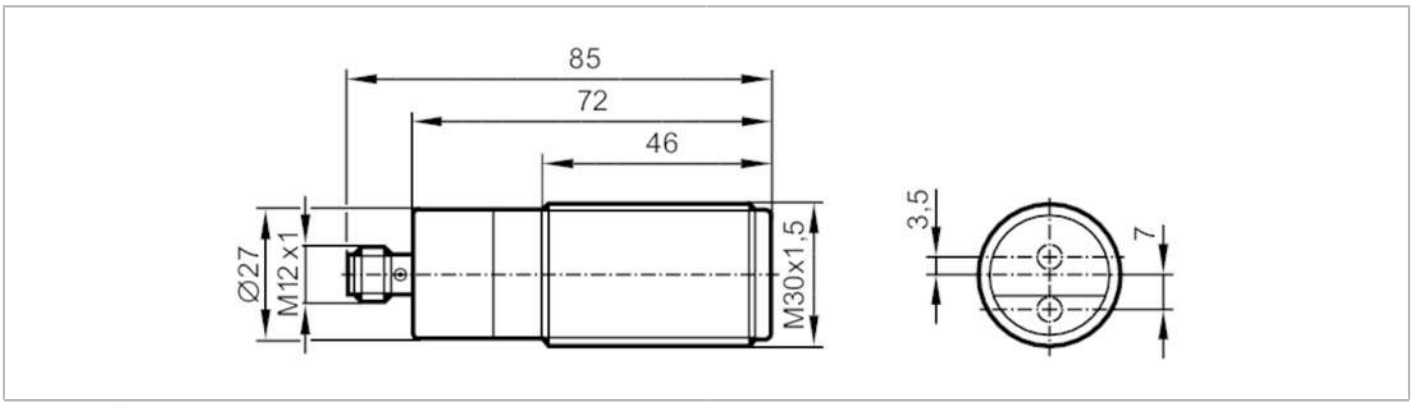
OID254

Photoelectric distance sensor

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Product characteristics		
Type of light		red light
Laser protection class		1
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
Light spot dimensions refer to		2 m

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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 analogue		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 except for deviations pursuant to Laser Notice No. 50, dated June 2007.
MTTF	[years]	210	
Mechanical data			
Weight	[g]	227.5	
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	

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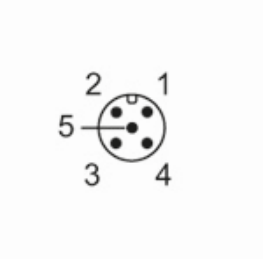
Photoelectric distance sensor

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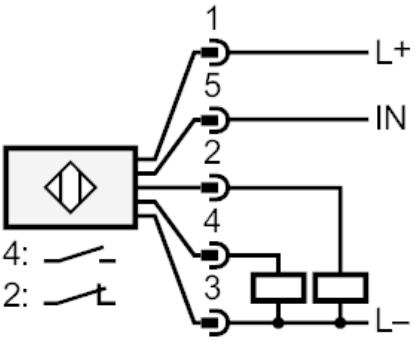
Remarks	
Remarks	operating voltage "supply class 2" according to cULus
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A



Connection



4: OUT / IO-Link

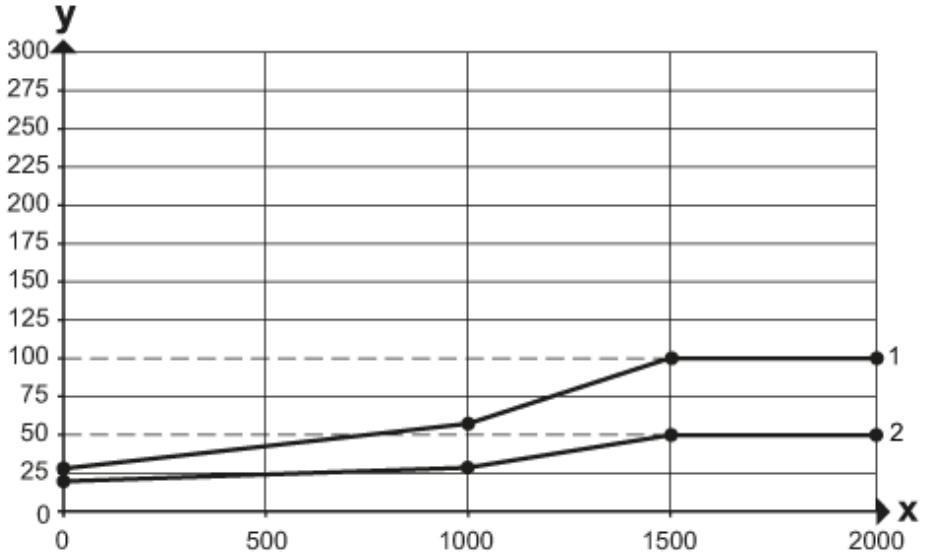
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Diagrams and graphs

hysteresis graph



x: distance [mm]

y: Hysteresis [mm]

1 = object black 6% remission

2 = object white 90% remission