

TERMSERIES TOS 24VDC 24VDC5A

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany
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Product image



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	TOS 24VDC 24VDC5A
Order No.	1990960000
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, Screw connection
GTIN (EAN)	4050118379280
Qty.	10 pc(s).

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Technical data
Dimensions and weights

Width	12.8 mm	Width (inches)	0.504 inch
Height	89.6 mm	Height (inches)	3.528 inch
Depth	87.8 mm	Depth (inches)	3.457 inch
Net weight	56 g		

Temperatures

Humidity	5-95% relative humidity, T _u = 40°C, without 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	Tightening torque, max.	0.4 Nm
Pollution severity level	2		

Control side

Rated control voltage	24 V DC ±20 %	Nominal control current	10.8 mA DC (±10 %)
Power rating	260 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-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	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-wheeling diode
max. switching frequency (DC control voltage)	300 Hz		

Contact data

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

Rail	TS 35	Colour	black
UL 94 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 _{eff}	Dielectric strength to mounting rail	4 kV _{eff} / 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	Screw connection	Stripping length, rated connection	8 mm
Tightening torque, max.	0.4 Nm	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 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.	0.25 mm ²	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	2.5 mm ²
Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.25 mm ²	Conductor cross-section, flexible, AEH (DIN 46228-1), max.	2.5 mm ²
Wire connection cross section, finely stranded, two clampable wires, min.	0.5 mm ²	Wire cross-section, finely stranded, two clampable wires, max.	1 mm ²
Twin wire-end ferrules, min.	0.5 mm ²	Twin wire-end ferrules, max.	1 mm ²
Blade size	size PHO	Gauge to IEC 60947-1	A1, B1

Ratings IECEx/ATEX/cUL

Certificate no. (cULus)	E141197
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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
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Catalogue status 24.01.2020 / We reserve the right to make technical changes.

Data sheet**TERMSERIES**
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Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Brochure/Catalogue	CAT 4.2 ELECTR 18/19 EN
Engineering Data	EPLAN, WSCAD, Zuken E3.S
Engineering Data	STEP
User Documentation	Beipackzettel / Package Insert – multilingual

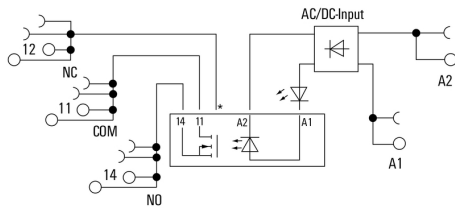
Data sheet

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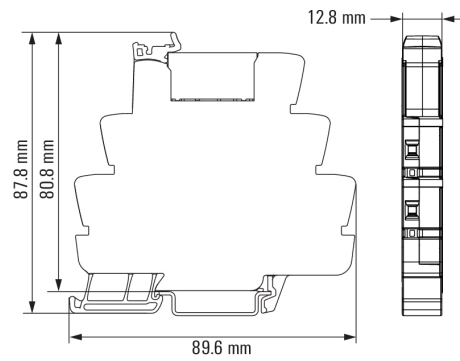
Drawings

Wiring diagram



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

Dimensional drawing



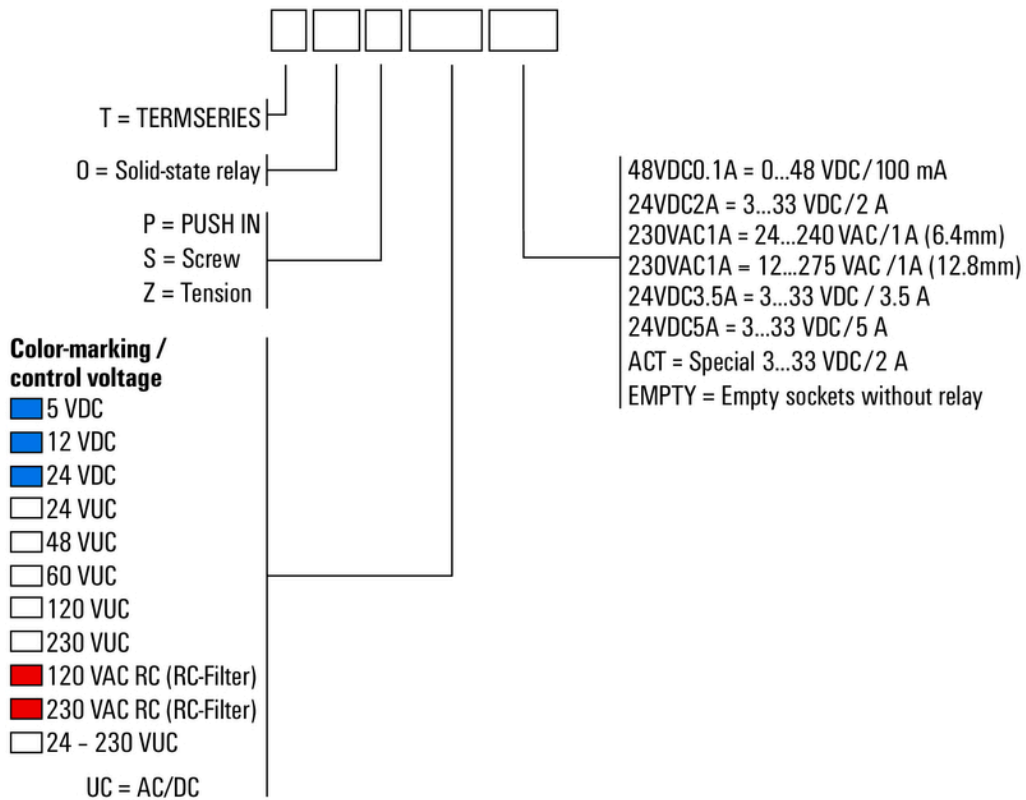
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Drawings

Miscellaneous

Type code TERMSERIES solid-state relay versions



Type codes