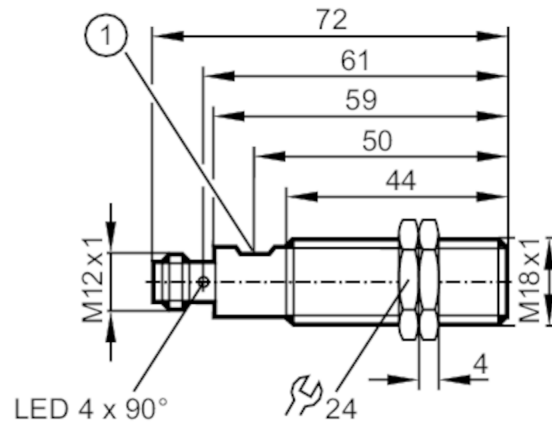




## Diffuse reflection sensor with background suppression

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
<b>Measuring/setting range</b>		
Sampling rate [Hz]		10
<b>Interfaces</b>		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
Profiles		Smart Sensor: Device Identification; Switching Signal Channel; Process Data Variable; Device Diagnosis; Tech Channel
SIO mode		yes
Required master port type		A
Min. process cycle time [ms]		10
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	default	1161
<b>Operating conditions</b>		
Ambient temperature [°C]		-20...55
Storage temperature [°C]		-40...85
Protection		IP 65
Max. immunity to extraneous light [klx]		8
<b>Tests / approvals</b>		
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
<b>Mechanical data</b>		
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
Lens material		PMMA



## Diffuse reflection sensor with background suppression

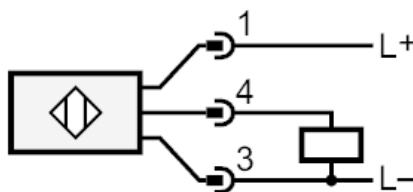
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Displays / operating elements		
Display	switching status	4 x 90° LED, yellow
Operating elements		potentiometer
Accessories		
Items supplied		lock nuts: 2 x M18
Remarks		
Pack quantity		1 pcs.
Electrical connection		

Connector: 1 x M12; coding: A



### Connection



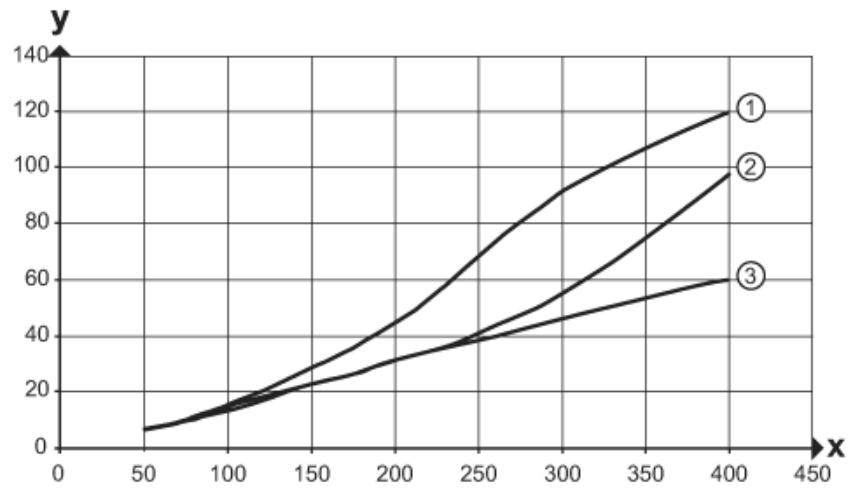
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OUT / IO-Link

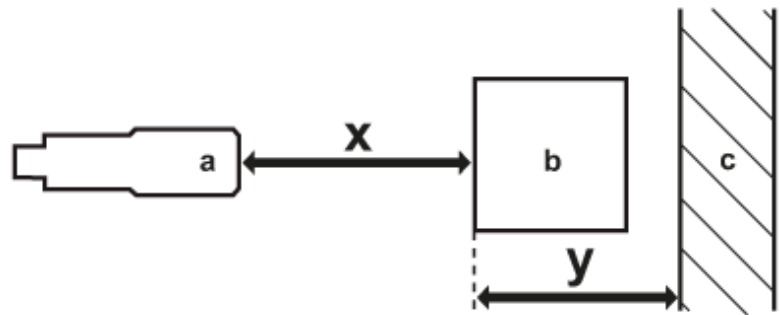
## Diffuse reflection sensor with background suppression

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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]