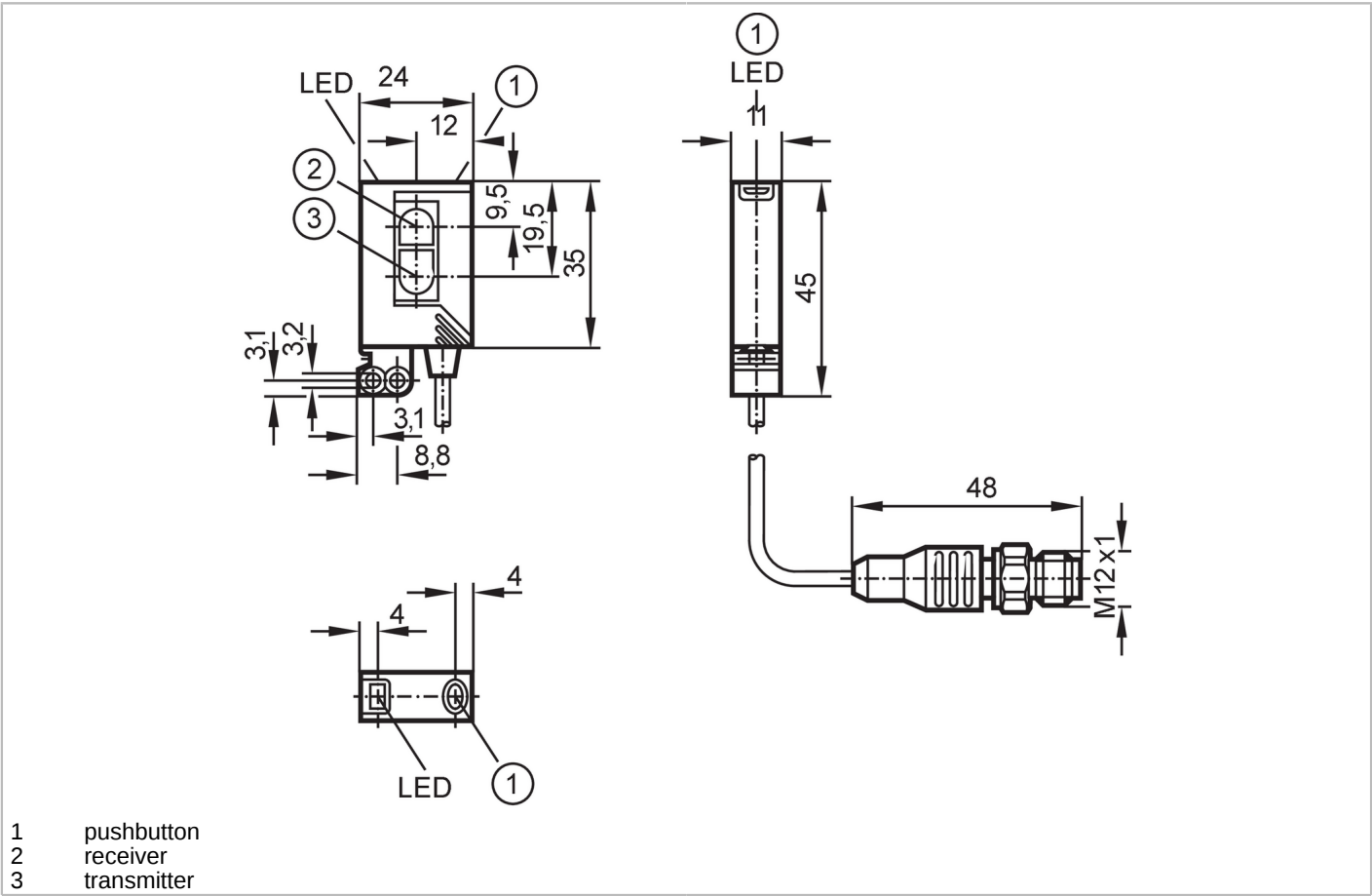




Diffuse reflection sensors with background suppression

OJH-FPKG/FO/0,15M/US



Product characteristics		
Type of light		red light
Housing		rectangular
Application		
Special feature		gold-plated contacts; 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)
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		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]	556

Mechanical data		
Weight	[g]	49.9
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

Displays / operating elements		
Display	Switching status	1 x LED, yellow
	Power	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	cULus - Class 2 source required
Pack quantity	1 pcs.

Electrical connection

Cable: 0.15 m, PUR

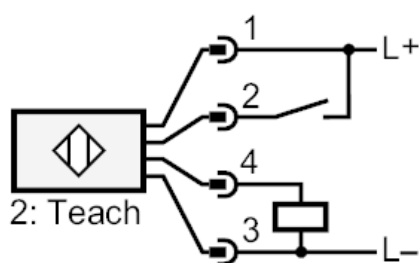
Connector: 1 x M12; coding: A; Contacts: 4, gold-plated; Moulded body: PUR; Locking: brass



Diffuse reflection sensors with background suppression

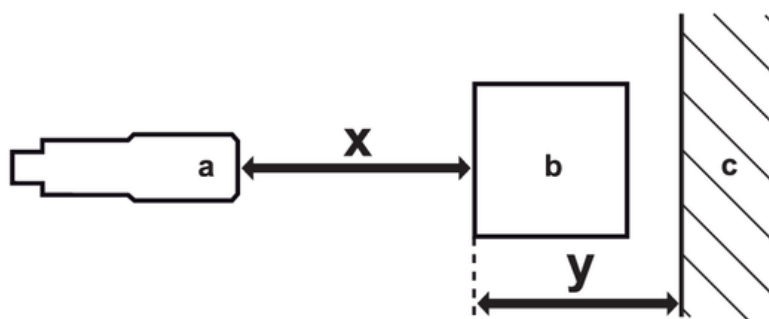
OJH-FPKG/FO/0,15M/US

Connection



2 Teach

Diagrams and graphs



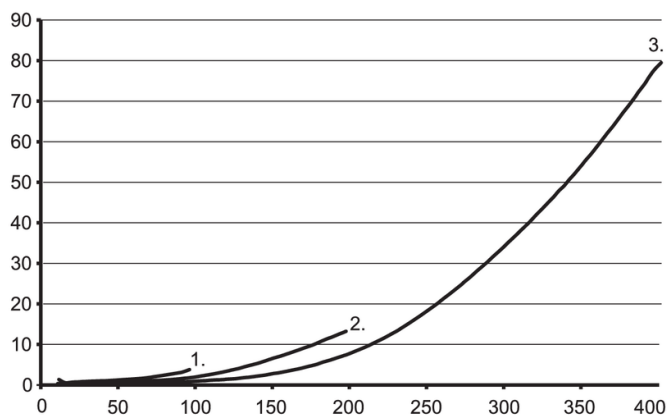
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



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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)