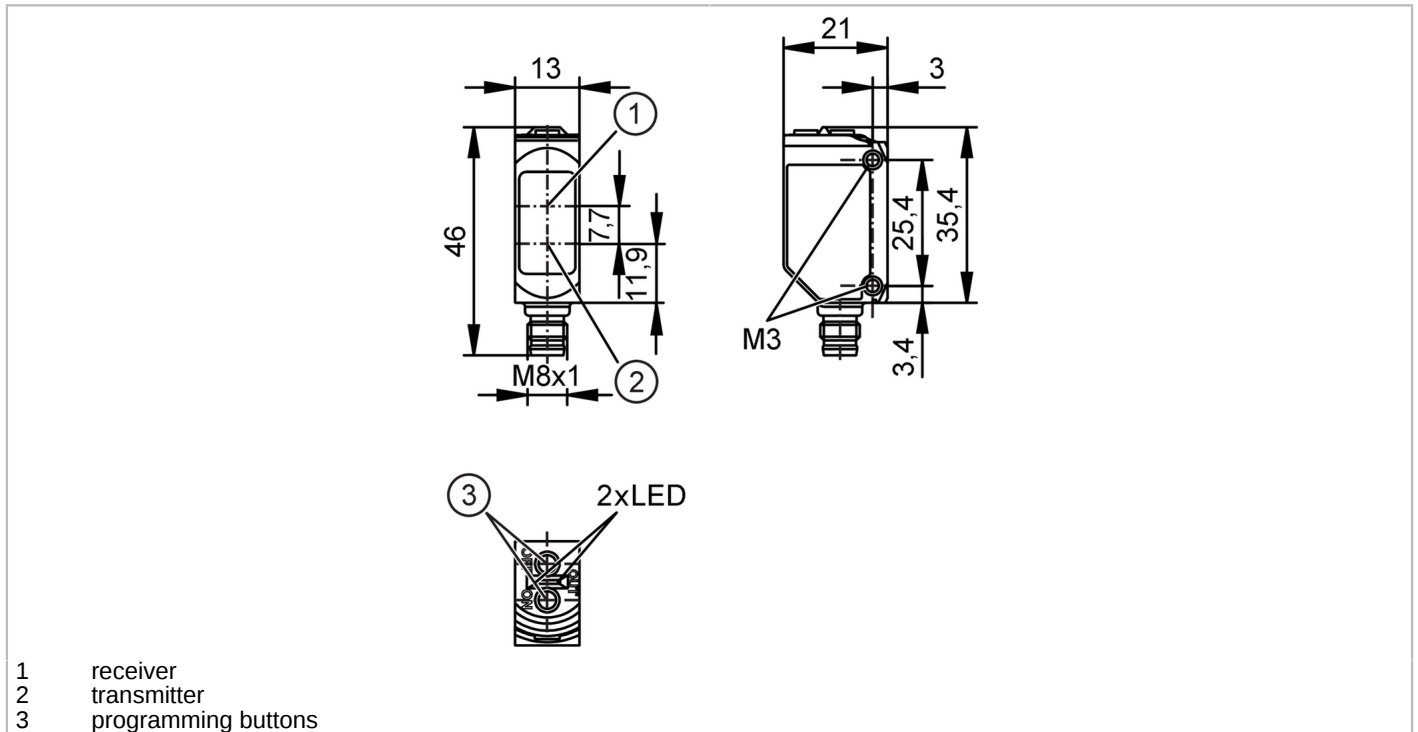


# O6D100



## Photoelectric distance sensor

O6DLFCKG/IO-LINK/AS/4P



- 1 receiver
- 2 transmitter
- 3 programming buttons



Product characteristics	
Type of light	red light
Laser protection class	1
Housing	rectangular
Application	
Application	For applications in robotics, assembly and handling technology
Electrical data	
Operating voltage [V]	10...30 DC; ("supply class 2" to cULus)
Current consumption [mA]	< 30; (24 V)
Protection class	III
Reverse polarity protection	yes
Type of light	red light
Wave length [nm]	680
Outputs	
Electrical design	PNP/NPN; (parameterisable)
Output function	normally open / normally closed; (parameterisable)
Max. current load per output [mA]	50
Factory setting	Electrical design: PNP (adjustable via IO-Link ) Output function: normally open (adjustable via IO-Link )
Short-circuit protection	yes
Overload protection	yes
Operating mode: FINE (adjustable via IO-Link )	
Switching frequency DC [Hz]	10



