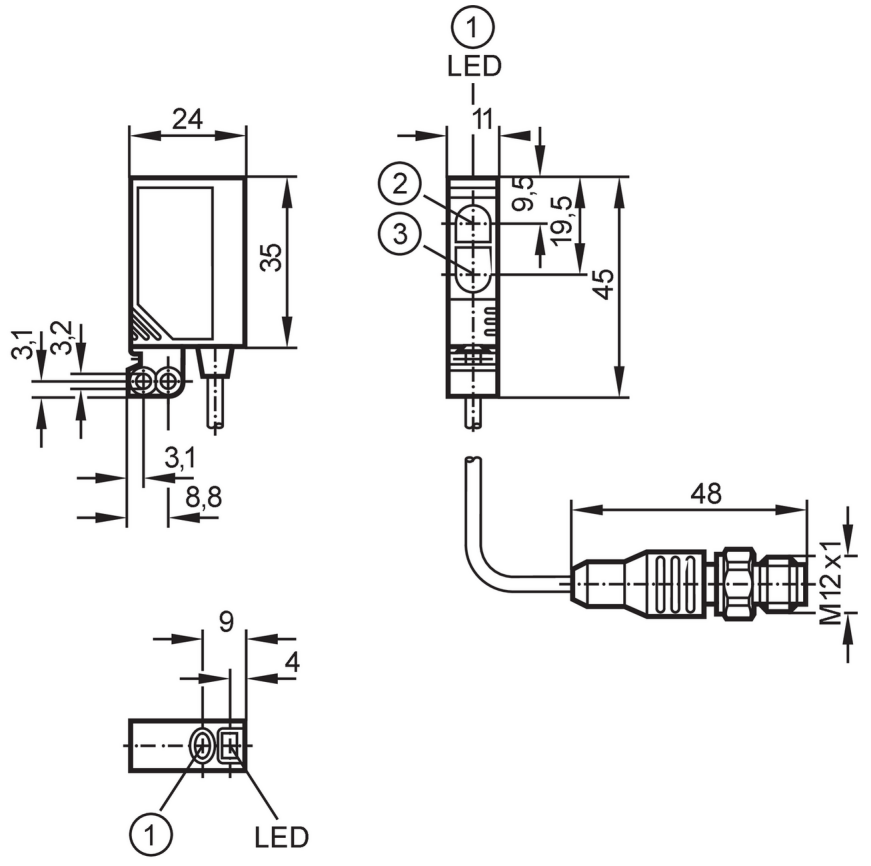
OJ5078

Diffuse reflection sensor with background suppression

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



1 pushbutton
2 receiver
3 transmitter

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)

OJ5078

Diffuse reflection sensor with background suppression

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

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]	40.6	
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.	

OJ5078

Diffuse reflection sensor with background suppression

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

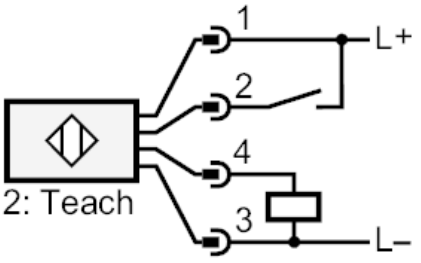
Electrical connection

Cable: 0.15 m, PVC

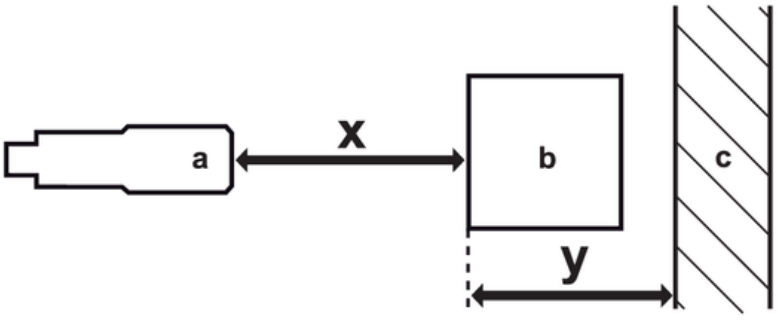
Connector: 1 x M12; coding: A; Contacts: 4, gold-plated; Moulded body: Hytrel 8068; Locking: stainless steel (316L/1.4404)



Connection



Diagrams and graphs



a: sensor

b: object

c: background

x: distance sensor/object [mm]

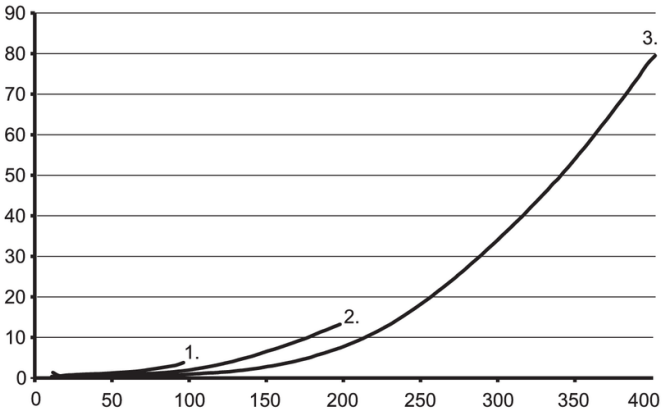
y: min. distance object/background [mm]

OJ5078

Diffuse reflection sensor with background suppression

OJH-FPKG/SO/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)