

TOZ 120VUC 230VAC1A**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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 relays, 1 NO contact (Triac (zero-cross switch)), Rated control voltage: 120 V UC $\pm 10\%$, Rated switching voltage: 24...240 V AC, Continuous current: 1 A, Tension-clamp connection
Order No.	1127580000
Type	TOZ 120VUC 230VAC1A
GTIN (EAN)	4032248908981
Qty.	10 pc(s).

Creation date March 23, 2021 1:14:47 AM CET

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	30.2 g	Width	6.4 mm
Width (inches)	0.252 inch		

Temperatures

Storage temperature	-40 °C...70 °C	Operating temperature	-20 °C...60 °C
Humidity	5-95% relative humidity, T _u = 40°C, without condensation		

Probability of failure

MTTF	693 Years
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Rated data UL

Ambient temperature (operational), max. 60 °C	Connection cross-section AWG, min.	AWG 26
Connection cross-section AWG, max.	Type of conductor	rigid copper conductor, flexible copper conductor
Pollution severity level		

Control side

Coil voltage of the replacement relay	60 V DC	Coil voltage of the replacement relay deviating from the rated control voltage	Yes
Nominal control current	5 mA AC (±30 %), 3 mA DC (±30 %)	Power rating	0.48 VA
Protective circuit	Rectifier	Pull-in/drop-out voltage, typ.	82 V / 65 V AC 86 V / 74 V DC
Rated control voltage	120 V UC ± 10 %	Status indicator	Green LED

Load side

Continuous current	1 A	Inrush current	15 A / 10 ms
Leakage current	< 1.5 mA	Min. switching current	20 mA
Output voltage frequency range	50 / 60 Hz	Protective circuit, load side	RC element
Rated switching voltage	24...240 V AC	Short-circuit-proof	No
Switch-off delay	< 11 ms	Switch-on delay	< 11 ms
Voltage drop at max. load	≤ 1.6 V	max. switching frequency (AC control voltage)	3 Hz
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

Insulation coordination

Clearance and creepage distances for control side - load side	≥ 5.5 mm	Dielectric strength for control side - load side	2.5 kV _{eff}
Dielectric strength to mounting rail	4 kV _{eff} / 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
Certificate no. (cULus)	E141197		

Connection data

Wire connection method	Tension-clamp connection	Stripping length, rated connection	8 mm
Clamping range, rated connection	1.5 mm ²	Clamping range, min.	0.14 mm ²
Clamping range, max.	2.5 mm ²	Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 14	Wire cross-section, solid, min.	0.14 mm ²
Wire cross-section, solid, max.	2.5 mm ²	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 ²
Wire connection cross section, finely stranded, max.	2.5 mm ²	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 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.	0.14 mm ²
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	1.5 mm ²	Twin wire-end ferrules, min.	0.5 mm ²
Twin wire-end ferrules, max.	1 mm ²	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

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www.weidmueller.com**Technical data****Approvals**

Approvals



ROHS	Conform
UL File Number Search	E141197

Downloads

Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD
User Documentation	Beipackzettel / Package Insert – multilingual

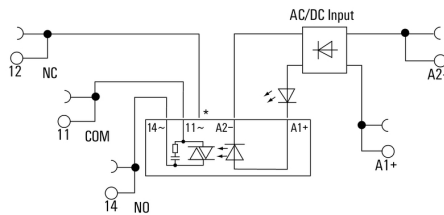
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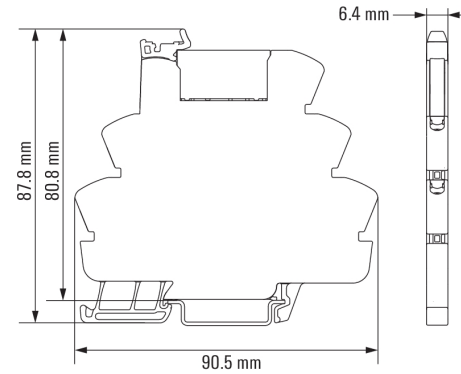
Drawings

Wiring diagram

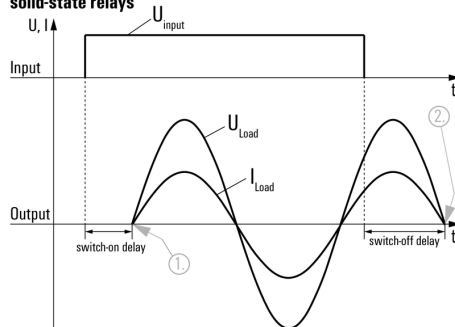


*Contact is assembled in socket but not used with solid-state relays

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.

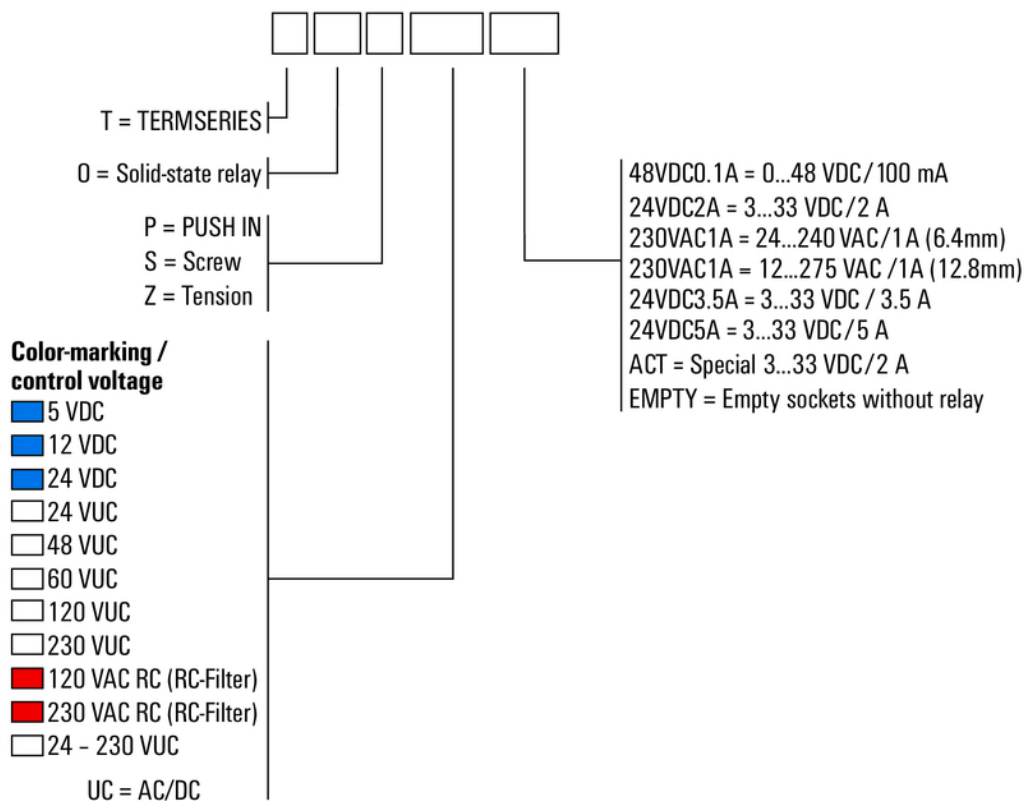
Switching DC voltages is not possible with zero cross switching solid-state relays.

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Drawings
Miscellaneous
Type code TERMSERIES solid-state relay versions


Type codes