

**TERMSERIES**  
**TOZ 24VDC 24VDC5A**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com



Similar to illustration

TERMSERIES solid-state relay modules consisting of a solid-state relay and a base with AC/DC/UC input; available in different versions:

- With screw and tension-clamp connection
- With AC and DC outputs
- In 6.4 mm and 12.8 mm width
- Optionally with multiple-voltage input: 24 to 230 V UC
- With various protective circuits in the input (free-wheel diode, RC element)
- Illuminated ejection lever

**General ordering data**

Type	TOZ 24VDC 24VDC5A
Order No.	<a href="#">1990980000</a>
Version	TERMSERIES, solid-state relays, 1 NO contact (MOS-FET), Rated control voltage: 24 V DC $\pm 20\%$ , Rated switching voltage: 3...33 V DC, Continuous current: 5 A, Tension clamp connection
GTIN (EAN)	4050118379303
Qty.	10 pc(s).

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

Width	12.8 mm	Width (inches)	0.504 inch
Height	90.5 mm	Height (inches)	3.563 inch
Depth	87.8 mm	Depth (inches)	3.457 inch
Net weight	54.6 g		

**Temperatures**

Humidity	5–95% rel. humidity, T <sub>u</sub> = 40°C, no condensation	Operating temperature, max.	60 °C
Operating temperature, min.	-20 °C	Storage temperature, max.	70 °C
Storage temperature, min.	-40 °C	Operating temperature	-20 °C...60 °C
Storage temperature	-40 °C...70 °C		

**Probability of failure**

MTTF	1,061 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.	55 °C	Output current derating (ohmic)	5 A @ 50 °C, 4 A @ 55 °C
Connection cross-section AWG, min.	AWG 26	Connection cross-section AWG, max.	AWG 14
Type of conductor	rigid copper conductor, flexible copper conductor	Pollution severity level	2

**Control side**

Rated control voltage	24 V DC ±20 %	Nominal control current	10 mA DC ±20 %
Power rating	240 mW	Cut-in / dropout voltage	4.5 V / 3 V DC
Cut-in / dropout current	0.9 mA / 0.3 mA DC	Status indicator	Green LED
Protective circuit	Free-wheel 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	3...33 V DC	Continuous current	5 A
Rated switching current	5 A	Switch-on delay	< 55 µs
Switch-off delay	< 600 µs	Voltage drop at max. load	≤ 0.3 V
Leakage current	< 10 µA	Min. switching current	1 mA
Short-circuit-proof	No	Protective circuit, load side	Free-wheel diode
max. switching frequency (DC control voltage)	300 Hz		

**Contact data**

Contact type	1 NO contact (MOS-FET)
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**General data**

Mounting rail	TS 35	Colour	Black
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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	≥ 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

Standards	DIN EN 50178	Certificate no. (cULus)	E141197
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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 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 5.0	EC001504	ETIM 6.0	EC001504
eClass 6.2	27-37-16-04	eClass 7.1	27-37-16-04
eClass 8.1	27-37-16-04	eClass 9.0	27-37-16-04
eClass 9.1	27-37-16-04		

### Approvals

Approvals



ROHS Conform

**Data sheet****TERMSERIES  
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Approval/Certificate/Document of Conformity	<a href="#">DE_PA_5600_160229_002.pdf</a>
Brochure/Catalogue	<a href="#">CAT 4.2 ELECTR 18/19 EN</a>
Engineering Data	<a href="#">EPLAN, WSCAD, Zuken E3.S</a>
Engineering Data	<a href="#">STEP</a>
User Documentation	<a href="#">Operating Instructions</a>

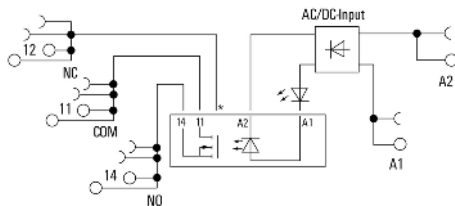
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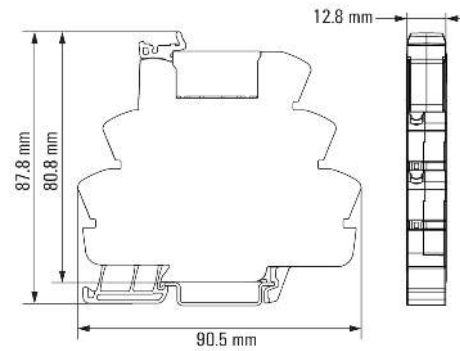
**Drawings**

**Wiring diagram**



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

**Dimensional drawing**

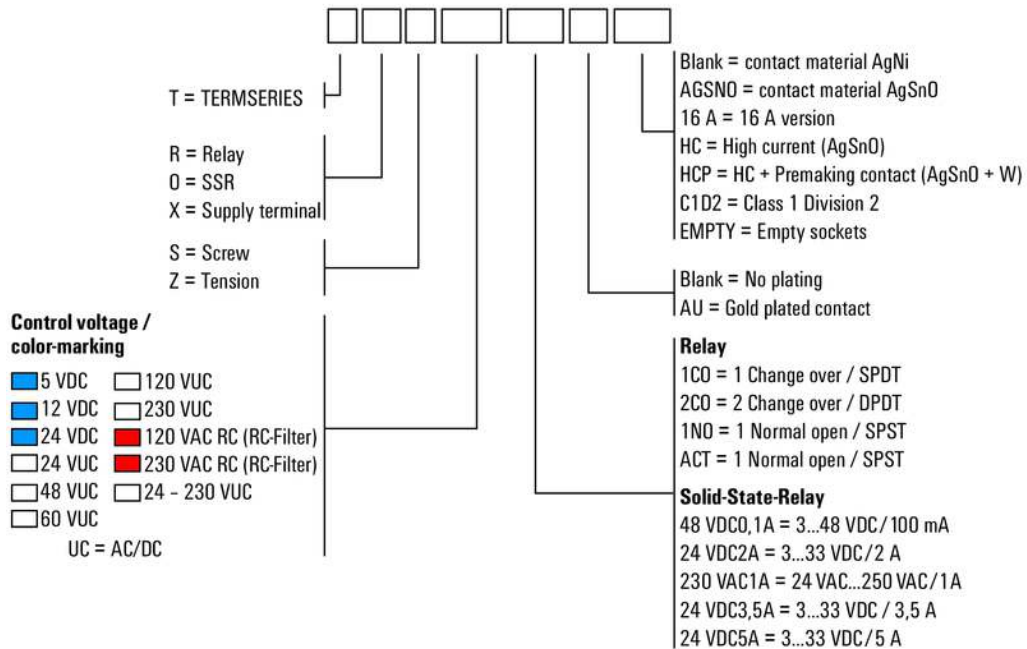


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**Drawings**

**Miscellaneous**



Type codes