

efector200

ifm electronic



Photoelectric sensors

O1D105

O1DLF3KG
Optical distance sensor
Connector

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

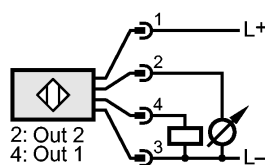
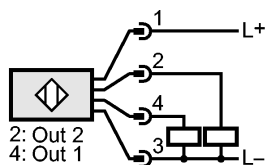
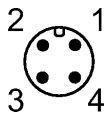


Made in Germany

Electrical design
Output
Light spot diameter [mm]
Sampling rate [Hz]
Operating voltage [V]
Current consumption [mA]
Current rating [mA]
Short-circuit protection
Reverse polarity protection
Overload protection
Life expectancy typ. [h]
Display
Ambient temperature [°C]
Protection
Housing materials
Analogue output
current output [mA]
Max. load [Ω]
voltage output [V]
Min. load [Ω]
EMC
Connection
Weight [kg]
Remarks
Accessories (optional)

DC PNP	
OUT1: normally open / closed programmable OUT2: normally open / closed programmable or analogue (4...20 mA / 0...10 V, scalable)	
6 (Range 10 m)	
1...33	
18...30 DC	
< 150	
2 x 200	
pulsed	
yes	
yes	
50000	
Switching status	2 x LED yellow
Operation	LED green
Distance, programming	4-digit alphanumeric display
-10...60	
IP 67, III	
housing: diecast zinc; window: glass; LED window: polycarbonate	
4...20 according to IEC 61131-2	
250	
0...10 according to IEC 61131-2	
5000	
EN 60947-5-2	
M12 connector	
0.282	
Caution: Laser Light Power <= 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	
Protective cover E21133	

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efector200**ifm electronic****O1D105****Wiring**

Parameter	Setting range	Factory setting
Uni	mm, m, inch	mm
OU1	Hno, Hnc, Fno, Fnc	Hno
SP1	200...9999	1000
nSP1	200...9999	800
FSP1	200...9999	1200
OU2	Hno, Hnc, Fno, Fnc, I, U	I
SP2	200...9999	2000
nSP2	200...9999	1800
FSP2	200...9999	2200
ASP	0...9999	0
AEP	0...9999	9999
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)
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	--

Range on black (6 % remission) ≤ 4000 mm

The values apply at

- constant ambient conditions: 23 °C / 960 hPa

- extraneous light on the object max.: 8 klx

- minimum power-on time in minutes: 10