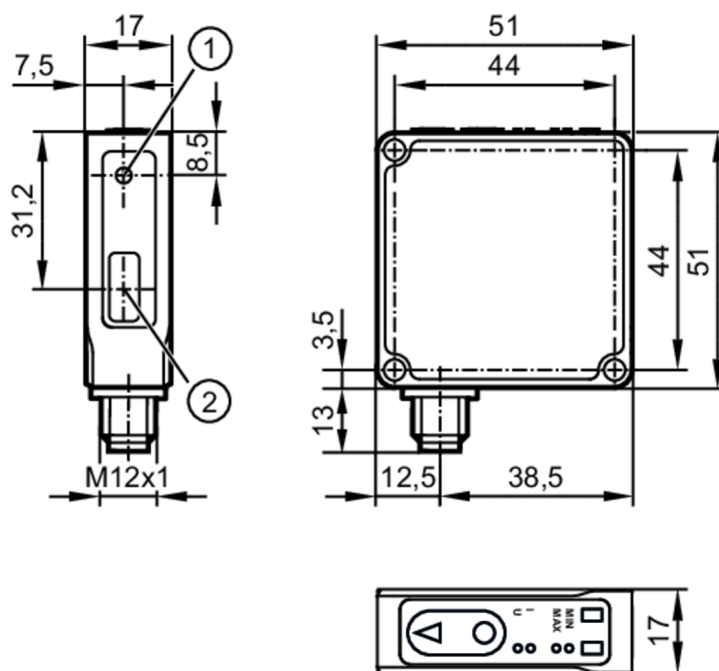


Photoelectric distance sensor

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)



Photoelectric distance sensor

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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]	150
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...0.5; (6...90% remission)
Accuracy / deviations	
Temperature compensation	yes
Linearity error of analogue output [%]	±0,22
Notes on the accuracy / deviation	The indicated values are reached after a warm-up time of 20 minutes.
Measuring range (50...300 mm)	
Repeatability [mm]	0.3
Resolution [mm]	0,3
Measuring range (300...500 mm)	
Repeatability [mm]	1
Resolution [mm]	0,5
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

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Photoelectric distance sensor

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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
IO-Link functions (acyclical)	application specific tag; operating hours counter	
Supported DeviceIDs	Type of operation	DeviceID
	default	1571
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]	127.3
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	

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Photoelectric distance sensor

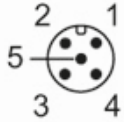
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Pack quantity

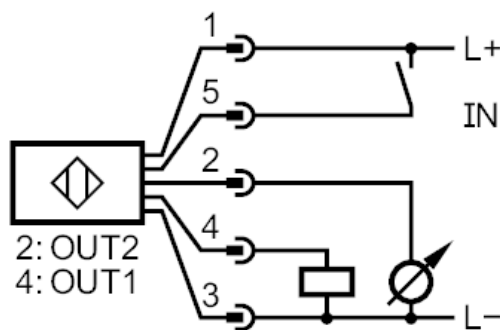
1 pcs.

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