

MOS 24VDC/8-30VDC 2A**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Compact and powerful solid-state relays in terminal block format

Saving space in the panel is becoming more and more important, and requires increasingly compact components. With the compact and powerful MICROOPTO solid-state relays, you benefit from our decades of experience in manufacturing products in terminal block format. The MICROOPTO family comprises high-quality solid-state relays for application-specific problem solving and delivers high performance in a width of just 6.1 mm. The wide range of accessories from plug-in cross-connections to end-to-end marking solutions makes it particularly versatile. Thanks to international approvals, they can be used worldwide. Reliable function is ensured by the integrated protective suppressor circuit for inputs and outputs.

General ordering data

Version	MICROOPTO, Solid-state relay, Rated control voltage: 24 V DC $\pm 20\%$, Rated switching voltage: 8...30 V DC, Continuous current: 2 A, Screw connection
Order No.	8937970000
Type	MOS 24VDC/8-30VDC 2A
GTIN (EAN)	4032248716203
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	97 mm	Depth (inches)	3.819 inch
Height	88.1 mm	Height (inches)	3.468 inch
Width	6.1 mm	Width (inches)	0.24 inch
Net weight	35.81 g		

Temperatures

Storage temperature	-40 °C...80 °C	Operating temperature	-25 °C...60 °C
Humidity	5-95% relative humidity, T _u = 55°C, without condensation		

Probability of failure

MTTF	847 Jahre
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Control side

Rated control voltage	24 V DC $\pm 20\%$	Power rating	≤ 170 mW
Protective circuit	Varistor, Reverse polarity protection	Input frequency	125 Hz

Load side

Rated switching voltage	8...30 V DC	Continuous current	2 A
Max. switching current	4 A	Load category	LC A
Switch-on delay	0.1 ms	Switch-off delay	<0.5 ms
Voltage drop at max. load	≤ 50 mV	Leakage current	<10 μ A
Min. switching current	100 μ A	Short-circuit-proof	Yes (thermal cut-out)
Load side status indicator	LED green, output switched, LED red, short-circuit / overload at the output	Protective circuit, load side	Varistor, Free-wheeling diode
Contact type	1 NO contact (Intelligent POWER MOS-FET)	max. switching frequency (DC control voltage)	125 Hz
Nominal auxiliary voltage	8...30 V DC / max. 6 mA		

General data

Version	with functional earth connection		
Rail	TS 35		
Colour	black		
UL 94 flammability rating	V-0		
UL94 flammability rating component	Component	Housing	
	UL94 flammability rating	V-0	

Insulation coordination

Rated voltage	30 V	Pollution severity	2
Surge voltage category	III	Dielectric strength for control side - load side	350 V _{eff} / 1 min.
Dielectric strength to mounting rail	350 V _{eff} / 1 min.	Impulse withstand voltage	500 V (1,2/50 μ)
Protection degree	IP20		

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Technical data

Further details of approvals / standards

Certificate No. (DNV)	TAE000033E	Certificate no. (cULus)	E141197
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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 6.0	EC001504	ETIM 7.0	EC001504
ETIM 8.0	EC001504	ETIM 9.0	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
ECLASS 12.0	27-37-16-04	ECLASS 13.0	27-37-16-04

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	d32f8e61-6733-45d6-9062-c95f9903aad6

Important note

Product information	The cable lengths must not exceed 30 m.
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Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E141197

Downloads

Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Engineering Data	CAD data – STEP
User Documentation	Beipackzettel / Package Insert – multilingual
Catalogues	Catalogues in PDF-format
Brochures	

