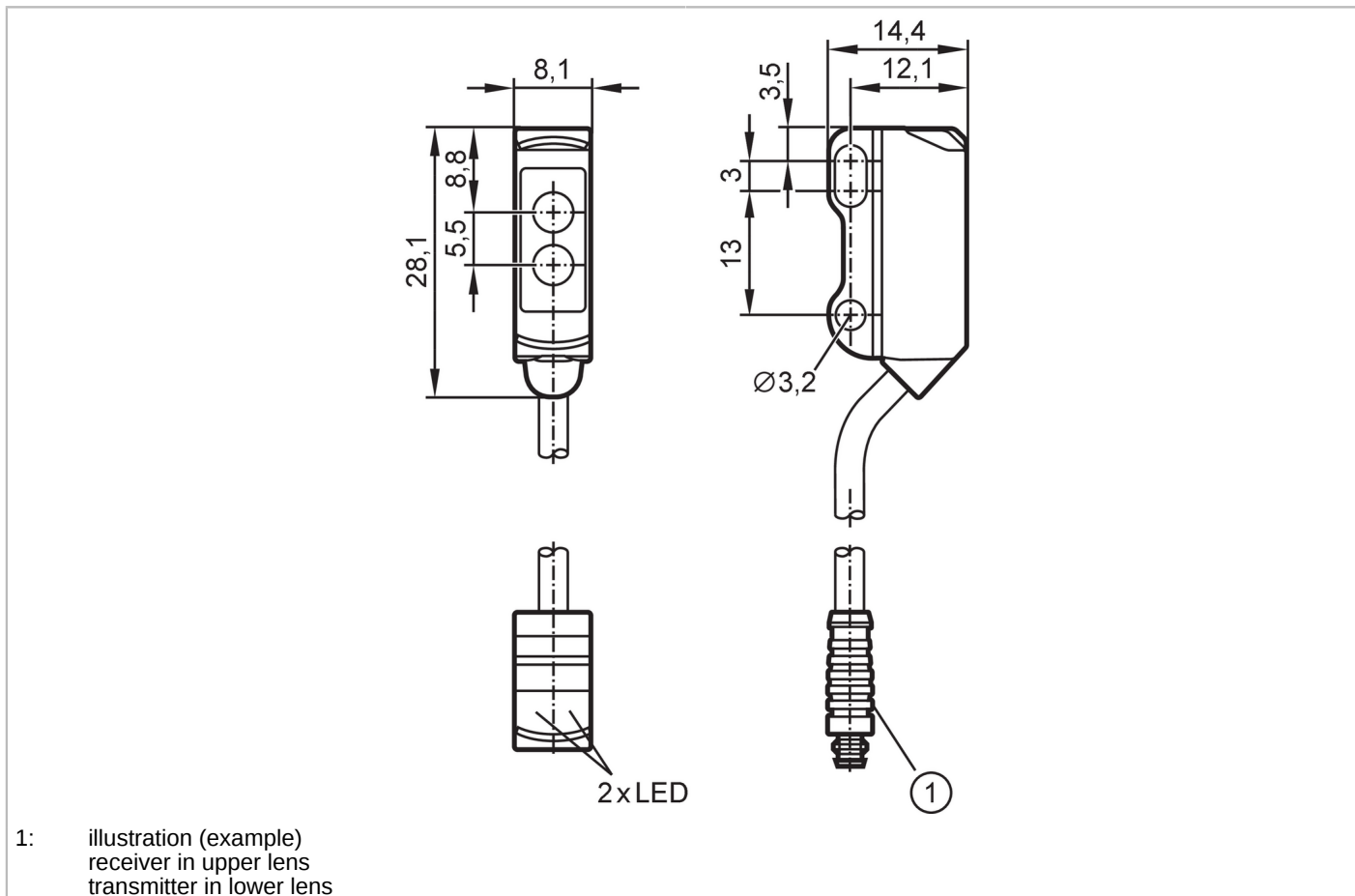


# O8H271



## Diffuse reflection sensor with background suppression

O8H-FPKG/IO-Link/0,30M/AS/3P



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]	20; ((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; (programmable)
Max. voltage drop switching output DC [V]	2.5

