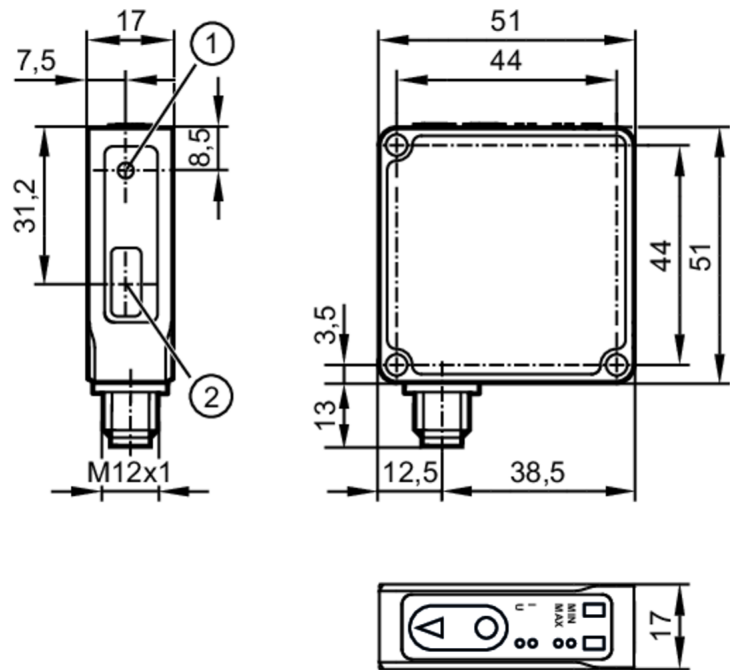




Photoelectric distance sensor

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]	0.5	
Light spot dimensions refer to	at maximum range	
Measuring/setting range		
Measuring range [m]	0.03...0.08; (6...90% remission)	
Accuracy / deviations		
Temperature compensation	yes	
Repeatability [mm]	0.03	
Linearity error of analogue output [%]	±0,1	
Resolution [mm]	0,01	
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	
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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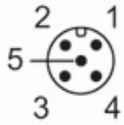
IO-Link functions (acyclical)		application specific tag; operating hours counter	
Supported DeviceIDs	Type of operation		DeviceID
	default	1606	
Note	For further information please see the IODD PDF file under "Downloads"		
Operating conditions			
Ambient temperature	[°C]	0...60	
Storage temperature	[°C]	-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]	127.2	
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			
Pack quantity		1 pcs.	

Photoelectric distance sensor

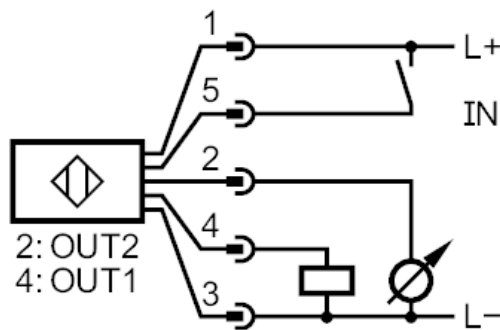
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Electrical connection

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