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MICROOPTO
MOS 24VDC/5-33VDC 10A

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 relais, 1 NO contact (POWER MOS-FET), Rated control voltage: 24 V DC ±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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MOS 24VDC/5-33VDC 10A

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

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1

Control side

Rated control voltage	24 V DC ±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
Load category	LC A	Pulse load, max. current	≤ 11 A (≤ 200 µs)
Switch-on delay	typ. 250 µs	Switch-off delay	typical. 700 µs
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-wheeling diode
max. switching frequency (DC control voltage)	50 Hz		

Feedback output

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

Contact data

Contact type	1 NO contact (POWER 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	> 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. (DNVGL)	TAE000033E
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 mm²	Clamping range, min.	0.5 mm²
Clamping range, max.	4 mm²	Wire cross-section, solid, min.	0.5 mm²
Wire cross-section, solid, max.	4 mm²	Wire connection cross-section, finely stranded, min.	0.5 mm²
Wire connection cross section, finely stranded, max.	2.5 mm²	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.5 mm²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	1.5 mm²	Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.5 mm²
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	1.5 mm²	Blade size	0.6 x 3.5 mm

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	UNSPSC	30-21-18-01

Product information

Product information	The cable lengths must not exceed 30 m.

Approvals

Approvals

ROHS	Conform

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Technical data

Downloads

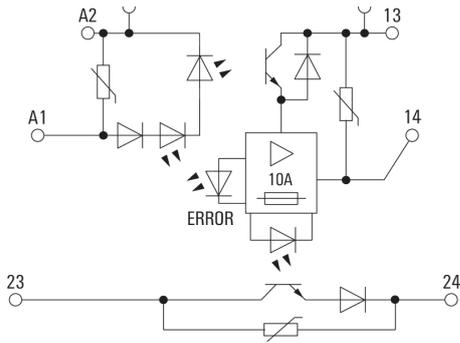|	
Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Brochure/Catalogue	CAT 4.2 ELECTR 18/19 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Beipackzettel / Package Insert – multilingual

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Drawings

Wiring diagram

Graph
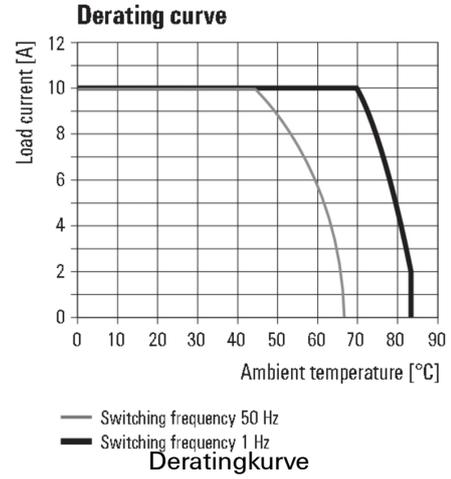
Derating curve

Switching frequency 50 Hz
Switching frequency 1 Hz
Deratingkurve

Dimensional drawing
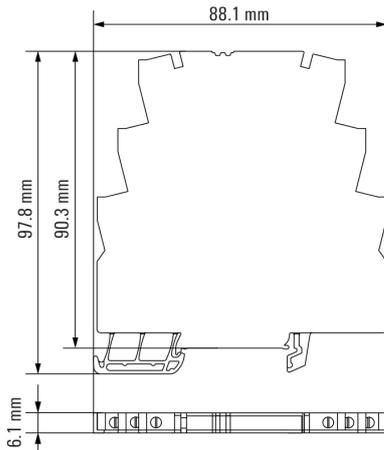
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Accessories

Blank

WS markers are the perfect match for the W-series connectors. Thanks to their system compatibility, the WS tags can also be used with the I-series and the Z-series. The large marking surfaces do not only permit long character strings but also multi-line text.
WS markers are ideal for labels with long, customised character strings. Thanks to the proven MultiCard format, printing with laser printer, PrintJet ADVANCED, plotter or MC-Mobilo is possible.

• Can be fitted in strips or individually
• Markers in proven MultiCard format

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

General ordering data

Type	WS 12/6 MC NE WS	Version	
Order No.	1609900000		WS, Terminal marker, 12 x 6 mm, Pitch in mm (P): 6.00 Weidmueller,
GTIN (EAN)	4008190203467		Allen-Bradley, white
Qty.	600 pc(s).		

Slotted screwdriver

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

Type	SDIS 0.6X3.5X100	Version	
Order No.	9008390000		Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4032248056354		thickness (A): 0.6 mm
Qty.	1 pc(s).		

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Accessories

ZQV 4N

Spring connection with tension clamp Technology
Tension clamp technology is a universal contact system for all common conductor connection types. Its fantastic level of flexibility makes the tension clamp a profitable alternative connection.

