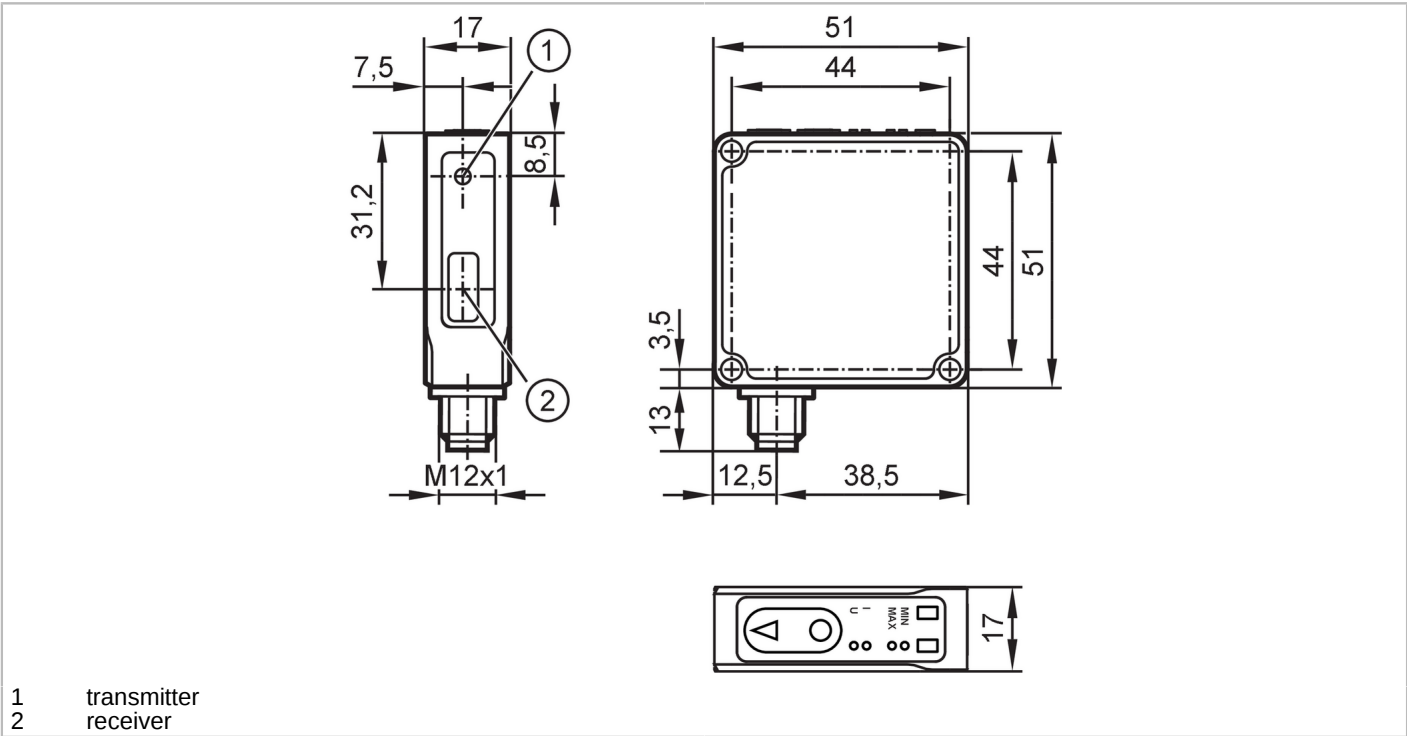


OMH551



Laser distance sensor

OMHLF8KG/IO-Link/US



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]	< 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
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)	
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	
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	



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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	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.

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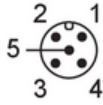


Laser distance sensor

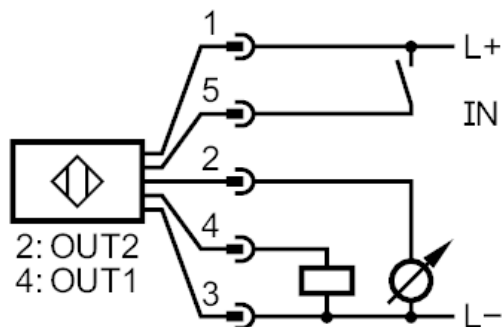
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Electrical connection

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



Connection



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