

## TOZ 24VDC 230VAC1A

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

### Product image



Similar to illustration

- 1 NO contact (Triac (zero-cross switch))
- 12.8 mm wide
- 1 A AC output current
- Unique multi-voltage input from 24 to 230 V UC

### General ordering data

Version	TERMSERIES, solid-state relays, 1 NO contact (Triac (zero-cross switch)), Rated control voltage: 24 V DC $\pm 20\%$ , Rated switching voltage: 12...275 V AC, Continuous current: 1 A, Tension-clamp connection
Order No.	<a href="#">1127700000</a>
Type	TOZ 24VDC 230VAC1A
GTIN (EAN)	4032248909391
Qty.	10 pc(s).

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Catalogue status 12.03.2021 / We reserve the right to make technical changes.

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**Technical data**
**Dimensions and weights**

Depth	87.8 mm	Depth (inches)	3.457 inch
Height	90.5 mm	Height (inches)	3.563 inch
Net weight	51.8 g	Width	12.8 mm
Width (inches)	0.504 inch		

**Temperatures**

Storage temperature	-40 °C...85 °C	Operating temperature	-20 °C...60 °C
Humidity	5-95% relative humidity, T <sub>u</sub> = 40°C, without condensation		

**Probability of failure**

MTTF	1,109 Years
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**Environmental Product Compliance**

REACH SVHC	Lead 7439-92-1
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**Control side**

Coil voltage of the replacement relay	24 V DC	Coil voltage of the replacement relay deviating from the rated control voltage	No
Nominal control current	10 mA DC ±20 %	Power rating	240 mW
Protective circuit	Free-wheeling diode, Reverse polarity protection	Pull-in/drop-out voltage, typ.	15 V / 5 V DC
Rated control voltage	24 V DC ± 20 %	Status indicator	Green LED

**Load side**

Continuous current	1 A	Inrush current	15 A / 10 ms
Leakage current	< 1.5 mA	Min. switching current	50 mA
Output voltage frequency range	50 / 60 Hz	Protective circuit, load side	RC element
Rated switching voltage	12...275 V AC	Short-circuit-proof	No
Switch-off delay	≤ 12 ms	Switch-on delay	≤ 12 ms
Voltage drop at max. load	≤ 1.1 V	max. switching frequency (DC control voltage)	3 Hz

**Contact data**

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

Rail	TS 35	
Colour	black	
UL94 flammability rating component	Component	Housing
	UL94 flammability rating	V-0
	Component	Retaining clip
	UL94 flammability rating	V-0

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## Technical data

## Insulation coordination

Clearance and creepage distances for control side - load side	≥ 5.5 mm	Dielectric strength for control side - load side	2.5 kV <sub>eff</sub>
Dielectric strength to mounting rail	4 kV <sub>eff</sub> / 1 Min.	Impulse withstand voltage	6 kV (1.2/50 μs)
Pollution severity	2	Protection degree	IP20
Rated voltage	300 V	Surge voltage category	III

## Further details of approvals / standards

Standards	DIN EN 50178	Certificate No. (DNVGL)	TAA00001E5
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## Connection data

Wire connection method	Tension-clamp connection	Stripping length, rated connection	8 mm
Clamping range, rated connection	1.5 mm <sup>2</sup>	Clamping range, min.	0.14 mm <sup>2</sup>
Clamping range, max.	2.5 mm <sup>2</sup>	Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 14	Wire cross-section, solid, min.	0.14 mm <sup>2</sup>
Wire cross-section, solid, max.	2.5 mm <sup>2</sup>	Wire cross-section, solid, min. (AWG)	AWG 26
Wire cross-section, solid, max. (AWG)	AWG 14	Wire connection cross section, finely stranded, min.	0.14 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 26
Wire cross-section, finely stranded, max. (AWG)	AWG 14	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.14 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.	0.14 mm <sup>2</sup>
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	1.5 mm <sup>2</sup>	Twin wire-end ferrules, min.	0.5 mm <sup>2</sup>
Twin wire-end ferrules, max.	1 mm <sup>2</sup>	Blade size	0.6 x 3.5 mm
Gauge to IEC 60947-1	A1, B1		

## 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	ECLASS 11.0	27-37-16-04

## Approvals

Approvals



ROHS Conform

## Downloads

Approval/Certificate/Document of Conformity	<a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a>
Engineering Data	<a href="#">STEP</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
User Documentation	<a href="#">Beipackzettel / Package Insert - multilingual</a>

