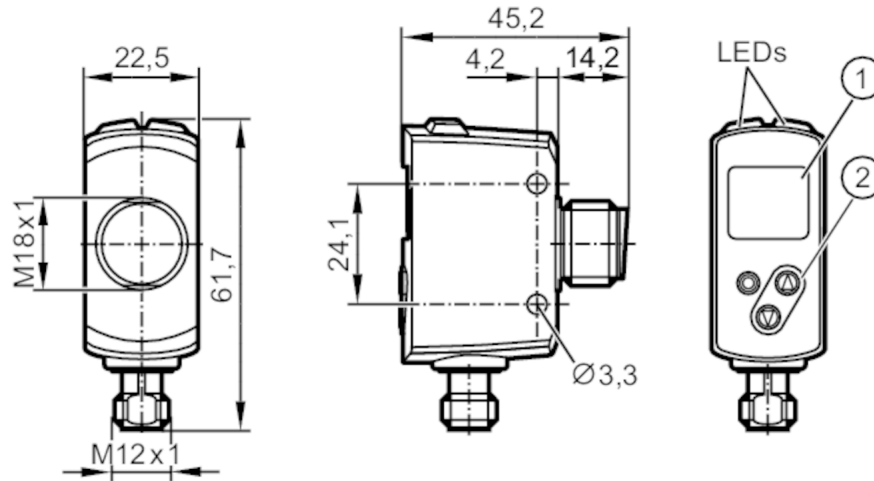




Photoelectric distance sensor

OGDLFPKG/IO-LINK/US



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



Product characteristics

Type of light		red light
Setting range distance	[m]	0.085...1.5
Setting range object reflectivity	[%]	6...900; (reflectivity; 6 % black paper; 100 % white paper)
Communication interface		IO-Link
Laser protection class		1
Dimensions	[mm]	61.7 x 22.5 x 45.2

Electrical data

Operating voltage	[V]	10...30 DC; ("supply class 2" to cULus)
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

Inputs

Inputs	Laser On/ Off
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Outputs

Electrical design	PNP
Output function	2 x normally open / normally closed; (parameterisable)
Max. current load per output	[mA] 100
Type of short-circuit protection	pulsed
Overload protection	yes



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Detection zone		
Max. light spot diameter [mm]	5	
Light spot dimensions refer to	at maximum range	
Background suppression [m]	< 20	
Measuring/setting range		
Setting range distance [m]	0.085...1.5	
Setting range object reflectivity [%]	6...900; (reflectivity; 6 % black paper; 100 % white paper)	
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	
IO-Link device ID	926d / 00039Eh	
Profiles	Smart Sensor: Sensor Identification; Binary Data Channel; Process Value; Sensor Diagnosis	
SIO mode	yes	
Required master port type	A	
Min. process cycle time [ms]	5	
IO-Link functions (cyclical)	function	bit length
	process value	2 x 16
	device status	4
	binary switching information	2
IO-Link functions (acyclical)	application specific tag; operating hours counter; switching cycles counter	
Note	For further information please see the IODD PDF file at "Downloads"	
Operating conditions		
Ambient temperature [°C]	-25...60	
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		
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]	217	
UL approval	Ta	-25...60 °C
	Enclosure type	Type 1
	voltage supply	Class 2
	File number UL	E174191

