

## TOS 24VDC/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: 24 V DC $\pm 20\%$ , Rated switching voltage: 5...48 V DC, Continuous current: 500 mA, Screw connection
Order No.	<a href="#">8950920000</a>
Type	TOS 24VDC/48VDC 0,5A
GTIN (EAN)	4032248742288
Qty.	10 pc(s).

Creation date March 26, 2022 8:09:05 AM CET

Catalogue status 11.03.2022 / We reserve the right to make technical changes.

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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	20.9 g		

### Temperatures

Storage temperature	-40 °C...80 °C	Operating temperature	-20 °C...60 °C
Humidity	5-95% relative humidity, T <sub>u</sub> = 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	0.5 A (DC1)
Voltage drop at max. load	< 1 V	Leakage current	< 10 µA
Switch-on delay	< 20 µs	Switch-off delay	≤ 600 µs
max. switching frequency (DC control voltage)	200 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 <sub>eff</sub> / 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 <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 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

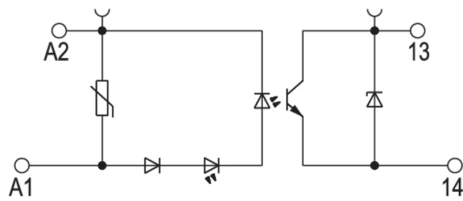
**Downloads**

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

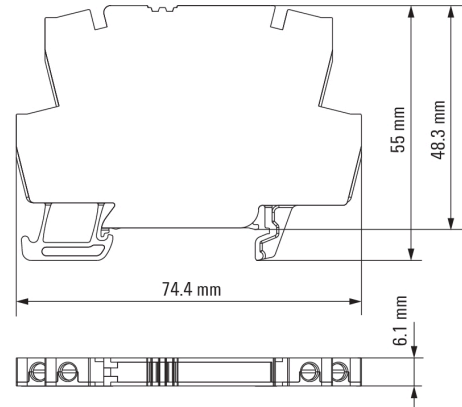
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**Drawings****Wiring diagram**

Schaltsymbol

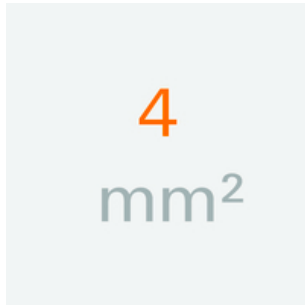
**Dimensional drawing**

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## Accessories

4 mm<sup>2</sup>

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.

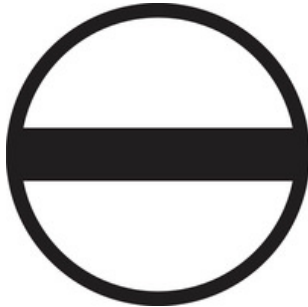
## General ordering data

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

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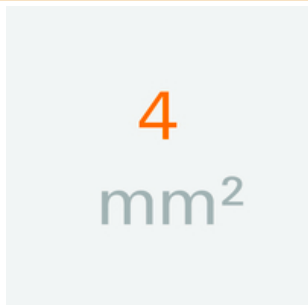
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**Accessories**
**Slotted screwdriver**


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.	<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 pc(s).	

**4 mm<sup>2</sup>**


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.	<a href="#">1528080000</a>
GTIN (EAN)	4050118333008
Qty.	60 pc(s).
Type	ZQV 4N/4 RD
Order No.	<a href="#">2460800000</a>
GTIN (EAN)	4050118476224
Qty.	60 pc(s).
Type	ZQV 4N/10 RD
Order No.	<a href="#">2460740000</a>
GTIN (EAN)	4050118476163
Qty.	20 pc(s).
Type	ZQV 4N/2
Order No.	<a href="#">1527930000</a>
GTIN (EAN)	4050118332766
Qty.	60 pc(s).
Type	ZQV 4N/3
Order No.	<a href="#">1527940000</a>
GTIN (EAN)	4050118332865
Qty.	60 pc(s).

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## Accessories

Type	ZQV 4N/4 BL
Order No.	<a href="#">1528120000</a>
GTIN (EAN)	4050118332872
Qty.	60 pc(s).
Type	ZQV 4N/4
Order No.	<a href="#">1527970000</a>
GTIN (EAN)	4050118332889
Qty.	60 pc(s).
Type	ZQV 4N/10
Order No.	<a href="#">1528090000</a>
GTIN (EAN)	4050118332896
Qty.	20 pc(s).
Type	ZQV 4N/2 BL
Order No.	<a href="#">1528040000</a>
GTIN (EAN)	4050118332773
Qty.	60 pc(s).
Type	ZQV 4N/10 BL
Order No.	<a href="#">1528230000</a>
GTIN (EAN)	4050118333138
Qty.	20 pc(s).
Type	ZQV 4N/2 RD
Order No.	<a href="#">2460450000</a>
GTIN (EAN)	4050118476149
Qty.	60 pc(s).
Type	ZQV 4N/3 RD
Order No.	<a href="#">2460810000</a>
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.	<a href="#">2749810000</a>	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4050118897012	thickness (A): 0.6 mm
Qty.	1 pc(s).	

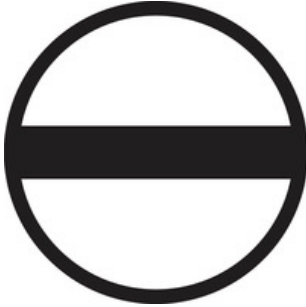
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**Accessories**

**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.	<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 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.	<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 pc(s).	



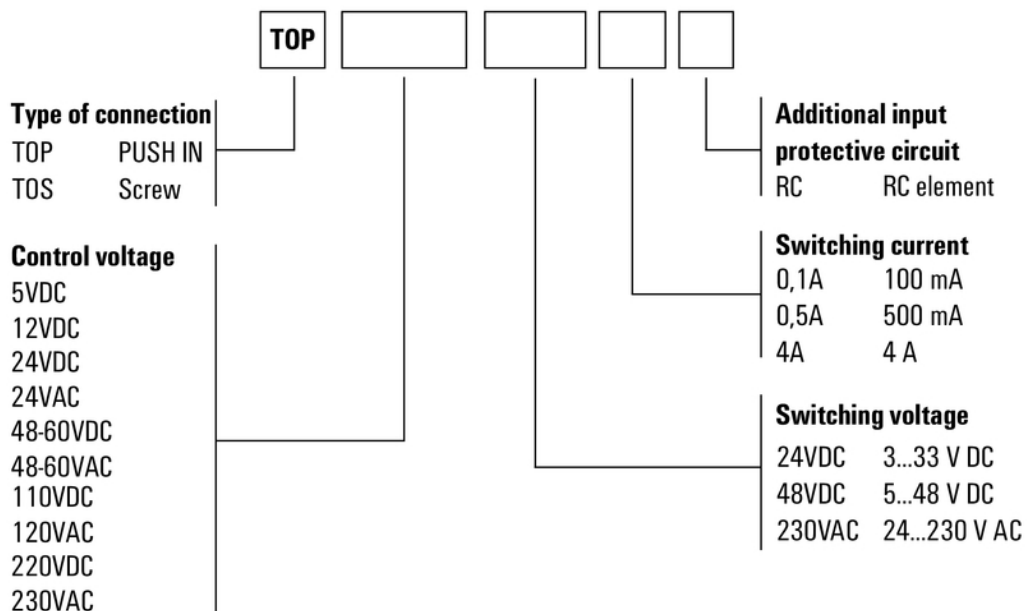
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**Drawings**

**Miscellaneous**



Type codes

# Mouser Electronics

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