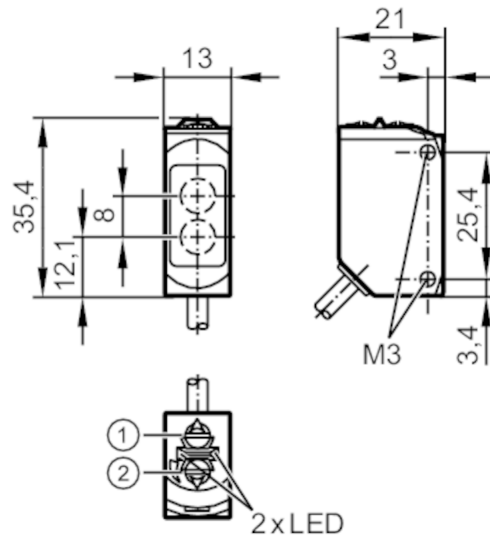


O6H205



Diffuse reflection sensor with background suppression

O6H-FNKG/0,30m/US



- 1: output function switch
- 2: potentiometer sensitivity
- receiver in upper lens
- transmitter in lower lens



Product characteristics

Type of light	red light
Housing	rectangular
Dimensions [mm]	35.4 x 13 x 21

Application

Special feature	Background suppression
Function principle	Diffuse reflection sensor

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	22; ((24 V))
Protection class	III
Reverse polarity protection	yes
Type of light	red light
Wave length [nm]	633

O6H205



Diffuse reflection sensor with background suppression

O6H-FNKG/0,30m/US

Outputs		
Electrical design		NPN
Output function		light-on/dark-on mode; (selectable)
Max. voltage drop switching output DC	[V]	2.5
Permanent current rating of switching output DC	[mA]	100
Switching frequency DC	[Hz]	1000
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Detection zone		
Range	[mm]	2...200; (white paper 200 x 200 mm)
Range on white object (90 % remission)	[mm]	2...200
Range on grey object (18 % remission)	[mm]	4...200
Range on black object (6 % remission)	[mm]	8...200
Range adjustable		yes
Max. light spot diameter	[mm]	8
Light spot dimensions refer to		at maximum range
Background suppression available		yes
Operating conditions		
Ambient temperature	[°C]	-25...60
Protection		IP 65; IP 67
Tests / approvals		
EMC		EN 60947-5-2
MTTF	[years]	683
UL approval		UL Approval no. E012
Mechanical data		
Weight	[g]	33.2
Housing		rectangular
Dimensions	[mm]	35.4 x 13 x 21
Materials		housing: ABS; PPSU; Sealing: EPDM
Lens material		PMMA
Lens alignment		side lens
Tightening torque	[Nm]	0.5
Displays / operating elements		
Display	switching status	1 x LED, yellow
	operation	1 x LED, green
Remarks		
Remarks		operating voltage "supply class 2" according to cULus
Pack quantity		1 pcs.

Diffuse reflection sensor with background suppression

O6H-FNKG/0,30m/US

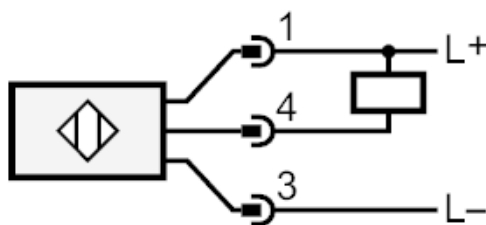
Electrical connection

Cable: 0.3 m, PUR; 3 x 0.25 mm²

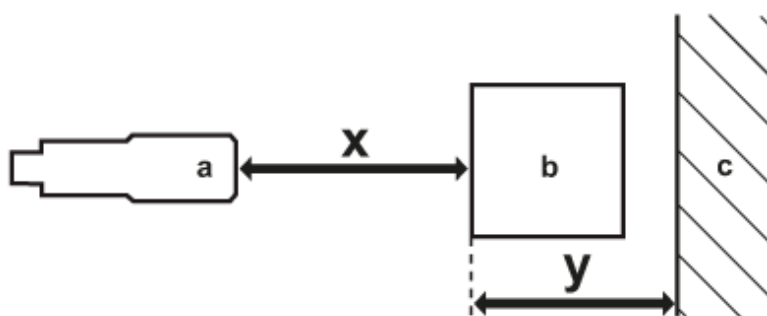
Connector: 1 x M12



Connection



Diagrams and graphs



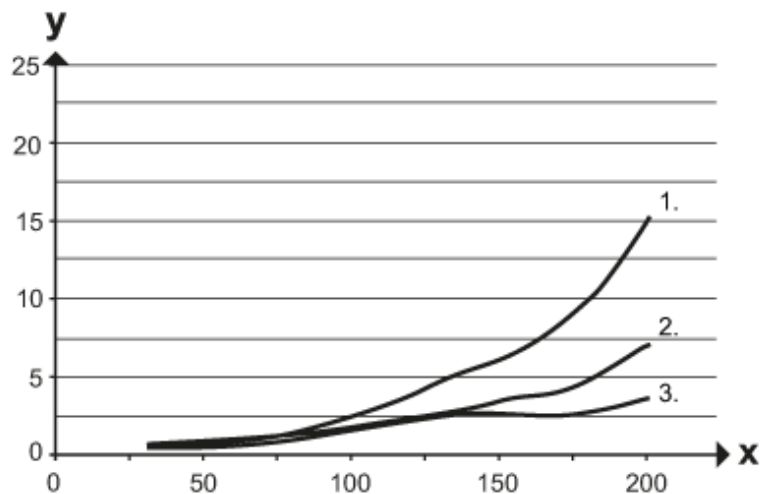
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

O6H-FNKG/0,30m/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)