

1: 4-digit alphanumeric display  
2: Programming buttons



Product characteristics

Photoelectric distance sensor

Quick disconnect

Background suppression

Visible laser light, protection class 2 laser

4-digit alphanumeric display

Measuring range 0.2...10 m (Range referred to white paper 200 x 200 mm, 90 % remission)

Background suppression >10...100 m

Electrical data

Electrical design

DC PNP

Operating voltage [V]

10...30 DC

Current consumption [mA]

< 150

Life expectancy typ. [h]

50000

Protection class

III

Reverse polarity protection

yes

Outputs

Output function

normally open / closed programmable

Current rating [mA]

200

Short-circuit protection

yes (non-latching)

Overload protection

yes

Monitoring range

Background suppression

>10...100 m

Light spot diameter [mm]

< 15 x 15 ( Range 10 m )

Measuring / setting range

Measuring range [m]

0.2...10 (Range referred to white paper 200 x 200 mm, 90 % remission)

Switching frequency [Hz]

5

Environment

Ambient temperature [°C]

-10...60

Protection

IP 67

Tests / approvals

MTTF

[Years]

227

Mechanical data

Housing materials

housing: diecast zinc; window: glass; LED window: polycarbonate

Weight [kg]

0.261

# O1D101 - Photoelectric distance sensor - eclass: 27270801 / 27-27-08-01

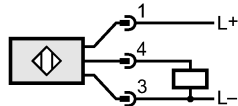
## Displays / operating elements

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

## Electrical connection

Connection	M12 connector
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## Wiring



## Accessories

Accessories (optional)	Protective cover E21133
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## Remarks

Remarks	<p>Caution: Laser Light                  Power &lt;= 4.1 mW wavelength = 650 nm                  pulse 1.3 ns                  Do not stare into beam                  Avoid exposure                  Class 2 laser product                  EN 60825-1:2003-10                  cULus - Class 2 source required</p>
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Pack quantity	[piece]	1
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## Other data

Repeatability / Accuracy				
- extraneous light on the object max.: 40 klx				
	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	--

Repeatability / Accuracy				
- extraneous light on the object max.: 40...100 klx				
	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	± 40.0 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	--

Range on black (6 % remission) <= 4000 mm

The values apply at

- constant ambient conditions: 23 °C / 960 hPa
- minimum power-on time in minutes: 10