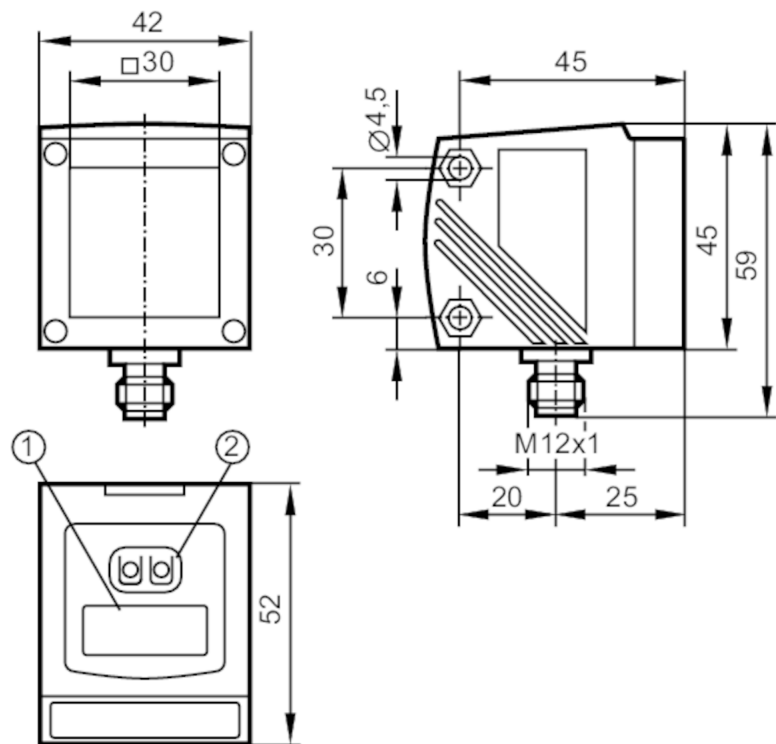


O1D106



Photoelectric distance sensor

O1DLF3KG



- 1 alphanumeric display 4-digit
2 Programming buttons



Product characteristics

Laser protection class	2
Housing	rectangular

Electrical data

Operating voltage [V]	18...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: 2; Number of analog outputs: 1
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Photoelectric distance sensor

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Outputs		
Total number of outputs	2	
Electrical design	PNP	
Number of digital outputs	2	
Output function	normally open / closed; (programmable)	
Max. current load per output [mA]	200	
Number of analog outputs	1	
Analog current output [mA]	4...20; (scalable IEC 61131-2)	
Max. load [Ω]	250	
Analog voltage output [V]	0...10; (scalable IEC 61131-2)	
Min. load resistance [Ω]	5000	
Short-circuit protection	yes	
Type of short-circuit protection	yes (non-latching)	
Overload protection	yes	
Monitoring range		
Max. light spot width [mm]	150	
Max. light spot height [mm]	150	
Light spot dimensions refer to	75 m	
Background suppression [m]	75...150	
Measuring/setting range		
Measuring range [m]	1...75; (Reflector E21159)	
Sampling rate [Hz]	1...33	
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
Profiles	Smart Sensor: Sensor Identification; Binary Data Channel; Process Value; Sensor Diagnosis	
SIO mode	yes	
Required master port class	A	
Process data analog	1	
Process data binary	2	
Min. process cycle time [ms]	6	
Supported DeviceIDs	Type of operation	DeviceID
	default	810
Operating conditions		
Ambient temperature [°C]	-10...60	
Protection	IP 67	

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Tests / approvals		
EMC	EN 60947-5-2	
Laser protection class	2	
Notes on laser protection	Caution:	Laser light
	Power:	$\leq 4,0 \text{ mW}$
	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 except for deviations pursuant to Laser Notice No. 50, dated June 2007.	
MTTF [years]	106	

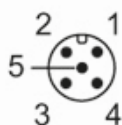
Mechanical data		
Weight [g]	312	
Housing	rectangular	
Dimensions [mm]	59 x 42 x 52	
Material	housing: diecast zinc; front lens: glass; LED window: PC	
Lens alignment	Side sensing	

Displays / operating elements		
Display	Switching status	2 x LED, yellow
	Power	LED, green
	Distance, programming	alphanumeric display, 4-digit

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

Electrical connection

Connector: 1 x M12; coding: A



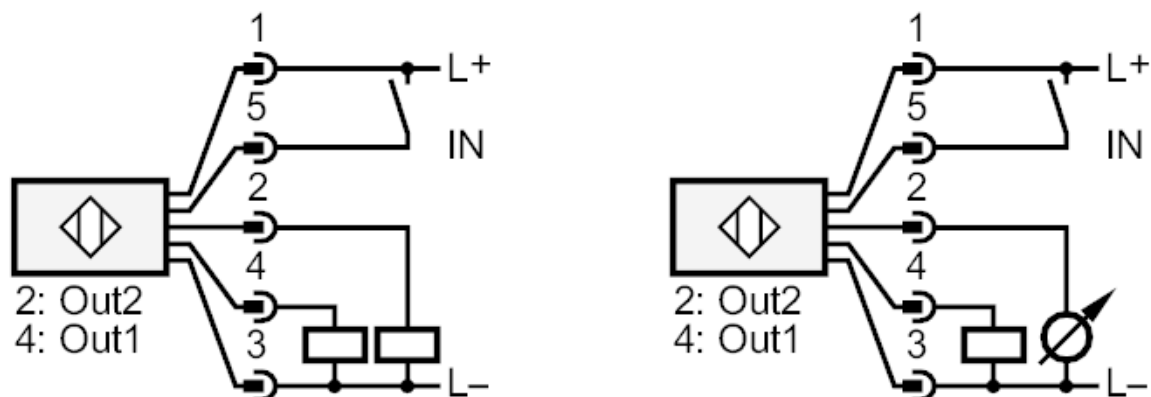
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Photoelectric distance sensor

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Connection



2: switching output or analog output 4...20 mA / 0...10 V

4: switching output or IO-Link

5: IN1 Laser On/ Off

Other data

Parameter	Setting range	Factory setting
Uni	m, feet	m
OU1	Hno, Hnc, Fno, Fnc	Hno
SP1	1.00...75.00	10.00
nSP1	1.00...75.00	8.00
FSP1	1.00...75.00	12.00
OU2	Hno, Hnc, Fno, Fnc, I, U	I
SP2	1.00...75.00	20.00
nSP2	1.00...75.00	18.00
FSP2	1.00...75.00	22.00
ASP	0...75.00	0
AEP	0...75.00	75.00
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
dFo	0...0.1...5	0.2
dIS	d1...3; rd1...3; OFF	d3

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Photoelectric distance sensor

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Repeatability / Accuracy

	Repeatability of the measured values	Accuracy
1...25 m	± 15 mm	± 35 mm
30 m	± 15 mm	± 35 mm
40 m	± 15 mm	± 35 mm
50 m	± 19 mm	± 39 mm
60 m	± 27 mm	± 47 mm
70 m	± 43 mm	± 63 mm
Sampling rate	33 Hz	
Reflector		

Repeatability / Accuracy

	Repeatability of the measured values	Accuracy
1...75 m	± 15 mm	± 35 mm
Sampling rate	1 Hz	
Reflector		
The values apply at	< 100 klx 23 °C / 960 hPa 10	
Extraneous light on the object		
constant ambient conditions		
minimum power-on time in minutes		