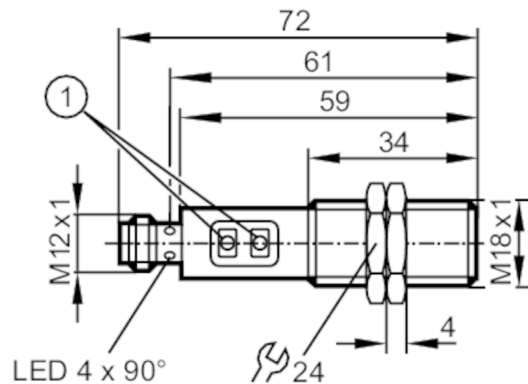




Laser diffuse reflection sensor

OGHLFNKG/US100



1 programming buttons



Product characteristics		
Type of light		red light
Laser protection class		1
Housing		threaded type
Application		
Special feature		Background suppression
Function principle		Diffuse reflection sensor
Electrical data		
Operating voltage	[V]	10...36 DC
Current consumption	[mA]	15
Protection class		II
Reverse polarity protection		yes
Type of light		red light
Typ. lifetime	[h]	50000
Outputs		
Electrical design		NPN
Output function		light-on/dark-on mode; (programmable)
Max. voltage drop switching output DC	[V]	2.5
Permanent current rating of switching output DC	[mA]	200
Switching frequency DC	[Hz]	1000
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Detection zone		
Range	[mm]	20...200; (white paper 200 x 200 mm 90% remission)
Range on white object (90 % remission)	[mm]	20...200



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Range on grey object (18 % remission)	[mm]	20...100
Range on black object (6 % remission)	[mm]	20...70
Range adjustable		yes
Diameter of the smallest detectable object	[mm]	1.5
Max. light spot diameter	[mm]	1.2
Background suppression available		yes

Operating conditions

Ambient temperature	[°C]	-10...60
Protection		IP 65; IP 67

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	[ANN]	497

Mechanical data

Weight	[g]	62.3
Housing		threaded type
Dimensions	[mm]	M18 x 1 / L = 72
Thread designation		M18 x 1
Materials		stainless steel (1.4404 / 316L); PA; LCP; EPDM; TPU
Lens material		PMMA

Displays / operating elements

Display	switching status	1 x LED, yellow
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Аксессуары

Items supplied		lock nuts: 2
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Remarks

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

Laser diffuse reflection sensor

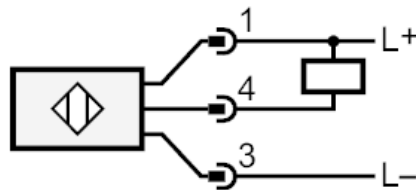
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Electrical connection

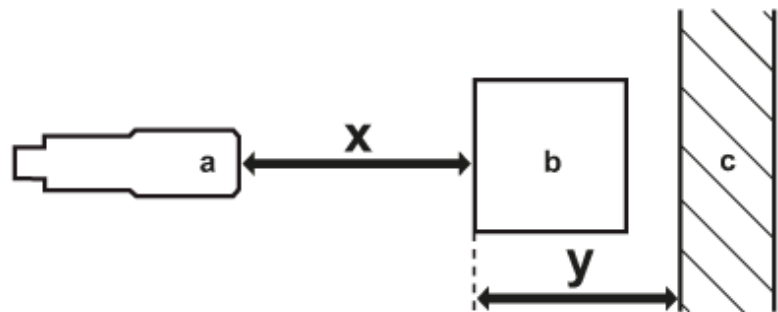
Connector: 1 x M12; coding: A



Connection



Diagrams and graphs



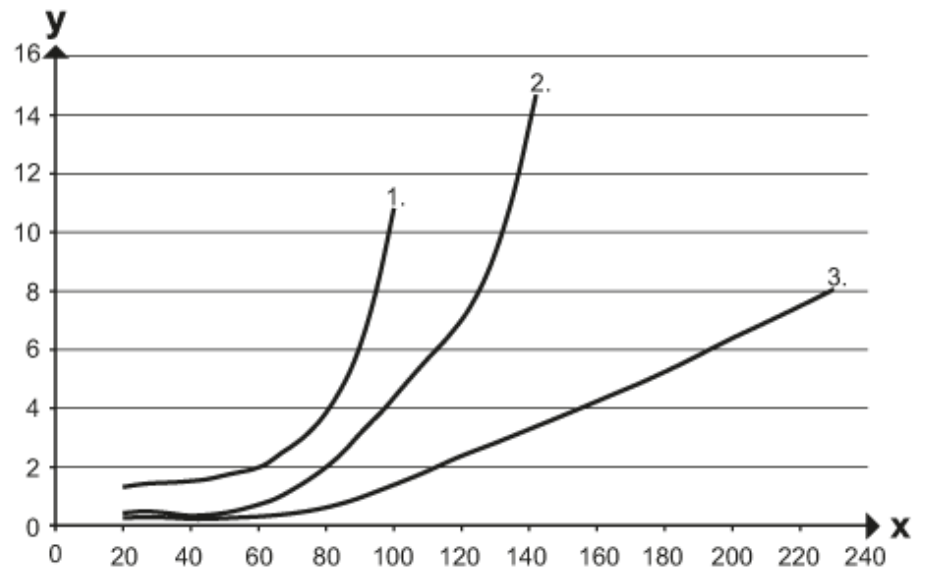
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



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accuracy graph



x: distance sensor/object [mm]

y: min. distance object/background [mm]

1 = object black (6 % remission) , background white (90 % remission)

2 = object grey (18 % remission) , background white (90 % remission)

3 = object white (90 % remission) , background white (90 % remission)