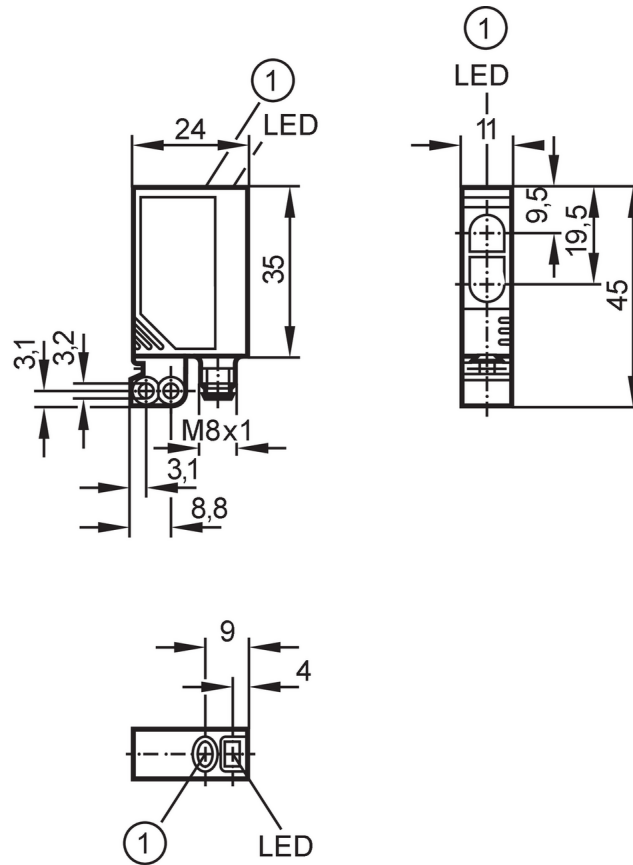




Diffuse reflection sensor with background suppression

OJH-FNKG/SO/AS



1 pushbutton



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		NPN
Output function		light-on/dark-on mode; (programmable)
Max. voltage drop switching output DC	[V]	2.5



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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]	574

Mechanical data

Weight [g]	35
Housing	rectangular
Dimensions [mm]	35 x 11 x 24
Materials	housing: ABS; fixture: diecast zinc; LED window: SEPS; pushbutton: SEPS
Lens material	front pane: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 mm)
	spring washers: 2
	Nuts: 2

Remarks

Remarks	operating voltage "supply class 2" according to cULus
Pack quantity	1 pcs.

Electrical connection

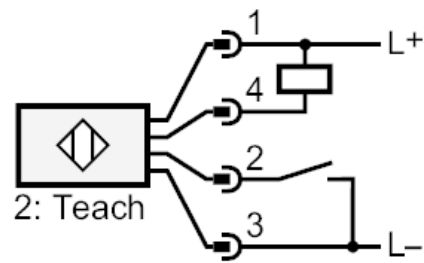
Connector: 1 x M8; coding: A; Contacts: 4



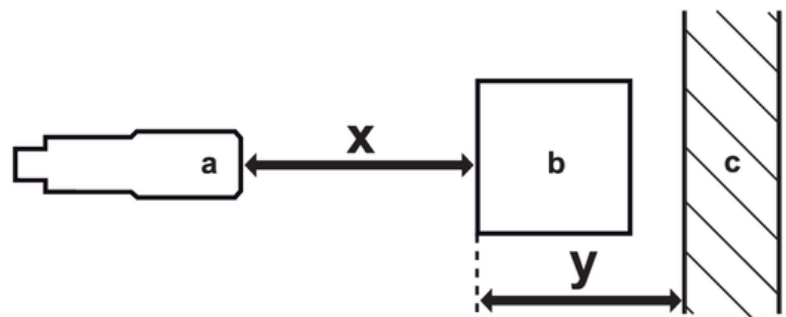
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Connection



Diagrams and graphs



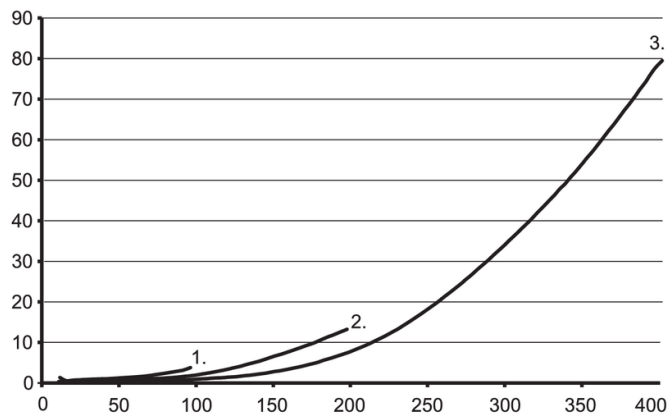
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



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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)