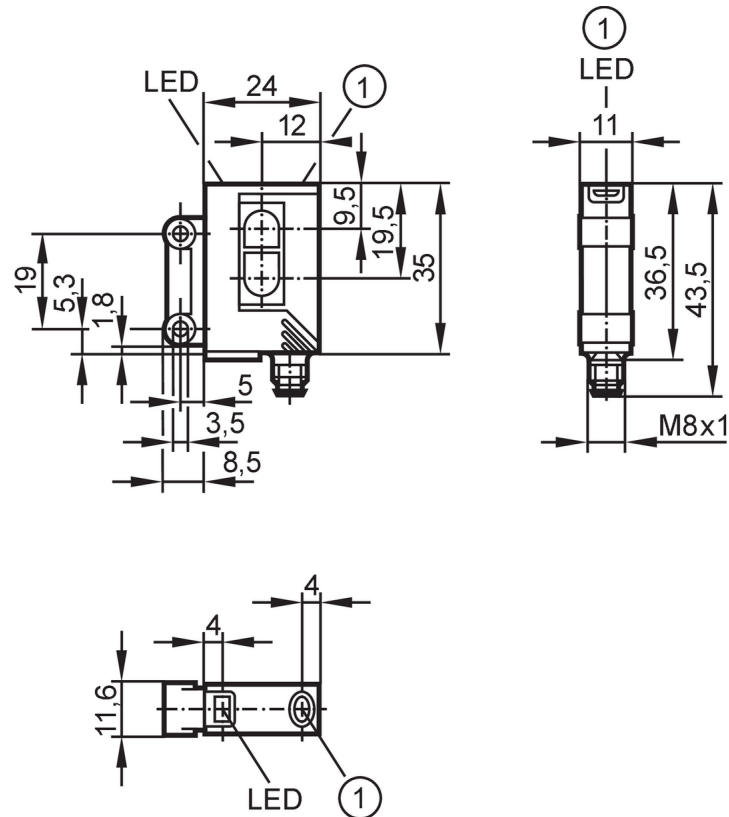




## Laser diffuse reflection sensor

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

### Application

Special feature	Background suppression
Function principle	Diffuse reflection sensor
Application	For applications in robotics, assembly and handling technology

### 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)



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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 1040.10 except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56, dated May 8, 2019.
MTTF	[years]	501

### Mechanical data

Weight	[g]	28.6
Housing		rectangular
Dimensions	[mm]	35 x 24 x 11
Materials		housing: ABS; LED window: SEPS; pushbutton: SEPS
Lens material		front pane:PMMA
Lens alignment		front lens

### Displays / operating elements

Display	switching status	1 x LED, yellow
	operation	1 x LED, green
Electronic lock		yes



## Laser diffuse reflection sensor

OJHLFPKG/FO/AS

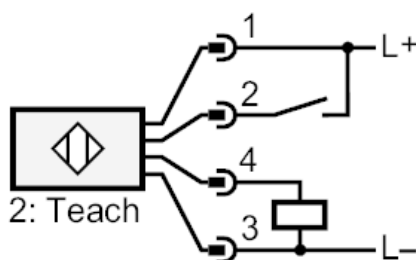
Accessories	
Items supplied	screws: 2 spring washers: 2 Nuts: 2
Remarks	
Remarks	operating voltage "supply class 2" according to cULus
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M8; coding: A; Contacts: 4

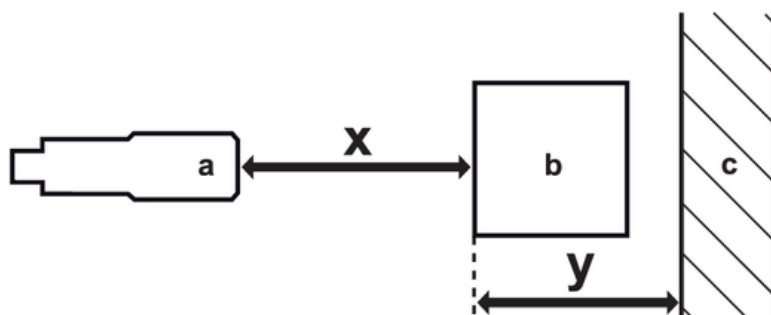


### Connection



2 Teach

### Diagrams and graphs



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

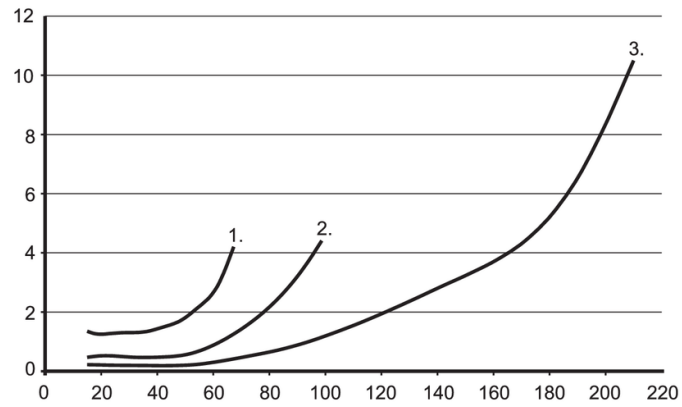
# OJ5152



## Laser diffuse reflection sensor

OJHLFPKG/FO/AS

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)