OGD582

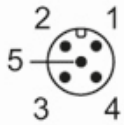


Photoelectric distance sensor

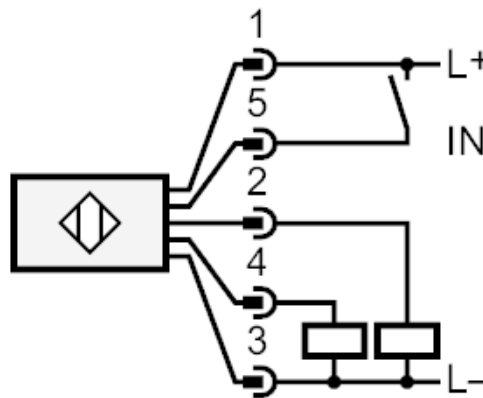
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Mechanical data		
Weight	[g]	229.8
Dimensions	[mm]	61.7 x 22.5 x 45.2
Materials	Housing: stainless steel (1.4404 / 316L); PPSU; ABS; PMMA; PBT / PC; EPDM; front lens: glass	
Displays / operating elements		
Display	switching status	2 x LED, yellow
		1 x alphanumeric display, 3-digit
Operating elements	3	pushbutton
Accessories		
Accessories (supplied)	lock nut: 2 x	
Remarks		
Pack quantity	1 pcs.	
Electrical connection		

Connector: 1 x M12



Connection



- 2: OUT2 switching output (object reflectivity)
- 4: OUT1 switching output or IO-Link (distance)
- 5: IN Laser On/ Off



Photoelectric distance sensor

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Other data		
Parameter	Setting range	Factory setting
Uni	cm	cm
OU1	Hno, Hnc, Fno, Fnc, OFF	Hno
SP1 [cm]	8.5...150	150
nP1 [cm]	8.5...150	20
FP1 [cm]	8.5...150	25
LG1	And,Or,Off	Off
dS1 [s]	0...0.1...5	0
dr1 [s]	0...0.1...5	0
OU2	Hno, Hnc, Fno, Fnc, OFF	Hno
SP2 [%]	6...900	6
bP2 [%]	6...900	60
dP2 [%]	6...900	30
HyL	Lo/Hi	Lo
LG2	And,Or,Off	Off
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)
85 mm	8.0 mm	15.0 mm
750 mm	8.0 mm	15.0 mm
1500 mm	20.0 mm	60.0 mm

The values apply at

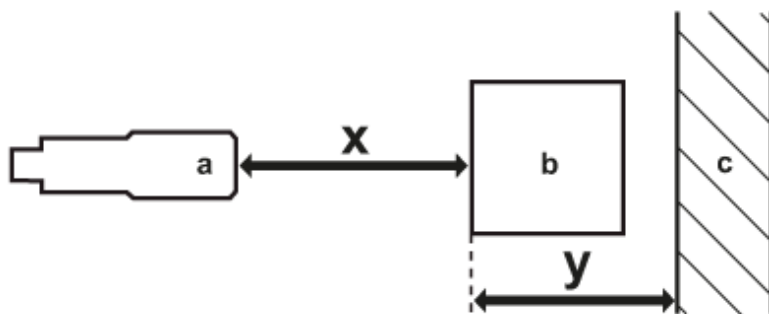
Extraneous light on the object	< 10 klx
constant ambient conditions	23 °C / 960 hPa
minimum power-on time in minutes	10



Photoelectric distance sensor

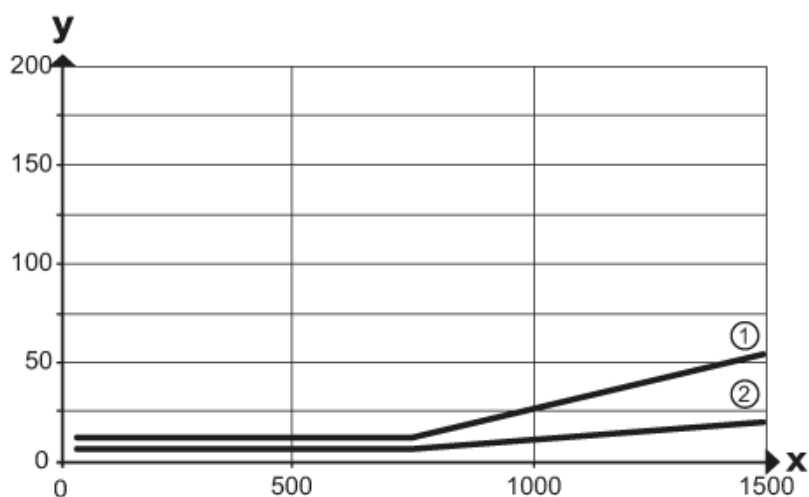
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Diagrams and graphs



