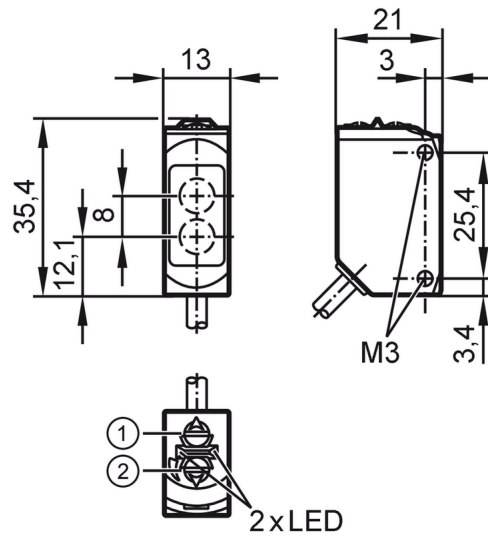


O6H205



Diffuse reflection sensors 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
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
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	yes (non-latching)
Monitoring range	
Range [mm]	2...200; (white paper 200 x 200 mm)

O6H205



Diffuse reflection sensors with background suppression

O6H-FNKG/0,30m/US

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	Ta	-25...50 °C
	Enclosure type	Type 1
	voltage supply	Class 2
	UL approval number	E012

Mechanical data

Weight [g]	33.2
Housing	rectangular
Dimensions [mm]	35.4 x 13 x 21
Material	housing: ABS orange; Gehäuseoberteil: PPSU black; sealing: EPDM
Lens material	front lens:PMMA
Lens alignment	Side sensing
Tightening torque [Nm]	0.5

Displays / operating elements

Display	Switching status	1 x LED, yellow
	Power	1 x LED, green

Remarks

Remarks	cULus - Class 2 source required
Pack quantity	1 pcs.

Electrical connection

Cable: 0.3 m, PUR; 3 x 0.25 mm²

Connector: 1 x M12; coding: A

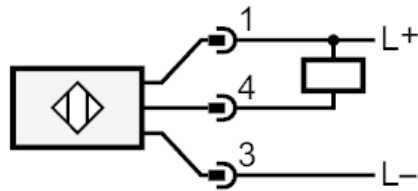




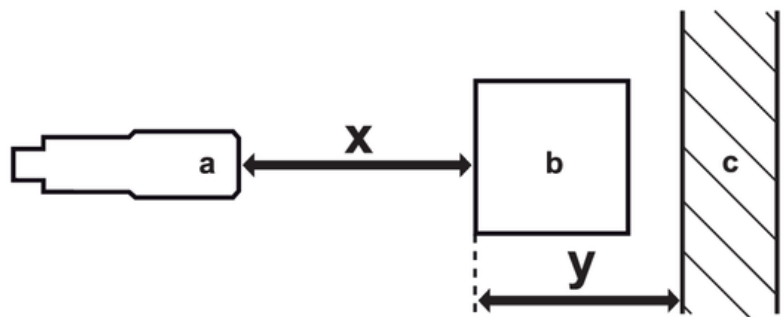
Diffuse reflection sensors with background suppression

O6H-FNKG/0,30m/US

Connection



Diagrams and graphs



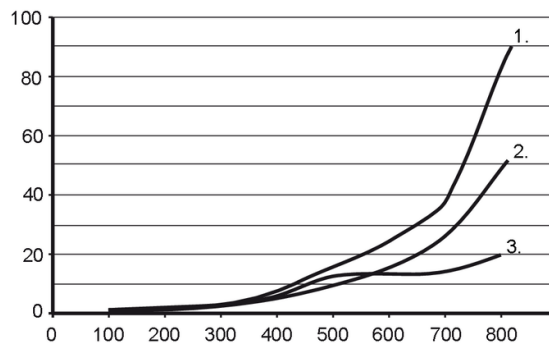
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensors with background suppression

O6H-FNKG/0,30m/US

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)