

TOS 24VDC 24VDC5A**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

Similar to illustration

- 1 NO contact (MOS-FET)
- 12.8 mm wide
- 5 A DC output current
- Unique multi-voltage input from 24 to 230 V UC

General ordering data

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

Creation date March 26, 2021 7:39:16 PM 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	89.6 mm	Height (inches)	3.528 inch
Net weight	56 g	Width	12.8 mm
Width (inches)	0.504 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	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

Coil voltage of the replacement relay	24 V DC	Coil voltage of the replacement relay deviating from the rated control voltage	No
Nominal control current	10.8 mA DC (±10 %)	Power rating	260 mW
Protective circuit	Free-wheeling diode, Reverse polarity protection	Pull-in/drop-out current, typ.	0.9 mA / 0.3 mA DC
Pull-in/drop-out voltage, typ.	4.5 V / 3 V DC	Rated control voltage	24 V DC ± 20 %
Status indicator	Green LED		

Load side

Continuous current	5 A	Leakage current	< 10 µA
Min. switching current	1 mA	Protective circuit, load side	Free-wheeling diode
Rated switching voltage	3...33 V DC	Short-circuit-proof	No
Switch-off delay	≤ 600 µs	Switch-on delay	< 55 µs
Voltage drop at max. load	≤ 0.3 V	max. switching frequency (DC control voltage)	300 Hz

Contact data

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

Rail	TS 35
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

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	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 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.	0.25 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 PH0	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

Approvals

Approvals



ROHS	Conform
UL File Number Search	E141197

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Technical data

Downloads

Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD, Zuken E3.S
User Documentation	Beipackzettel / Package Insert – multilingual

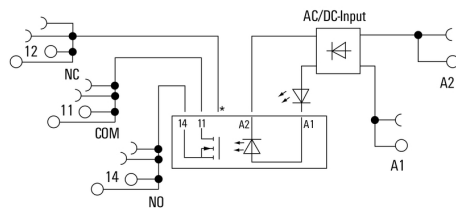
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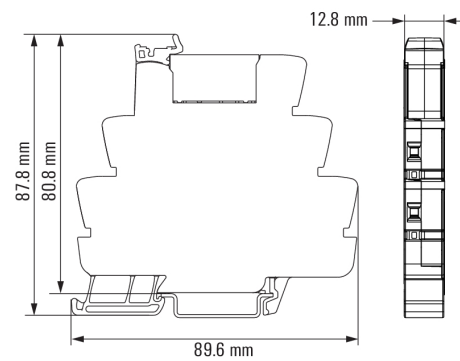
Drawings

Wiring diagram



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

Dimensional drawing



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Drawings

Miscellaneous

Type code TERMSERIES solid-state relay versions



Type codes