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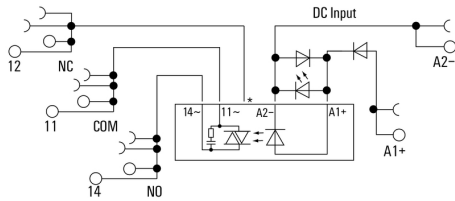
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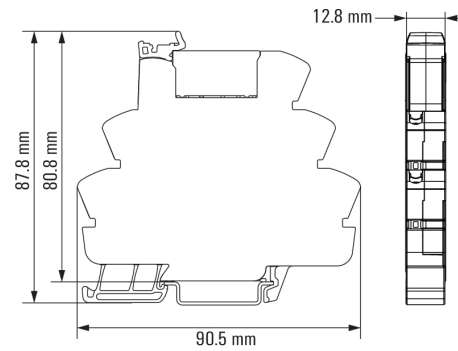
**Drawings**

**Wiring diagram**

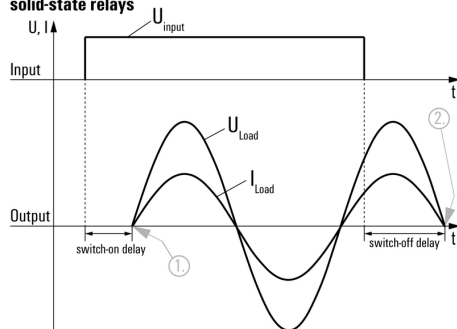


\*Contact is assembled in socket but not used with solid-state relays

**Dimensional drawing**



**Signal characteristics of zero cross switching solid-state relays**

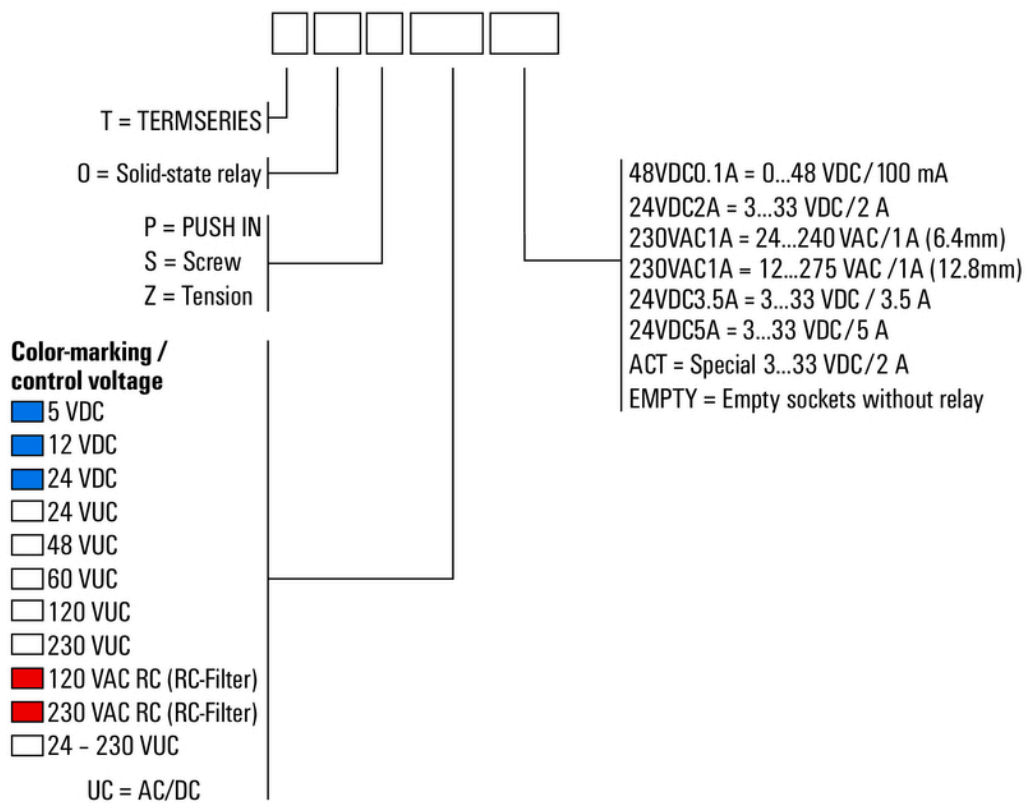


Shown at an example with resistive load.  
 1. Switches on at first zero cross of mains voltage while control input gets signal.  
 2. Switches off at next zero cross of mains current after control input signal was switched off.  
 Switching DC voltages is not possible with zero cross switching solid-state relays.

**Drawings**

**Miscellaneous**

**Type code TERMSERIES solid-state relay versions**



Type codes