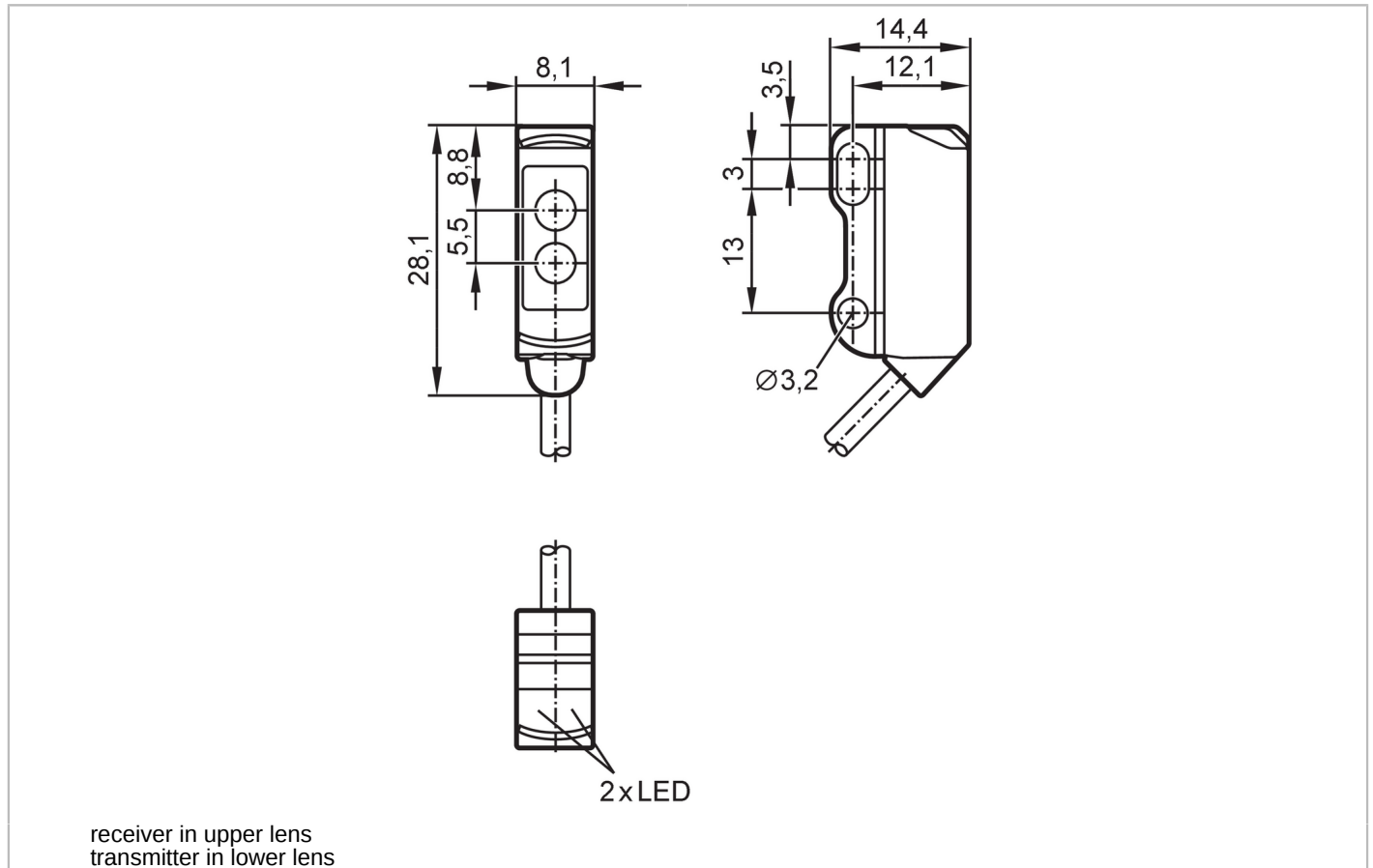


O8H270



Diffuse reflection sensor with background suppression

O8H-FPKG/IO-Link/2,0M



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	<table border="1"> <tr> <td>Smart Sensor - SSP 0</td> <td>Generic Profiled Sensor</td> </tr> <tr> <td>Function</td> <td>Device identification</td> </tr> <tr> <td>Function</td> <td>Multiple switching signal</td> </tr> <tr> <td>Function</td> <td>Process data variable</td> </tr> <tr> <td>Function</td> <td>Device diagnosis</td> </tr> <tr> <td>Function</td> <td>Teach channel</td> </tr> </table>	Smart Sensor - SSP 0	Generic Profiled Sensor	Function	Device identification	Function	Multiple switching signal	Function	Process data variable	Function	Device diagnosis	Function	Teach channel
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)	<table border="1"> <thead> <tr> <th>function</th> <th>bit length</th> </tr> </thead> <tbody> <tr> <td>process value</td> <td>32</td> </tr> <tr> <td>device status</td> <td>4</td> </tr> <tr> <td>binary switching information</td> <td>1</td> </tr> </tbody> </table>	function	bit length	process value	32	device status	4	binary switching information	1				
function	bit length												
