

TERMSERIES TOS 24VDC ACT

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
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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 ACT
Order No.	1391680000
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: 2 A, Screw connection
GTIN (EAN)	4050118192070
Qty.	10 pc(s).

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Technical data**Dimensions and weights**

Width	6.4 mm	Width (inches)	0.252 inch
Height	89.6 mm	Height (inches)	3.528 inch
Depth	87.8 mm	Depth (inches)	3.457 inch
Net weight	31.4 g		

Temperatures

Humidity	5–95% rel. humidity, $T_u = 40^\circ\text{C}$, 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	1,077 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	Output current derating (ohmic)	1.5 A @ 60 °C, 2 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 $\pm 20\%$	Nominal control current	11.5 mA DC ($\pm 20\%$)
Power rating	280 mW	Cut-in / dropout voltage	14 V / 12.5 V DC
Cut-in / dropout current	6.2 mA / 5.4 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	2 A
Rated switching current	2 A	Inrush current	15 A / 10 ms
Switch-on delay	$\leq 0,1$ ms	Switch-off delay	< 1 ms
Voltage drop at max. load	≤ 120 mV	Leakage current	< 10 μA
Min. switching current	5 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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Technical data
General data

Version	Actuator version	Mounting 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

Classifications

ETIM 6.0	EC001504	eClass 6.2	27-27-09-90
eClass 7.1	27-27-09-90	eClass 8.1	27-27-09-90
eClass 9.0	27-27-09-90	eClass 9.1	27-37-16-04

Product information

Descriptive text technical data	Accessories and dimensional drawings: refer to the TERMSERIES Accessories page.
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Data sheet**TERMSERIES
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Technical data**Approvals**

Approvals



ROHS

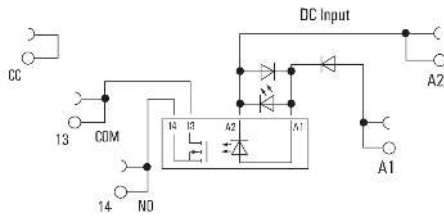
Conform

Downloads

Approval/Certificate/Document of Conformity	DE_PA5600_16Q229_001.pdf
Brochure/Catalogue	CAT 4.2 ELECTR 18/19 EN
Engineering Data	EPLAN_WSCAD
Engineering Data	STEP
User Documentation	Operating Instructions

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Drawings**Wiring diagram****Dimensional drawing**