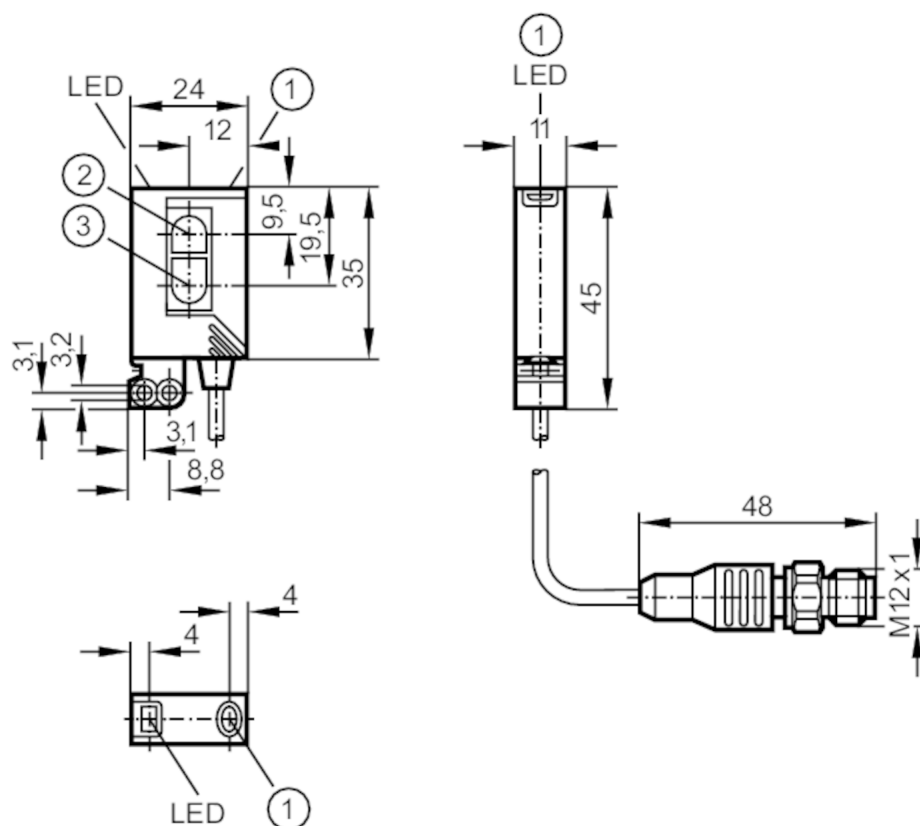


Diffuse reflection sensor with background suppression

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



- 1 pushbutton
- 2 receiver
- 3 transmitter



Application

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



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Outputs		
Electrical design	PNP	
Output function	light-on/dark-on mode; (programmable)	
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]	50.8	
Housing	rectangular	
Dimensions [mm]	35 x 24 x 11	
Materials	housing: ABS; fixture: diecast zinc; LED window: SEPS; pushbutton: SEPS; connector body: PUR; connector thread: brass	
Lens material	PMMA	
Lens alignment	front lens	
Material nut	brass	
Displays / operating elements		
Display	switching status	1 x LED, yellow
	operation	1 x LED, green
Electronic lock	yes	
Accessories		
Accessories (supplied)	Basic clip: 1 x, E20964	
	screws: 2 x x M3 x 16	
	spring washers: 2 x	
	Nuts: 2 x	
Remarks		
Remarks	operating voltage "supply class 2" according to cULus	
Pack quantity	1 pcs.	

Diffuse reflection sensor with background suppression

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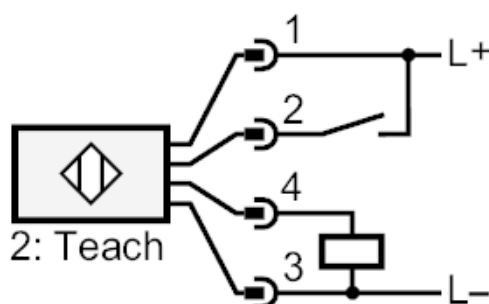
Electrical connection

Cable: 0.15 m, PUR

Connector: 1 x M12; Locking: brass; Contacts: gold-plated

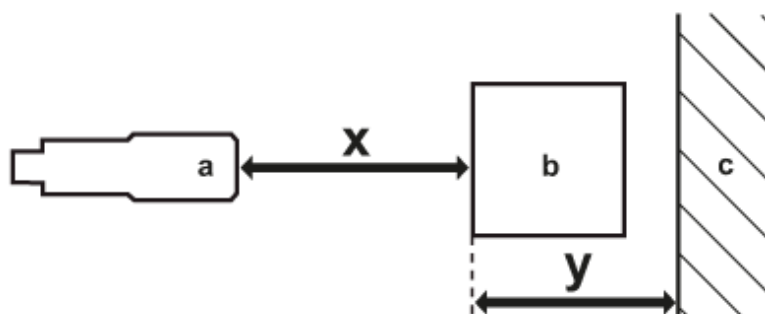


Connection



2 Teach

Diagrams and graphs



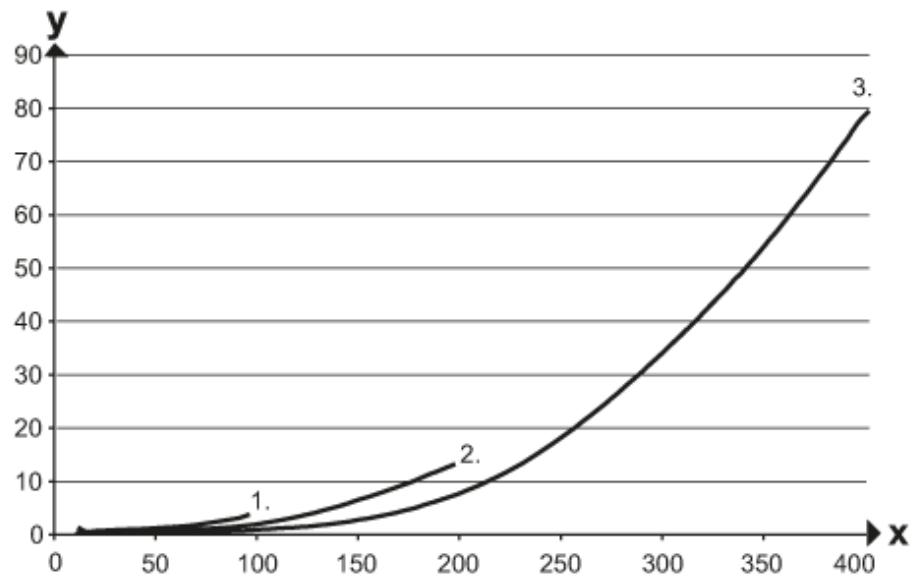
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

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

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)