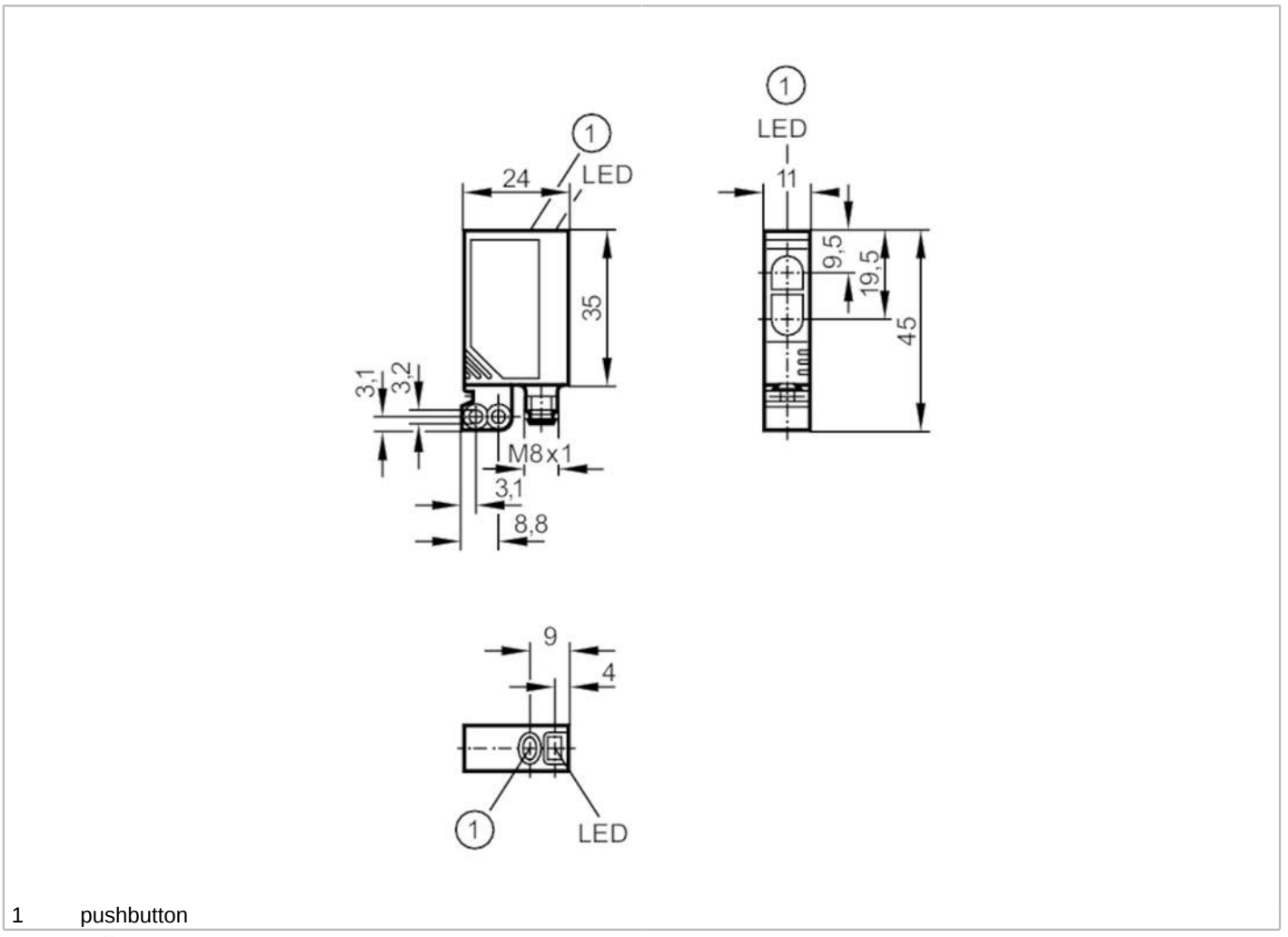
OJ5048

Diffuse reflection sensor with background suppression

OJH-FPKG/SO/AS



1 pushbutton

Product characteristics		
Type of light		red light
Housing		rectangular
Application		
Special feature		Background suppression
Function principle		Diffuse reflection sensor
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)

