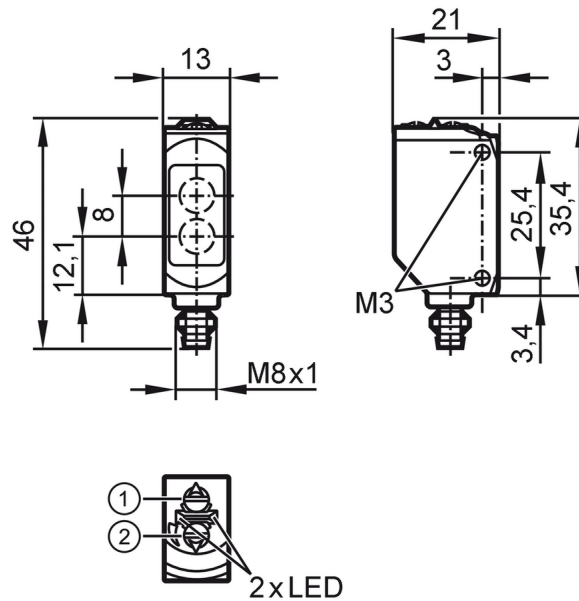




## Diffuse reflection sensor with background suppression

O6H-FNKG/AS/4P



- 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
Application	Industrial applications / factory automation

### 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	pulsed

# O6H207



## Diffuse reflection sensor with background suppression

O6H-FNKG/AS/4P

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	Ta	-25...40 °C
	Enclosure type	Type 1
	voltage supply	Class 2
	UL approval no.	E001

Mechanical data		
Weight	[g]	18.1
Housing		rectangular
Dimensions	[mm]	46 x 13 x 21
Materials		housing: ABS orange; upper part of the housing: PPSU black
Lens material		front pane:PMMA
Lens alignment		side lens
Sealing material		EPDM
Tightening torque	[Nm]	0.5

Displays / operating elements		
Display	switching status	1 x LED, yellow
	operation	1 x LED, green

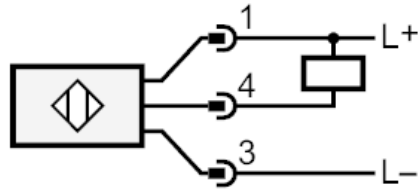
Remarks		
Remarks		operating voltage "supply class 2" according to cULus
Pack quantity		1 pcs.

Electrical connection		
Connector: 1 x M8; coding: A; Contacts: 4; Locking: brass, coated; Sealing: EPDM		
		

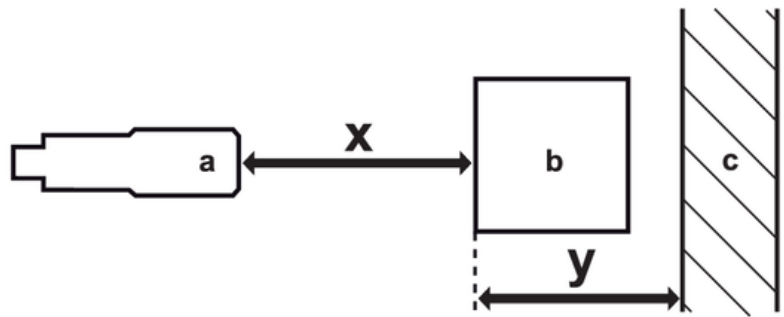
## Diffuse reflection sensor with background suppression

O6H-FNKG/AS/4P

## Connection



## Diagrams and graphs



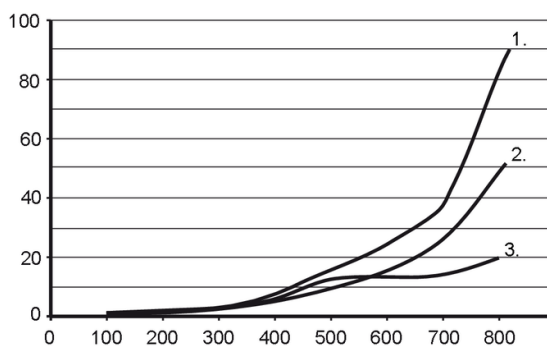
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



## Diffuse reflection sensor with background suppression

O6H-FNKG/AS/4P

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)