

O1D100

Optical distance sensor
O1DLF2KG Visible
laser light, Class 2
laser

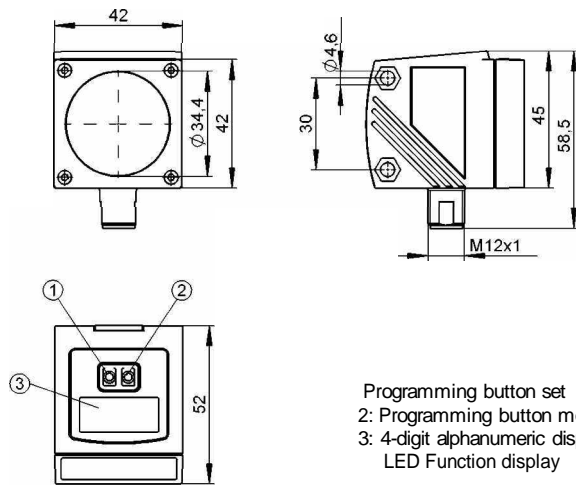
4-digit alphanumeric display

Measuring range 0.2...10 m

(Range referred to white
paper, 90 % remission)

Electrical design Output

Light spot diameter	[mm]
Operating voltage	[V]
Current rating	[mA]
Short-circuit protection	
Reverse polarity / overload protection	Current
consumption	[mA]
Sampling rate / switching frequency	[Hz]
Load for analogue output	[ohms]
Operating temperature	[°C]
Protection	
Life of the laser diode	[h]
EMC	
Material	
Programming options	
Function display	
Switching status	[LED]
Power	[LED]
Distance, programming	



Programming button set
2: Programming button mode enter
3: 4-digit alphanumeric display
LED Function display

DC PNP

OUT1: normally open / closed programmable
OUT2: normally open / closed programmable
or analogue (4...20 mA, scaleable)

Measuring range	6 (range max. = 10 m)
Operating voltage	10...30 DC
Current rating	200
Short-circuit protection	yes
Reverse polarity / overload protection	yes / yes
consumption	< 150
Sampling rate / switching frequency	max. 50, adjustable
Load for analogue output	max. 250
Operating temperature	-10...60
Protection	IP 65, III
Life of the laser diode	50000
EMC	EN 60947-5-2
Material	Housing: diecast zinc Front pane: glass LED window: polycarbonate
Programming options	N.O.; N.C.; analogue
Function display	
Switching status	2x yellow
Power	green
Distance, programming	4-digit alphanumeric display

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Repeat accuracy

	Repeatability		Accuracy	
	white (90 % remission)	grey (18 % remission)	white (90 % remission)	gray (18 % remission)
200...1000 mm	10 mm	15 mm	± 15 mm	± 18 mm
1000...2000 mm	11 mm	20 mm	± 15 mm	± 20 mm
2000...4000 mm	35 mm	45 mm	± 25 mm	± 32 mm
4000...6000 mm	55 mm	80 mm	± 35 mm	± 50 mm
6000...10000 mm	120 mm		± 70 mm	

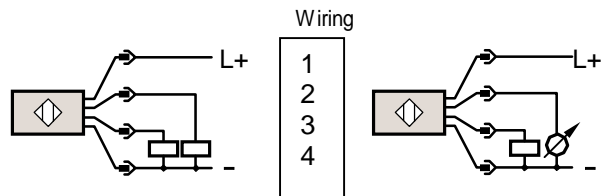
Range on black (6 % remission) δ 4000 mm

The values apply at

- constant ambient conditions (23° C / 960 hPa)
- extraneous light of max. 8 klx
- only after unit powered up for 10 minutes.

Connection

M12 connector



2:Out 2
4:Out1

Remarks

Caution: Laser Light
Power <= 1 mW wavelength = 650 nm
pulse 8 ns
Do not stare into beam
Avoid exposure
Class 2 laser product
EN 60825-1:2001-11