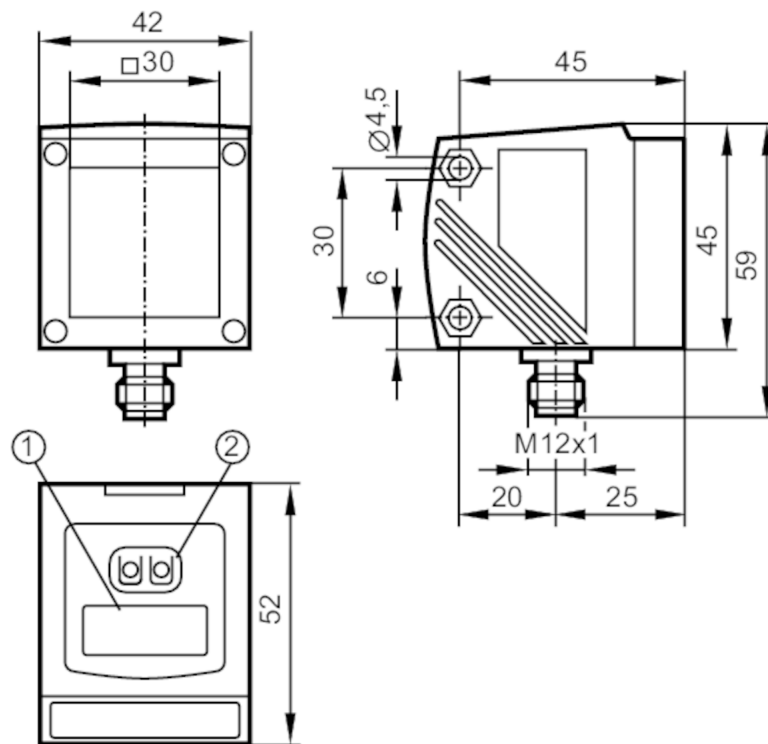


O1D106



Photoelectric distance sensor

O1DLF3KG



- 1 alphanumeric display 4-digit
- 2 programming buttons



Product characteristics

Communication interface	IO-Link
Laser protection class	2
Housing	rectangular
Dimensions [mm]	59 x 42 x 52

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 analogue 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 / normally closed; (programmable)
Max. current load per output [mA]	200
Number of analogue outputs	1
Analogue current output [mA]	4...20; (scalable IEC 61131-2)
Max. load [Ω]	250
Analogue voltage output [V]	0...10; (scalable IEC 61131-2)
Min. load resistance [Ω]	5000
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes
Detection zone	
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
IO-Link device ID	810d / 00 03 2Ah
Profiles	Smart Sensor: Sensor Identification; Binary Data Channel; Process Value; Sensor Diagnosis
SIO mode	yes
Required master port type	A
Process data analogue	1
Process data binary	2
Min. process cycle time [ms]	6
Operating conditions	
Ambient temperature [$^{\circ}\text{C}$]	-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:	$\leq 4,0$ 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

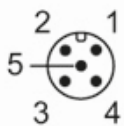
Mechanical data		
Weight [g]		312
Housing		rectangular
Dimensions [mm]		59 x 42 x 52
Materials		housing: diecast zinc; front lens: glass; LED window: PC
Lens alignment		side lens

Displays / operating elements		
Display	switching status	2 x LED, yellow
	operation	LED, green
	distance value, programming	alphanumeric display, 4-digit

Remarks		
Remarks	operating voltage "supply class 2" according to cULus	
Pack quantity	1 pcs.	

Electrical connection

Connector: 1 x M12



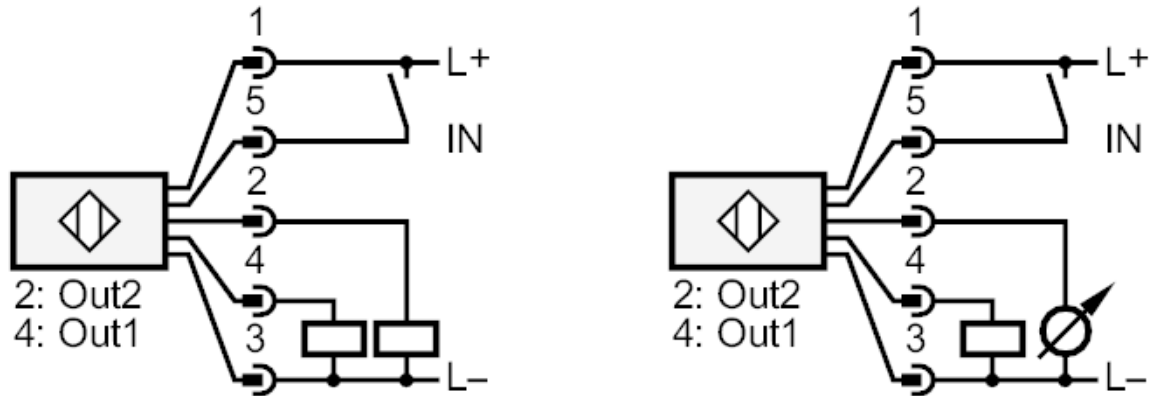
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Photoelectric distance sensor

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Connection



- 2: switching output or analogue 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		
Reflector	33 Hz	

repeatability/accuracy

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