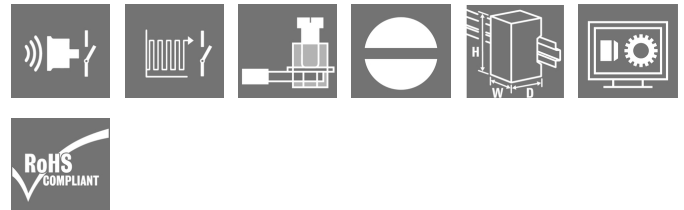
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Wear-free potential isolation in terminal block format
In many applications, it is essential that relays for potential isolation and signal adjustment perform their tasks reliably and permanently. Instead of wear-prone electromechanical solutions, maintenance-free solid-state relays with integrated potential isolation are increasingly being used. TERMOPTO solid-state relays in terminal block format are the perfect solution for the simple and reliable decoupling of digital signals. Besides their particularly compact design, they are distinguished by their PUSH IN connection system, plug-in cross-connections and an optimal price/performance ratio. With TERMOPTO solid-state relays, you save space in the panel, reduce your service costs and sustainably increase plant availability. You also reduce the complexity of the required accessories as you can use components from the Weidmüller portfolio, from cross-connectors to markers.

- 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: 5...48 V DC, Continuous current: 100 mA, Screw connection
Order No.	8950720000
Type	TOS 24VDC/48VDC 0,1A
GTIN (EAN)	4032248742097
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	20.7 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 Years
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Control side

Rated control voltage	24 V DC ± 20 %	Nominal control current	7 mA DC
Power rating	≤ 170 mW	Pull-in/drop-out voltage, typ.	19.2 V / 6 V DC
Status indicator	Green LED	Protective circuit	Varistor, Reverse polarity protection

Load side

Rated switching voltage	5...48 V DC	Continuous current	0.1 A (DC1)
Voltage drop at max. load	< 1 V	Min. switching current	100 µA
Leakage current	< 10 µA	Switch-on delay	< 13 µs
Switch-off delay	< 42 µs	max. switching frequency (DC control voltage)	3,000 Hz
Load category	DC1	Protective circuit, load side	Free-wheeling diode
Short-circuit-proof	No	Contact type	1 NO contact (Transistor)

General data

Rail	TS 35				
Test button available	No				
Colour	black				
UL94 flammability rating component	<table border="1"> <tr> <td>Component</td> <td>Housing</td> </tr> <tr> <td>UL94 flammability rating</td> <td>V-0</td> </tr> </table>	Component	Housing	UL94 flammability rating	V-0
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 µs)
Protection degree	IP20		

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Technical data

Further details of approvals / standards

Standards	IEC 623 14, UL508	Certificate no. (cULus)	E223474
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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	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		

Approvals

Approvals



ROHS	Conform
UL File Number Search	E223474

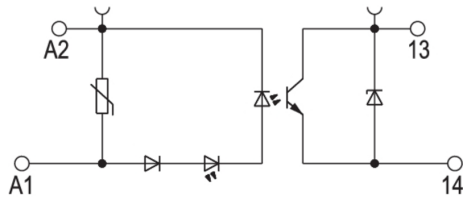
Downloads

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

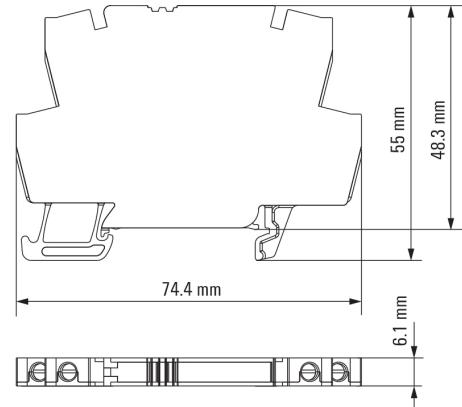
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Drawings**Wiring diagram**

Schaltsymbol

Dimensional drawing

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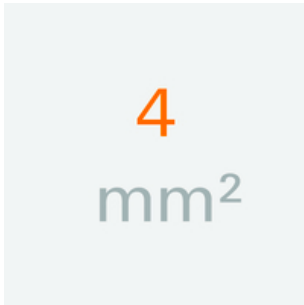
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Accessories

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

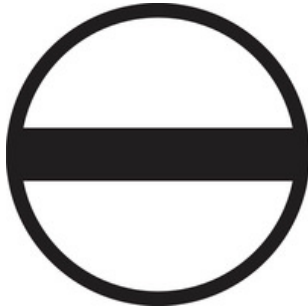
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Accessories

Slotted screwdriver

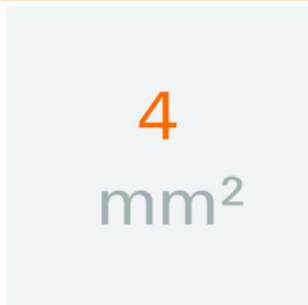


VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

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 pc(s).	

