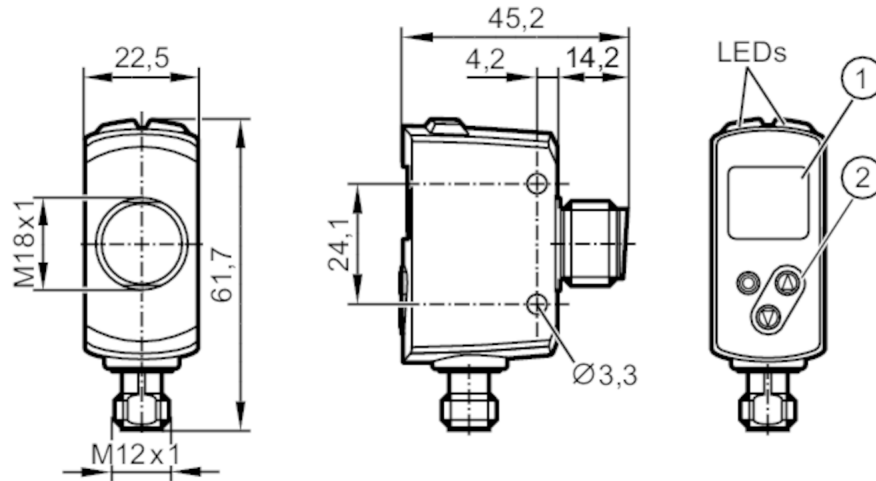




Photoelectric distance sensor

OGDLFNKG/IO-Link/US



- 1 alphanumeric display , 3-digit
- 2 Programming buttons



Product characteristics

Type of light	red light
Laser protection class	1

Application

Application	[m]	0.03...0.3
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Electrical data

Operating voltage	[V]	10...30 DC; (cULus - Class 2 source required)
Current consumption	[mA]	< 75
Current consumption reference voltage	[V]	24
Protection class		III
Reverse polarity protection		yes
Type of light		red light
Wave length	[nm]	650
Typ. lifetime	[h]	50000

Outputs

Electrical design		NPN
Output function		2 x normally open / normally closed; (configurable)
Permanent current rating of switching output DC	[mA]	100; (per output)
Type of short-circuit protection		yes (non-latching)
Overload protection		yes

Monitoring range

Max. light spot width	[mm]	1
Max. light spot height	[mm]	1
Light spot dimensions refer to		at maximum range
Background suppression	[m]	0.03...19.2



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Measuring/setting range		
Measuring range	[m]	0.025...0.3
Sampling rate	[Hz]	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	2	
Process data binary	2	
Min. process cycle time	[ms]	6
Supported DeviceIDs	Type of operation	DeviceID
	default	1012
Operating conditions		
Ambient temperature	[°C]	-25...50
Note on ambient temperature	In ambient temperatures < -10 °C a warm-up time is necessary. Laser is off.	
Storage temperature	[°C]	-30...80
Protection	IP 65; IP 67	
Tests / approvals		
EMC	EN 60947-5-2	
Laser protection class	1	
Notes on laser protection	Caution:	Laser light
	laser class:	1
		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]	181
Mechanical data		
Weight	[g]	206
Dimensions	[mm]	61.7 x 22.5 x 45.2
Material	Housing: stainless steel (1.4404 / 316L); PPSU; ABS; PMMA; PBT / PC; EPDM; front lens: glass	
Displays / operating elements		
Display	Switching status	2 x LED, yellow
		1 x alphanumeric display, 3-digit
Accessories		
Items supplied	lock nuts: 2	

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Photoelectric distance sensor

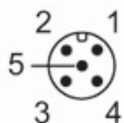
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Remarks

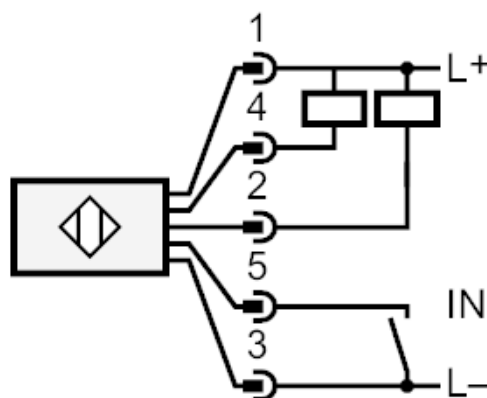
Remarks	cULus - Class 2 source required
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A