General ordering data

Type	ZQV 4N/3 SW	Version
Order No.	1794000000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233793	
Qty.	60 pc(s).	
Type	ZQV 4N/10 SW	Version
Order No.	1794060000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248234059	
Qty.	20 pc(s).	
Type	ZQV 4N/4 SW	Version
Order No.	1794030000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233915	
Qty.	60 pc(s).	
Type	ZQV 4N/10 BL	Version
Order No.	1794050000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248234011	
Qty.	20 pc(s).	
Type	ZQV 4N/2 GE	Version
Order No.	1758250000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248169795	
Qty.	60 pc(s).	
Type	ZQV 4N/20 BL	Version
Order No.	1909100000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248535774	
Qty.	20 pc(s).	
Type	ZQV 4N/4 RT	Version
Order No.	1794010000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233809	
Qty.	60 pc(s).	
Type	ZQV 4N/10 GE	Version
Order No.	1758260000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248169764	
Qty.	20 pc(s).	
Type	ZQV 4N/2 SW	Version
Order No.	1793970000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233762	
Qty.	60 pc(s).	
Type	ZQV 4N/20 GE	Version
Order No.	1909020000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248535644	
Qty.	20 pc(s).	

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Accessories

Type	ZQV 4N/20 RT	Version	
Order No.	1909150000	Accessories, Cross-connector, 32 A	
GTIN (EAN)	4032248535934		
Qty.	20 pc(s).		
Type	ZQV 4N/4 BL	Version	
Order No.	1794020000	Accessories, Cross-connector, 32 A	
GTIN (EAN)	4032248233816		
Qty.	60 pc(s).		
Type	ZQV 4N/10 RT	Version	
Order No.	1794040000	Accessories, Cross-connector, 32 A	
GTIN (EAN)	4032248234004		
Qty.	20 pc(s).		
Type	ZQV 4N/3 GE	Version	
Order No.	1762630000	Accessories, Cross-connector, 32 A	
GTIN (EAN)	4032248169788		
Qty.	60 pc(s).		
Type	ZQV 4N/2 BL	Version	
Order No.	1793960000	Accessories, Cross-connector, 32 A	
GTIN (EAN)	4032248233755		
Qty.	60 pc(s).		
Type	ZQV 4N/3 BL	Version	
Order No.	1793990000	Accessories, Cross-connector, 32 A	
GTIN (EAN)	4032248233786		
Qty.	60 pc(s).		
Type	ZQV 4N/20 SW	Version	
Order No.	1909120000	Accessories, Cross-connector, 32 A	
GTIN (EAN)	4032248535804		
Qty.	20 pc(s).		
Type	ZQV 4N/2 RT	Version	
Order No.	1793950000	Accessories, Cross-connector, 32 A	
GTIN (EAN)	4032248233748		
Qty.	60 pc(s).		
Type	ZQV 4N/4 GE	Version	
Order No.	1762620000	Accessories, Cross-connector, 32 A	
GTIN (EAN)	4032248169771		
Qty.	60 pc(s).		
Type	ZQV 4N/3 RT	Version	
Order No.	1793980000	Accessories, Cross-connector, 32 A	
GTIN (EAN)	4032248233779		
Qty.	60 pc(s).		

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Accessories

Accessories

The MICROOPTO range of products provide the user with the tried and tested characteristics of terminal blocks. Pluggable cross-connections and harmonised marking solutions packaged in a minimum design width. Best performance within a small footprint.

- 6.1 mm width
- Plug-in standard ZQV 4N cross-connection
- Suitable for labelling with the MultiCard system
- Suitable for mounting on TS35 rail
- Housing material made of WEMID (higher thermal stability in comparison with polyamide)

General ordering data

Type	MOS SUPPLY	Version	
Order No.	8973460000	MICROOPTO, Supply module, Screw connection	
GTIN (EAN)	4032248799541		
Qty.	1 pc(s).		
Type	MOS FEED THROUGH	Version	
Order No.	8973450000	MICROOPTO, Feed-through terminal, Screw connection	
GTIN (EAN)	4032248799534		
Qty.	1 pc(s).		

Slotted screwdriver

Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

General ordering data

Type	SDS 0.6X3.5X100	Version	
Order No.	9008330000	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade	
GTIN (EAN)	4032248056286	thickness (A): 0.6 mm	
Qty.	1 pc(s).		

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Accessories

Slotted screwdriver

VDE insulated screwdriver sets, for working on live parts up to 1000 V AC and 1500 V DC, DIN EN 60900. IEC 900. Each piece is "GS" safety tested. Blade made from fully hardened, high-alloy chromium-vanadium-molybdenum steel, gun-metal finish.

General ordering data

Type	SDIS SL 0.6X3.5X100	Version	
Order No.	1274660000		Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4050118072631		thickness (A): 0.6 mm
Qty.	1 pc(s).		

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