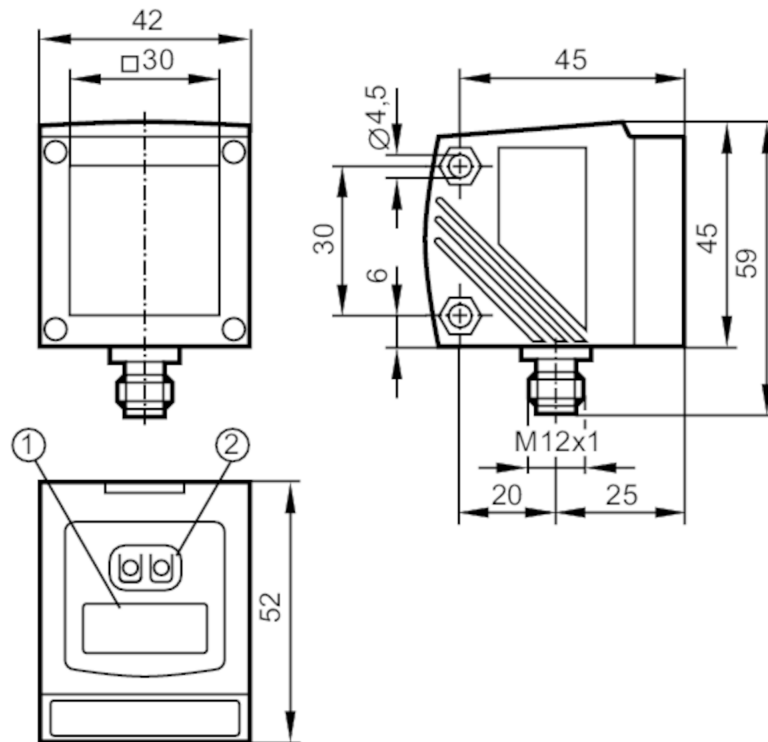


# O1D102



## Photoelectric distance sensor

O1DLF3KG/IO-LINK



- 1 alphanumeric display 4-digit  
2 programming buttons



### Electrical data

Operating voltage	[V]	18...30 DC
Current consumption	[mA]	< 150
Protection class		III
Reverse polarity protection		yes
Typ. lifetime	[h]	50000

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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; (IEC 61131-2)
Max. load [ $\Omega$ ]	250
Analogue voltage output [V]	0...10; (IEC 61131-2)
Min. load resistance [ $\Omega$ ]	5000
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes
Detection zone	
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
IO-Link device ID	808 d / 00 03 28 h
Profiles	Smart Sensor: Sensor Identification; Binary Data Channel; Process Value; Sensor Diagnosis
SIO mode	yes
Required master port type	A
Process data analogue	2
Process data binary	3
Min. process cycle time [ms]	6
Operating conditions	
Ambient temperature [ $^{\circ}$ C]	-10...60
Protection	IP 67

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## Photoelectric distance sensor

O1DLF3KG/IO-LINK

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 60825-1:2014-05	
MTTF [years]	173	

Mechanical data	
Weight [g]	294
Housing	rectangular
Dimensions [mm]	59 x 42 x 52
Materials	housing: diecast zinc; front lens: glass; LED window: PC
Lens alignment	side lens

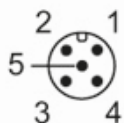
Displays / operating elements		
Display	switching status	2 x LED, yellow
	operation	LED, green
	distance value, programming	alphanumeric display, 4-digit

Accessories	
Accessories (optional)	Protective cover, E21133

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

### Electrical connection

Connector: 1 x M12



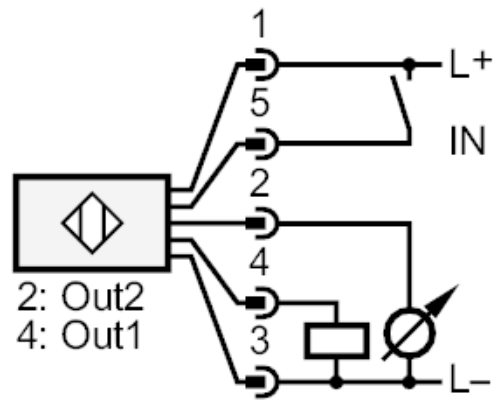
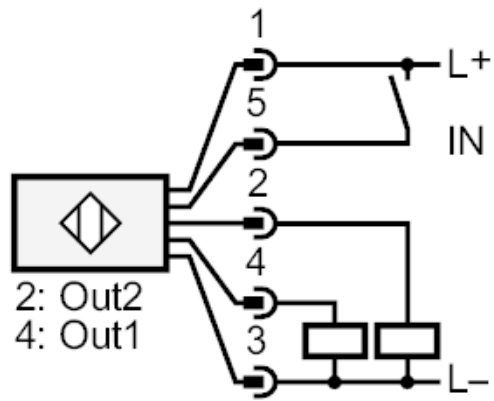
# O1D102



## Photoelectric distance sensor

O1DLF3KG/IO-LINK

### Connection



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## Photoelectric distance sensor

O1DLF3KG/IO-LINK

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