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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]	35.3	
Housing		rectangular	
Dimensions	[mm]	35 x 11 x 24	
Materials		housing: ABS; fixture: diecast zinc; LED window: SEPS; pushbutton: SEPS	
Lens material		PMMA	
Lens alignment		side lens	
Displays / operating elements			
Display		switching status	1 x LED, yellow
		operation	1 x LED, green
Electronic lock		yes	
Accessories			
Items supplied		Basic clip: 1, E20964	
		screws: 2 x M3 x 16	
		spring washers: 2	
		Nuts: 2	
Remarks			
Remarks		operating voltage "supply class 2" according to cULus	
Pack quantity		1 pcs.	

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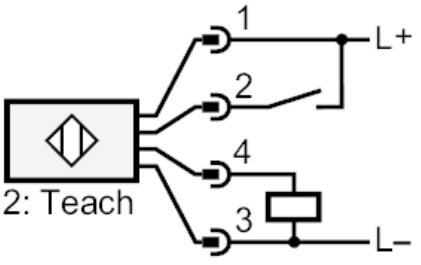
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Electrical connection

Connector: 1 x M8; coding: A

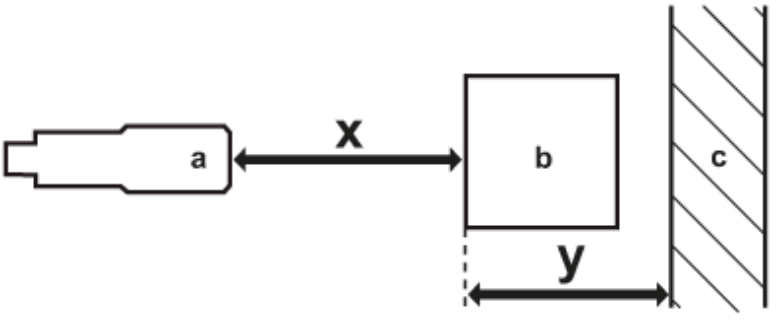


Connection



2	Teach

Diagrams and graphs



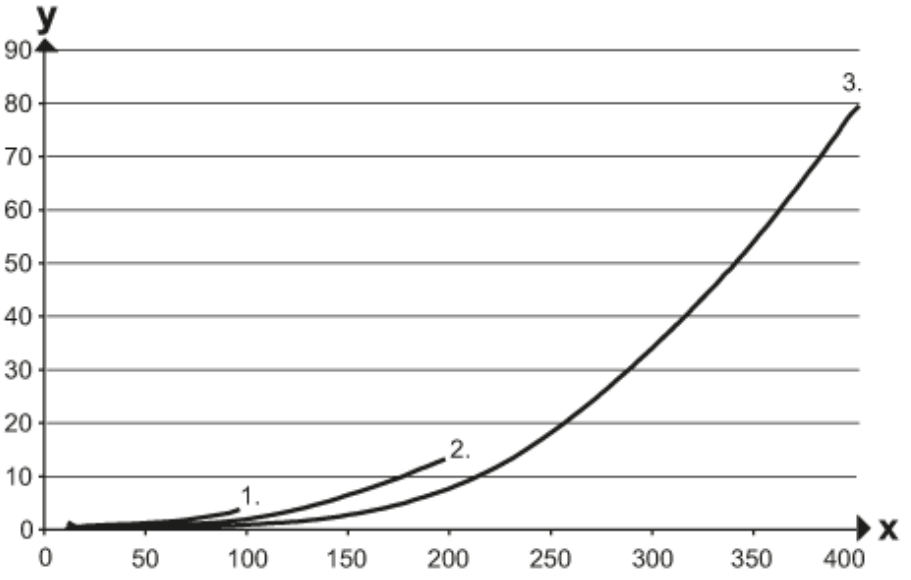
a: sensor
b: object
c: background
x: distance sensor/object [mm]
y: min. distance object/background [mm]

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Diffuse reflection sensor with background suppression

OJH-FPKG/SO/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)