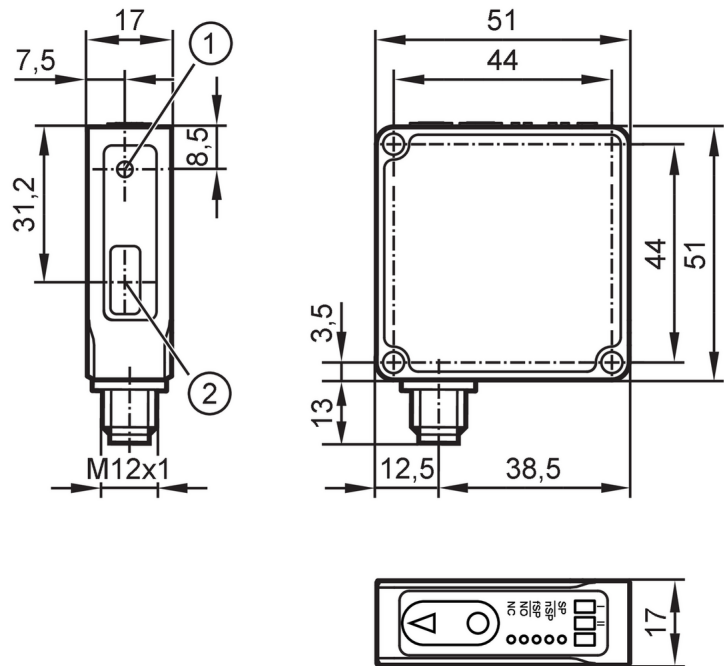


OMH554

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
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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
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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	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]	150	
Notes on switching frequency [Hz]	standard	
Short-circuit protection	yes	
Overload protection	yes	
Monitoring range		
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	
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	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	1570
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
	EN 60068-2-6 Fc	(10-55) Hz 1 mm amplitude, vibration duration 5 min., 30 min. per axis with resonance or 55 Hz
Vibration resistance	EN 60068-2-27 Ea	30 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes
Shock resistance		
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]	127.5
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
Remarks

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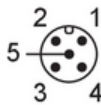
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Pack quantity

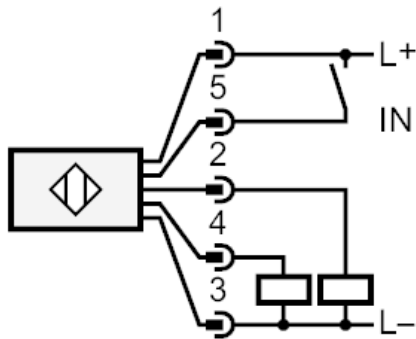
1 pcs.

Electrical connection

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



Connection



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