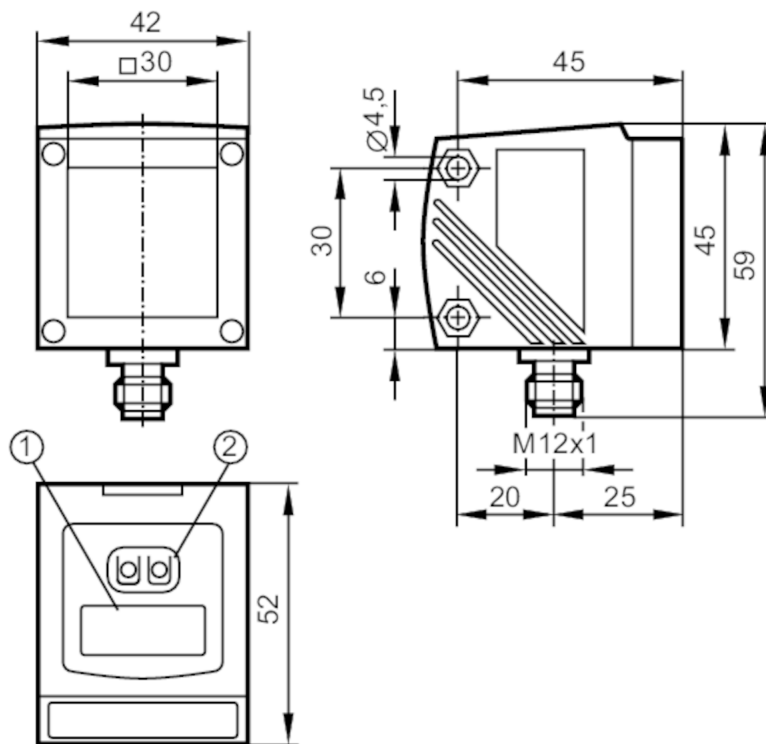


O1D101

Laser distance sensor

O1DLFPKG/IO-LINK



- 1 alphanumeric display 4-digit
2 Programming buttons



Product characteristics

Laser protection class	2
Housing	rectangular

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 150
Protection class	III
Reverse polarity protection	yes
Typ. lifetime [h]	50000

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1
------------------------------	------------------------------

Outputs

Total number of outputs	1
Electrical design	PNP
Number of digital outputs	1
Output function	normally open / closed; (programmable)
Max. current load per output [mA]	200
Type of short-circuit protection	yes (non-latching)
Overload protection	yes



Laser distance sensor

O1DLFPKG/IO-LINK

Monitoring range		
Max. light spot width	[mm]	15
Max. light spot height	[mm]	15
Light spot dimensions refer to		10 m
Background suppression	[m]	10...100
Measuring/setting range		
Measuring range	[m]	0.2...10; (white paper 200 x 200 mm 90 % remission)
Sampling rate	[Hz]	5
Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
Profiles		Smart Sensor: Sensor Identification; Binary Data Channel; Process Value; Sensor Diagnosis
SIO mode		yes
Required master port class		A
Process data analog		2
Process data binary		1
Min. process cycle time	[ms]	6
Supported DeviceIDs	Type of operation	DeviceID
	default	807
Operating conditions		
Ambient temperature	[°C]	-10...60
Protection		IP 67
Tests / approvals		
Laser protection class		2
Notes on laser protection	Caution:	Laser light
	Power:	≤ 4,0 mW
	Wave length:	650 nm
	pulse:	1,3 ns
	Do not stare into beam.	
	Avoid exposure to the laser light.	
	laser class:	2
		EN / IEC60825-1:2007
		EN / IEC60825-1:2014
		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]	106
Mechanical data		
Weight	[g]	268.5
Housing		rectangular
Dimensions	[mm]	59 x 42 x 52

O1D101



Laser distance sensor

O1DLFPKG/IO-LINK

Material	housing: diecast zinc; front lens: glass; LED window: PC
----------	--

Displays / operating elements

Display	Switching status	LED, yellow
	Power	LED, green
	Distance, programming	alphanumeric display, 4-digit

Accessories

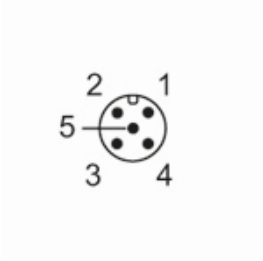
Accessories (optional)	Protective cover, E21133
------------------------	--------------------------

Remarks

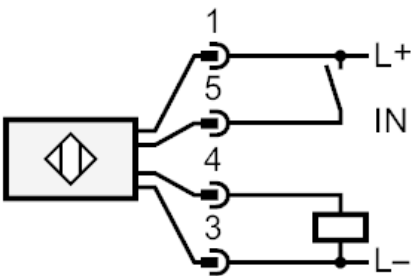
Remarks	cULus - Class 2 source required
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A



Connection



4	OUT1 switching output or IO-Link
5	Laser On/ Off

O1D101



Laser distance sensor

O1DLFPKG/IO-LINK

Other data

Repeatability / Accuracy

	Repeatability of the measured values		Accuracy	
	white (90 % remission)	grey (18 % remission)	white (90 % remission)	grey (18 % remission)
200...1000 mm	± 4.5 mm	± 6.0 mm	± 15.0 mm	± 16.0 mm
1000...2000 mm	± 5.0 mm	± 8.0 mm	± 15.0 mm	± 18.0 mm
2000...4000 mm	± 16.0 mm	± 19.0 mm	± 25.0 mm	± 30.0 mm
4000...6000 mm	± 24.0 mm	± 33.0 mm	± 35.0 mm	± 45.0 mm
6000...10000 mm	± 50.0 mm	-	± 65.0 mm	-
Extraneous light on the object		< 40 klx		

Repeatability / Accuracy

	Repeatability of the measured values		Accuracy	
	white (90 % remission)	grey (18 % remission)	white (90 % remission)	grey (18 % remission)
200...2000 mm	± 14.0 mm	± 14.0 mm	± 24.0 mm	± 24.0 mm
2000...4000 mm	± 25.0 mm	± 30.0 mm	± 35.0 mm	± 40 mm
4000...6000 mm	± 31.0 mm	± 45.0 mm	± 41.0 mm	± 55.0 mm
6000...10000 mm	± 60.0 mm	-	± 70.0 mm	-
Extraneous light on the object		< 40...100 klx		
Range on black object (6 % remission)		<= 4000 klx		
The values apply at				
constant ambient conditions		23 °C / 960 hPa		
minimum power-on time in minutes		10		