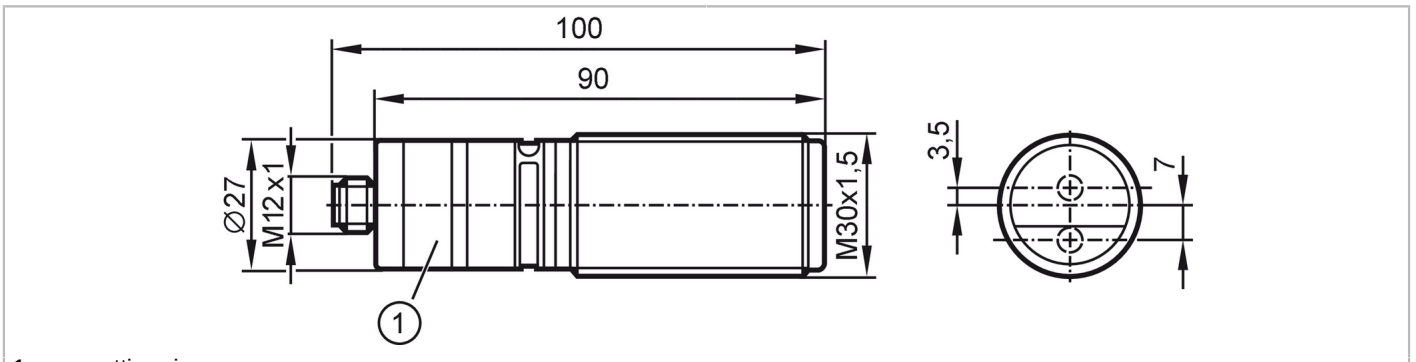
OID250

Photoelectric distance sensor

OIDLCPKG/US



1: setting ring

Product characteristics		
Type of light		red light
Laser protection class		1
Housing		threaded type
Application		
Special feature		Background suppression
Application		Industrial applications / factory automation
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
Inputs / outputs		
Number of inputs and outputs		Number of digital outputs: 2
Outputs		
Total number of outputs		2
Electrical design		PNP
Number of digital outputs		2
Output function		normally open / normally closed; (complementary)
Max. current load per output	[mA]	100
Switching frequency DC	[Hz]	11
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Detection zone		
Max. light spot diameter	[mm]	5
Light spot dimensions refer to		2 m
Detection range hysteresis	[%]	< 4

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Note on monitoring range hysteresis		black 6% remission	
Background suppression available		yes	
Background suppression	[m]	< 20	
Measuring/setting range			
Measuring range	[m]	0.03...2	
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	Multiple switching signal
		Function	Process data variable
SIO mode		yes	
Process data analogue		1	
Process data binary		1	
Min. process cycle time	[ms]	6.4	
Supported DeviceIDs		**Type of operation**	**DeviceID**
		default	373
Operating conditions			
Ambient temperature	[°C]	-25...60	
Note on ambient temperature		at ta < -10 °C warm-up is necessary, laser is off	
Protection		IP 65; IP 67	
Max. immunity to extraneous light	[klx]	10; (on the object)	
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]	239	
Mechanical data			
Weight	[g]	207	
Housing		threaded type	
Dimensions	[mm]	M30 x 1.5 / L = 100	
Thread designation		M30 x 1.5	
Materials		housing: stainless steel; front pane: PMMA; LED window: PC; PBT; PC; FKM	

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Displays / operating elements		
Display	switching status	LED, yellow switching output PIN 4
	operation	LED, green
With scale	yes	
Display unit	cm; inch	
Operating elements		setting ring

Accessories	
Items supplied	lock nuts: 2 x M30, stainless steel

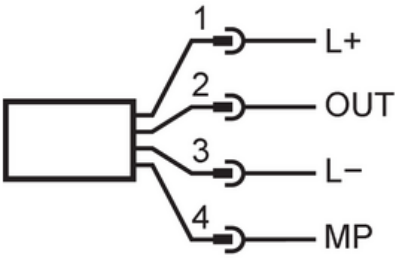
Remarks	
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4



Connection



1	L+	
2	OUT	AO
3	L-	
4	MP	DO (NO/NC), IO-Link

Other data

accuracy

	accuracy - Extraneous light on the object max. 10klx	
distance	black (6% remission)	white (90% remission)
0 mm	± 30 mm	± 30 mm
500 mm	± 30 mm	± 30 mm
1000 mm	± 30 mm	± 30 mm
1500 mm	± 40 mm	± 30 mm
2000 mm	± 60 mm	± 30 mm

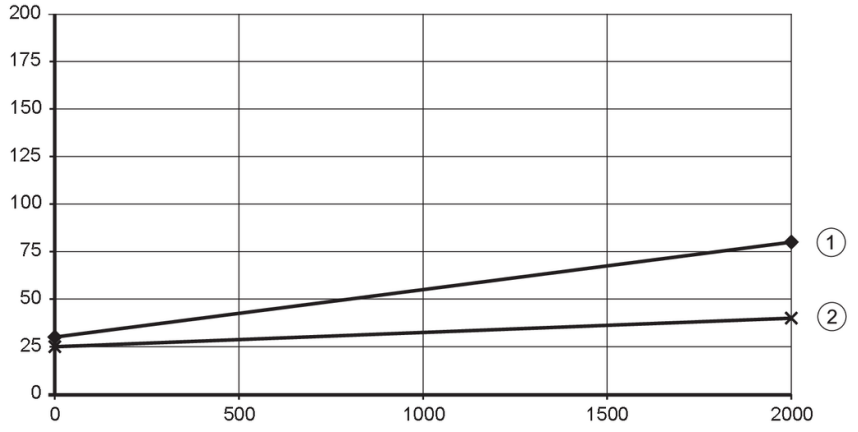
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Diagrams and graphs

hysteresis graph



x: distance [mm]

y: Hysteresis [mm]

1 = background black 6% remission

2 = background white 90% remission