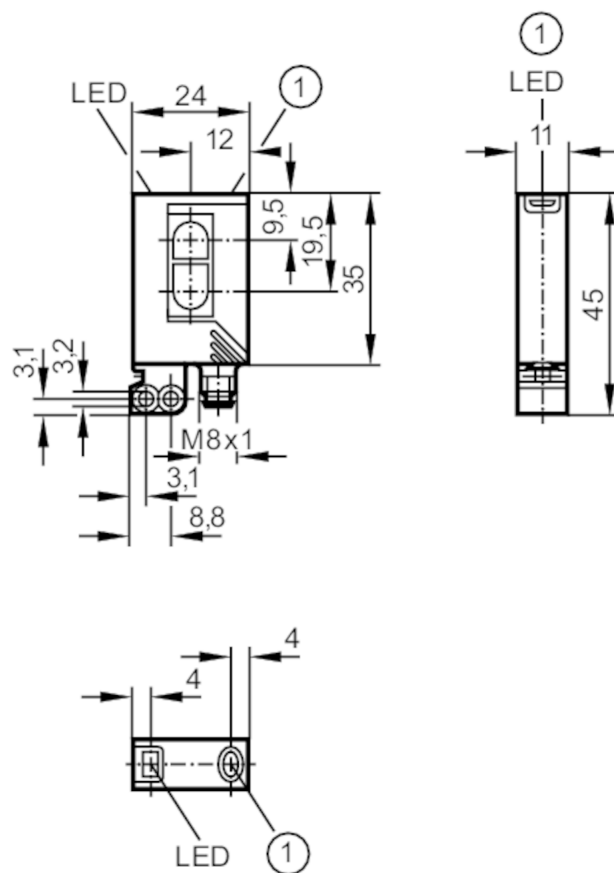




Laser diffuse reflection sensor

OJHLFPKG/FO/AS



- 1 pushbutton
receiver in upper lens
transmitter in lower lens



Product characteristics

Type of light	red light
Laser protection class	1
Housing	rectangular
Dimensions [mm]	35 x 24 x 11

Application

Special feature	Background suppression
Function principle	Diffuse reflection sensor



Laser diffuse reflection sensor

OJHLFPKG/FO/AS

Electrical data		
Operating voltage	[V]	10...30 DC
Current consumption	[mA]	13
Protection class		III
Reverse polarity protection		yes
Type of light		red light
Wave length	[nm]	650
Typ. lifetime	[h]	50000
Outputs		
Electrical design		PNP
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]	15...200; (white paper 200 x 200 mm 90 % remission)
Range adjustable		yes
Diameter of the smallest detectable object	[mm]	2
Max. light spot width	[mm]	2
Max. light spot height	[mm]	1
Background suppression available		yes
Operating conditions		
Ambient temperature	[°C]	-10...60
Protection		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	[years]	501



Laser diffuse reflection sensor

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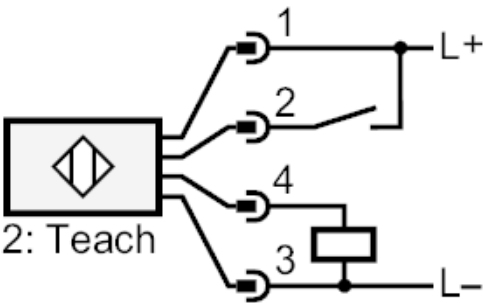
Mechanical data		
Weight	[g]	40.7
Housing		rectangular
Dimensions	[mm]	35 x 24 x 11
Materials		housing: ABS; fixture: diecast zinc; LED window: SEPS; pushbutton: SEPS
Lens material		PMMA
Lens alignment		front lens
Displays / operating elements		
Display	switching status	1 x LED, yellow
	operation	1 x LED, green
Electronic lock		yes
Accessories		
Accessories (supplied)		Basic clip: 1 x, E20964
		screws: 2 x x M3 x 16
		spring washers: 2 x
		Nuts: 2 x
Remarks		
Remarks		operating voltage "supply class 2" according to cULus
Pack quantity		1 pcs.

Electrical connection

Connector: 1 x M8



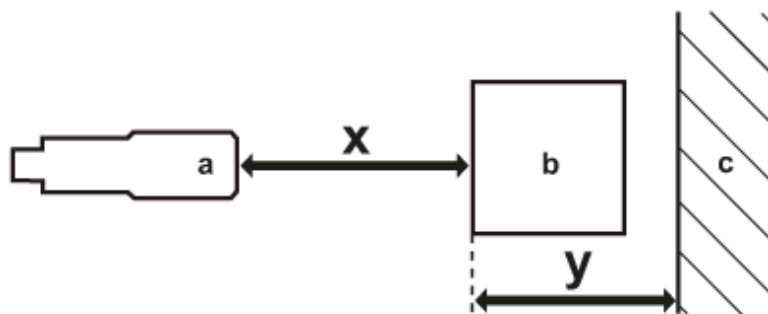
Connection



Laser diffuse reflection sensor

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Diagrams and graphs



a: sensor

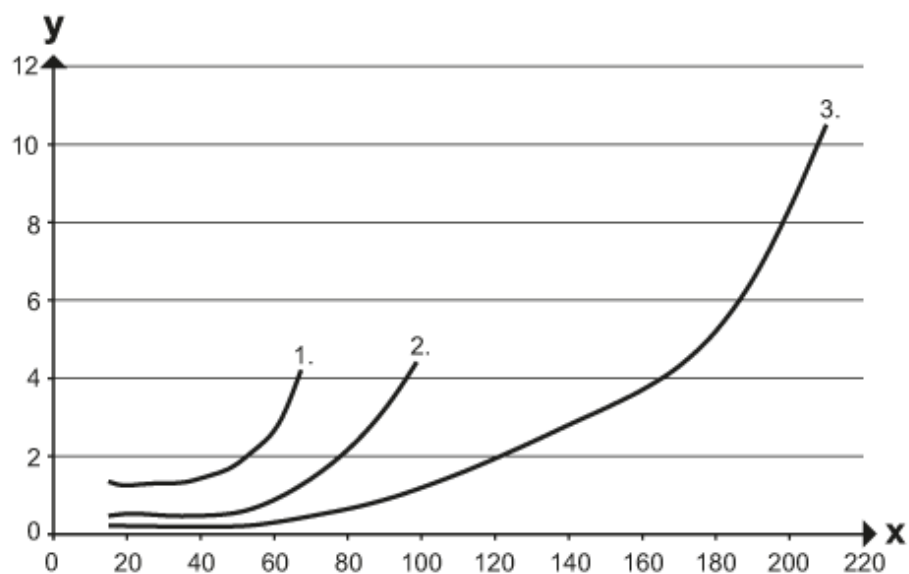
b: object

c: background

x: distance sensor/object [mm]

y: min. distance object/background [mm]

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)