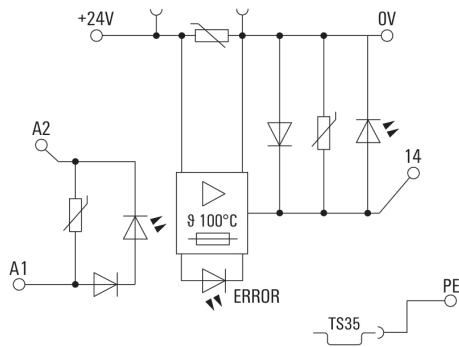
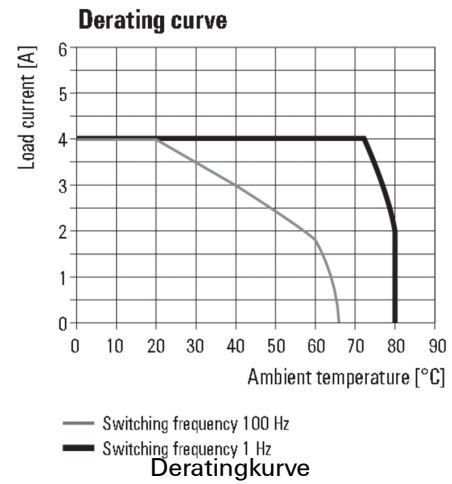
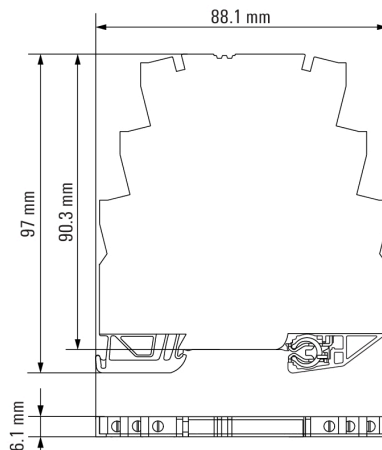
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Drawings
Wiring diagram

Graph

Dimensional drawing


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Accessories

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.	2749810000	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4050118897012	thickness (A): 0.6 mm
Qty.	1 pc(s).	

4 mm²

The plug-in cross-connections feature easy handling and quick installation. This saves a great deal of time during installation in comparison with screwed solutions.

General ordering data

Type	ZQV 4N/20 SW	Version
Order No.	1909120000	W-Series, Cross-connector, 32 A
GTIN (EAN)	4032248535804	
Qty.	20 pc(s).	
Type	ZQV 4N/20 BL	Version
Order No.	1909100000	W-Series, Cross-connector, 32 A
GTIN (EAN)	4032248535774	
Qty.	20 pc(s).	
Type	ZQV 4N/20 GE	Version
Order No.	1909020000	W-Series, Cross-connector, 32 A
GTIN (EAN)	4032248535644	
Qty.	20 pc(s).	
Type	ZQV 4N/20 RT	Version
Order No.	1909150000	W-Series, Cross-connector, 32 A
GTIN (EAN)	4032248535934	
Qty.	20 pc(s).	
Type	ZQV 4N/2 SW	Version
Order No.	1793970000	W-Series, Cross-connector, 32 A
GTIN (EAN)	4032248233762	
Qty.	60 pc(s).	

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Accessories

Type	ZQV 4N/10 SW	Version
Order No.	1794060000	W-Series, Cross-connector, 32 A
GTIN (EAN)	4032248234059	
Qty.	20 pc(s).	
Type	ZQV 4N/4 SW	Version
Order No.	1794030000	W-Series, Cross-connector, 32 A
GTIN (EAN)	4032248233915	
Qty.	60 pc(s).	
Type	ZQV 4N/3 SW	Version
Order No.	1794000000	W-Series, Cross-connector, 32 A
GTIN (EAN)	4032248233793	
Qty.	60 pc(s).	

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 PrintJet CONNECT oder/or Plotter 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).	

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Saving space in the panel is becoming more and more important, and requires increasingly compact components. With the compact and powerful MICROOPTO solid-state relays, you benefit from our decades of experience in manufacturing products in terminal block format. The MICROOPTO family comprises high-quality solid-state relays for applicationspecific problem solving and delivers high performance in a width of just 6.1 mm. The wide range of accessories from plug-in cross-connections to end-to-end marking solutions makes it particularly versatile. Thanks to international approvals, they can be used worldwide. Reliable function is ensured by the integrated protective suppressor circuit for inputs and outputs. The wide MICROOPTO portfolio includes a range of solutions for special loads. For example, for inductive loads up to 10 A at 24 V DC or for DC loads up to 300 V. In addition, there are solutions for decoupling 5 V TTL inputs and outputs, for frequencies up to 550 kHz, as well as the single CO contact version for inverting signals.

