

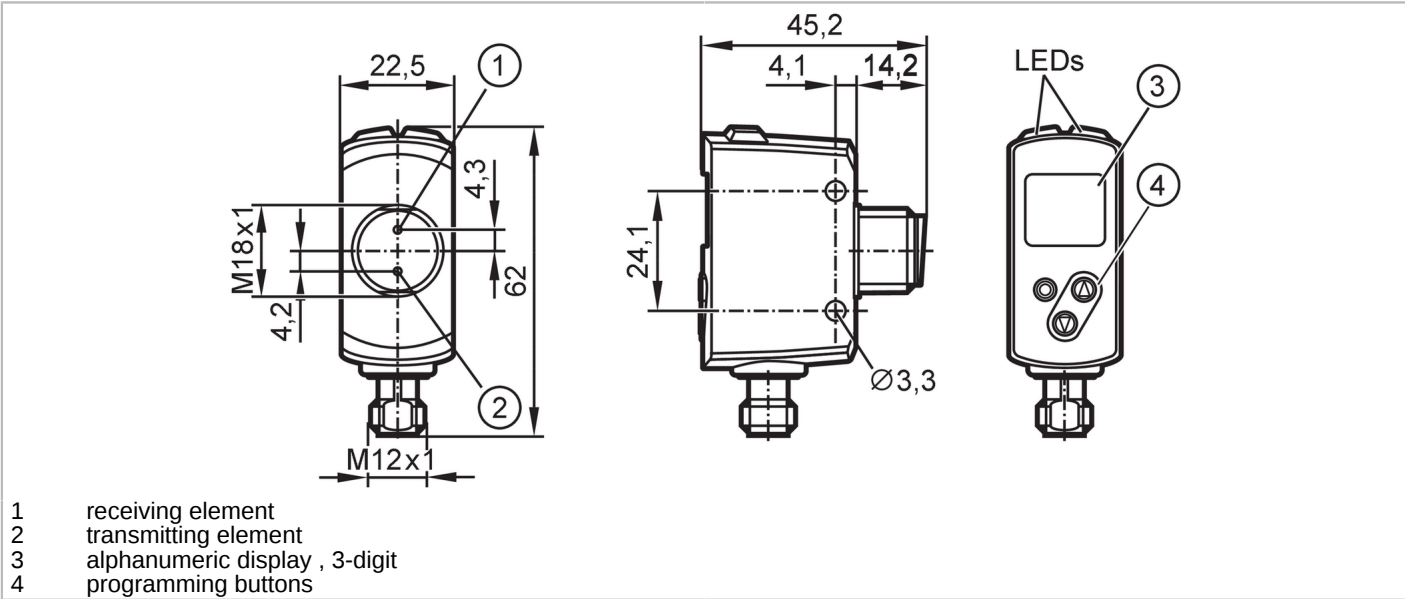


Photoelectric distance sensor

OGDLFNKG/IO-Link/US

Article no longer available - archive entry

Alternative articles: OGD550 or OGD250
When selecting an alternative article and accessories please note that technical data may differ!



Product characteristics		
Type of light		red light
Laser protection class		1
Housing		rectangular with M18 thread
Application		
Application	[m]	0.03...0.3
Electrical data		
Operating voltage	[V]	10...30 DC; ("supply class 2" to cULus)
Current consumption	[mA]	< 75; (24 V)
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; (parameterisable)
Permanent current rating of switching output DC	[mA]	100; (per output)
Type of short-circuit protection		pulsed
Overload protection		yes



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Detection zone		
Range	[mm]	25...300
Max. light spot width	[mm]	3
Max. light spot height	[mm]	3
Light spot dimensions refer to		at maximum range
Background suppression	[m]	0.03...19.2
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 - SSP 0	Generic Profiled Sensor
	Function	Device identification
	Function	Process data variable
	Function	Device diagnosis
	Function	Teach channel
SIO mode	yes	
Required master port type	A	
Process data analogue	2	
Process data binary	2	
Min. process cycle time	[ms]	5
Supported DeviceIDs	Type of operation	DeviceID
	default	1066
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 1040.10 except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56, dated May 8, 2019.
MTTF	[years]	159
Mechanical data		
Weight	[g]	205.5