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

hysteresis curve for distance measurement

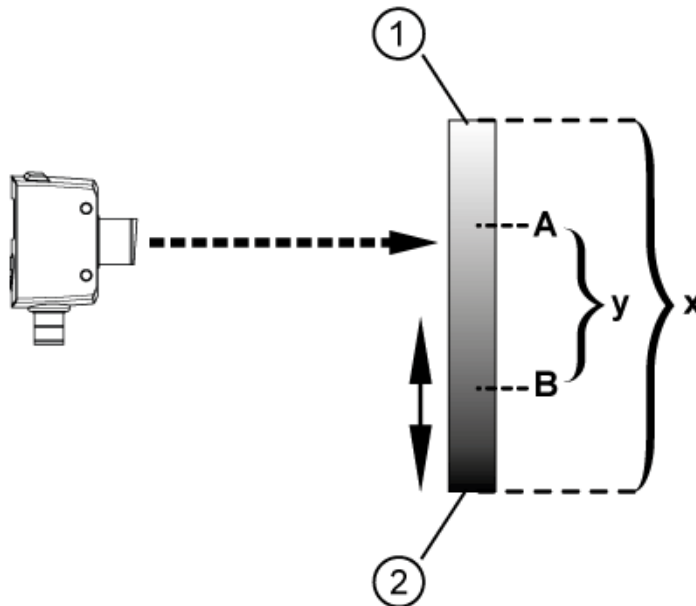


- x: distance sensor/object [mm]
- y: min. distance object/background [mm]
- 1 = background (black 6 % remission)
- 2 = background (white 90 % remission)



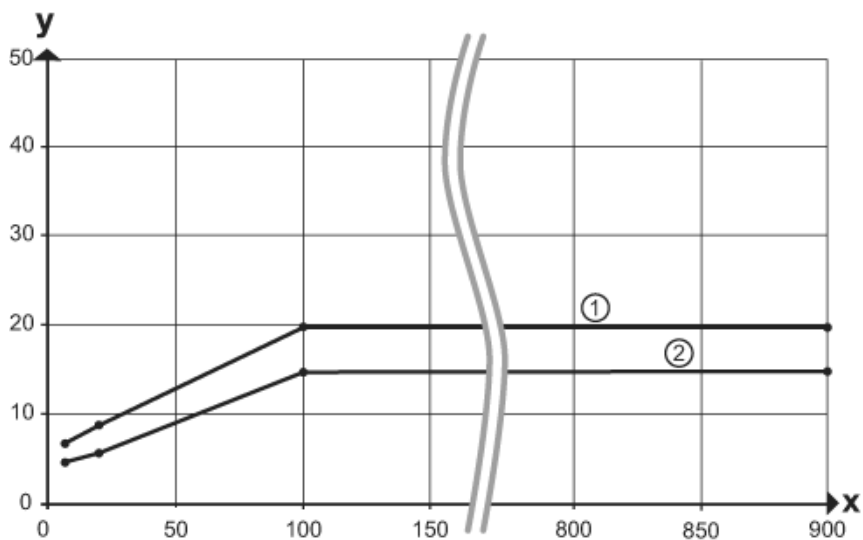
Photoelectric distance sensor

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- 1: bright
- 2: dark
- A: switch point
- B: reset point
- x: object brightness (object reflectivity)
- y: min. reflectivity difference to be detected safely

hysteresis curve for object reflectivity



- x: object reflectivity (0..900 %)
- y: Hysteresis [%]
- 1 = optional hysteresis curve (high)
- 2 = Hysteresis Factory setting (low)