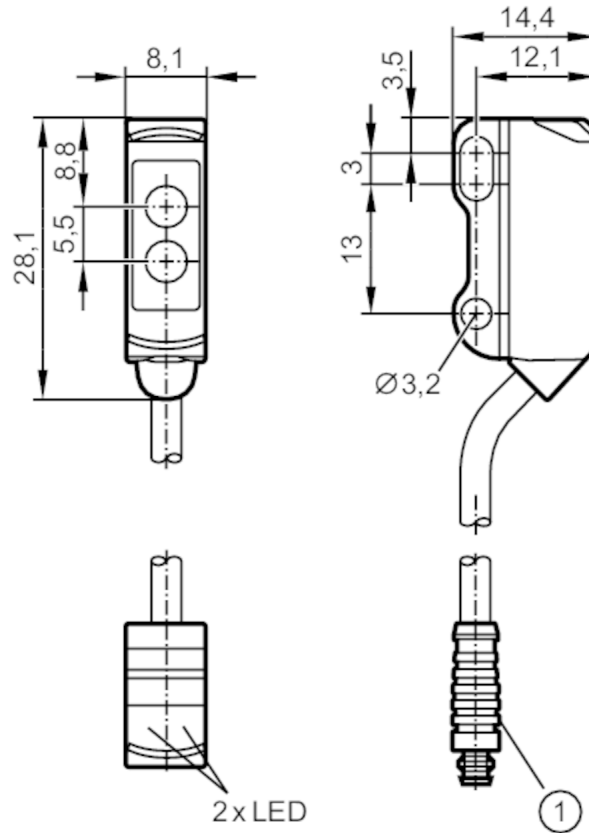




## Diffuse reflection sensors with background suppression

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



1: illustration (example)  
Receiver in upper lens  
transmitter in lower lens



### Product characteristics

Type of light	red light
Housing	rectangular

### Application

System	Background suppression
Function principle	Diffuse reflection sensor

### 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



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Outputs		
Electrical design	PNP	
Output function	light-on/dark-on mode; (programmable)	
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	yes (non-latching)	
Monitoring range		
Range [mm]	3...15; (white paper 200 x 200 mm)	
Range on white object (90 % remission) [mm]	3...15	
Range on grey object (18 % remission) [mm]	5...15	
Range on black object (6 % remission) [mm]	5...15	
Range adjustable	yes	
Max. light spot diameter [mm]	4	
Light spot dimensions refer to	at maximum range	
Monitoring range final value [mm]	10...80	
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; Device Diagnosis; Teach Channel; Switching Channel	
SIO mode	yes	
Required master port class	A	
Min. process cycle time [ms]	3	
IO-Link process data (cyclical)	Function	bit length
	process value	8
	device status	4
IO-Link functions (acyclical)	binary switching information	1
	application specific tag; operating hours counter; switching cycles counter	
Supported DeviceIDs	Type of operation	DeviceID
	default	535
Operating conditions		
Ambient temperature [°C]	-25...60	
Protection	IP 65; IP 67	



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

Tests / approvals		
EMC		EN 60947-5-2
MTTF	[years]	757
UL approval	Ta	-25...60 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	E017
	File number UL	E174191

Mechanical data		
Weight	[g]	21.2
Housing		rectangular
Dimensions	[mm]	28.1 x 8.1 x 14.4
Material		housing: ABS; stainless steel (1.4404 / 316L)
Lens material		PMMA
Lens alignment		Side sensing

Displays / operating elements		
Display	Switching status	1 x LED, yellow
	Power	1 x LED, green

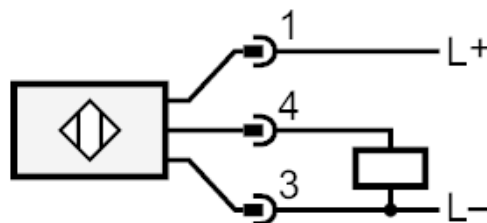
Remarks		
Pack quantity		1 pcs.

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

Connector: 1 x M8; coding: A



### Connection

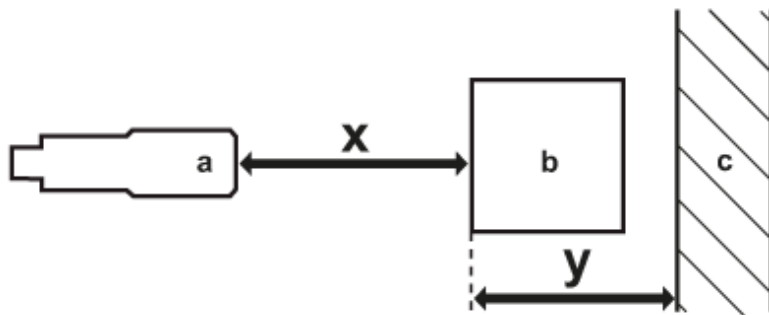




Diffuse reflection sensors with background suppression

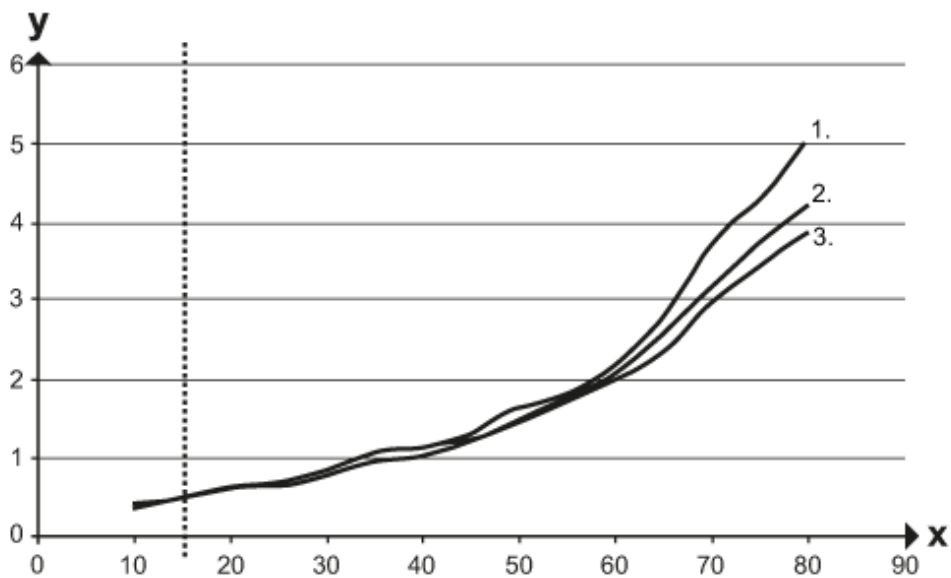
O8H-FPKG/IO-Link/0,30M/AS/4P

Diagrams and graphs



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

Background suppression chart



- 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)