

MICROOPTO MOS 12-28VDC 100kHz

Weidmüller Interface GmbH & Co. KG
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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 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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Technische Daten
Dimensions and weights

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

Temperatures

Humidity	5–95% rel. humidity, $T_u = 55^\circ\text{C}$, no condensation	Operating temperature	-20 °C...+60 °C
Storage temperature	-40 °C...+80 °C		

Probability of failure

MTTF	2,559 Years
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control side

Cut-in dropout voltage	5.6 V / 5 V DC	Rated control voltage	12 V DC...28 V DC
Power rating	≤ 280 mW	Input frequency	100 kHz
Protective circuit, control side	Varistor, rev. polarity protection	Status display on control side	Green LED

Load side

Solid-state type	Transistor	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
Wire connection method	Screw connection	Humidity	5–95% rel. humidity, $T_u = 55^\circ\text{C}$, no condensation
UL 94 flammability rating	V-0	Standards	DIN EN 50178, GL 2003-VI-Abs. 9, IEC 62314, UL508
Wire cross-section, solid, max.	4 mm ²	Wire connection cross section, finely stranded, max.	2.5 mm ²

Insulation coordination

Rated voltage	30 V	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)
Pollution severity	2	Surge voltage category	II

Further details of approvals

Certificate No. (GERMLLOYD)	54853-08	Certificate no. (cULus)	E141197
Standards	DIN EN 50178, GL 2003-VI-Abs. 9, IEC 62314, UL508		

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Technische Daten

Connection data

Clamping range, rated connection	2.5 mm ²	Clamping range, rated connection, max.	4 mm ²
Clamping range, rated connection, min.	0.5 mm ²	Conductor cross-section, flexible, AEH (DIN 46228-1), max.	1.5 mm ²
Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.5 mm ²	Cross-section for connected conductor, finely stranded with wire-end ferrules and plastic collars DIN 46228/4, rated connection, min.	0.5 mm ²
Stripping length, rated connection	7 mm	Tightening torque, max.	0.6 Nm
Tightening torque, min.	0.4 Nm	Wire connection cross section, finely stranded, max.	2.5 mm ²
Wire connection cross-section, finely stranded with wire-end ferrules and plastic collars DIN 46228/4, rated connection, max.	1.5 mm ²	Wire connection cross-section, finely stranded, min.	0.5 mm ²
Wire connection method	Screw connection	Wire cross-section, solid, max.	4 mm ²
Wire cross-section, solid, min.	0.5 mm ²		

Classifications

ETIM 3.0	EC001504	UNSPSC	30-21-18-01
eClass 5.1	27-27-09-90	eClass 6.2	27-27-09-90
eClass 7.1	27-27-09-90		

Product information

Descriptive text accessories Accessories and dimensioned drawings: refer to the MICROOPTO Accessories page.

Approvals

Approvals



ROHS Conform

Downloads

Declaration of Conformity	K300_11_08.pdf
EPLAN	8937990000.ema
3D Modell	

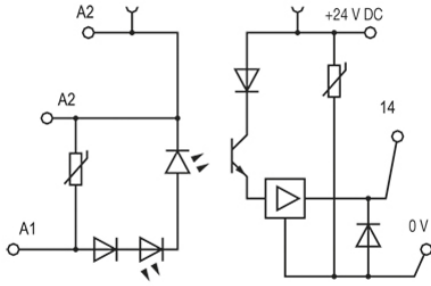
Datenblatt

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Zeichnungen

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)

