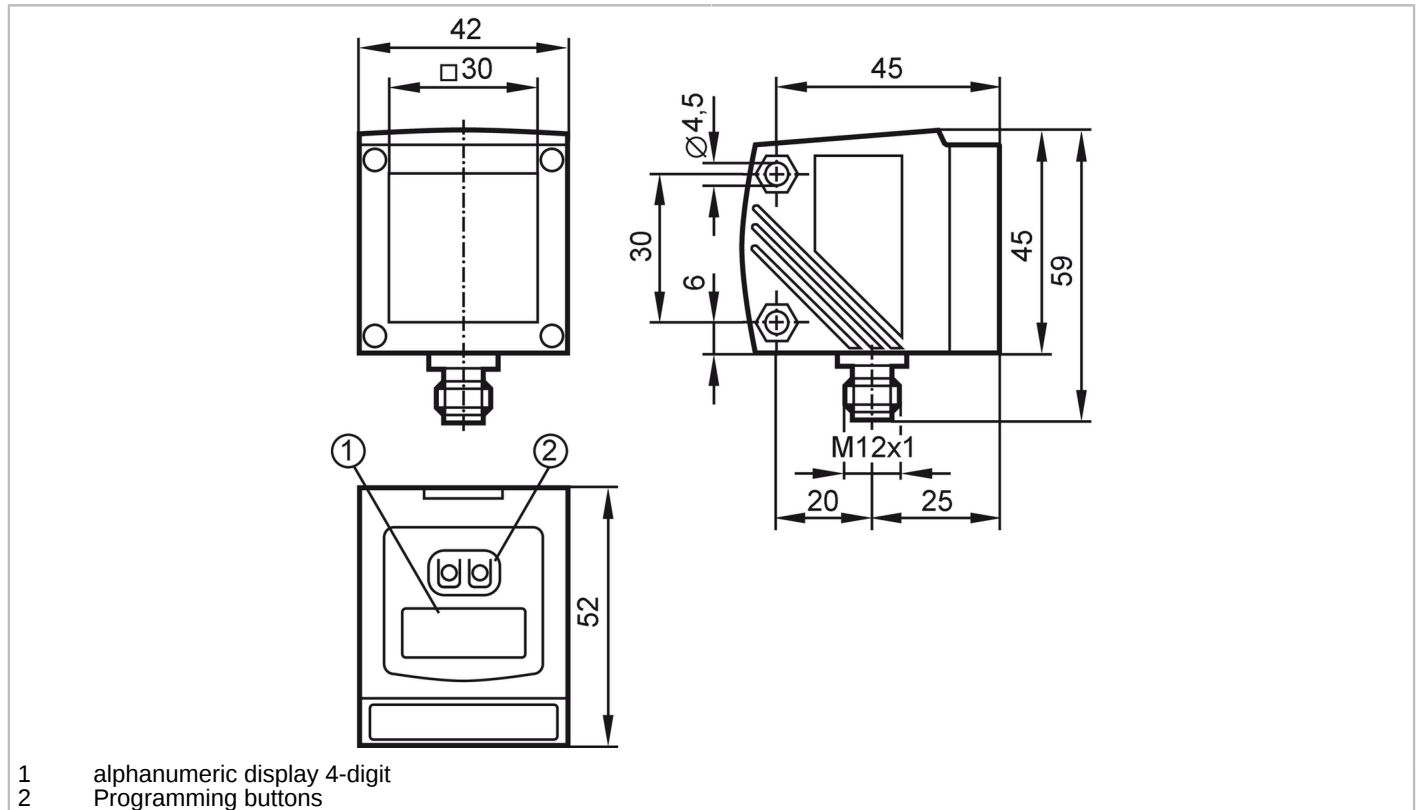


# O1D101



## Laser distance sensor

O1DLFPKG/IO-LINK



### Product characteristics

Laser protection class	2
Housing	rectangular

### Application

Application	Industrial applications
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### 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
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### 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

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Monitoring range	
Max. light spot diameter [mm]	25
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

# O1D101



## Laser distance sensor

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Dimensions [mm]	59 x 42 x 52
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

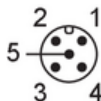
Accessories (optional)	Protective cover, E21133
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### Remarks

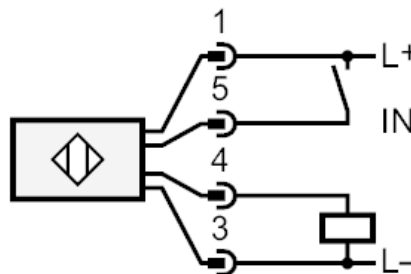
Remarks	cULus - Class 2 source required
Pack quantity	1 pcs.

### 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

# O1D101



## 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	