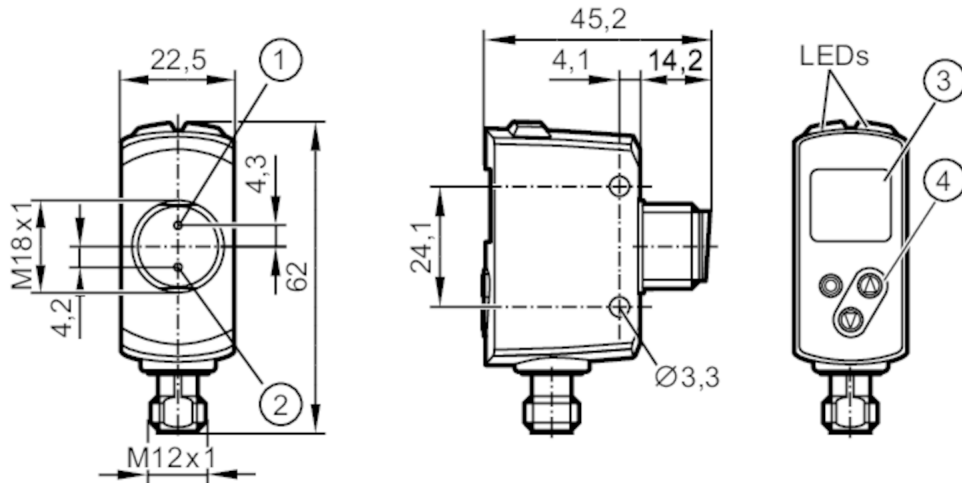




## Photoelectric distance sensor

OGDLFPKG/IO-LINK/US



- 1 alphanumeric display , 3-digit  
2 programming buttons



### Product characteristics

Type of light	red light
Laser protection class	1

### 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
--------	---------------

### Outputs

Electrical design	PNP	
Output function	2 x normally open / normally closed; (parameterisable)	
Max. current load per output	[mA]	100
Switching frequency DC	[Hz]	11
Type of short-circuit protection	pulsed	
Overload protection	yes	



## Photoelectric distance sensor

OGDLFPKG/IO-LINK/US

Detection zone		
Range [mm]	< 1500	
Max. light spot diameter [mm]	5	
Light spot dimensions refer to	at maximum range	
Background suppression [m]	< 20	
Measuring/setting range		
Measuring range [m]	0.08...1.5	
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	
Profiles	Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis	
SIO mode	yes	
Required master port type	A	
Min. process cycle time [ms]	5	
IO-Link process data (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	
Supported DeviceIDs	Type of operation	DeviceID
	Default	926
Note	For further information please see the IODD PDF file under "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	



## Photoelectric distance sensor

OGDLFPKG/IO-LINK/US

Tests / approvals		
Laser protection class	1	
Notes on laser protection	Caution: laser class:	laser light 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	-20...60 °C
	Enclosure type	Type 1
	voltage supply	Class 2
	File number UL	E174191

Mechanical data	
Weight [g]	229.15
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: PMMA

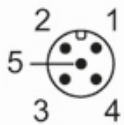
Displays / operating elements	
Display	switching status 2 x LED, yellow 1 x alphanumeric display, 3-digit
Operating elements	3 pushbutton

Accessories	
Items supplied	lock nuts: 2

Remarks	
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12; coding: A

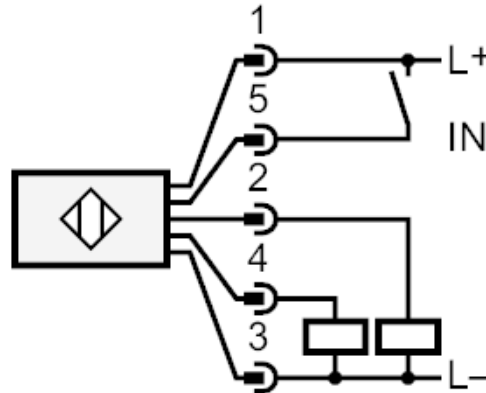




## Photoelectric distance sensor

OGDLFPKG/IO-LINK/US

### Connection



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

### 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



## Photoelectric distance sensor

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### Repeatability: 6 $\sigma$

distance	repeatability of the measured values	
	white (90 % remission)	black (6 %...90 % remission)
85 mm	12.0 mm	22.0 mm
750 mm	12.0 mm	22.0 mm
1500 mm	30.0 mm	90.0 mm

