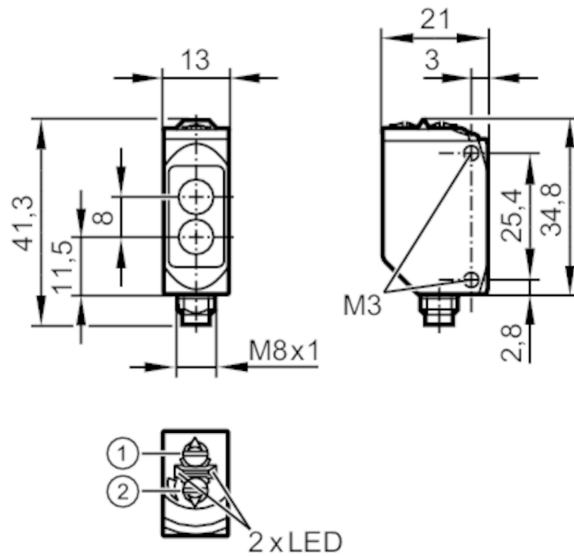


# O6H309



## Diffuse reflection sensor with background suppression

O6H-FPKG/AS/4P



- 1: output function switch
- 2: potentiometer sensitivity



### 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		PNP
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)
-------	------	-------------------------------------

# O6H309



## Diffuse reflection sensor with background suppression

O6H-FPKG/AS/4P

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

### Interfaces

Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
Profiles	Smart Sensor: Device Identification; Binary Data Channel	
SIO mode	yes	
Required master port type	A	
Min. process cycle time [ms]	2.5	
IO-Link process data (cyclical)	function	bit length
	process value	8
	binary switching information	1
IO-Link functions (acyclical)	application specific tag; operating hours counter; switching cycles counter	
Supported DeviceIDs	Type of operation	DeviceID
	Default	424

### Operating conditions

Ambient temperature [°C]	-25...80
Protection	IP 65; IP 67; IP 68; IP 69K

### Tests / approvals

EMC	EN 60947-5-2
MTTF [years]	534
UL approval	UL Approval no. E010

### Mechanical data

Weight [g]	34.4
Housing	rectangular
Dimensions [mm]	41.3 x 13 x 21
Materials	housing: stainless steel (1.4404 / 316L); plastics: PPSU; Sealing: EPDM
Lens material	PMMA
Lens alignment	side lens
Tightening torque [Nm]	1; (screws)

### 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
---------	---



## Diffuse reflection sensor with background suppression

O6H-FPKG/AS/4P

Pack quantity

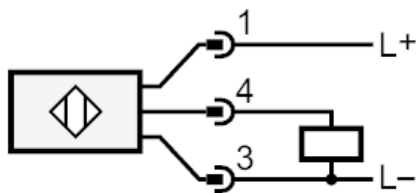
1 pcs.

### Electrical connection

Connector: 1 x M8; coding: A



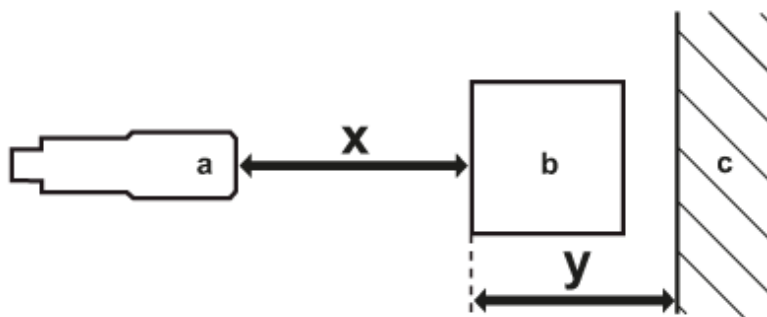
### Connection



4

OUT / IO-Link

### Diagrams and graphs



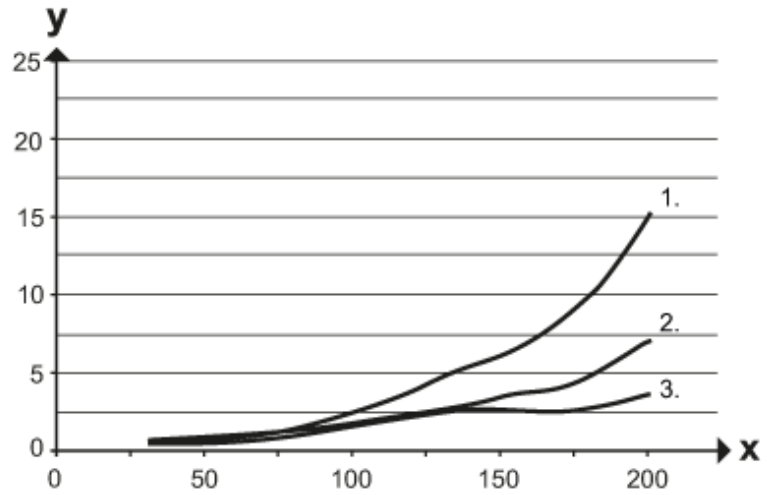
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



## Diffuse reflection sensor with background suppression

O6H-FPKG/AS/4P

accuracy graph



x: distance sensor/object [mm]

y: min. distance object/background [mm]

1 = object black (6 % remission) , \$Hintergrund\_weiss\_90\_Remission

2 = object grey (18 % remission) , \$Hintergrund\_weiss\_90\_Remission

3 = object white (90 % remission) , \$Hintergrund\_weiss\_90\_Remission