

TERMOPTO TOS 48-60VDC/48VDC 0,5A

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
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Germany
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Similar to illustration

TERMOPTO solid-state relay, 5 to 48 V DC 0.5 A output version,

with AC or DC input, available in different versions:

- With screw connection
- In 6.1 mm width
- With various input protective circuits (free-wheel diode, varistor, RC filter)
- Pluggable cross-connections
- Enclosed design

General ordering data

Type	TOS 48-60VDC/48VDC 0,5A
Order No.	8950930000
Version	TERMOPTO, solid-state relays, 1 NO contact (Transistor), Rated control voltage: 48...60 V DC $\pm 20\%$, Rated switching voltage: 5...48 V DC, Continuous current: 500 mA, Screw connection
GTIN (EAN)	4032248742295
Qty.	10 pc(s).

Creation date May 1, 2020 4:42:14 AM CEST

Catalogue status 17.04.2020 / We reserve the right to make technical changes.

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Technical data**Dimensions and weights**

Width	6.1 mm	Width (inches)	0.24 inch
Height	74.4 mm	Height (inches)	2.929 inch
Depth	55 mm	Depth (inches)	2.165 inch
Net weight	20.7 g		

Temperatures

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

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	48...60 V DC ±20 %	Nominal control current	4.3 mA DC
Power rating	≤ 200 mW	Cut-in / dropout voltage	38.4 V / 12 V DC
Status indicator	Green LED	Protective circuit	Varistor, Reverse polarity protection

Load side

Rated switching voltage	5...48 V DC	Continuous current	500 mA
Load category	DC1	Switch-on delay	< 18 µs
Switch-off delay	< 340 µs	Voltage drop at max. load	< 1 V
Leakage current	< 10 µA	Short-circuit-proof	No
Protective circuit, load side	Free-wheeling diode	max. switching frequency (DC control voltage)	200 Hz

Contact data

Contact type	1 NO contact (Transistor)
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General data

Rail	TS 35	Colour	black
UL 94 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	DIN EN 50178, IEC 62314, 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
eClass 9.0	27-37-16-04	eClass 9.1	27-37-16-04
eClass 10.0	27-37-16-04		

Approvals

Approvals



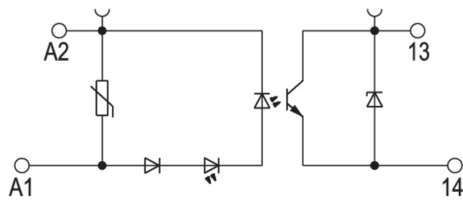
ROHS Conform

Downloads

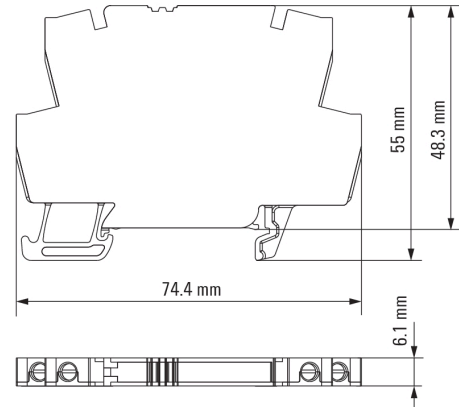
Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Brochure/Catalogue	CAT 4.2 ELECTR 18/19 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Beipackzettel / Package Insert – multilingual

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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 SL 0.6X3.5X100	Version
Order No.	1274660000	Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm
GTIN (EAN)	4050118072631	
Qty.	1 pc(s).	

ZQV 4N



Spring connection with tension clamp Technology
 Tension clamp technology is a universal contact system for all common conductor connection types. Its fantastic level of flexibility makes the tension clamp a profitable alternative connection.

General ordering data

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 GE	Version
Order No.	1762620000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248169771	
Qty.	60 pc(s).	
Type	ZQV 4N/4 BL	Version
Order No.	1794020000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233816	
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/3 BL	Version
Order No.	1793990000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233786	
Qty.	60 pc(s).	