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



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 SLIM 0.6X3.5X100	Version
Order No.	2749610000	Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4050118896350	thickness (A): 0.6 mm
Qty.	1 pc(s).	

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Accessories

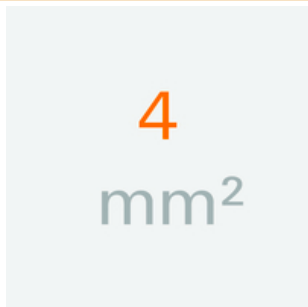
Slotted screwdriver



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.	2749340000	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm
GTIN (EAN)	4050118895568	
Qty.	1 pc(s).	

4 mm²

The plug-in cross-connections feature easy handling and quick installation. This saves a great deal of time during installation in comparison with screwed solutions.

General ordering data

Type	ZQV 4N/4	Version
Order No.	1527970000	Cross-connector (terminal), Plugged, Number of poles: 4, Pitch in mm
GTIN (EAN)	4050118332889	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	60 pc(s).	
Type	ZQV 4N/2 RD	Version
Order No.	2460450000	Cross-connector (terminal), Plugged, Number of poles: 2, Pitch in mm
GTIN (EAN)	4050118476149	(P): 6.10, 32 A, red
Qty.	60 pc(s).	
Type	ZQV 4N/10	Version
Order No.	1528090000	Cross-connector (terminal), Plugged, Number of poles: 10, Pitch in mm
GTIN (EAN)	4050118332896	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	20 pc(s).	
Type	ZQV 4N/10 RD	Version
Order No.	2460740000	Cross-connector (terminal), Plugged, Number of poles: 10, Pitch in mm
GTIN (EAN)	4050118476163	(P): 6.10, 32 A, red
Qty.	20 pc(s).	
Type	ZQV 4N/4 BL	Version
Order No.	1528120000	Cross-connector (terminal), Plugged, Number of poles: 4, Pitch in mm
GTIN (EAN)	4050118332872	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	60 pc(s).	

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Type	ZQV 4N/2	Version
Order No.	1527930000	Cross-connector (terminal), Plugged, Number of poles: 2, Pitch in mm
GTIN (EAN)	4050118332766	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	60 pc(s).	
Type	ZQV 4N/3	Version
Order No.	1527940000	Cross-connector (terminal), Plugged, Number of poles: 3, Pitch in mm
GTIN (EAN)	4050118332865	(P): 6.10, Insulated: Yes, 32 A, orange
Qty.	60 pc(s).	
Type	ZQV 4N/4 RD	Version
Order No.	2460800000	Cross-connector (terminal), Plugged, Number of poles: 4, Pitch in mm
GTIN (EAN)	4050118476224	(P): 6.10, Insulated: Yes, 32 A, red
Qty.	60 pc(s).	
Type	ZQV 4N/3 RD	Version
Order No.	2460810000	Cross-connector (terminal), Plugged, Number of poles: 3, Pitch in mm
GTIN (EAN)	4050118476231	(P): 6.10, 32 A, red
Qty.	60 pc(s).	
Type	ZQV 4N/3 BL	Version
Order No.	1528080000	Cross-connector (terminal), Plugged, Number of poles: 3, Pitch in mm
GTIN (EAN)	4050118333008	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	60 pc(s).	
Type	ZQV 4N/10 BL	Version
Order No.	1528230000	Cross-connector (terminal), Plugged, Number of poles: 10, Pitch in mm
GTIN (EAN)	4050118333138	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	20 pc(s).	
Type	ZQV 4N/2 BL	Version
Order No.	1528040000	Cross-connector (terminal), Plugged, Number of poles: 2, Pitch in mm
GTIN (EAN)	4050118332773	(P): 6.10, Insulated: Yes, 32 A, blue
Qty.	60 pc(s).	