

MICROOPTO MOS 24VDC/5-33VDC 10A

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

The solid-state relay MICROOPTO SOLENOID is used specifically as a switching amplifier for actuators up to 24 V DC and 10 A with inductive loads, such as solenoid valves and contactors.

A potential-free signalling contact communicates errors, such as a short-circuit, to the controller.

The MICROOPTO SOLENOID solid-state relay is short-circuit-proof and protected against power-related transients and voltage peaks by extensive protective circuits.

In addition, the closed enclosure offers high protection against accidental contact.

General ordering data

Type	MOS 24VDC/5-33VDC 10A
Order No.	8937940000
Version	MICROOPTO, solid-state relays, 1 NO contact (POWER MOS-FET), Rated control voltage: 24 V DC $\pm 20\%$, Rated switching voltage: 5...33 V DC, Continuous current: 10 A, Screw connection
GTIN (EAN)	4032248716173
Qty.	1 pc(s).

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Technical data
Dimensions and weights

Width	6.1 mm	Width (inches)	0.24 inch
Height	88.1 mm	Height (inches)	3.468 inch
Depth	97.8 mm	Depth (inches)	3.85 inch
Net weight	38.81 g		

Temperatures

Humidity	5 - 93% rel. humidity, Tu = 40°C, no condensation	Operating temperature, max.	60 °C
Operating temperature, min.	-25 °C	Storage temperature, max.	60 °C
Storage temperature, min.	-40 °C	Operating temperature	-25 °C...60 °C
Storage temperature	-40 °C...60 °C		

Probability of failure

MTTF	399 Years
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Control side

Rated control voltage	24 V DC \pm 20 %	Power rating	400 mW
Cut-in / dropout voltage	18 V / 13 V DC	Status indicator	Green LED
Protective circuit	Varistor, Reverse polarity protection		

Load side

Rated switching voltage	5...33 V DC	Continuous current	10 A
Rated switching current	10 A	Load category	LC A
Pulse load, max. current	\leq 11 A (\leq 200 μ s)	Switch-on delay	typical. 250 μ s
Switch-off delay	typical. 700 μ s	Voltage drop at max. load	approx. 100 mV
Leakage current	< 1 mA	Min. switching current	10 mA
Short-circuit-proof	Yes (limited for 4 h / current limitation external < 200 A)	Load side status indicator	LED red, short-circuit / overload at the output
Protective circuit, load side	Current sensor, Varistor, Free-wheel diode	max. switching frequency (DC control voltage)	50 Hz

Feedback output

Solid-state type	Bipolar transistor	Nominal switching voltage	24 VDC \pm 20%
Continuous current	50 mA	Switch-off delay	5 s

Contact data

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

Mounting rail	TS 35	Colour	Black
UL 94 flammability rating	V-0		

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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	> 3 mm
Dielectric strength for control side - load side	3 kV _{eff} / 1 min.	Dielectric strength to mounting rail	4 kV _{eff} / 1 min.
Impulse withstand voltage	4 kV (1.2/50 µs)	Protection degree	IP20

Further details of approvals / standards

Standards	DIN EN 50178, GL 2003-VI-Abs. 9, IEC 62314, UL508	Certificate No. (GERMLLOYD)	54853-08
Certificate no. (cULus)	E141197		

Connection data

Wire connection method	Screw connection	Stripping length, rated connection	7 mm
Tightening torque, min.	0.4 Nm	Tightening torque, max.	0.6 Nm
Clamping range, rated connection	2.5 mm ²	Clamping range, min.	0.5 mm ²
Clamping range, max.	4 mm ²	Wire cross-section, solid, min.	0.5 mm ²
Wire cross-section, solid, max.	4 mm ²	Wire connection cross-section, finely stranded, min.	0.5 mm ²
Wire connection cross section, finely stranded, max.	2.5 mm ²	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.5 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.	0.5 mm ²
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	1.5 mm ²	Blade size	0.6 x 3.5 mm

Classifications

ETIM 3.0	EC001504	ETIM 4.0	EC001504
ETIM 5.0	EC001504	ETIM 6.0	EC001504
UNSPSC	30-21-18-01	eClass 5.1	27-27-09-90
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

Product information	The cable lengths must not exceed 30 m.
Descriptive text technical data	Suppressor circuitry for inductive loads, 10 cm installation clearance to inductive switching devices.
Instructions for accessories	Accessories and dimensioned drawings: refer to the MICROOPTO Accessories page.

Approvals

Approvals



ROHS Conform

Data sheet**MICROOPTO
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Technical data**Downloads**

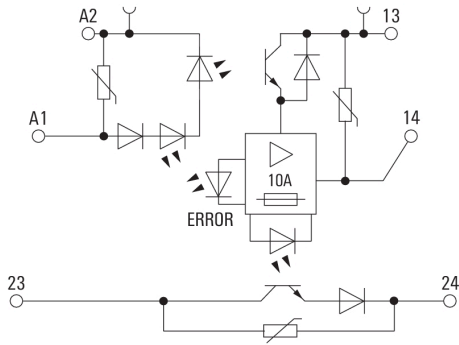
Approval/Certificate/Document of Conformity	DE_PA5600_160302_001.pdf
Brochure/Catalogue	CAT 4.2 ELECTR 18/19 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Operating Instructions

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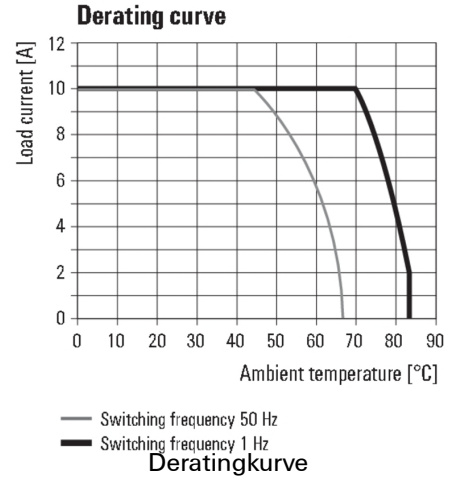
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Drawings

Wiring diagram



Graph



Dimensional drawing