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Accessories

Type	ZQV 4N/4 SW	Version
Order No.	1794030000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233915	
Qty.	60 pc(s).	
Type	ZQV 4N/2 SW	Version
Order No.	1793970000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233762	
Qty.	60 pc(s).	
Type	ZQV 4N/2 GE	Version
Order No.	1758250000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248169795	
Qty.	60 pc(s).	
Type	ZQV 4N/10 GE	Version
Order No.	1758260000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248169764	
Qty.	20 pc(s).	
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 GE	Version
Order No.	1909020000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248535644	
Qty.	20 pc(s).	
Type	ZQV 4N/2 RT	Version
Order No.	1793950000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233748	
Qty.	60 pc(s).	
Type	ZQV 4N/3 RT	Version
Order No.	1793980000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233779	
Qty.	60 pc(s).	
Type	ZQV 4N/2 BL	Version
Order No.	1793960000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233755	
Qty.	60 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/10 RT	Version
Order No.	1794040000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248234004	
Qty.	20 pc(s).	
Type	ZQV 4N/3 GE	Version
Order No.	1762630000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248169788	
Qty.	60 pc(s).	
Type	ZQV 4N/10 BL	Version
Order No.	1794050000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248234011	
Qty.	20 pc(s).	

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Accessories

Type	ZQV 4N/4 RT	Version
Order No.	1794010000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233809	
Qty.	60 pc(s).	

Type	ZQV 4N/20 SW	Version
Order No.	1909120000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248535804	
Qty.	20 pc(s).	

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.	9008330000	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm
GTIN (EAN)	4032248056286	
Qty.	1 pc(s).	

PicoPak



PicoPak: the robust one

- Space-saving in the control cabinet thanks to the slim 6 mm width
- Passive isolator, loop-powered at the input and output
- Increased operating temperature range: -40°C ...+70°C
- Zero and Span adjustment possible

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, Allen-Bradley, white
GTIN (EAN)	4008190203467	
Qty.	600 pc(s).	

Data sheet**TERMOPTO
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Accessories**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.	9008390000	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4032248056354	thickness (A): 0.6 mm
Qty.	1 pc(s).	

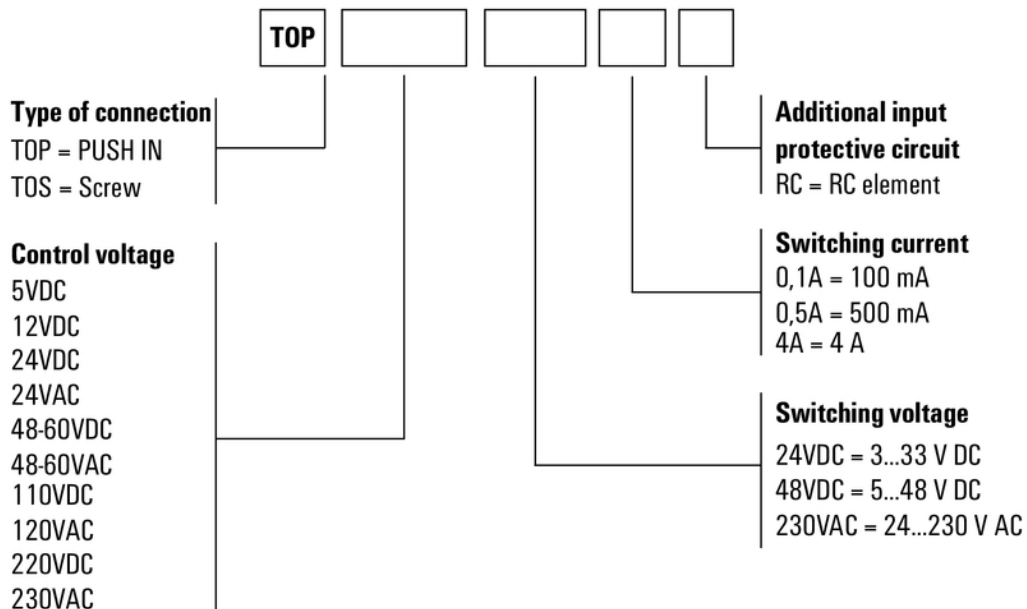
Data sheet

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Drawings

Miscellaneous



Type codes