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Housing	rectangular with M18 thread
Dimensions [mm]	61.7 x 22.5 x 45.2
Thread designation	M18 x 1
Materials	housing: stainless steel (316L/1.4404); PPSU; ABS; PMMA; PBT / PC; EPDM; front pane: glass
Lens alignment	side lens

Displays / operating elements

Display	switching status	2 x LED, yellow
		1 x alphanumeric display, 3-digit

Accessories

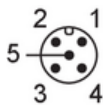
Items supplied	lock nuts: 2
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Remarks

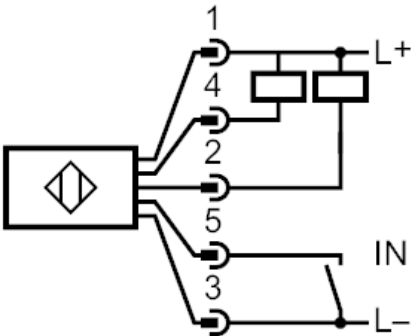
Pack quantity	1 pcs.
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Electrical connection

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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Other data		
Parameter	Setting range	Factory setting
OU1	Hno, Hnc, Fno, Fnc, OFF	Hno
SP1 [mm]	30...300	300
nP1 [mm]	30...300	90
FSP1 [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

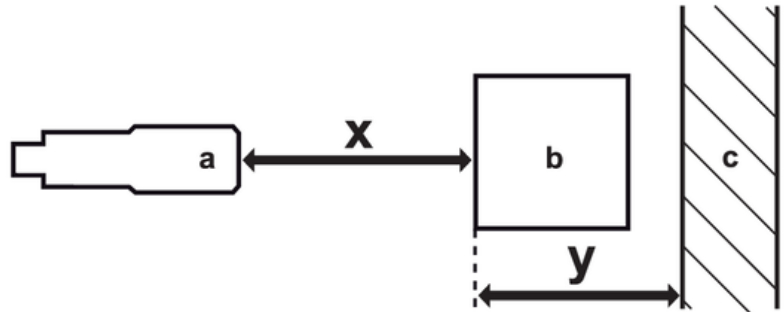
	repeatability of the measured values	
distance	white (90 % remission)	black (6 % remission)
25...300 mm	2.0 mm	5.0 mm

The values apply at		
Extraneous light on the object	< 10 klx	
constant ambient conditions	23 °C / 960 hPa	
minimum power-on time in minutes	15	

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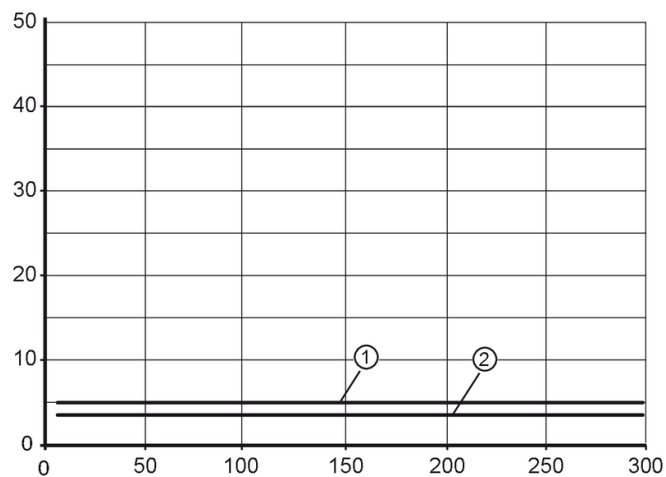
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Diagrams and graphs



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

hysteresis graph



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