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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]	1...80; (white paper 200 x 200 mm)
Range on white object (90 % remission) [mm]	1...80
Range on grey object (18 % remission) [mm]	3...76
Range on black object (6 % remission) [mm]	5...74
Setting range [mm]	10...80
Range adjustable	yes
Max. light spot diameter [mm]	4
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 - SSP 0 Generic Profiled Sensor Function Device identification Function Multiple switching signal Function Process data variable Function Device diagnosis Function Teach channel
SIO mode	yes
Required master port type	A
Min. process cycle time [ms]	10
IO-Link process data (cyclical)	<b>function</b> process value 32 device status 4 binary switching information 1
IO-Link functions (acyclical)	application specific tag; operating hours counter; switching cycles counter
Supported DeviceIDs	<b>Type of operation</b> default 1117 <b>DeviceID</b>

### Operating conditions

Ambient temperature [°C]	-25...60
Protection	IP 65; IP 67

### Tests / approvals

EMC	EN 60947-5-2
MTTF [years]	756

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UL approval	Ta	-25...60 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval no.	E017
	File number UL	E174191

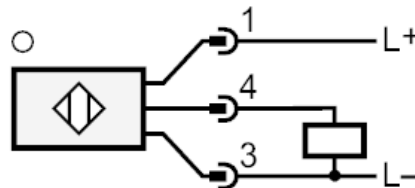
Mechanical data		
Weight	[g]	21.1
Housing		rectangular
Dimensions	[mm]	28.1 x 8.1 x 14.4
Materials		housing: ABS; rear of the housing: stainless steel (316L/1.4404)
Lens material		front pane:PMMA
Lens alignment		side lens

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

Remarks	
Pack quantity	1 pcs.

Electrical connection	
Cable: 0.3 m, PVC; 3 x 0.08 mm <sup>2</sup>	

### Connection



Connector: 1 x M8; coding: A; Contacts: 3



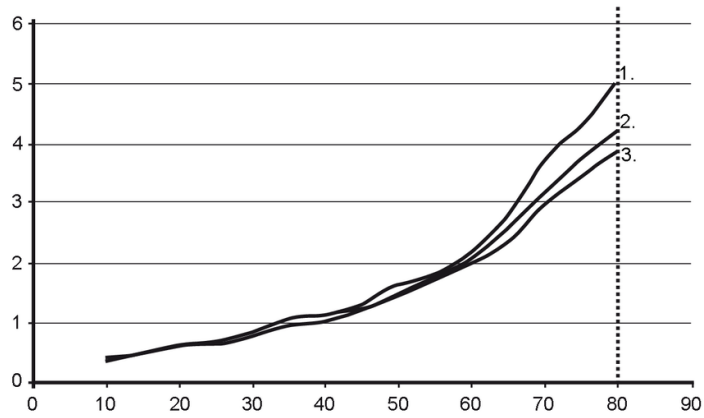


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### Diagrams and graphs

accuracy graph



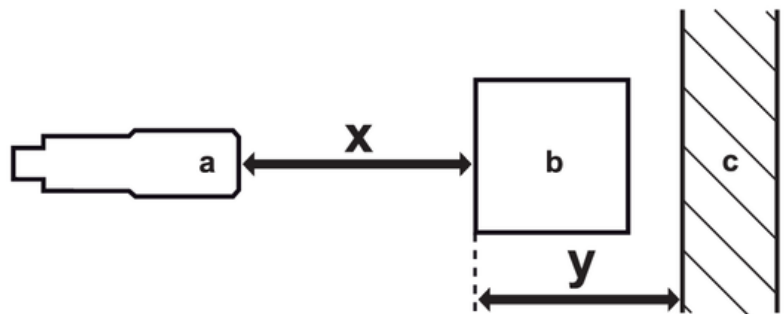
x: distance sensor/object [mm]

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)



a: sensor

b: object

c: background

x: distance sensor/object [mm]

y: min. distance object/background [mm]