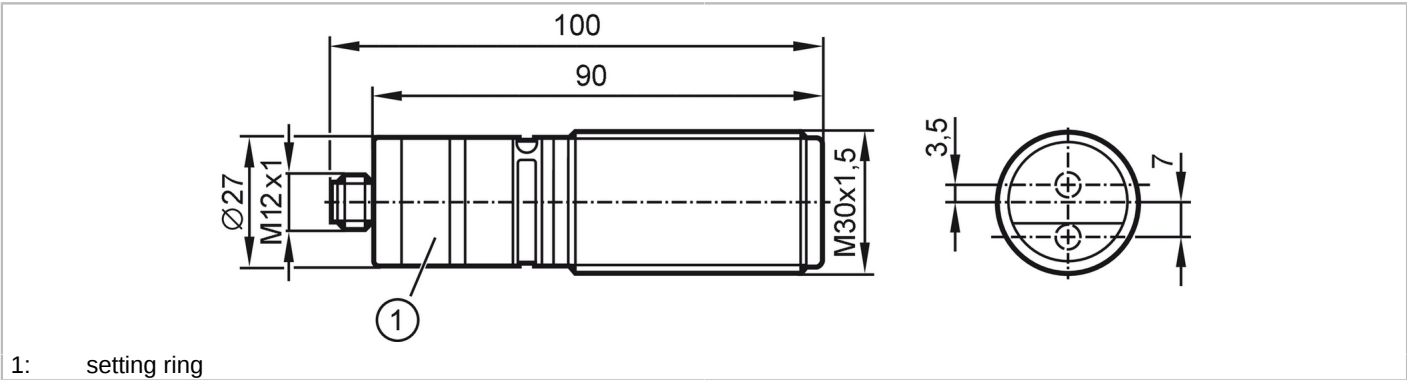


OID250



Laser 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
Electrical data	
Operating voltage [V]	10...30 DC; (cULus - Class 2 source required)
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 / closed; (complementary)
Max. current load per output [mA]	100
Switching frequency DC [Hz]	11
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)
Overload protection	yes
Monitoring range	
Max. light spot diameter [mm]	5
Light spot dimensions refer to	2 m
Detection range hysteresis [%]	< 4



Laser distance sensor

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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 analog	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	
Material	housing: stainless steel; front lens: PMMA; LED window: PC; PBT; PC; FKM	

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

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

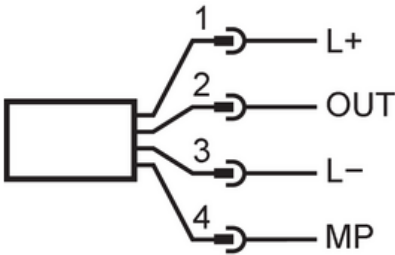
Remarks	
Pack quantity	1 pcs.

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

OID250

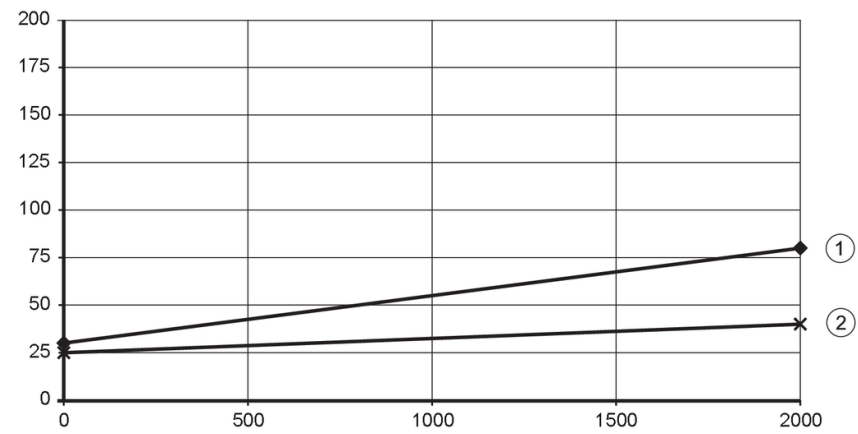


Laser distance sensor

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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