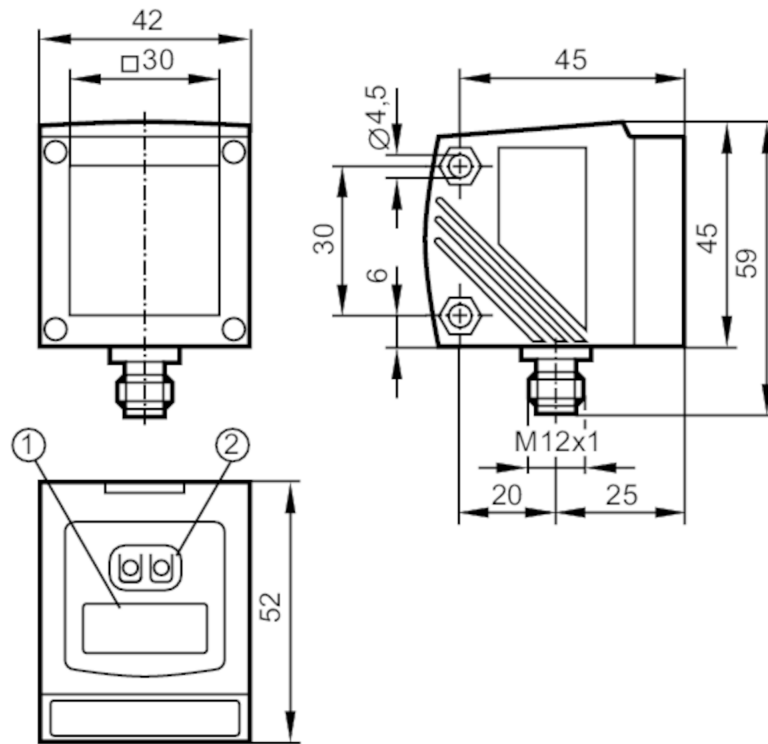


O1D102



Photoelectric distance sensor

O1DLF3KG/IO-LINK



- 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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O1D102



Photoelectric distance sensor

O1DLF3KG/IO-LINK

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; (IEC 61131-2)	
Max. load [Ω]	250	
Analog voltage output [V]	0...10; (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]	6	
Max. light spot height [mm]	6	
Light spot dimensions refer to	3,5 m	
Background suppression [m]	0...4	
Measuring/setting range		
Measuring range [m]	0.2...3.5; (black glossy surfaces)	
Sampling rate [Hz]	1...50; (preset: 5)	
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	2	
Process data binary	3	
Min. process cycle time [ms]	6	
Supported DeviceIDs	Type of operation	DeviceID
	default	808
Operating conditions		
Ambient temperature [$^{\circ}$ C]	-10...60	
Protection	IP 67	

O1D102



Photoelectric distance sensor

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Tests / approvals		
EMC	EN 60947-5-2	
Laser protection class	2	
Notes on laser protection	Caution:	Laser light
	Power:	<= 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]	173	
Mechanical data		
Weight [g]	303	
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
Accessories		
Accessories (optional)	Protective cover, E21133	
Remarks		
Remarks	cULus - Class 2 source required	
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12		

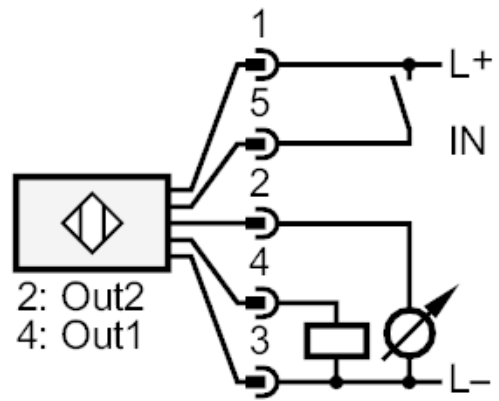
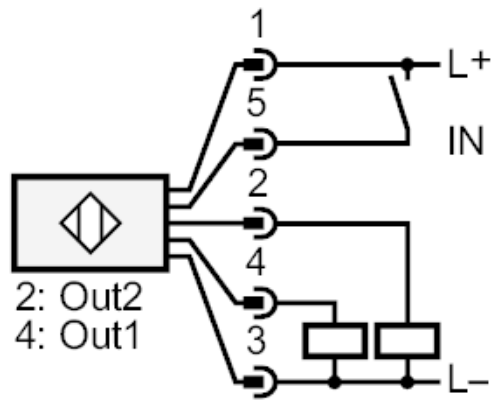
O1D102



Photoelectric distance sensor

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Connection



O1D102



Photoelectric distance sensor

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Other data		
Parameter	Setting range	Factory setting
Uni	mm, m, inch	mm
OU1	Hno, Hnc, Fno, Fnc	Hno
SP1 [mm]	200...3500	1000
nSP1 [mm]	200...3500	800
FSP1 [mm]	200...3500	1200
OU2	Hno, Hnc, Fno, Fnc, I, U	I
SP2 [mm]	200...3500	2000
nSP2 [mm]	200...3500	1800
FSP2 [mm]	200...3500	2200
ASP [mm]	0...3500	0
AEP [mm]	0...3500	3500
rATE [Hz]	1...50	5
dS1 [s]	0...0.1...5	0
dr1 [s]	0...0.1...5	0
dS2 [s]	0...0.1...5	0
dr2 [s]	0...0.1...5	0
dFo [s]	0...0.1...5	0
dIS	d1...3 ; rd1...3; OFF	d3

	Repeatability of the measured values		Accuracy	
	white (90 % remission)	grey (18 % remission)	white (90 % remission)	grey (18 % remission)
200...1000 mm	± 6.5 mm	±7.5 mm	± 32 mm	± 40 mm
1000...2000 mm	± 8 mm	±9.5 mm	± 33 mm	± 40 mm
2000...3000 mm	± 17 mm	±19 mm	± 42 mm	± 50 mm
3000...3500 mm	± 23 mm	±25 mm	± 50 mm	± 55 mm

The values apply at

constant ambient conditions

23 °C / 960 hPa

minimum power-on time in minutes

10