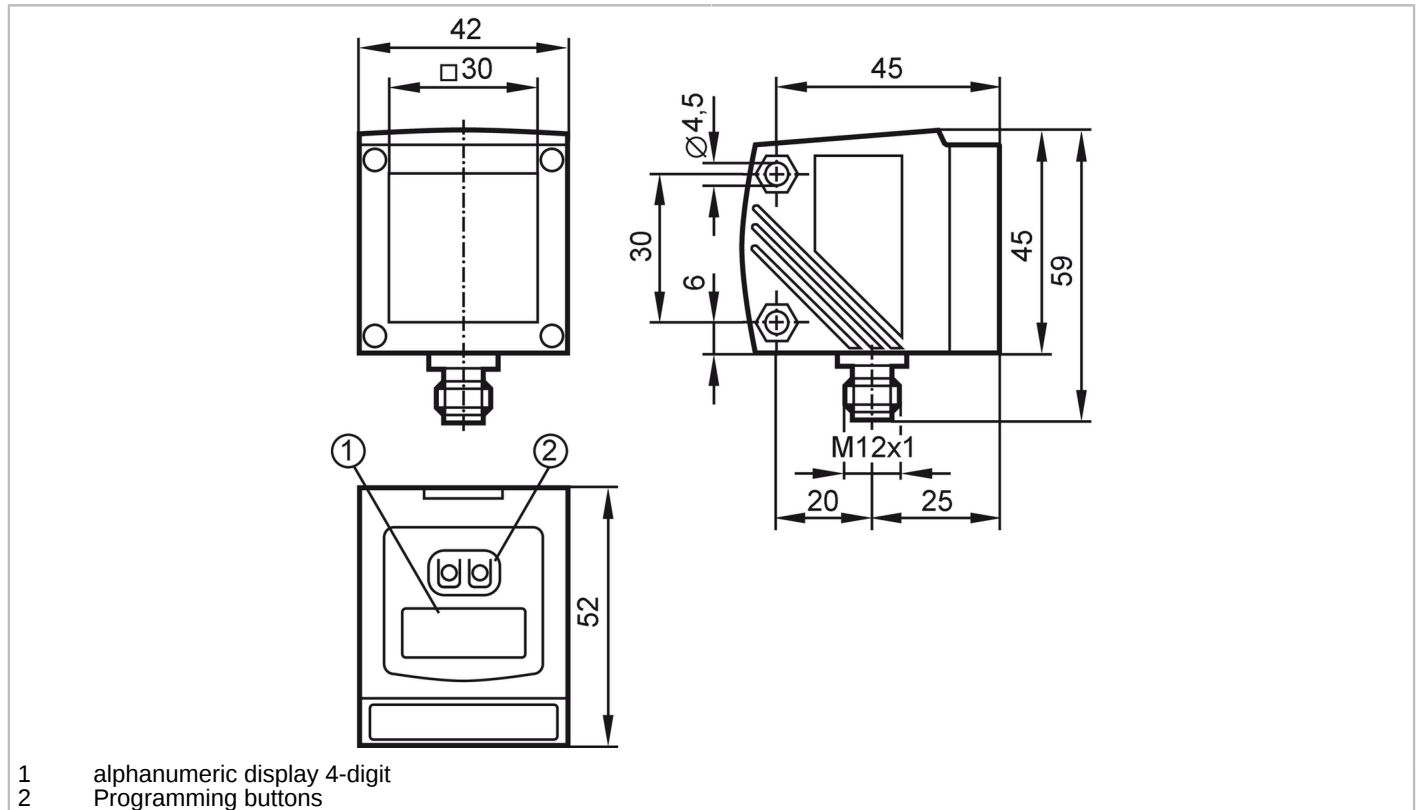


# O1D101



## Laser distance sensor

O1DLFPKG/IO-LINK



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
Monitoring range	
Max. light spot width [mm]	15

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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 - SSP 0	Generic Profiled Sensor
	Function	Device identification
	Function	Process data variable
	Function	Device diagnosis
	Function	Teach channel
SIO mode	yes	
Required master port class	A	
Process data analog	2	
Process data binary	1	
Min. process cycle time	[ms]	5
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	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
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### Displays / operating elements

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

### Accessories

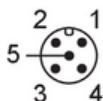
Accessories (optional)	Protective cover, E21133
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### Remarks

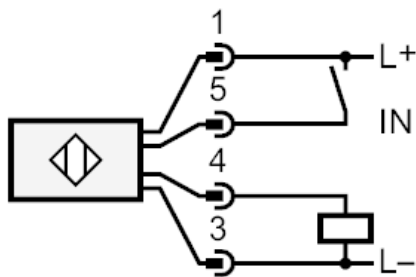
Remarks	cULus - Class 2 source required
Pack quantity	1 pcs.

### Electrical connection

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



### Connection



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

### Other data

#### Repeatability / Accuracy

distance	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

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## Laser distance sensor

O1DLFPKG/IO-LINK

### Repeatability / Accuracy

distance	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	