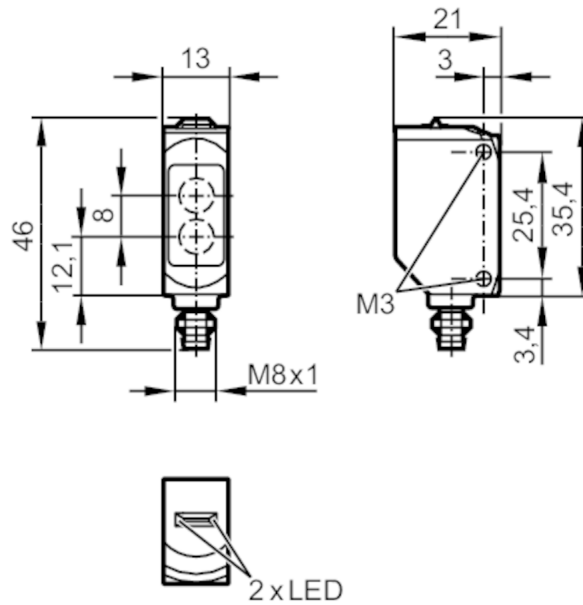


# O6H214



## Diffuse reflection sensor with background suppression

O6H-HNKG/AS/4P



receiver in upper lens  
transmitter in lower lens



### Application

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 mode
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

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## Diffuse reflection sensor with background suppression

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Detection zone		
Range	[mm]	< 200; (white paper 200 x 200 mm)
Range on white object (90 % remission)	[mm]	< 200
Range on grey object (18 % remission)	[mm]	4...200
Range on black object (6 % remission)	[mm]	8...200
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]	1113
UL approval		UL Approval no. E001

Mechanical data		
Weight	[g]	14.4
Housing		rectangular
Dimensions	[mm]	46 x 13 x 21
Materials		housing: ABS; PPSU; connector thread: brass coated
Lens material		PMMA
Lens alignment		side lens
Material nut		brass, coated
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; Locking: brass, coated



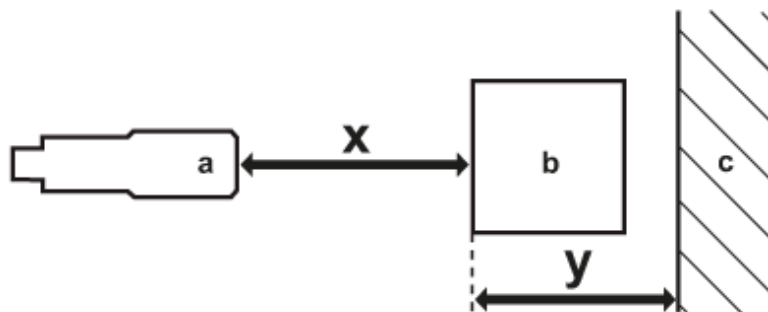
## Diffuse reflection sensor with background suppression

O6H-HNKG/AS/4P

### Connection



### Diagrams and graphs



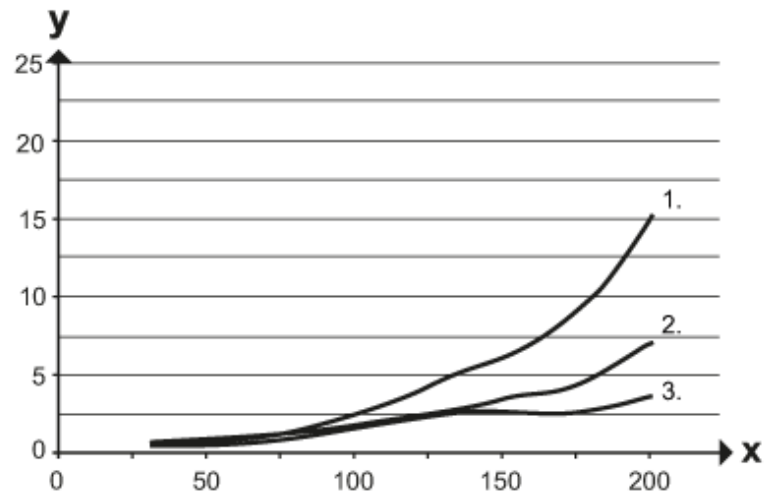
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



## Diffuse reflection sensor with background suppression

O6H-HNKG/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)