## Photoelectric distance sensor

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Operating mode: STD (adjustable via IO-Link )	
Switching frequency DC [Hz]	22
Operating mode: FAST (adjustable via IO-Link )	
Switching frequency DC [Hz]	42
<b>Detection zone</b>	
Max. light spot diameter [mm]	5
Light spot dimensions refer to	3 m
Background suppression [m]	< 20
<b>Measuring/setting range</b>	
Setting range object reflectivity [%]	6...200; (reflectivity; 6 % black paper; 100 % white paper)
Operating mode: FINE (adjustable via IO-Link )	
Measuring range [m]	0.02...3.3
Setting range distance [m]	0.05...3
Sampling rate [Hz]	22
Operating mode: STD (adjustable via IO-Link )	
Measuring range [m]	0.02...1.1
Setting range distance [m]	0.05...1
Sampling rate [Hz]	70
Operating mode: FAST (adjustable via IO-Link )	
Measuring range [m]	0.02...0.55
Setting range distance [m]	0.05...0.5
Sampling rate [Hz]	140
<b>Software / programming</b>	
Parameter setting options	Distance / reflectivity; hysteresis / window
<b>Interfaces</b>	
Communication interface	IO-Link
Transmission type	COM2 (38,4 kBaud)
IO-Link revision	1.1.3
SDCI standard	IEC 61131-9
Profiles	Smart Sensor - SSP 4.1.2 Common - I&D Extension Function Function
	Measuring and Switching Sensor, 2 channel Identification and Diagnosis Sensor control Locator ProductURI
SIO mode	yes
Required master port type	A
Min. process cycle time [ms]	5
IO-Link process data (cyclical)	<b>function</b> distance reflectivity device status binary switching information
	<b>bit length</b> 16 16 4 4
IO-Link functions (acyclical)	application specific tag; operating hours counter; switching cycles counter

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Supported DeviceIDs	Type of operation	DeviceID
	default	1773
Note	For further information please see the IODD PDF file under "Downloads"	

Operating conditions		
Ambient temperature	[°C]	-25...50
Storage temperature	[°C]	-30...80
Protection		IP 65; IP 67

Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	10 V
	EN 55011	class B
Vibration resistance	DIN EN 60068-2-6	10 g (10...55 Hz) / 120 min. per axis (x, y, z)
Shock resistance	DIN EN 60068-2-27	50 g 6 shocks / 11 ms half-sine (x, y, z)
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 1040.10 except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56, dated May 8, 2019.
MTTF	[years]	832
UL approval	Ta	-25...50 °C
	Enclosure type	Type 1
	voltage supply	Class 2
	File number UL	174191

Mechanical data		
Weight	[g]	32.668
Housing		rectangular
Dimensions	[mm]	46 x 13 x 21
Thread designation		M8 x 1
Materials		housing: PPSU; ABS; EPDM; front pane: glass
Lens alignment		side lens

Displays / operating elements		
Display	switching status	1 x LED, yellow
	operating status	1 x LED, green
Operating elements	2	pushbutton

Remarks		
Pack quantity		1 pcs.

