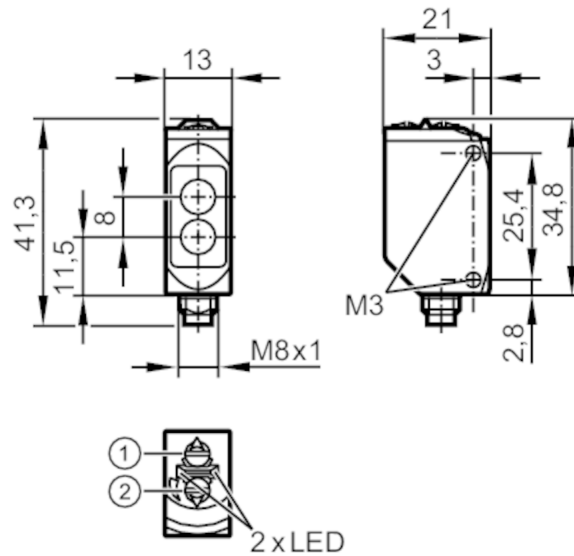


Diffuse reflection sensor with background suppression

O6H-FPKG/AS/4P



- 1: output function switch
2: potentiometer sensitivity



Product characteristics

Type of light	red light
Communication interface	IO-Link
Housing	rectangular
Dimensions [mm]	41.3 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

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



Diffuse reflection sensor with background suppression

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

Diffuse reflection sensor with background suppression

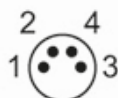
O6H-FPKG/AS/4P

Remarks

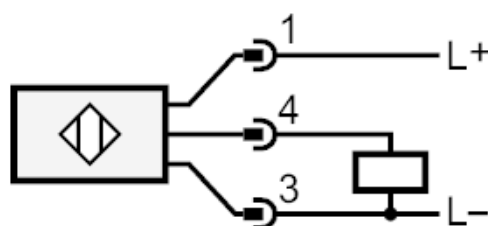
Remarks	operating voltage "supply class 2" according to cULus
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M8

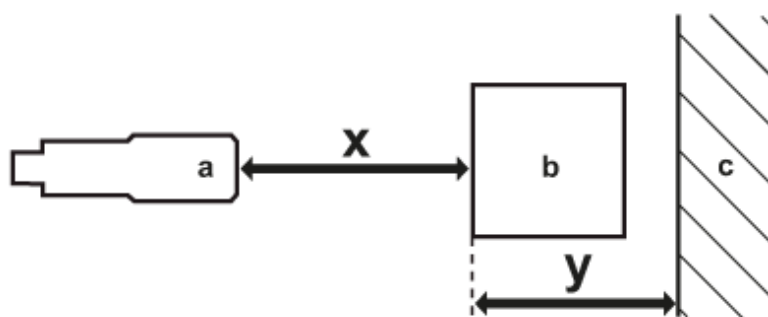


Connection



4 OUT / IO-Link

Diagrams and graphs



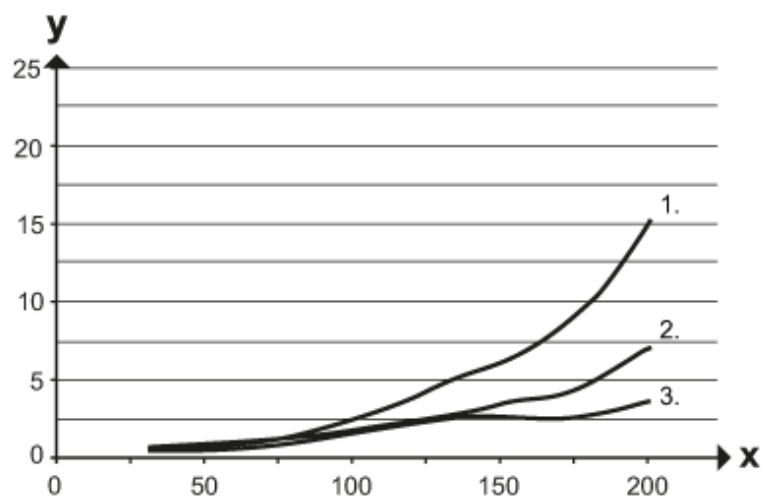
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



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) , background (white 90 % remission)

2 = object grey (18 % remission) , background (white 90 % remission)

3 = object white (90 % remission) , background (white 90 % remission)