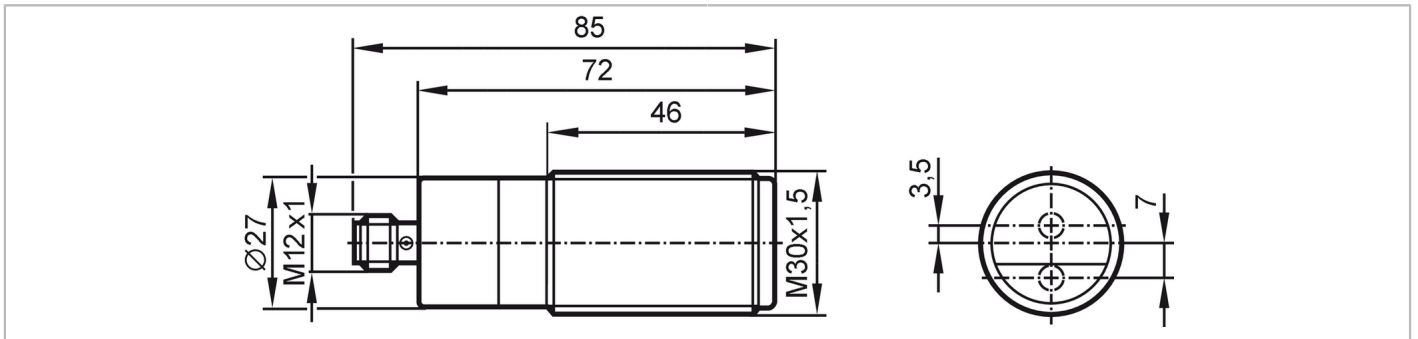


OID254



Laser distance sensor

OIDLCPKG/US



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
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
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Inputs

Input circuit of digital inputs	1 x 24 V PNP; (IEC 61131-2 Typ 3)
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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

OID254



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 - 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	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
Housing	Threaded type
Dimensions [mm]	M30 x 1.5 / L = 85
Thread designation	M30 x 1.5

OID254



Laser distance sensor

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Material housing: stainless steel; front lens: PMMA; PEI; EPDM

Displays / operating elements

Display	Switching status	LED, yellow
	Power	LED, green
Display unit		cm

Accessories

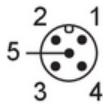
Items supplied lock nuts: 2 x M30, stainless steel

Remarks

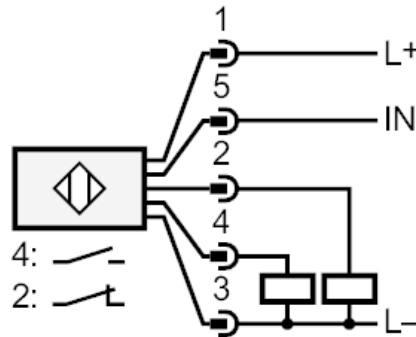
Pack quantity 1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 5



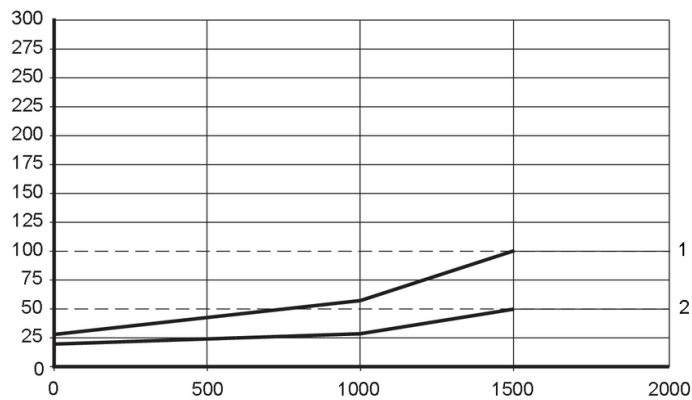
Connection



4: OUT / IO-Link

Diagrams and graphs

Hysteresis graph



x: distance [mm]
y: Hysteresis [mm]
1 = object black 6 % remission
2 = object white 90 % remission