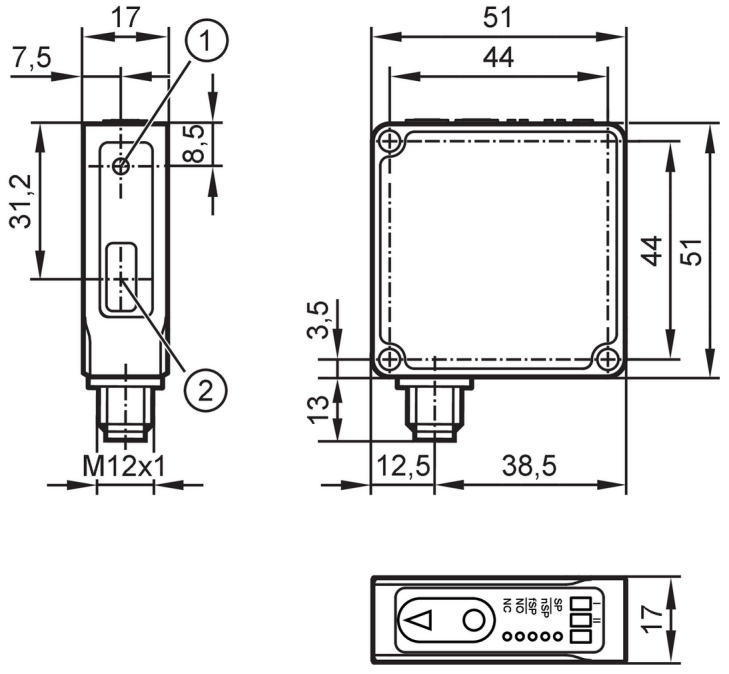
OMH550

Laser distance sensor

OMHLFCKG/IO-Link/US



1 transmitter
2 receiver

Product characteristics		
Type of light		red light
Laser protection class		1
Housing		rectangular
Application		
Application		Industrial applications
Electrical data		
Operating voltage	[V]	18...30 DC; (cULus - Class 2 source required)
Current consumption	[mA]	< 60
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: 2
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		2	
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	
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)	
Accuracy / deviations			
Temperature compensation		yes	
Repeatability	[mm]	0.03	
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		Smart Sensor - SSP 4.1.1	Measuring and Switching Sensor, 1 channel
		Common - I&D	Identification and Diagnosis
		Extension	Sensor control
		Extension	Teach two point
		Function	Locator
		Function	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
IO-Link functions (acyclical)		application specific tag; operating hours counter	
Supported DeviceIDs		**Type of operation**	**DeviceID**
		default	1605

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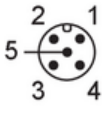
Note		For further information please see the IODD PDF file at "Downloads"	
Operating conditions			
Ambient temperature	[°C]	0...60	
Storage temperature	[°C]	-10...65	
Protection		IP 65; IP 67	
Tests / approvals			
EMC		EN 61000-4-2 ESD	4 kV CD / plastics
			8 kV AD / metal
		EN 61000-4-3 HF radiated	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]	572	
UL approval		voltage supply	Class 2
Mechanical data			
Weight	[g]	129	
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	2 LED, yellow
		supply voltage	1 LED, green
		Operating mode	5 LED, white
Teach function		yes	
Remarks			
Pack quantity		1 pcs.	
Electrical connection			

Connector: 1 x M12; coding: A; Contacts: 5



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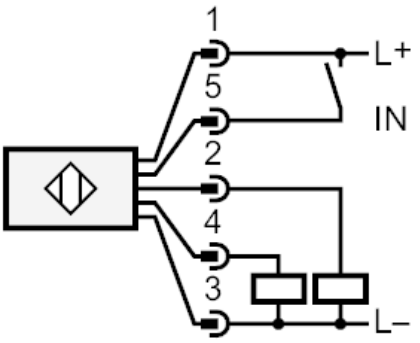
Connection



2:	OUT2: Switching output
4:	OUT1: switching output or IO-Link
5:	IN1: Laser On/ Off