process value	32												
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IO-Link functions (acyclical)	application specific tag; operating hours counter; switching cycles counter												
Supported DeviceIDs	<table border="1"> <thead> <tr> <th>Type of operation</th> <th>DeviceID</th> </tr> </thead> <tbody> <tr> <td>default</td> <td>1117</td> </tr> </tbody> </table>	Type of operation	DeviceID	default	1117								
Type of operation	DeviceID												
default	1117												

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.	E016
	File number UL	E174191

Mechanical data	
Weight [g]	37.3
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

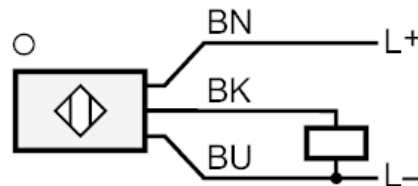
Displays / operating elements		
Display	switching status	1 x LED, yellow
	operation	1 x LED, green

Remarks	
Pack quantity	1 pcs.

Electrical connection

Cable: 2 m, PVC; 3 x 0.08 mm²

Connection



BK = IO-Link
Core colours :
BK = black
BN = brown
BU = blue

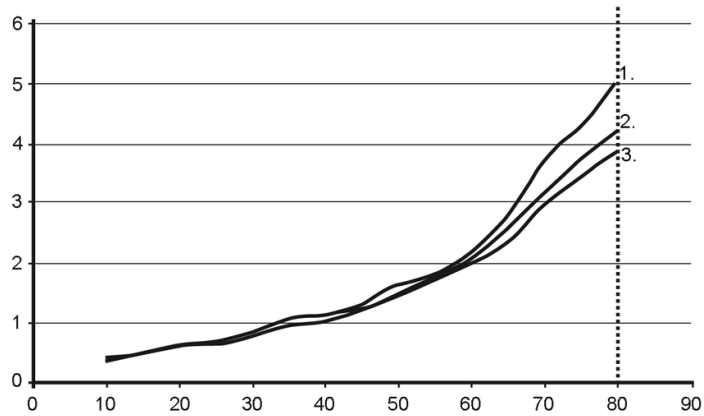


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Diagrams and graphs

accuracy graph



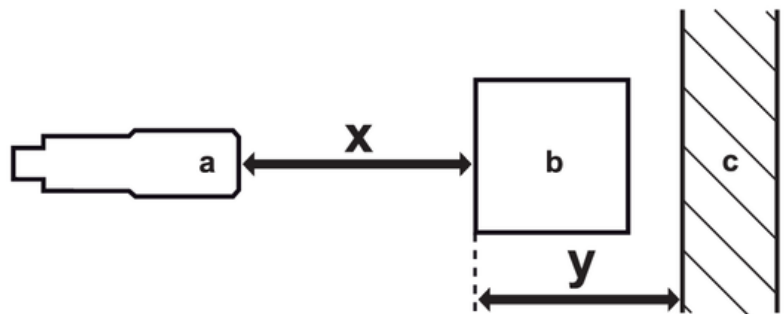
x: distance sensor/object [mm]

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]