

## TERMOPTO TOS 24VDC/230VAC 0,1A

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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www.weidmueller.com



Similar to illustration

TERMOPTO solid-state relay 230 VAC 0.1 A output version,

with AC or DC input, available in different versions:

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

### General ordering data

Type	TOS 24VDC/230VAC 0,1A
Order No.	<a href="#">8951120000</a>
Version	TERMOPTO, solid-state relais, 1 NO contact (Triac (zero-cross switch)), Rated control voltage: 24 V DC $\pm 20\%$ , Rated switching voltage: 24...230 V AC, Continuous current: 100 mA, Screw connection
GTIN (EAN)	4032248741892
Qty.	10 pc(s).

Creation date May 1, 2020 4:37:13 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	20.5 g		

**Temperatures**

Humidity	5-95% relative humidity, T <sub>u</sub> = 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	24 V DC ±20 %	Nominal control current	3.6 mA DC
Power rating	≤ 80 mW	Cut-in / dropout voltage	19.2 V / 6 V DC
Protective circuit	Varistor, Reverse polarity protection		

**Load side**

Rated switching voltage	24...230 V AC	Continuous current	100 mA
Load category	AC1	Switch-on delay	≤ 10 ms
Switch-off delay	< 12 ms	Voltage drop at max. load	< 1.8 V
Leakage current	< 1 mA	Short-circuit-proof	No
Protective circuit, load side	Varistor, RC element	max. switching frequency (DC control voltage)	10 Hz

**Contact data**

Contact type	1 NO contact (Triac (zero- cross switch))
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**General data**

Rail	TS 35	Colour	black
UL 94 flammability rating	V-0		

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**Technical data****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		

**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 <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
eClass 9.0	27-37-16-04	eClass 9.1	27-37-16-04
eClass 10.0	27-37-16-04		

**Approvals**

Approvals



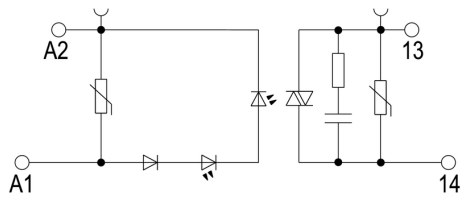
ROHS Conform

**Data sheet****TERMOPTO  
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www.weidmueller.com**Technical data****Downloads**

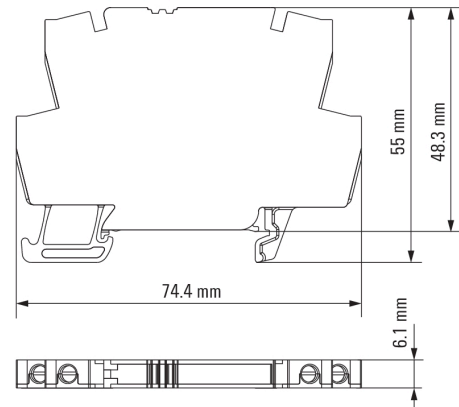
Approval/Certificate/Document of Conformity	<a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a>
Brochure/Catalogue	<a href="#">CAT 4.2 ELECTR 18/19 EN</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
Engineering Data	<a href="#">STEP</a>
User Documentation	<a href="#">Beipackzettel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

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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.	<a href="#">1274660000</a>	Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4050118072631	thickness (A): 0.6 mm
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.	<a href="#">1794000000</a>	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233793	
Qty.	60 pc(s).	
Type	ZQV 4N/4 GE	Version
Order No.	<a href="#">1762620000</a>	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248169771	
Qty.	60 pc(s).	
Type	ZQV 4N/4 BL	Version
Order No.	<a href="#">1794020000</a>	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233816	
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/3 BL	Version
Order No.	<a href="#">1793990000</a>	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.	<a href="#">1794030000</a>	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233915	
Qty.	60 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).	
Type	ZQV 4N/2 GE	Version
Order No.	<a href="#">1758250000</a>	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248169795	
Qty.	60 pc(s).	
Type	ZQV 4N/10 GE	Version
Order No.	<a href="#">1758260000</a>	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248169764	
Qty.	20 pc(s).	
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 GE	Version
Order No.	<a href="#">1909020000</a>	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248535644	
Qty.	20 pc(s).	
Type	ZQV 4N/2 RT	Version
Order No.	<a href="#">1793950000</a>	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233748	
Qty.	60 pc(s).	
Type	ZQV 4N/3 RT	Version
Order No.	<a href="#">1793980000</a>	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233779	
Qty.	60 pc(s).	
Type	ZQV 4N/2 BL	Version
Order No.	<a href="#">1793960000</a>	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233755	
Qty.	60 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/10 RT	Version
Order No.	<a href="#">1794040000</a>	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248234004	
Qty.	20 pc(s).	
Type	ZQV 4N/3 GE	Version
Order No.	<a href="#">1762630000</a>	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248169788	
Qty.	60 pc(s).	
Type	ZQV 4N/10 BL	Version
Order No.	<a href="#">1794050000</a>	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.	<a href="#">1794010000</a>	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233809	
Qty.	60 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).	

## 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="#">9008330000</a>	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.	<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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**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.	<a href="#">9008390000</a>	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4032248056354	thickness (A): 0.6 mm
Qty.	1 pc(s).	

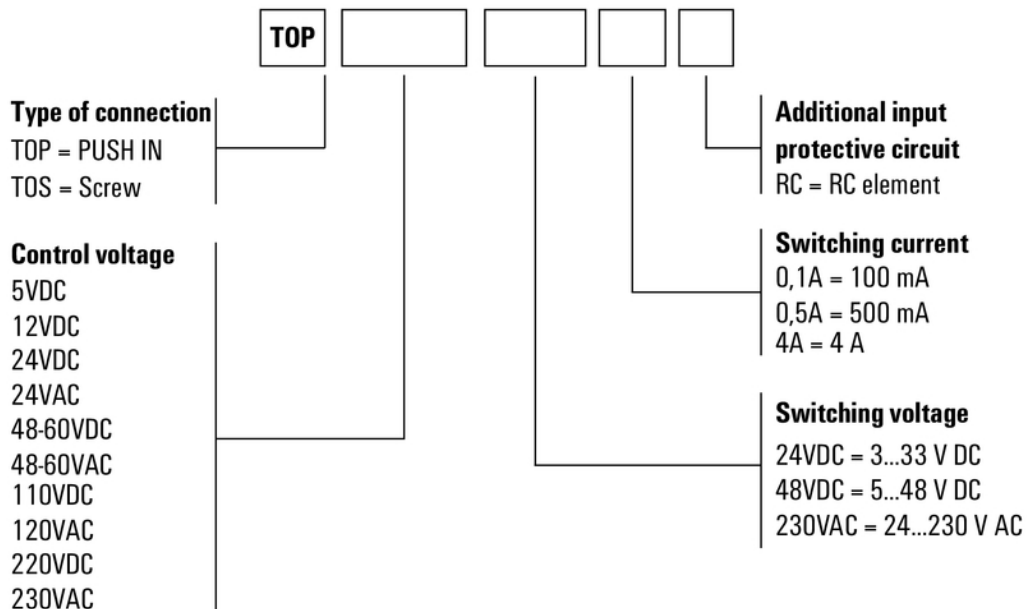
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**Drawings**

**Miscellaneous**



Type codes