The values apply at

Extraneous light on the object

< 10 klx

constant ambient conditions

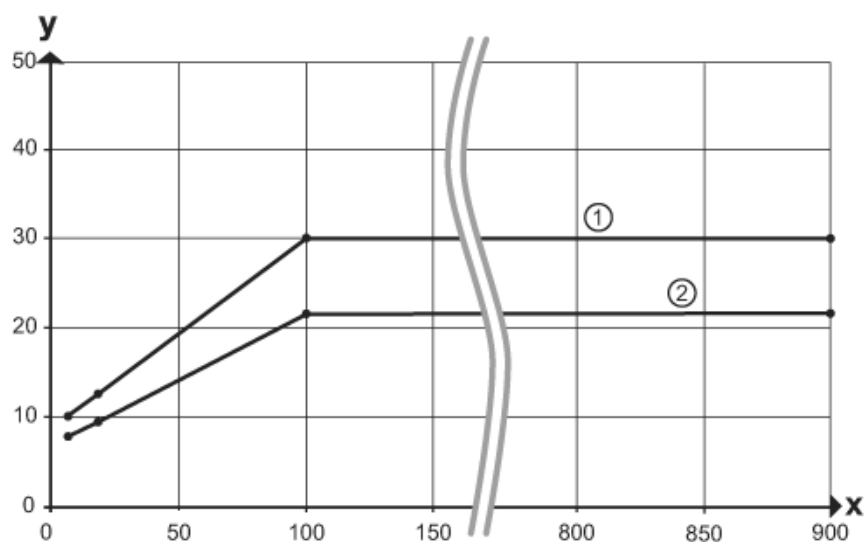
23 °C / 960 hPa

minimum power-on time in minutes

10

### Diagrams and graphs

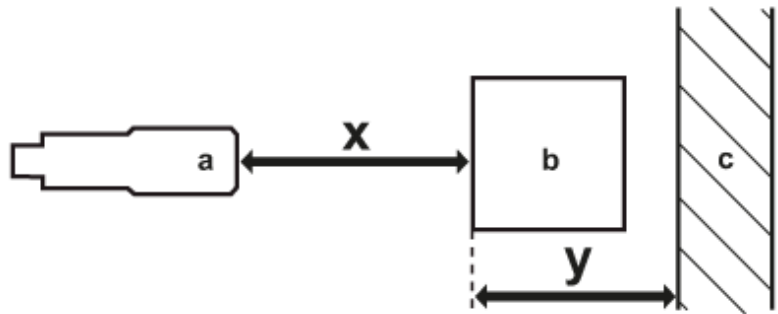
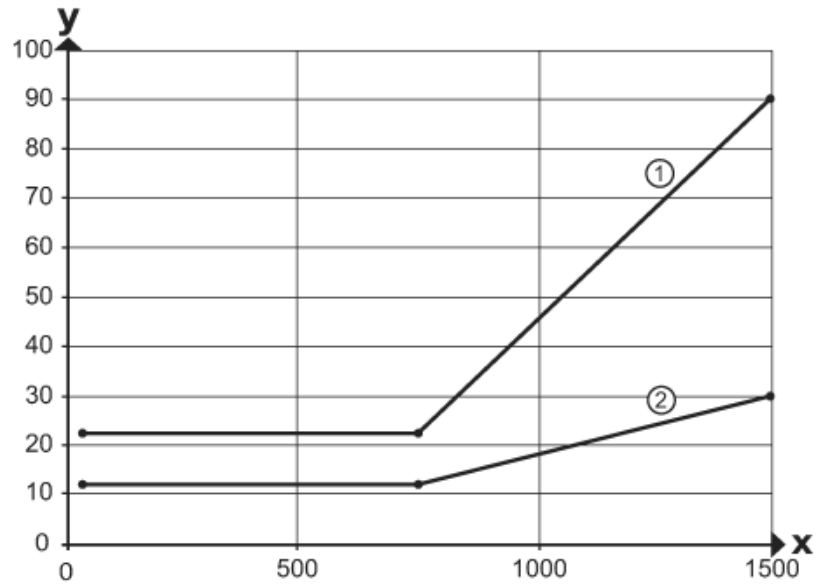
hysteresis curve for object reflectivity



## Photoelectric distance sensor

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hysteresis curve for distance measurement



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