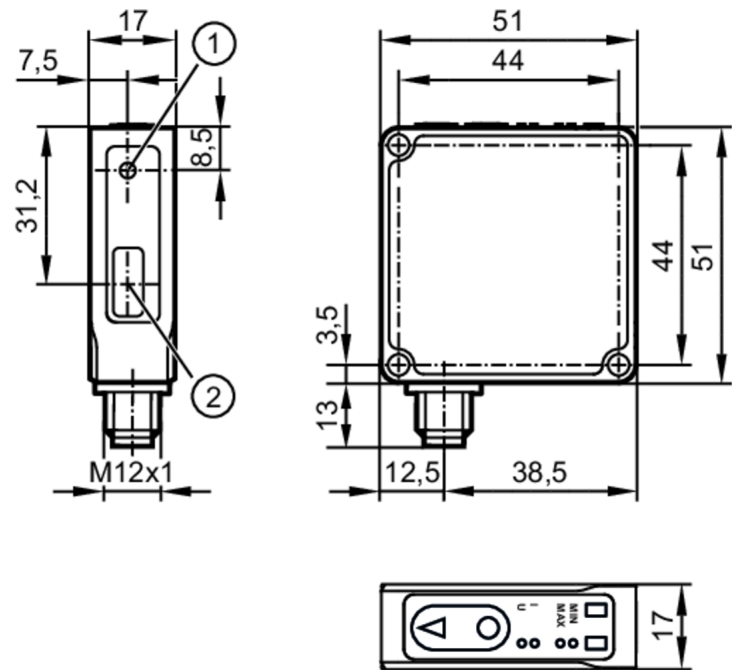




Photoelectric distance sensor

OMHLF8KG/IO-Link/US



- 1 transmitter
- 2 receiver



Product characteristics

Type of light	red light
Laser protection class	1
Housing	rectangular

Electrical data

Operating voltage	[V]	10...30 DC; ("supply class 2" to cULus)
Current consumption	[mA]	< 30
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	< 0.3
Type of light		red light
Wave length	[nm]	630
Typ. lifetime	[h]	50000

Inputs / outputs

Number of inputs and outputs	Number of digital inputs: 1; Number of digital outputs: 1; Number of analogue outputs: 1
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Inputs

Inputs	Laser On/ Off
Number of digital inputs	1

Outputs

Total number of outputs	2
Electrical design	PNP/NPN; (parameterisable)



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Number of digital outputs	1
Output function	normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC [V]	2.2
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	200
Notes on switching frequency [Hz]	standard
Number of analogue outputs	1
Analogue current output [mA]	4...20; (IEC61131-2)
Max. load [Ω]	500
Analogue voltage output [V]	0...10; (IEC 61131-2)
Min. load resistance [Ω]	5000
Short-circuit protection	yes
Overload protection	yes

Detection zone

Range adjustable	yes
Max. light spot diameter [mm]	1
Light spot dimensions refer to	at maximum range

Measuring/setting range

Measuring range [m]	0.05...0.2; (6...90% remission)
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Accuracy / deviations

Temperature compensation	yes
Repeatability [mm]	0.1
Linearity error of analogue output [%]	±0,07
Resolution [mm]	0,05
Notes on the accuracy / deviation	The indicated values are reached after a warm-up time of 20 minutes.

Software / programming

Parameter setting options	hysteresis / window / 2-point; Switch-on and switch-off delay; switch-on operations; Teach function; filter; light-on/dark-on mode; laser switch-off; Type of operation
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Interfaces

Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
Profiles	Measuring and Switching Sensor, 1 channel, Identification and Diagnosis, Sensor Control, Teach two value, Locator, ProductURI	
SIO mode	yes	
Required master port type	A	
Min. process cycle time [ms]	3.2	
IO-Link process data (cyclical)	function	bit length
	process value	16
	device status	4
	binary switching information	2

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IO-Link functions (acyclical)		application specific tag; operating hours counter	
Supported DeviceIDs		Type of operation	DeviceID
		default	1608
Note		For further information please see the IODD PDF file under "Downloads"	
Operating conditions			
Ambient temperature	[°C]	0...60	
Storage temperature	[°C]	-10...65	
Protection		IP 65; IP 67	
Tests / approvals			
EMC	EN 61000-4-2 ESD	4 kV CD / plastics	
		8 kV AD / metal	
	EN 61000-4-3 HF radiated	10 V/m	
	EN 61000-4-6 HF conducted	10 V	
	EN 61000-4-4 Burst	2 kV	
	EN 55011	class B	
Vibration resistance	EN 60068-2-6 Fc	(10-55) Hz 1 mm amplitude, oscillation period 5 min., 30 min. per axis at resonance or 55 Hz	
Shock resistance	EN 60068-2-27 Ea	30 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes	
Laser protection class		1	
Notes on laser protection	Caution:	laser light	
	laser class:	1	
		EN/IEC 60825-1 2007	
		EN/IEC 60825-1 2014	
		Complies with 21 CFR 1040 except for deviations pursuant to Laser Notice No. 50, dated June 2007.	
MTTF	[years]	552	
UL approval		power supply	Class 2
Mechanical data			
Weight	[g]	127.5	
Housing		rectangular	
Dimensions	[mm]	51 x 51 x 17	
Materials		housing: diecast zinc; front pane: plastics	
Tightening torque	[Nm]	5	
Displays / operating elements			
Display	switching status	1 LED, yellow	
	supply voltage	1 LED, green	
	Operating mode	4 LED, white	
Teach function		yes	
Remarks			
Remarks		operating voltage "supply class 2" according to cULus	
Pack quantity		1 pcs.	

Photoelectric distance sensor

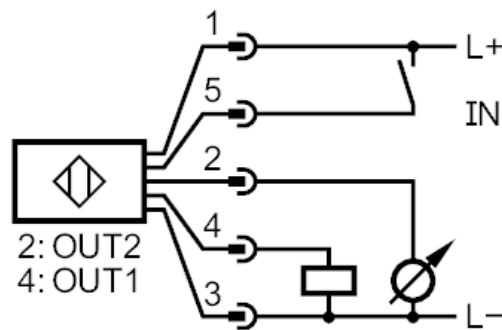
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Electrical connection

Connector: 1 x M12; coding: A



Connection



- 2: OUT2: 4...20 mA / 0...10 V
- 4: OUT1: switching output or IO-Link
- 5: IN1: Laser On/ Off