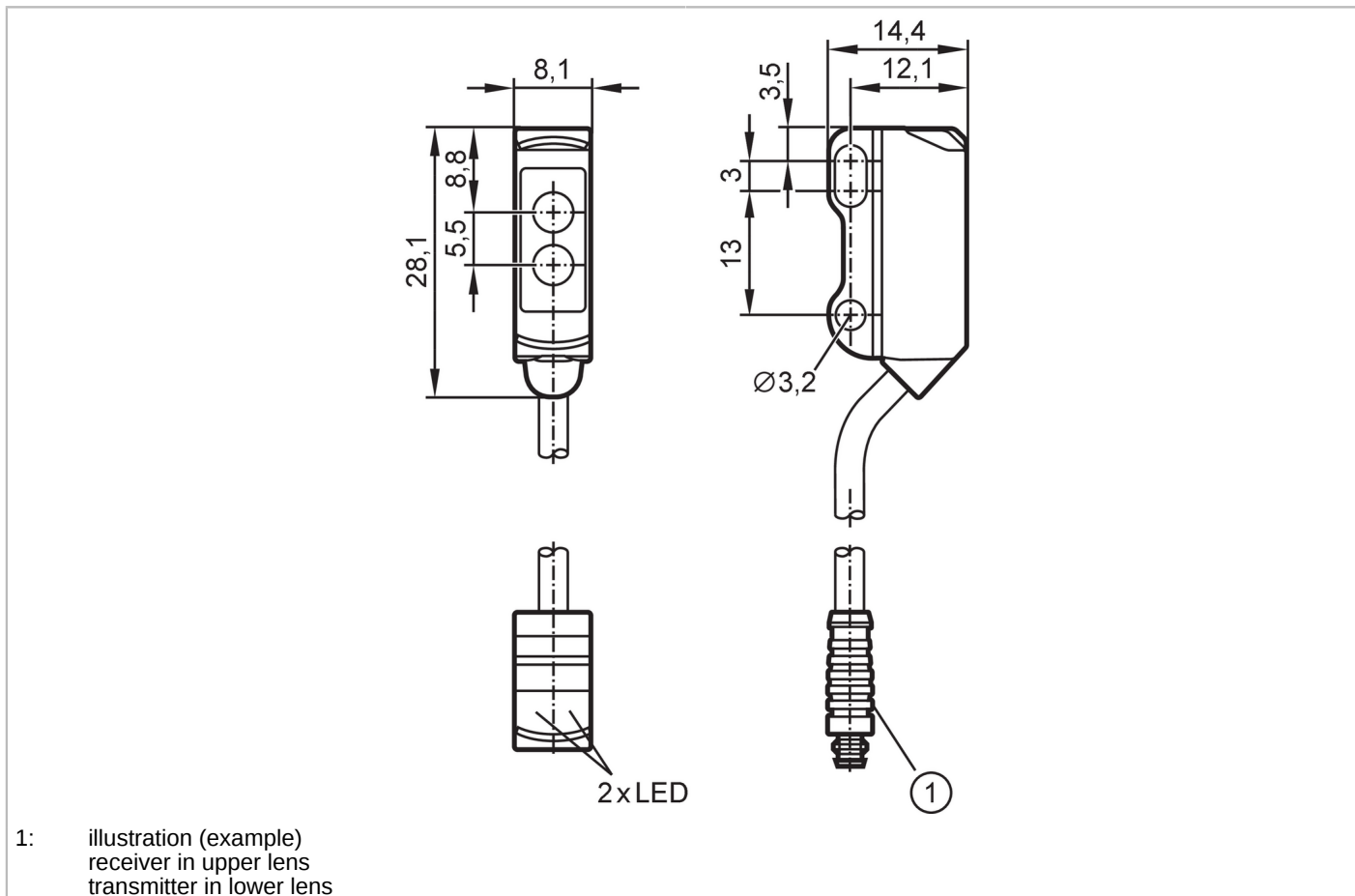


# O8H222



## Diffuse reflection sensor with background suppression

O8H-FPKG/IO-Link/0,30M/AS/4P



### 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	Device diagnosis
	Function	Teach channel
SIO mode	yes	
Required master port type	A	
Min. process cycle time [ms]	3	
IO-Link process data (cyclical)	<b>function</b>	<b>bit length</b>
	process value	8
	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>	<b>DeviceID</b>
	default	535

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

Tests / approvals	
EMC	EN 60947-5-2
MTTF [years]	757

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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.
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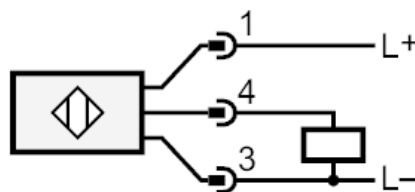
### Electrical connection

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

Connector: 1 x M8; coding: A; Contacts: 4



### Connection





## Diffuse reflection sensor with background suppression

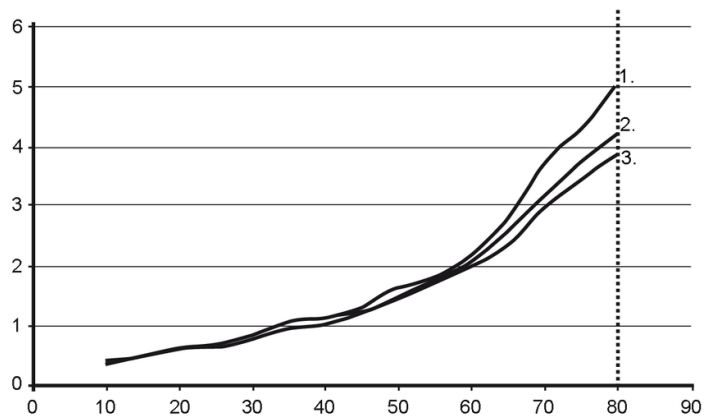
O8H-FPKG/IO-Link/0,30M/AS/4P

### Diagrams and graphs



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

### 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)