

MICROOPTO MOS 12-28VDC 100KHZ

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 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

Type	MOS 12-28VDC 100KHZ
Order No.	8937990000
Version	MICROOPTO, solid-state relais, 1 NO contact (Transistor), Rated control voltage: 12 V DC...28 V DC , Rated switching voltage: 19.6...28.8 V DC, Continuous current: 50 mA, Screw connection
GTIN (EAN)	4032248716227
Qty.	1 pc(s).

**MICROOPTO
MOS 12-28VDC 100KHZ**

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

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	31.81 g		

Temperatures

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

Probability of failure

MTTF	2,559 Years
------	-------------

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
------------	----------------

Control side

Rated control voltage	12 V DC...28 V DC	Power rating	≤ 360 mW
Cut-in / dropout voltage	5.6 V / 5 V DC	Cut-in / dropout current	2.5 mA / 1.6 mA DC
Status indicator	Green LED	Protective circuit	Varistor, Reverse polarity protection

Load side

Rated switching voltage	19.6...28.8 V DC	Continuous current	50 mA
Rated switching current	50 mA	Load category	LC A
Pulse load, max. current	0.6 A (20 ms)	Switch-on delay	< 200 ns
Switch-off delay	< 400 ns	Voltage drop at max. load	≤ 2 V
Leakage current	< 1 µA	Short-circuit-proof	No
Protective circuit, load side	Varistor, Reverse polarity protection	max. switching frequency (DC control voltage)	530 kHz
Nominal auxiliary voltage	19.6...28.8 V / max. 8 mA		

Contact data

Contact type	1 NO contact (Transistor)
--------------	---------------------------

General data

Rail	TS 35	Colour	black
UL 94 flammability rating	V-0		

MICROOPTO MOS 12-28VDC 100KHZ

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

Technical data

Insulation coordination

Rated voltage	30 V	Pollution severity	2
Surge voltage category	II	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		

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

Ratings IECEx/ATEX/cUL

Certificate no. (cULus)	E141197
-------------------------	---------

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
MOS 12-28VDC 100KHZ**

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

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

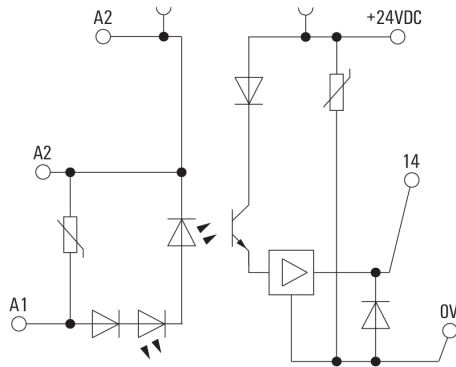
Data sheet

**MICROOPTO
MOS 12-28VDC 100KHZ**

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

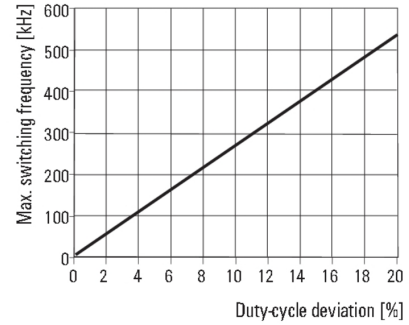
Drawings

Wiring diagram



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

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



**Max. switching frequency depending
on the duty-cycle deviation**

Dimensional drawing

