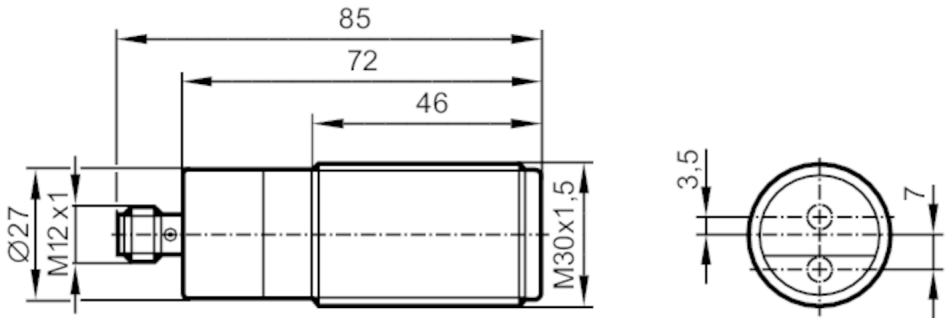


OID254



Laser distance sensor

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Product characteristics		
Type of light		red light
Laser protection class		1
Application		
System		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
Inputs		
Input circuit of digital inputs		1 x 24 V PNP; (IEC 61131-2 Typ 3)
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



Laser distance sensor

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Detection range hysteresis	[%]	< 5
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: Sensor Identification; Binary Data Channel; Process Value; Sensor Diagnosis	
SIO mode	yes	
Process data analog	1	
Process data binary	1	
Min. process cycle time	[ms]	6.6
Supported DeviceIDs	Type of operation	DeviceID
	default	579

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; IP 68; IP 69K	

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]	210
UL approval	voltage supply	Class 2
	File number UL	E174191

Mechanical data

Weight	[g]	217.15
Dimensions	[mm]	M30 x 1.5 / L = 85
Thread designation		M30 x 1.5
Material	housing: stainless steel; front lens: PMMA; PEI; EPDM	

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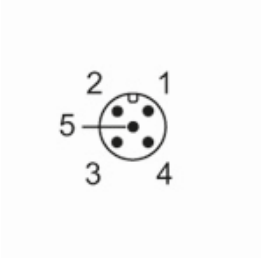
Laser distance sensor

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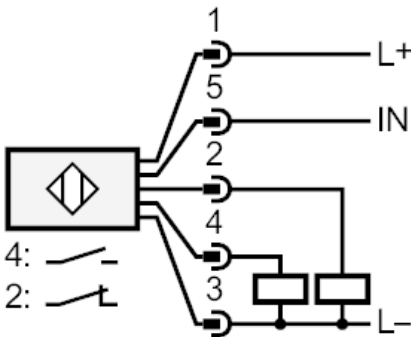
Displays / operating elements		
Display	Switching status	LED, yellow Switching output 1
	Power	LED, green
Display unit	cm	
Accessories		
Items supplied	lock nuts: 2 x M30, stainless steel	
Remarks		
Pack quantity	1 pcs.	

Electrical connection

Connector: 1 x M12; coding: A



Connection



4: OUT / IO-Link

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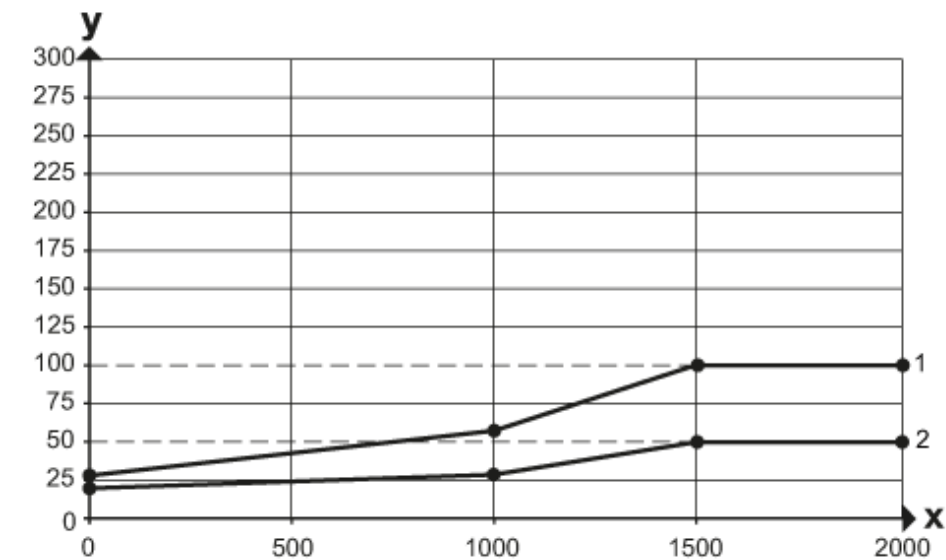


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Diagrams and graphs

Hysteresis graph



x: distance [mm]

y: Hysteresis [mm]

1 = object black 6 % remission

2 = object white 90 % remission