

MICROOPTO MOS 12-28VDC/5VTTL

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

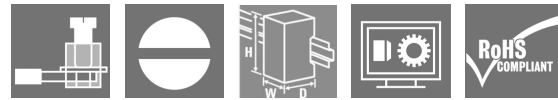
D-32758 Detmold

Germany

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www.weidmueller.com



To adjust sensitive TTL signals to the typical voltage level of 24 V DC used in industrial automation applications, the MICROOPTO TTL modules are used. For the protection of the electronics, the sensitive TTL signals require electrical isolation from the 24 V world. To control the opto circuit via the 5 V TTL signal, an additional auxiliary voltage is fed in.

General ordering data

Type	MOS 12-28VDC/5VTTL
Order No.	8937930000
Version	MICROOPTO, solid-state relays, 1 NO contact (TTL), Rated control voltage: 12 V DC...28 V DC , Rated switching voltage: 5 V TTL, Continuous current: 50 mA, Screw connection
GTIN (EAN)	4032248716166
Qty.	1 pc(s).

Creation date May 1, 2020 4:57:50 AM CEST

Catalogue status 17.04.2020 / We reserve the right to make technical changes.

**MICROOPTO
MOS 12-28VDC/5VTTL**

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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	34 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	2,047 Years
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Control side

Rated control voltage	12 V DC...28 V DC	Power rating	150 mW
Cut-in / dropout voltage	10.7 V / 10.6 V DC	Status indicator	Green LED
Protective circuit	Varistor, Reverse polarity protection		

Load side

Rated switching voltage	5 V TTL	Continuous current	50 mA
Load category	LC A	Switch-on delay	typ. < 1 µs
Switch-off delay	typical. < 4 µs	Voltage drop at max. load	90 mV
Leakage current	< 1 µA	Short-circuit-proof	No
Protective circuit, load side	Varistor	max. switching frequency (DC control voltage)	100 kHz
Nominal auxiliary voltage	5 V DC ± 10 % / max. 50 mA		

Contact data

Contact type	1 NO contact (TTL)
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General data

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. (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 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
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

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

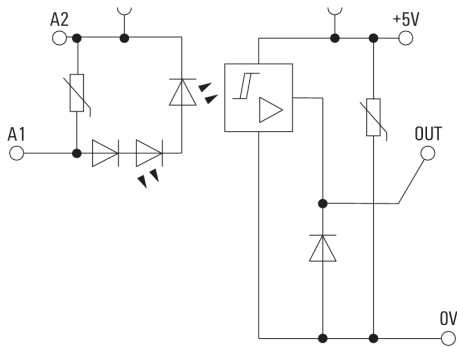
Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Brochure/Catalogue	CAT 4.2 ELECTR 18/19 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Beipackzettel / Package Insert – multilingual

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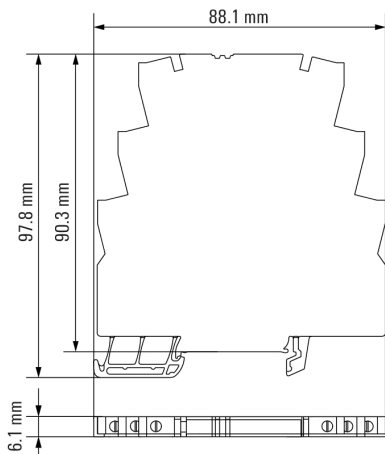
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Drawings

Wiring diagram



Dimensional drawing



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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 FEED THROUGH	Version
Order No.	8973450000	MICROOPTO, Feed-through terminal, Screw connection
GTIN (EAN)	4032248799534	
Qty.	1 pc(s).	

Type	MOS SUPPLY	Version
Order No.	8973460000	MICROOPTO, Supply module, Screw connection
GTIN (EAN)	4032248799541	
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 SL 0.6X3.5X100	Version
Order No.	1274660000	Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm
GTIN (EAN)	4050118072631	
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/4 GE	Version
Order No.	1762620000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248169771	
Qty.	60 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 SW	Version
Order No.	1794060000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248234059	
Qty.	20 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/4 SW	Version
Order No.	1794030000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233915	
Qty.	60 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/2 GE	Version
Order No.	1758250000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248169795	
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/20 RT	Version
Order No.	1909150000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248535934	
Qty.	20 pc(s).	

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Accessories

Type	ZQV 4N/20 GE	Version
Order No.	1909020000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248535644	
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/3 RT	Version
Order No.	1793980000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248233779	
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/20 BL	Version
Order No.	1909100000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248535774	
Qty.	20 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/10 BL	Version
Order No.	1794050000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248234011	
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/20 SW	Version
Order No.	1909120000	Accessories, Cross-connector, 32 A
GTIN (EAN)	4032248535804	
Qty.	20 pc(s).	

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Accessories

PicoPak



PicoPak: the robust one

- Space-saving in the control cabinet thanks to the slim 6 mm width
- Passive isolator, loop-powered at the input and output
- Increased operating temperature range: -40°C ...+70°C
- Zero and Span adjustment possible

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

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 thickness (A): 0.6 mm
GTIN (EAN)	4032248056286	
Qty.	1 pc(s).	

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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.	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).	