Connection



- 2: OUT2: Switching output
- 4: OUT1: switching output or IO-Link
- 5: IN1: Laser On/ Off

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Photoelectric distance sensor

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Other data		
Parameter	Setting range	Factory setting
Uni	mm, inch	mm
OU1	Hno, Hnc, Fno, Fnc, OFF	Hno
SP1 [mm]	30...300	300
nP1 [mm]	30...300	90
FP1 [mm]	30...300	110
OU2	Hno, Hnc, Fno, Fnc, OFF	Hno
SP2 [mm]	30...300	30
nP2 [mm]	30...300	190
FP2 [mm]	30...300	210
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	0.1
dIS	ON / OFF	ON

Repeatability: 6 σ

	Repeatability of the measured values	
distance	white (90 % remission)	black (6 %...90 % remission)
25...300 mm	2.0 mm	5.0 mm

The values apply at

Extraneous light on the object	< 10 klx
constant ambient conditions	23 °C / 960 hPa
minimum power-on time in minutes	10

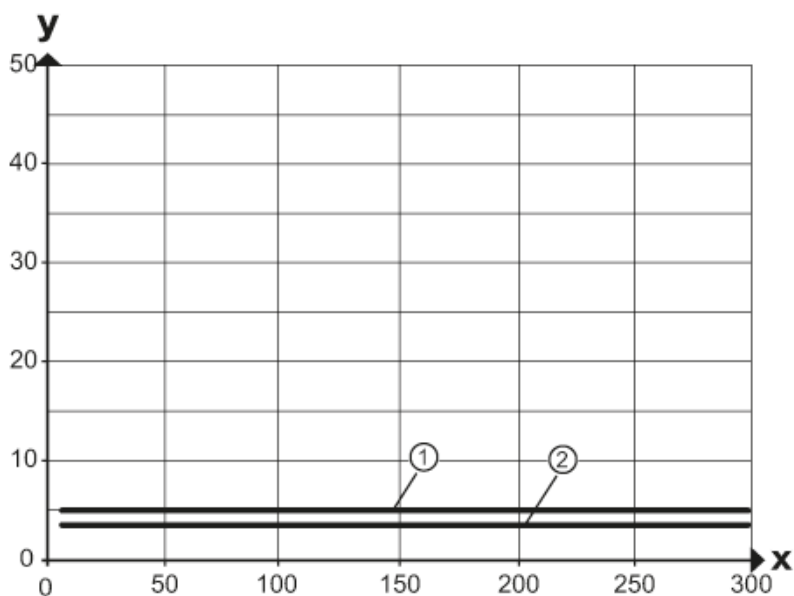


Photoelectric distance sensor

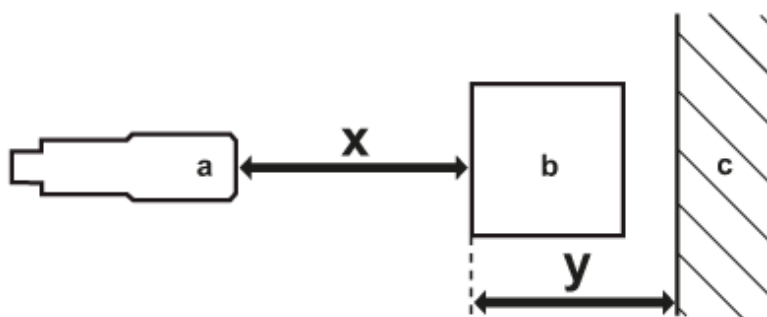
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Diagrams and graphs

Hysteresis graph



- x: distance sensor/object [mm]
- y: min. distance object/background [mm]
- 1 = background (black 6 % remission)
- 2 = background (white 90 % remission)



- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]