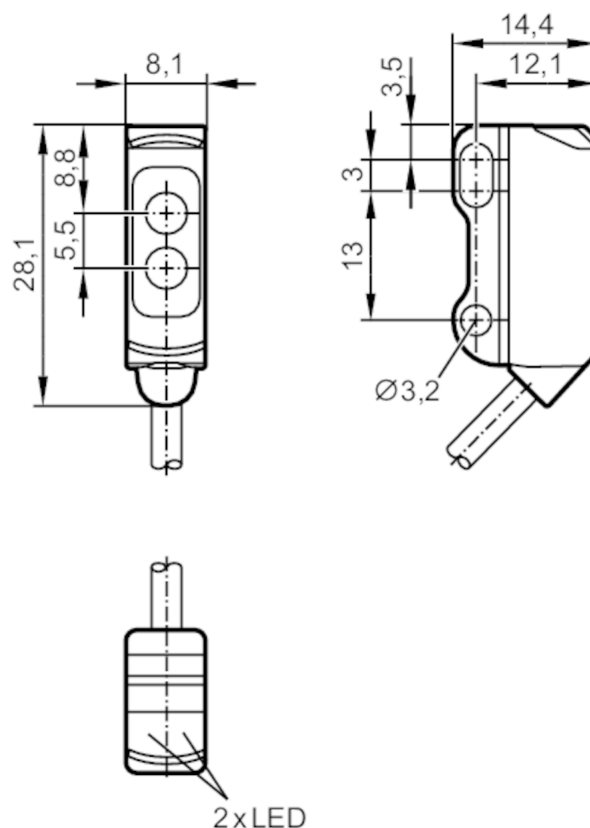


O8H200



Diffuse reflection sensor with background suppression

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



receiver in upper lens
transmitter in lower lens



Product characteristics

Type of light	red light
Housing	rectangular

Application

Special feature	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

Outputs

Electrical design		PNP
Output function		light-on mode
Max. voltage drop switching output DC	[V]	2.5



Diffuse reflection sensor with background suppression

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

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]	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
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: Device Identification; Device Diagnosis; Teach Channel; Switching Channel
SIO mode		yes
Required master port type		A
Min. process cycle time	[ms]	3
IO-Link process data (cyclical)	function	bit length
	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	Type of operation	DeviceID
	default	535

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

Tests / approvals		
EMC	EN 60947-5-2	
MTTF	[years]	751

Mechanical data		
Weight	[g]	37.4
Housing		rectangular
Dimensions	[mm]	28.1 x 8.1 x 14.4



Diffuse reflection sensor with background suppression

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

Materials	housing: ABS; stainless steel (316L/1.4404)
Lens material	PMMA
Lens alignment	side lens

Displays / operating elements

Display	switching status	1 x LED, yellow
	operation	1 x LED, green

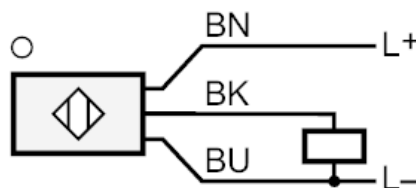
Remarks

Pack quantity	1 pcs.
---------------	--------

Electrical connection

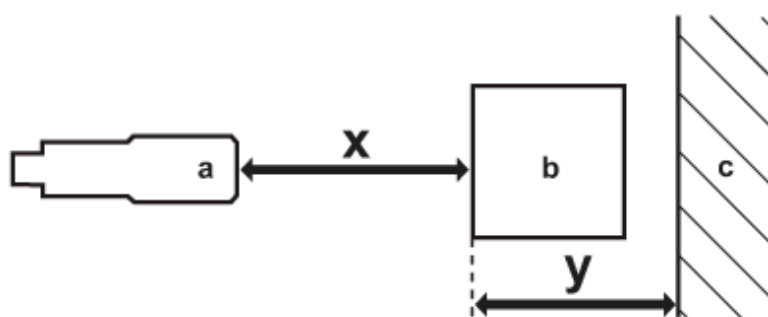
Cable: 2 m, PVC; 3 x 0.08 mm²

Connection



Core colours :
 BN = brown
 BK = black
 BU = blue

Diagrams and graphs



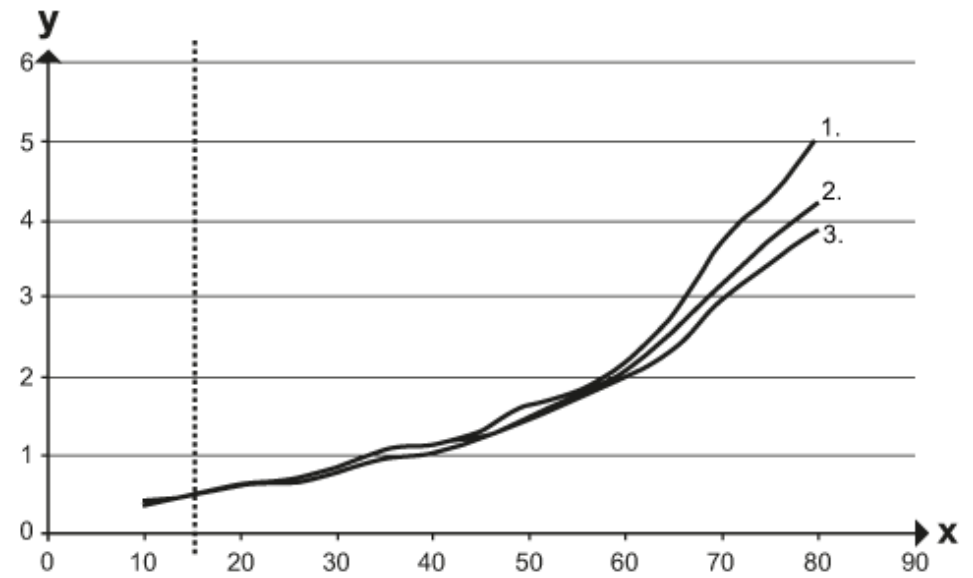
a: sensor
 b: object
 c: background
 x: distance sensor/object [mm]
 y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

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

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)