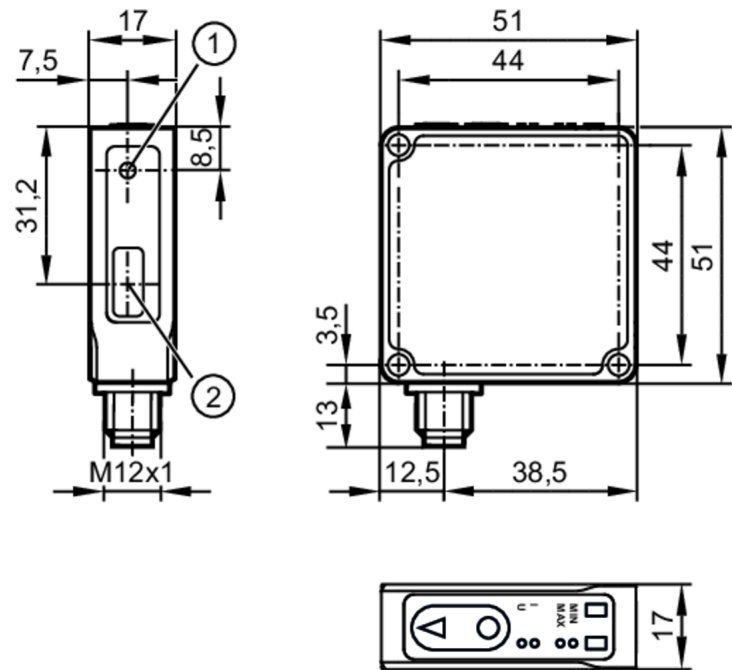


OMH551



Laser 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]	18...30 DC; (cULus - Class 2 source required)
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 analog 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; (configurable)



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Number of digital outputs	1
Output function	normally open / closed; (configurable)
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 analog outputs	1
Analog current output [mA]	4...20; (IEC61131-2)
Max. load [Ω]	500
Analog voltage output [V]	0...10; (IEC 61131-2)
Min. load resistance [Ω]	5000
Short-circuit protection	yes
Overload protection	yes

Monitoring range

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)
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Accuracy / deviations

Temperature compensation	yes
Repeatability [mm]	0.03
Linearity error of analog 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
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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 class	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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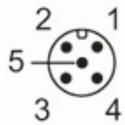
IO-Link functions (acyclical)		application specific tag; operating hours counter	
Supported DeviceIDs		Type of operation	DeviceID
		default	1606
Note		For further information please see the IODD PDF file at "Downloads"	
Operating conditions			
Ambient temperature	[°C]	0...60	
Storage temperature	[°C]	-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, vibration duration 5 min., 30 min. per axis with 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 1040.10 except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56, dated May 8, 2019.
MTTF	[years]	552	
UL approval	voltage supply		Class 2
Mechanical data			
Weight	[g]	127.2	
Housing		rectangular	
Dimensions	[mm]	51 x 51 x 17	
Material		housing: diecast zinc; front lens: 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.		

Laser distance sensor

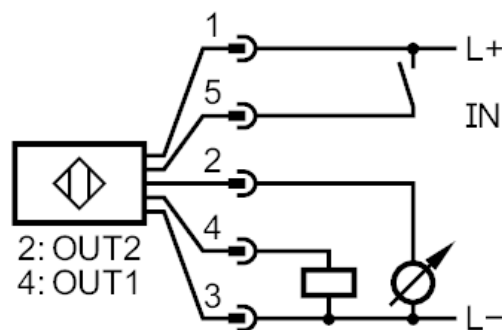
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Electrical connection

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