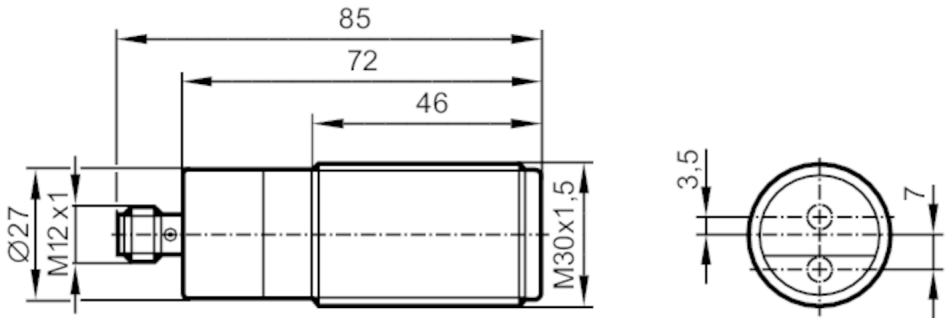




Photoelectric distance sensor

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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
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 / 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

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Photoelectric distance sensor

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Light spot dimensions refer to	2 m
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 - 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	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	power supply	Class 2
	File number UL	E174191

Mechanical data

Weight [g]	217.15
Housing	threaded type
Dimensions [mm]	M30 x 1.5 / L = 85

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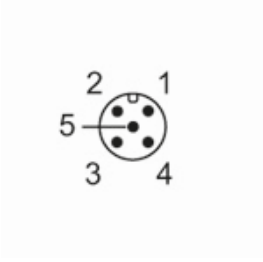
Photoelectric distance sensor

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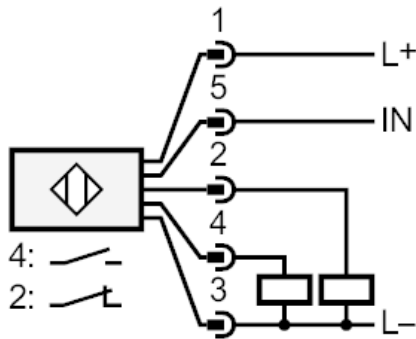
Thread designation	M30 x 1.5	
Materials	housing: stainless steel; front pane: PMMA; PEI; EPDM	
Displays / operating elements		
Display	switching status	LED, yellow switching output 1
	operation	LED, green
Display unit	cm	
Accessories		
Items supplied	lock nuts: 2 x M30, stainless steel	
Remarks		
Pack quantity	1 pcs.	

Electrical connection

Connector: 1 x M12; coding: A



Connection



4: OUT / IO-Link

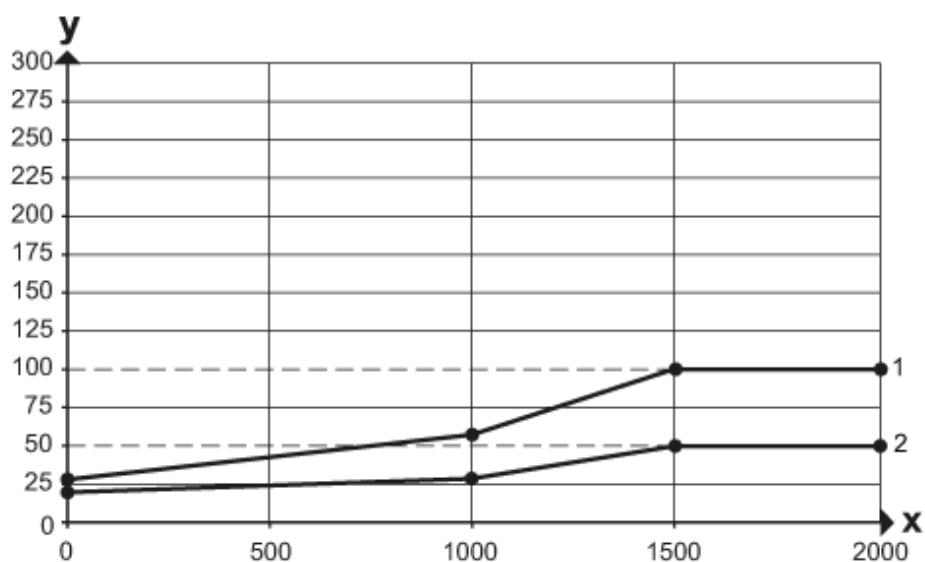


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Diagrams and graphs

hysteresis graph



x: distance [mm]

y: Hysteresis [mm]

1 = object black 6% remission

2 = object white 90% remission