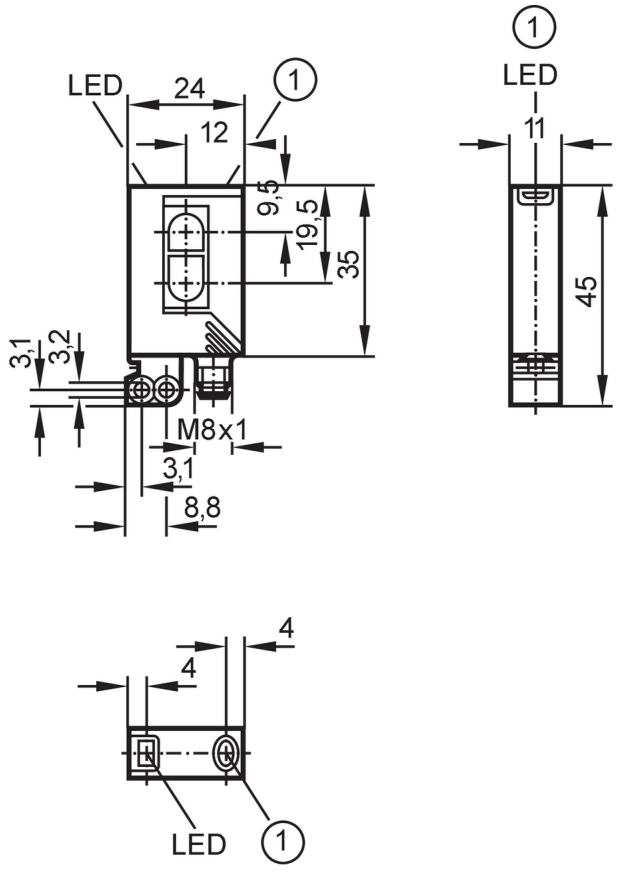
OJ5044

Diffuse reflection sensor with background suppression

OJH-FPKG/FO/AS



1 pushbutton
receiver in upper lens
transmitter in lower lens

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

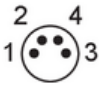
Diffuse reflection sensor with background suppression

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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...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
Operating conditions		
Ambient temperature [°C]		-25...60
Protection		IP 67
Tests / approvals		
EMC	EN 60947-5-2	
MTTF [years]		556
Mechanical data		
Weight [g]		35
Housing		rectangular
Dimensions [mm]		35 x 24 x 11
Materials		housing: ABS; fixture: diecast zinc; 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
Accessories		
Items supplied		screws: 2 x (M3 x 16 mm)
		Basic clip: 1, E20964
		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

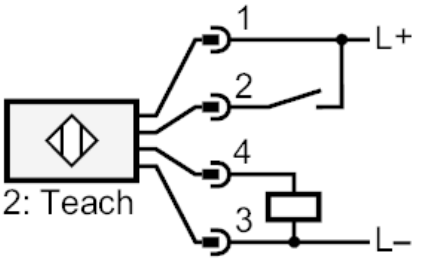


OJ5044

Diffuse reflection sensor with background suppression

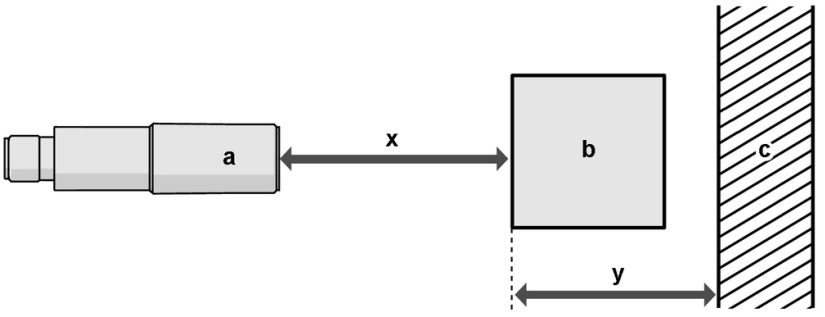
OJH-FPKG/FO/AS

Connection



2	Teach

Diagrams and graphs



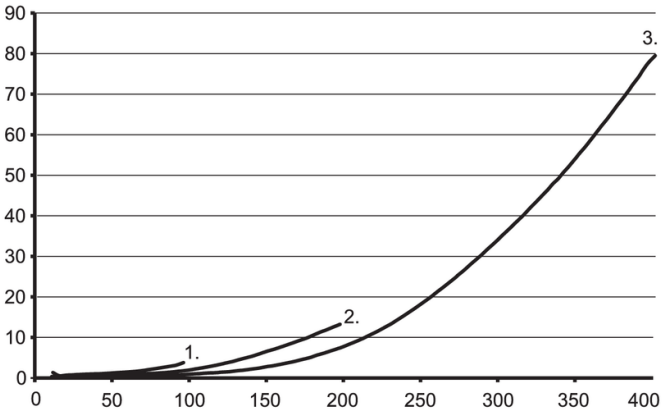
a: sensor
b: object
c: background
x: distance sensor/object [mm]
y: min. distance object/background [mm]

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Diffuse reflection sensor with background suppression

OJH-FPKG/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)