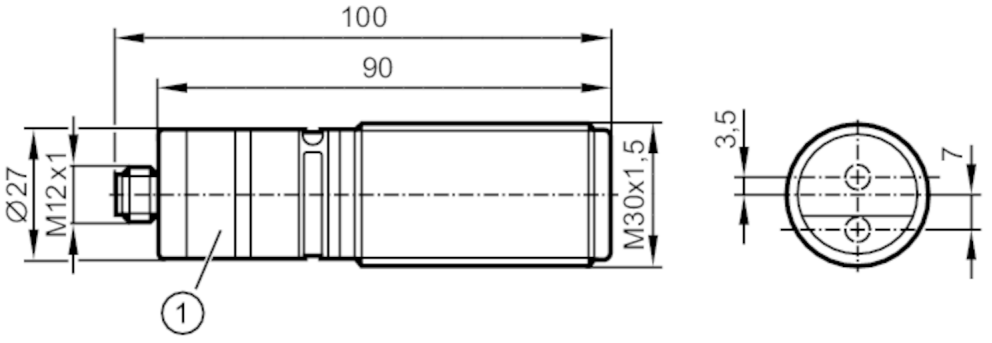
OID251

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
Electrical data		
Operating voltage	[V]	10...30 DC
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	[%]	< 5

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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 CDV	
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	394
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	
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]	206.5	
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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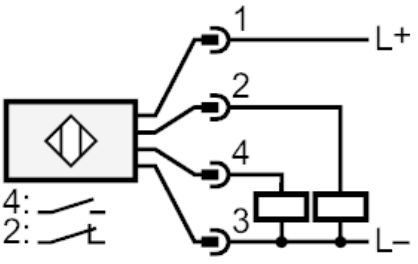
Displays / operating elements		
Display	switching status	LED, yellow
	operation	LED, green
Display unit	cm	
Operating elements		setting ring
Accessories		
Items supplied	lock nuts: 2 x M30, stainless steel	
Remarks		
Remarks	operating voltage "supply class 2" according to cULus	
Pack quantity	1 pcs.	

Electrical connection

Connector: 1 x M12; coding: A



Connection



4: OUT / IO-Link

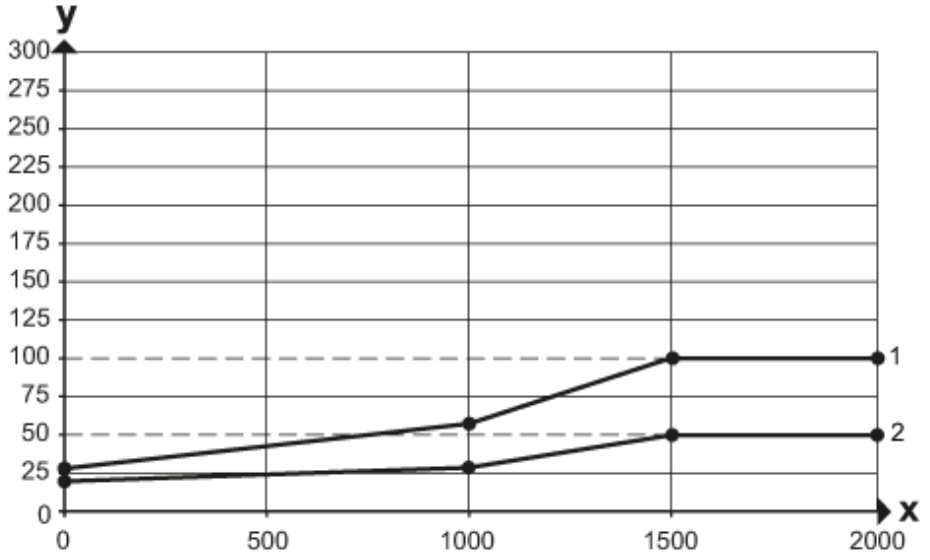
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Diagrams and graphs

hysteresis graph



x: distance [mm]

y: Hysteresis [mm]

1 = object black 6% remission

2 = object white 90% remission