### Electrical connection - plug

Connector: 1 x M8; coding: A; Contacts: 4



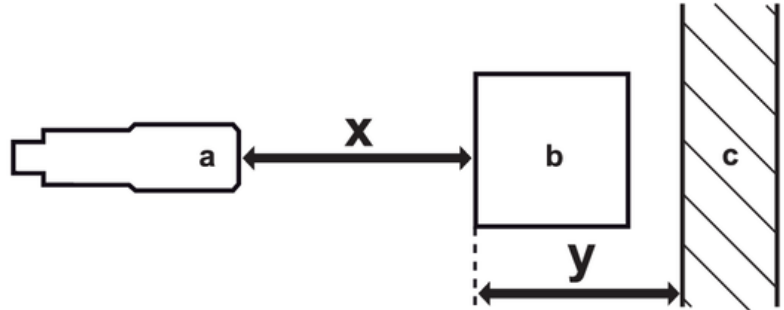




## Photoelectric distance sensor

O6DLFCKG/IO-LINK/AS/4P

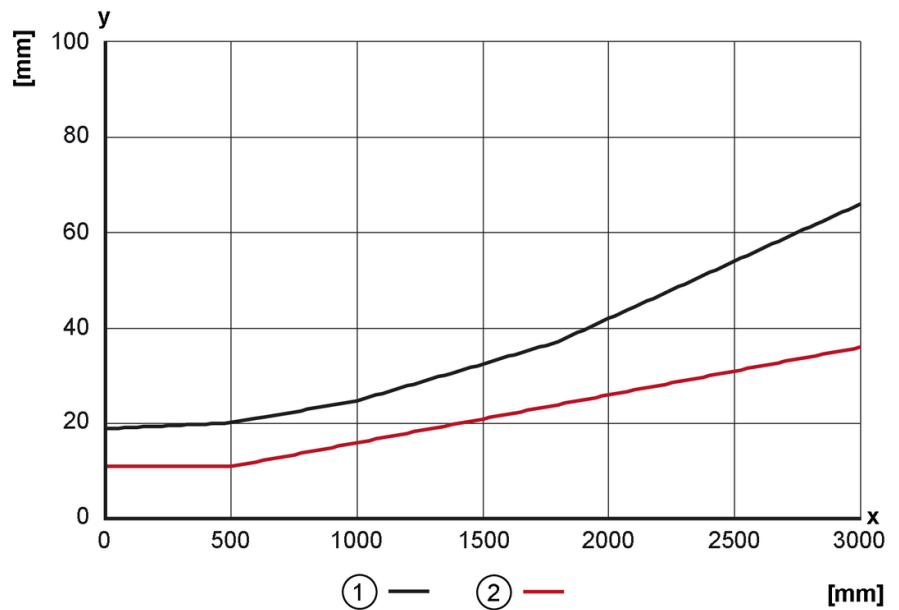
### Diagrams and graphs



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

Hysteresis graph for distance measurement / operating mode:

FINE



- 1: Background any (6...90 % remission)
- 2: background white (90 % remission)

