

## MICROOPTO MOS 12-28VDC 100kHz

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 16  
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 Germany  
 Fon: +49 5231 14-0  
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 www.weidmueller.com



A special interior circuit in the opto module MICROOPTO 100 kHz ensures that rapidly transmitted signals are isolated from one another and that they can be transferred practically without delay. This allows switching frequencies up to 100 kHz to be achieved. Comprehensive suppressor circuits safeguard the module against conducted transients and voltage spikes.

### General ordering data

Order No.	<a href="#">8937990000</a>
Type	MOS 12-28VDC 100kHz
Version	MICROOPTO, Solid-state relay, Rated control voltage: 12 V DC...28 V DC, Rated switching voltage: 19.6...28.8 V, Rated switching current: 50 mA, Screw connection
GTIN (EAN)	4032248716227
Qty.	1 pc(s).

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**Technical data**
**Dimensions and weights**

Width	6.1 mm	Height	88 mm
Depth	98 mm	Net weight	31.81 g

**Temperatures**

Operating temperature	-20 °C...+60 °C	Storage temperature	-40 °C...+80 °C
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**Probability of failure**

MTTF	2,559 Years
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**Connection data**

Clamping range, rated connection	2.5 mm <sup>2</sup>	Clamping range, rated connection, min.	0.5 mm <sup>2</sup>
Clamping range, rated connection, max.	4 mm <sup>2</sup>		

**Control side**

Rated control voltage	12 V DC...28 V DC	Power rating	≤ 280 mW
Input frequency	100 kHz	Cut-in (switch-on) voltage	> 5.6 V
Dropout voltage	≤ 15 V DC	Protective circuit, control side	Varistor, rev. polarity protection
Status display on control side	Green LED		

**Load side**

Rated switching voltage	19.6...28.8 V	Continuous current	max. 50 mA
Rated switching current	50 mA	Pulse load, max. current	0.6 A (20 ms)
Switch-on delay	< 200 ns	Switch-off delay	< 400 ns
Load category	LC A	Leakage current	< 1 µA
Protective circuit, load side	Varistor, rev. polarity protection	Voltage drop at max. load	≤ 2 V
Short-circuit-proof	No		

**General data**

Solid-state type	Transistor	No. of poles	1
Conductor connection system	Screw connection	Humidity	5...95 % rel. humidity T <sub>u</sub> = 55°C, no condensation
UL 94 flammability rating	V-0	Standards	DIN EN 50178, GL 2003-VI-Abs. 9, IEC 62314, UL508

**Insulation coordination**

Rated voltage	30 V	Dielectric strength for control side - load side	350 V <sub>eff</sub> / 1 min.
Dielectric strength to mounting rail	350 V <sub>eff</sub> / 1 min.	Impulse withstand voltage	500 V (1,2/50 µ)
Rated impulse withstand voltage	500 V (1.2/50 µs)	Pollution severity	2
Surge voltage category	II		

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**Technical data**

**Further details of approvals**

Standards                      DIN EN 50178, GL 2003-  
 VI-Abs. 9, IEC 62314,  
 UL508

**Classifications**

ETIM 3.0	EC001504	UNSPSC	30-21-18-01
eClass 5.1	27-27-09-90	eClass 6.0	27-27-09-90
eClass 7.0	27-27-09-90		

**Approvals**

Approvals



**Downloads**

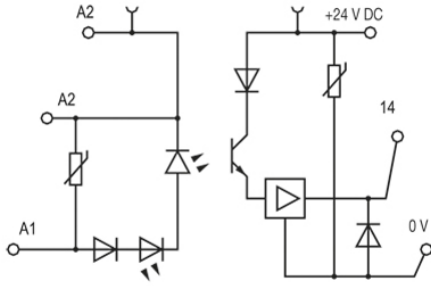
Declaration of Conformity	<a href="#">K300_11_08.pdf</a>
EPLAN	<a href="#">8937990000.ema</a>
	<a href="#">3-D model</a>

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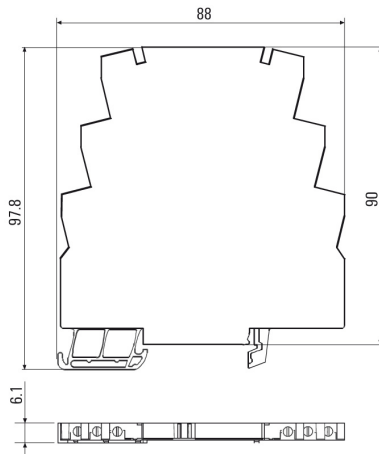
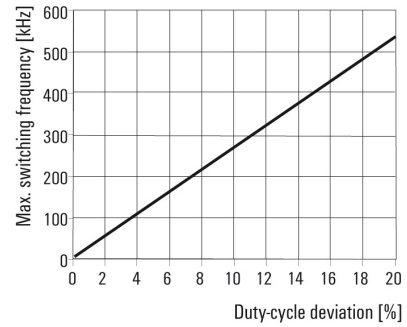
**Drawings**

**Electric symbol**



**Max. switching frequency is dependent  
on the duty cycle deviation**

MOS 12-28 V DC 100 kHz (switching current 50 mA, ohmic load)



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**Accessories**
**Blank**


**WS markers** are the perfect match for the connectors of the W series. But thanks to their system compatibility the WS tags can also be used with the I series and the Z series. The large areas for printing permit not only long character strings but also multiple lines.

