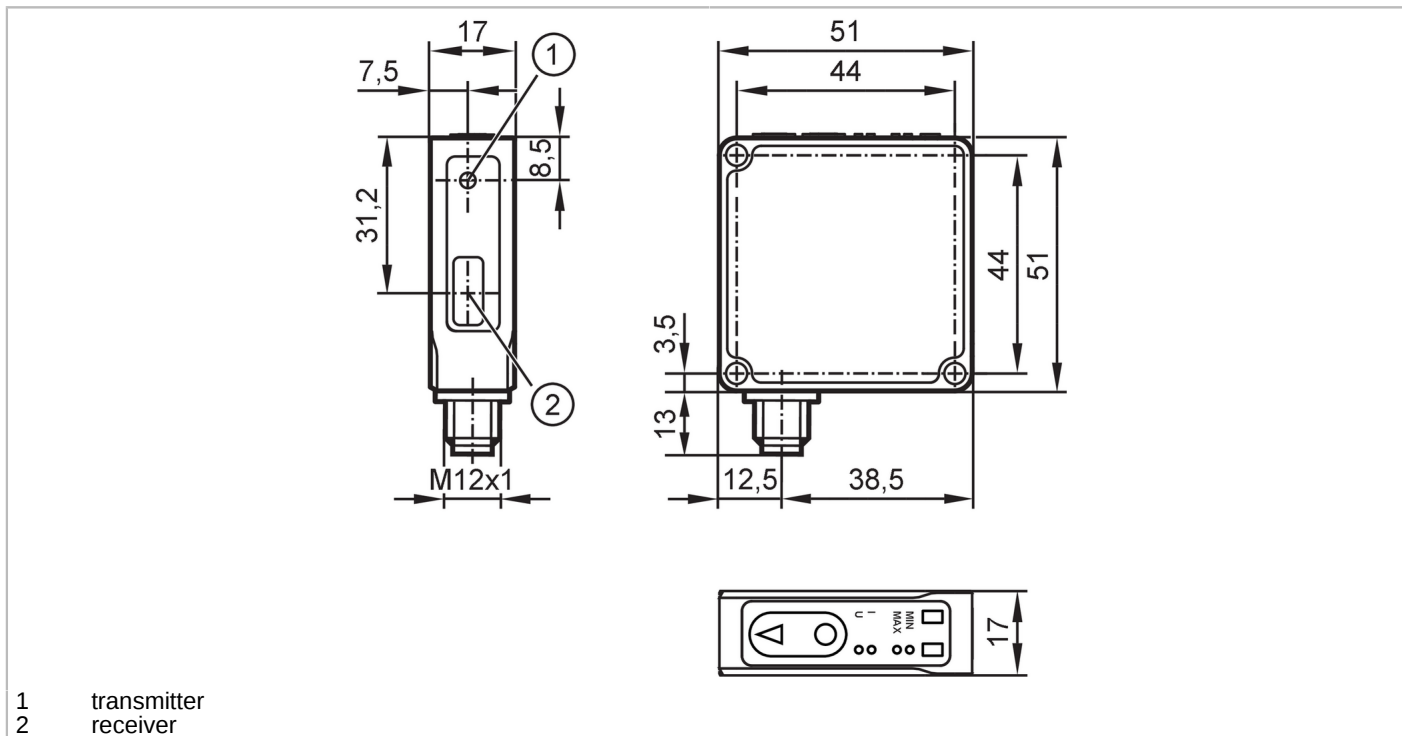


OMH551



Laser distance sensor

OMHLF8KG/IO-Link/US



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)
Number of digital outputs	1
Output function	normally open / closed; (configurable)

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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	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
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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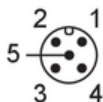


Laser distance sensor

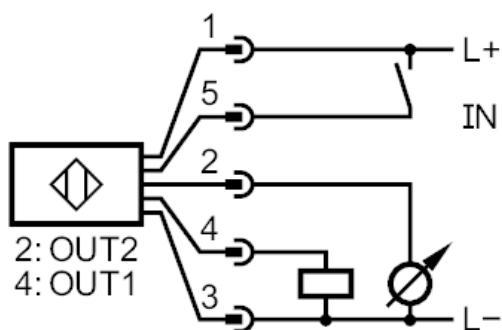
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Electrical connection

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