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 BL
Order No.	1528080000
GTIN (EAN)	4050118333008
Qty.	60 pc(s).
Type	ZQV 4N/4 RD
Order No.	2460800000
GTIN (EAN)	4050118476224
Qty.	60 pc(s).
Type	ZQV 4N/10 RD
Order No.	2460740000
GTIN (EAN)	4050118476163
Qty.	20 pc(s).
Type	ZQV 4N/2
Order No.	1527930000
GTIN (EAN)	4050118332766
Qty.	60 pc(s).
Type	ZQV 4N/3
Order No.	1527940000
GTIN (EAN)	4050118332865
Qty.	60 pc(s).

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Accessories

Type	ZQV 4N/4 BL
Order No.	1528120000
GTIN (EAN)	4050118332872
Qty.	60 pc(s).
Type	ZQV 4N/4
Order No.	1527970000
GTIN (EAN)	4050118332889
Qty.	60 pc(s).
Type	ZQV 4N/10
Order No.	1528090000
GTIN (EAN)	4050118332896
Qty.	20 pc(s).
Type	ZQV 4N/2 BL
Order No.	1528040000
GTIN (EAN)	4050118332773
Qty.	60 pc(s).
Type	ZQV 4N/10 BL
Order No.	1528230000
GTIN (EAN)	4050118333138
Qty.	20 pc(s).
Type	ZQV 4N/2 RD
Order No.	2460450000
GTIN (EAN)	4050118476149
Qty.	60 pc(s).
Type	ZQV 4N/3 RD
Order No.	2460810000
GTIN (EAN)	4050118476231
Qty.	60 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).	

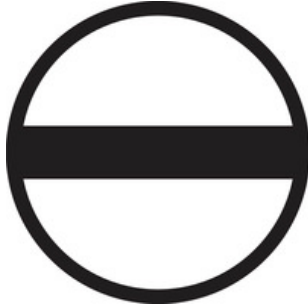
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Accessories

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 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).	

Data sheet

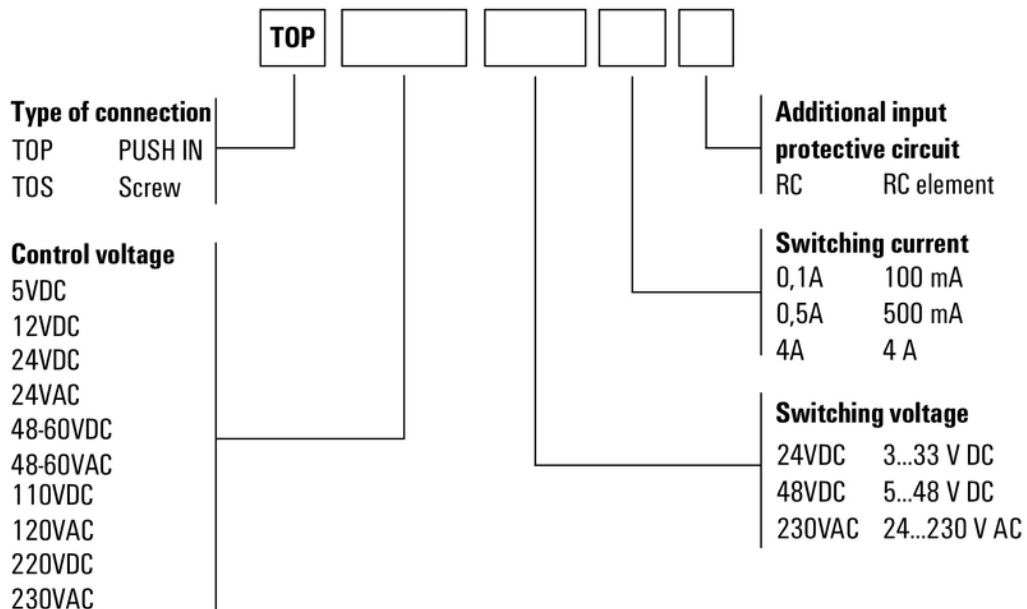
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Drawings

Miscellaneous



Type codes

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Weidmuller:](#)

[8950720000](#)