**WS markers** are ideal for labels with long, bespoke character strings. The tried-and-tested MultiCard format means that printing can be carried out with **laser** printers, **PrintJet, plotters** or the **MC-Mobilo**.

- Can be fitted in strips or singly
- Markers in proven multicard format

**General ordering data**

Order No.	Type	Version	GTIN (EAN)	Qty.
<a href="#">1609900000</a>	WS 12/6 MC NE WS	Terminal markers, MultiCard, 12 x 6 mm, Polyamide, Colour: White	4008190203467	600 pc(s).

**ZQV 4N**


Weidmüller offers users of modular terminals of the Z-Series a comprehensive range of accessories that render possible appropriate solutions for all - even non-standard - tasks.

The accessories must comply with the same quality standards as the modular terminals themselves.

**General ordering data**

Order No.	Type	Version	GTIN (EAN)	Qty.
<a href="#">1793960000</a>	ZQV 4N/2 BL	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 2	4032248233755	60 pc(s).
<a href="#">1758250000</a>	ZQV 4N/2 GE	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 2	4032248169795	60 pc(s).
<a href="#">1794060000</a>	ZQV 4N/10 SW	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 10	4032248234059	20 pc(s).
<a href="#">1793970000</a>	ZQV 4N/2 SW	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 2	4032248233762	60 pc(s).
<a href="#">1762630000</a>	ZQV 4N/3 GE	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 3	4032248169788	60 pc(s).
<a href="#">1794000000</a>	ZQV 4N/3 SW	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 3	4032248233793	60 pc(s).

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### Accessories

<a href="#">1794010000</a> ZQV 4N/4 RT	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 4	4032248233809 60 pc(s).
<a href="#">1794040000</a> ZQV 4N/10 RT	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 10	4032248234004 20 pc(s).
<a href="#">1794020000</a> ZQV 4N/4 BL	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 4	4032248233816 60 pc(s).
<a href="#">1794050000</a> ZQV 4N/10 BL	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 10	4032248234011 20 pc(s).
<a href="#">1793990000</a> ZQV 4N/3 BL	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 3	4032248233786 60 pc(s).
<a href="#">1794030000</a> ZQV 4N/4 SW	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 4	4032248233915 60 pc(s).
<a href="#">1762620000</a> ZQV 4N/4 GE	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 4	4032248169771 60 pc(s).
<a href="#">1758260000</a> ZQV 4N/10 GE	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 10	4032248169764 20 pc(s).
<a href="#">1793950000</a> ZQV 4N/2 RT	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 2	4032248233748 60 pc(s).
<a href="#">1793980000</a> ZQV 4N/3 RT	Z-series, Accessories, Cross-connector, For the terminals, No. of poles: 3	4032248233779 60 pc(s).

### 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

Order No.	Type	Version	GTIN (EAN)	Qty.
<a href="#">8973450000</a>	MOS FEED THROUGH	MICROOPTO, Accessories, Screw connection	4032248799534	1 pc(s).
<a href="#">8973460000</a>	MOS SUPPLY	MICROOPTO, Accessories, Screw connection	4032248799541	1 pc(s).

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## Accessories

### Screwdrivers



#### Always the right tools:

Weidmüller screwdrivers are the result of a consistent grip concept which takes into account both the human hand and the different requirements when working. The right blade for every screw - with four different handle sizes

The advantages are obvious:

- User-friendly: ergonomic handle arrangement for effortless working progress
- Optimised connections: compatible blade and perfect handle size for maximum torque
- Reliable: even easier operation for even quicker wiring

The result: efficient, professional working progress.

#### General ordering data

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

### QB 58, QB 75, uninsulated



Poles are easy to break off for contacts that do not require a connection.

Cross-connection, plain-cut (with insulation profile as electric-shock protection if required).

6.0 mm and 8.0 mm pitches

The mounting tolerances of the terminals must be taken into account.

#### General ordering data

Order No.	Type	Version	GTIN (EAN)	Qty.
<a href="#">0526760000</a>	ISPF QB75 RT	Accessories, Insulation profile	4008190157821	10 pc(s).
<a href="#">0526780000</a>	ISPF QB75 BL	Accessories, Insulation profile	4008190093105	10 pc(s).
<a href="#">0526700000</a>	ISPF QB75 SW	Accessories, Insulation profile	4008190093723	10 pc(s).
<a href="#">0535200000</a>	QB 75/6.2/15	SAK Series, Accessories, Cross-connector, for cross-connection link, No. of poles: 75	4008190179168	10 pc(s).