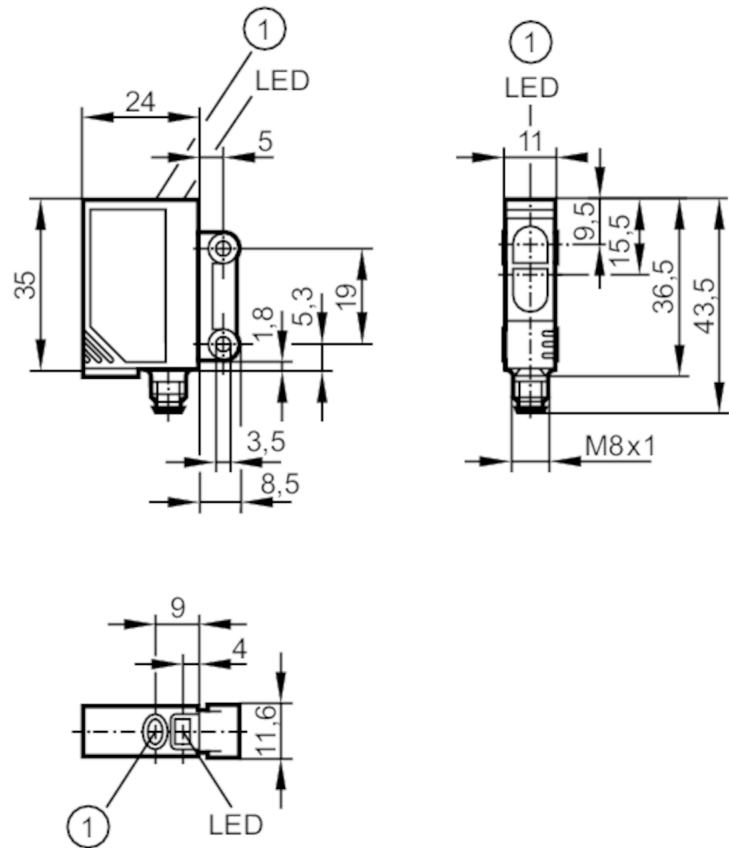




Diffuse reflection sensors with background suppression

OJH-FNKG/SO/AS



- 1 pushbutton
Receiver in upper lens
transmitter in lower lens



Product characteristics

Type of light	red light
Housing	rectangular

Application

System	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	NPN
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		yes (non-latching)
Overload protection		yes
Monitoring range		
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]	35.1
Housing		rectangular
Dimensions	[mm]	35 x 11 x 24
Material		housing: ABS; LED window: SEPS; pushbutton: SEPS
Lens material		PMMA
Lens alignment		Side sensing
Displays / operating elements		
Display	Switching status	1 x LED, yellow
	Power	1 x LED, green
Electronic lock		yes
Accessories		
Items supplied		screws: 2
		spring washers: 2
		Nuts: 2
Remarks		
Remarks		cULus - Class 2 source required
Pack quantity		1 pcs.

Diffuse reflection sensors with background suppression

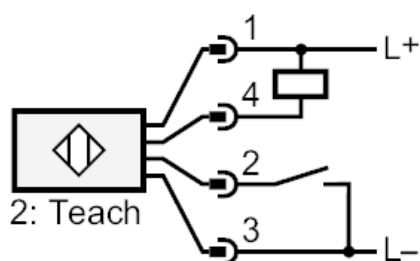
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Electrical connection

Connector: 1 x M8; coding: A



Connection



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-FNKG/SO/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)