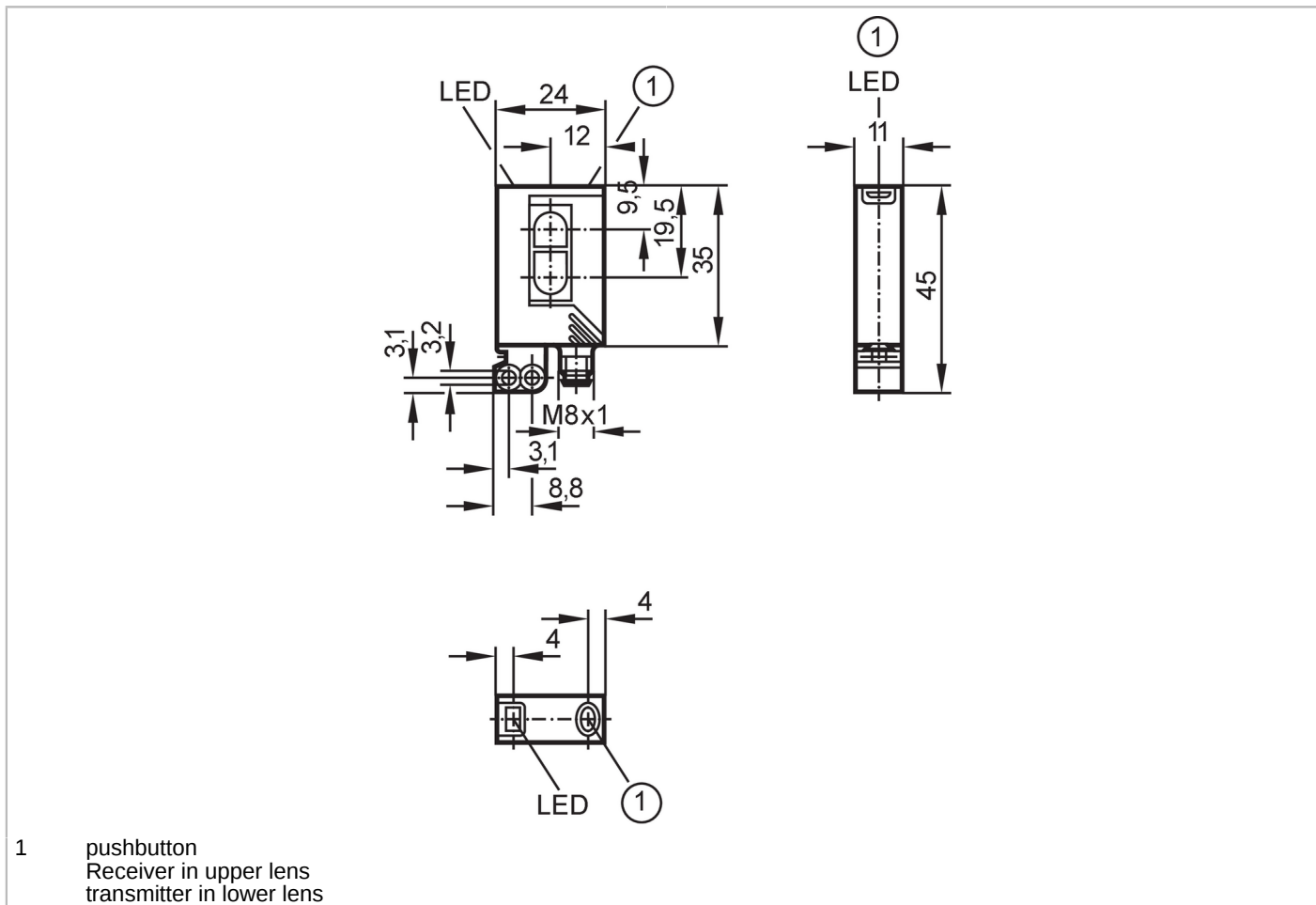




## Diffuse reflection sensors with background suppression

OJH-FPKG/FO/AS



Product characteristics		
Type of light		red light
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]	25
Protection class		III
Reverse polarity protection		yes
Type of light		red light
Wave length	[nm]	660
Outputs		
Electrical design		PNP
Output function		light-on/dark-on mode; (programmable)

# OJ5044



## Diffuse reflection sensors with background suppression

OJH-FPKG/FO/AS

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	yes (non-latching)
Overload protection	yes

<b>Monitoring range</b>	
Range [mm]	15...400; (white paper 200 x 200 mm 90 % remission)
Range adjustable	yes
Max. light spot diameter [mm]	18
Light spot dimensions refer to	Range
Background suppression available	yes

<b>Operating conditions</b>	
Ambient temperature [°C]	-25...60
Protection	IP 67

<b>Tests / approvals</b>	
EMC	EN 60947-5-2
MTTF [years]	556

<b>Mechanical data</b>	
Weight [g]	35
Housing	rectangular
Dimensions [mm]	35 x 24 x 11
Material	housing: ABS; fixture: diecast zinc; LED window: SEPS; pushbutton: SEPS
Lens material	front lens:PMMA
Lens alignment	Front sensing

<b>Displays / operating elements</b>		
Display	Switching status	1 x LED, yellow
	Power	1 x LED, green
Electronic lock	yes	

<b>Accessories</b>	
Items supplied	screws: 2 x (M3 x 16 mm)
	Basic clip: 1, E20964
	spring washers: 2
	Nuts: 2

<b>Remarks</b>	
Remarks	cULus - Class 2 source required
Pack quantity	1 pcs.

<b>Electrical connection</b>	
Connector: 1 x M8; coding: A; Contacts: 4	



## Diffuse reflection sensors with background suppression

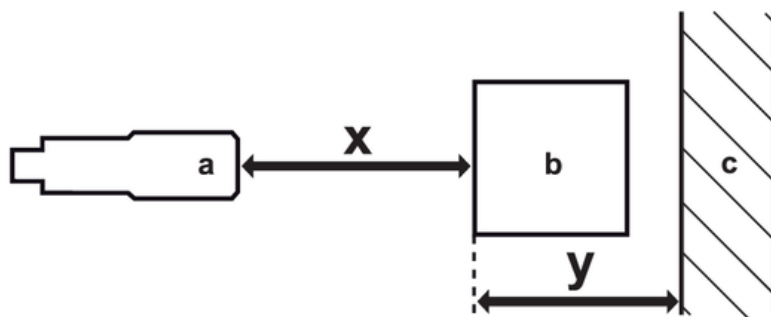
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### Connection



2 Teach

### Diagrams and graphs



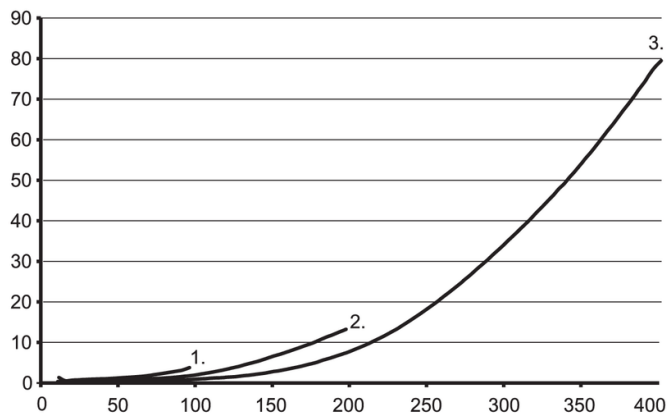
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



## Diffuse reflection sensors with background suppression

OJH-FPKG/FO/AS

### Background suppression chart



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)