

## TOS 24VDC 230VAC1A

**Weidmüller Interface GmbH & Co. KG**

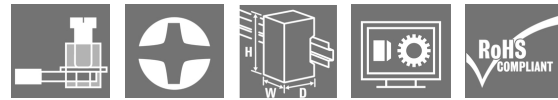
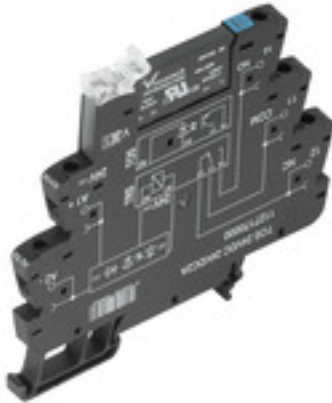
Klingenbergstraße 26

D-32758 Detmold

Germany

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

### Product image



Similar to illustration

- 1 NO contact (Triac (zero-cross switch))
- 6.4 mm wide
- 1 A AC output current
- Unique multi-voltage input from 24 to 230 V UC
- Input voltages from 12 V DC to 230 V UC with coloured marking: AC: red, DC: blue, UC: white

### General ordering data

Version	TERMSERIES, Solid-state relay, Rated control voltage: 24 V DC $\pm 20\%$ , Rated switching voltage: 24...240 V AC, Continuous current: 1 A, Screw connection
Order No.	<a href="#">1127410000</a>
Type	TOS 24VDC 230VAC1A
GTIN (EAN)	4032248908967
Qty.	10 pc(s).

Creation date September 16, 2022 12:24:00 AM CEST

Catalogue status 09.09.2022 / 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	89.6 mm	Height (inches)	3.528 inch
Width	6.4 mm	Width (inches)	0.252 inch
Net weight	32.1 g		

### Temperatures

Storage temperature	-40 °C...70 °C	Operating temperature	-20 °C...60 °C
Humidity	5-95% relative humidity, T <sub>u</sub> = 40°C, without condensation		

### Probability of failure

MTTF	1,120 Years
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### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1	SCIP	9e2cbc49-76d9-4611-b8ec-5b4f549a0aa9
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### Rated data UL

Ambient temperature (operational), max.	60 °C	Output current derating (ohmic)	1 A @ 25 °C, 0.3 A @ 60 °C
Connection cross-section AWG, min.	AWG 26	Connection cross-section AWG, max.	AWG 14
Type of conductor	rigid copper conductor, flexible copper conductor	Tightening torque, max.	0.4 Nm
Pollution severity level	2		

### Control side

Rated control voltage	24 V DC ±20 %	Nominal control current	11.5 mA DC (±10 %)
Power rating	280 mW	Pull-in/drop-out voltage, typ.	12 V / 6.5 V DC
Status indicator	Green LED	Protective circuit	Free-wheeling diode, Reverse polarity protection
Coil voltage of the replacement relay deviating from the rated control voltage	No	Coil voltage of the replacement relay	24 V DC

### Load side

Rated switching voltage	24...240 V AC	Continuous current	1 A
Rated switching current	1 A	Inrush current	15 A / 10 ms
Switch-on delay	≤ 12 ms	Switch-off delay	≤ 12 ms
Voltage drop at max. load	≤ 1.6 V	Leakage current	< 1.5 mA
Min. switching current	20 mA	Short-circuit-proof	No
Protective circuit, load side	RC element	Contact type	1 NO contact (Triac (zero-cross switch))
Output voltage frequency range	50 / 60 Hz	max. switching frequency (DC control voltage)	3 Hz

### General data

Rail	TS 35
Test button available	No
Colour	black

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UL94 flammability rating component	Component	Housing
	UL94 flammability rating	V-0
	Component	Retaining clip
	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	≥ 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)	Protection degree	IP20

## Further details of approvals / standards

Certificate No. (DNVGL)	TAA00001E5	Certificate no. (cULus)	E141197
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## Connection data

Wire connection method	Screw connection	Stripping length, rated connection	8 mm
Tightening torque, max.	0.4 Nm	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.	0.25 mm <sup>2</sup>	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	2.5 mm <sup>2</sup>
Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.25 mm <sup>2</sup>	Conductor cross-section, flexible, AEH (DIN 46228-1), max.	2.5 mm <sup>2</sup>
Wire connection cross section, finely stranded, two clampable wires, min.	0.5 mm <sup>2</sup>	Wire cross-section, finely stranded, two clampable wires, max.	1 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	size PHO	Gauge to IEC 60947-1	A1, B1

## 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	ECLASS 12.0	27-37-16-04

## Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E141197

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**Technical data****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	

