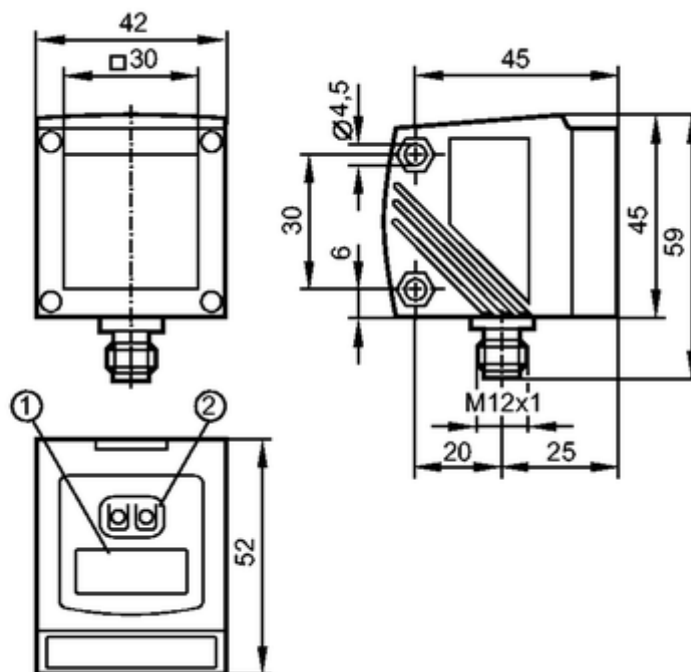


**O1D155**

O1DLF3KG

Photoelectric sensors



- 1: 4-digit alphanumeric display
2: Programming buttons

**Product characteristics**

Photoelectric distance sensor

Connector

Visible laser light, LASER CLASS 1

4-digit alphanumeric display

Measuring range 0.3...6 m (Range referred to white paper 200 x 200 mm, 90 % remission)

Background suppression > 6...100 m

Electrical data

Electrical design	DC PNP
Operating voltage [V]	18...30 DC
Current consumption [mA]	< 150
Life expectancy typ. [h]	50000
Type of light	Red light 650 nm
Protection class	III
Reverse polarity protection	yes

Outputs

Output function	OUT1: normally open / closed programmable OUT2: normally open / closed programmable or analogue (4...20 mA / 0...10 V, scalable)
Current rating [mA]	2 x 200
Short-circuit protection	pulsed
Overload protection	yes

Analogue output		
current output [mA]	4...20; according to IEC 61131-2	
- Max. load [Ω]	250	
voltage output [V]	0...10; according to IEC 61131-2	
- Min. load [Ω]	5000	
Range		
Background suppression	> 6...100 m	
Light spot diameter [mm]	< 8 x 8 (Range 6 m)	
Measuring / setting range		
Measuring range [m]	0.3...6 (Range referred to white paper 200 x 200 mm, 90 % remission)	
Sampling rate [Hz]	1...33	
Environment		
Ambient temperature [$^{\circ}$ C]	-10...60	
Protection	IP 67	
Tests / approvals		
EMC	EN 60947-5-2	
MTTF [Years]	185	
Mechanical data		
Housing materials	housing: diecast zinc; window: glass; LED window: polycarbonate	
Weight [kg]	0.292	
Displays / operating elements		
Display	Switching status	2 x LED yellow
	Operation	LED green
	Distance, programming	4-digit alphanumeric display
Electrical connection		
Connection	M12 connector	
Wiring		
Accessories		
Accessories (optional)	Protective cover E21133	
Remarks		
Remarks	Laser light CLASS 1 LASER PRODUCT IEC 60825-1 : 2007 complies with 21 CFR 1040.10 except for deviations pursuant to Laser Notice No. 50, dated June 2007 cULus - Class 2 source required	
Pack quantity [piece]	1	
Other data		
Parameter	Setting range	Factory setting
Uni	mm, m, inch	mm

OU1	Hno, Hnc, Fno, Fnc	Hno
SP1	300...5999	1000
nSP1	300...5999	800
FSP1	300...5999	1200
OU2	Hno, Hnc, Fno, Fnc, I, U	I
SP2	300...5999	2000
nSP2	300...5999	1800
FSP2	300...5999	2200
ASP	0...5999	0
AEP	0...5999	5999
rATE [Hz]	1...33	15
dS1	0...0.1...5	0
dr1	0...0.1...5	0
dS2	0...0.1...5	0
dr2	0...0.1...5	0
dAP	0...0.1...5	0
dIS	d1..3; rd1...3; OFF	d3

Repeatability / Accuracy
Sampling rate 15 Hz

	Repeatability of the measured values		Accuracy	
	white (90 % remission)	grey (18 % remission)	white (90 % remission)	grey (18 % remission)
300...1000 mm	± 11 mm	± 13 mm	± 31 mm	± 33 mm
1000...2000 mm	± 28 mm	± 30 mm	± 48 mm	± 50 mm
2000...3000 mm	± 50 mm	± 50 mm	± 70 mm	± 70 mm
3000...4000 mm	± 85 mm	± 85 mm	± 105 mm	± 105 mm
4000...5000 mm	± 105 mm	--	± 125 mm	--
5000...6000 mm	± 145 mm	--	± 165 mm	--

Repeatability / Accuracy
Sampling rate 1 Hz

	Repeatability of the measured values		Accuracy	
	white (90 % remission)	grey (18 % remission)	white (90 % remission)	grey (18 % remission)
300...1000 mm	± 8 mm	± 10 mm	± 28 mm	± 30 mm
1000...2000 mm	± 25 mm	± 25 mm	± 45 mm	± 45 mm
2000...3000 mm	± 38 mm	± 38 mm	± 58 mm	± 58 mm
3000...4000 mm	± 70 mm	± 70 mm	± 90 mm	± 90 mm
4000...5000 mm	± 100 mm	--	± 120 mm	--
5000...6000 mm	± 100 mm	--	± 120 mm	--

Range on black (6 % remission) <= 2500 mm

The values apply at

- constant ambient conditions: 23 °C / 960 hPa
- extraneous light on the object max.: 100 klx
- minimum power-on time in minutes: 10