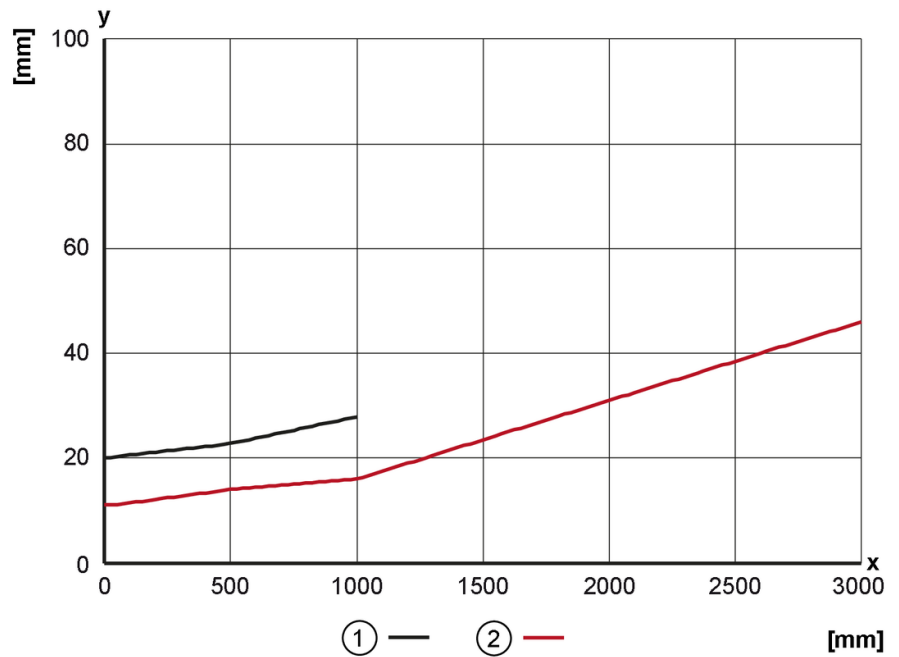
# O6D100



## Photoelectric distance sensor

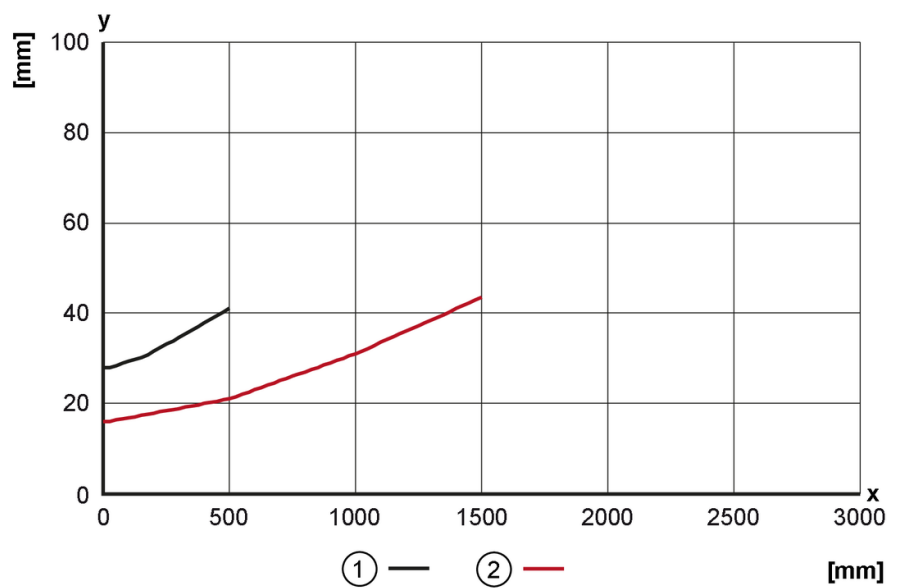
O6DLFCKG/IO-LINK/AS/4P

Hysteresis graph for distance measurement / operating mode: STD



- 1: Background any (6...90 % remission)
- 2: background white (90 % remission)

Hysteresis graph for distance measurement / operating mode: FAST



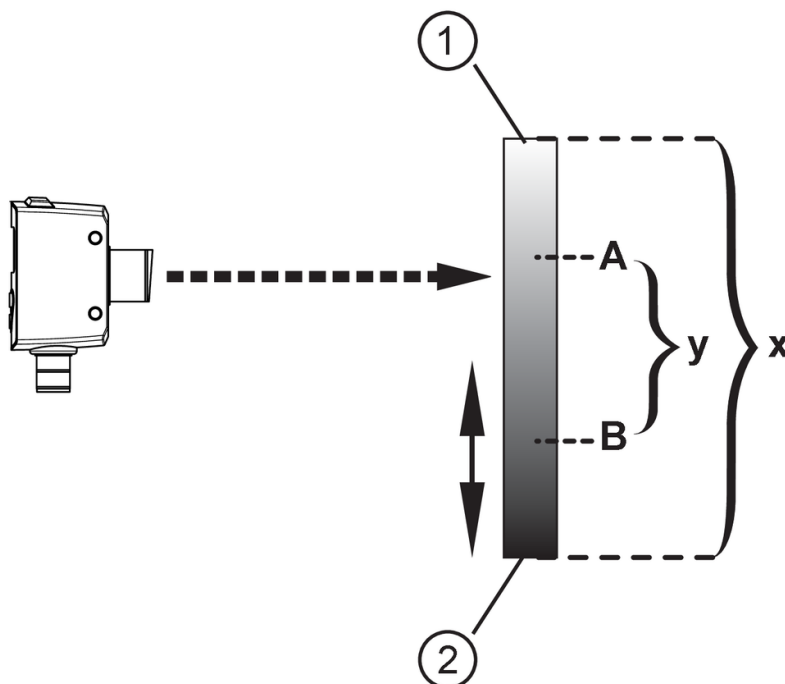
- 1: Background any (6...90 % remission)
- 2: background white (90 % remission)

# O6D100



## Photoelectric distance sensor

O6DLFCKG/IO-LINK/AS/4P



- 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