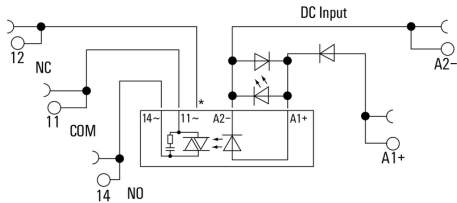
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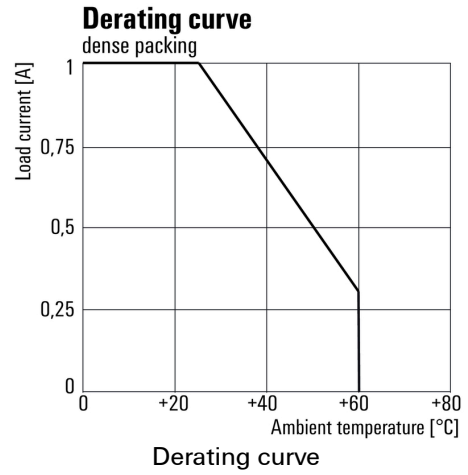
**Drawings**

**Wiring diagram**

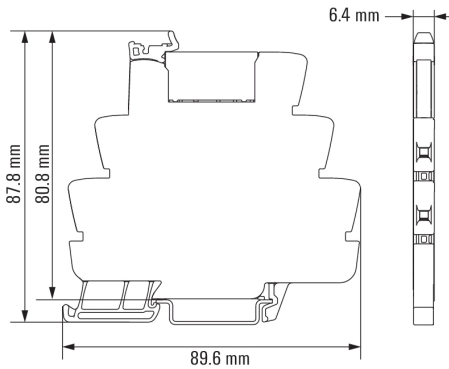


\*Contact is assembled in socket but not used with solid-state relays

**Graph**

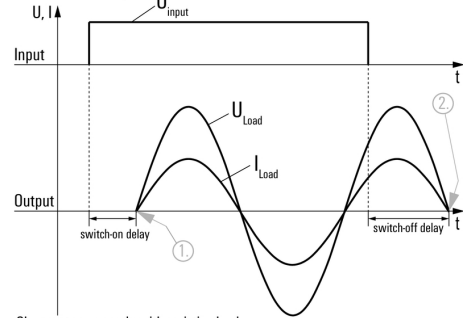


**Dimensional drawing**



**Graph**

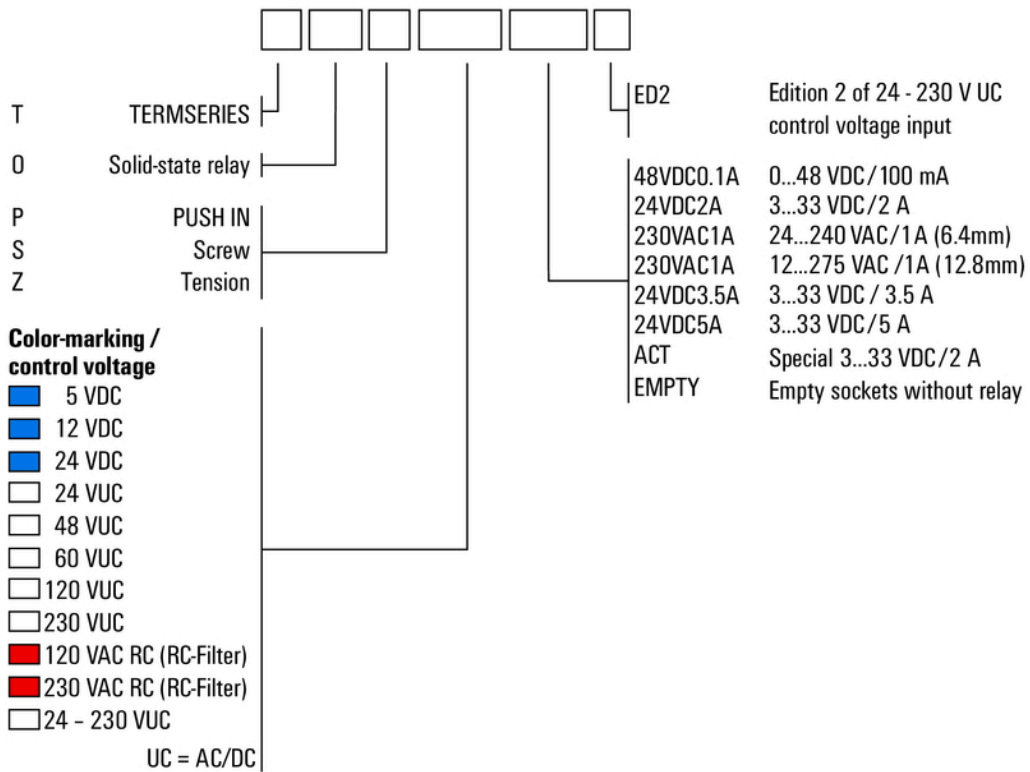
**Signal characteristics of zero cross switching solid-state relays**



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 this solid-state relays.

Miscellaneous

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



Type codes

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