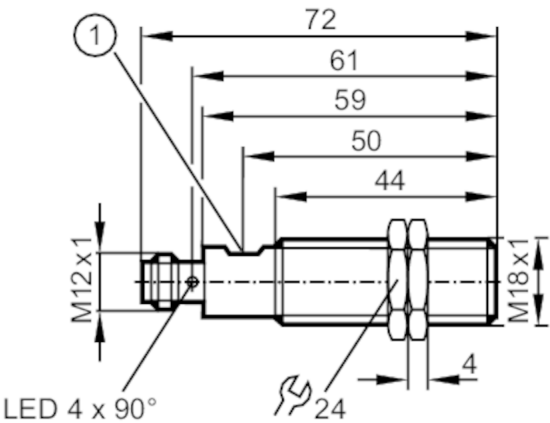




Diffuse reflection sensor with background suppression

OGWIHPKG/US/IO-LINK



1 potentiometer



Product characteristics		
Type of light		infrared light
Housing		threaded type
Application		
Special feature		Background suppression
Application	[m]	0.025...2
Function principle		Diffuse reflection sensor
Electrical data		
Operating voltage	[V]	10...30 DC; ("supply class 2" to cULus)
Current consumption	[mA]	< 30
Protection class		III
Reverse polarity protection		yes
Max. power-on delay time	[ms]	300
Type of light		infrared light
Wave length	[nm]	940
Outputs		
Electrical design		PNP
Output function		light-on mode
Max. voltage drop switching output DC	[V]	2.5
Permanent current rating of switching output DC	[mA]	100
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Detection zone		
Range	[mm]	25...400
Range adjustable		yes
Max. light spot diameter	[mm]	200
Light spot dimensions refer to		at maximum range



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Background suppression available		yes
Background suppression [m]		2
Measuring/setting range		
Sampling rate [Hz]		10
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 3.1	Measuring Sensor
	Common - I&D	Identification and Diagnosis
	Function	Multiple switching signal
	Function	Teach channel
SIO mode		yes
Required master port type		A
Min. process cycle time [ms]		10
Supported DeviceIDs	Type of operation	DeviceID
	default	1161
Operating conditions		
Ambient temperature [°C]		-20...55
Storage temperature [°C]		-40...85
Protection		IP 65
Max. immunity to extraneous light [klx]		8
Tests / approvals		
EMC	EN 60947-5-2	
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]		690
UL approval	Ta	-20...55 °C
	Enclosure type	Type 1
	power supply	Class 2
	File number UL	E174191
Mechanical data		
Weight [g]		55.2
Housing		threaded type
Dimensions [mm]		M18 x 1 / L = 72
Thread designation		M18 x 1
Materials	housing: stainless steel (316L/1.4404); sensor surface: PMMA; ABS; operator interface: TPE; lock nuts: brass white bronze coated	



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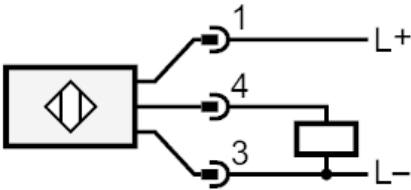
Lens material	PMMA	
Displays / operating elements		
Display	switching status	4 x 90° LED, yellow
Operating elements		potentiometer
Accessories		
Items supplied	lock nuts: 2 x M18	
Remarks		
Pack quantity	1 pcs.	

Electrical connection

Connector: 1 x M12; coding: A



Connection

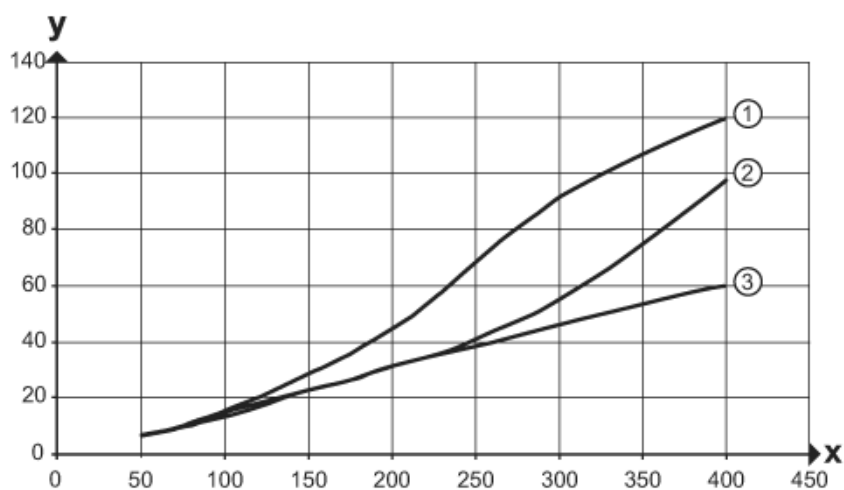


4 OUT / IO-Link

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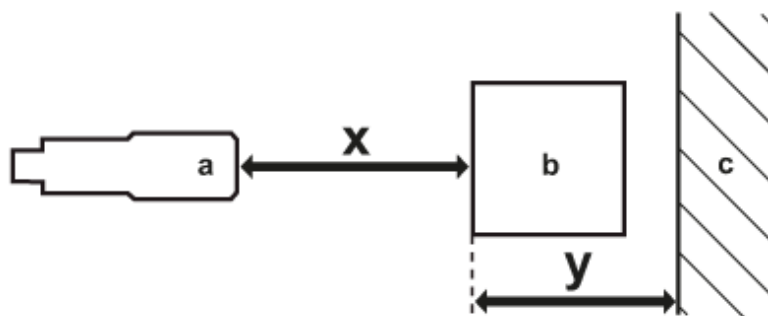
Diagrams and graphs



1 < 8 kLux

2 < 3 kLux

3 < 1 kLux



a: sensor

b: object

c: background

x: distance sensor/object [mm]

y: min. distance object/background [mm]