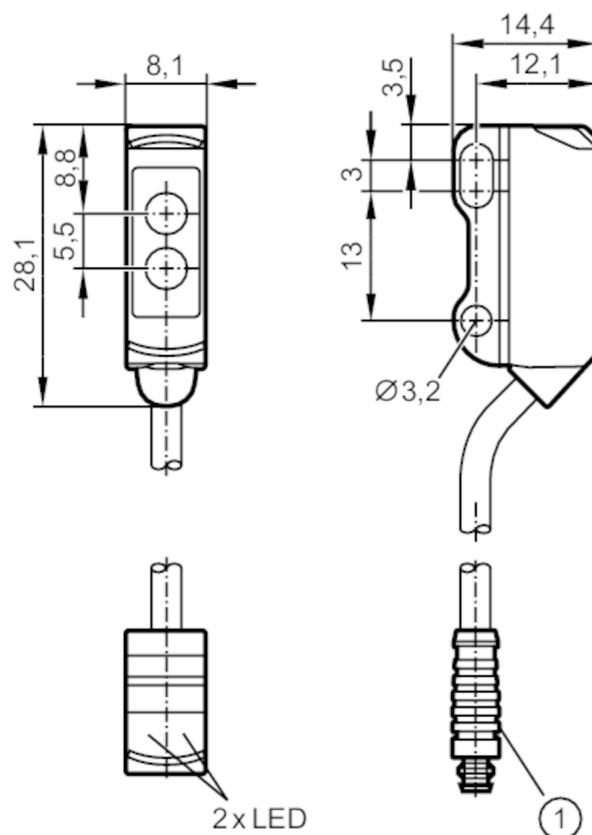


Diffuse reflection sensor with background suppression

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



1

receiver in upper lens
transmitter in lower lens
illustration (example)



Application

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 mode
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		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
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
IO-Link device ID		535 d / 00 02 17 h
Profiles		Smart Sensor: Device Identification; Device Diagnosis; Teach Channel; Binary Data Channel
SIO mode		yes
Required master port type		A
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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Mechanical data		
Weight	[g]	23
Housing		rectangular
Dimensions	[mm]	28.1 x 8.1 x 14.4
Materials		housing: ABS; stainless steel (1.4404 / 316L)
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.

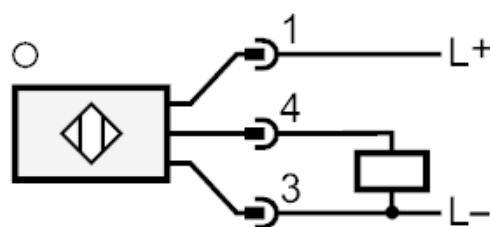
Electrical connection

Cable: 0.3 m, PVC; 3 x 0.08 mm²

Connector: 1 x M8



Connection



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Diagrams and graphs



a: sensor

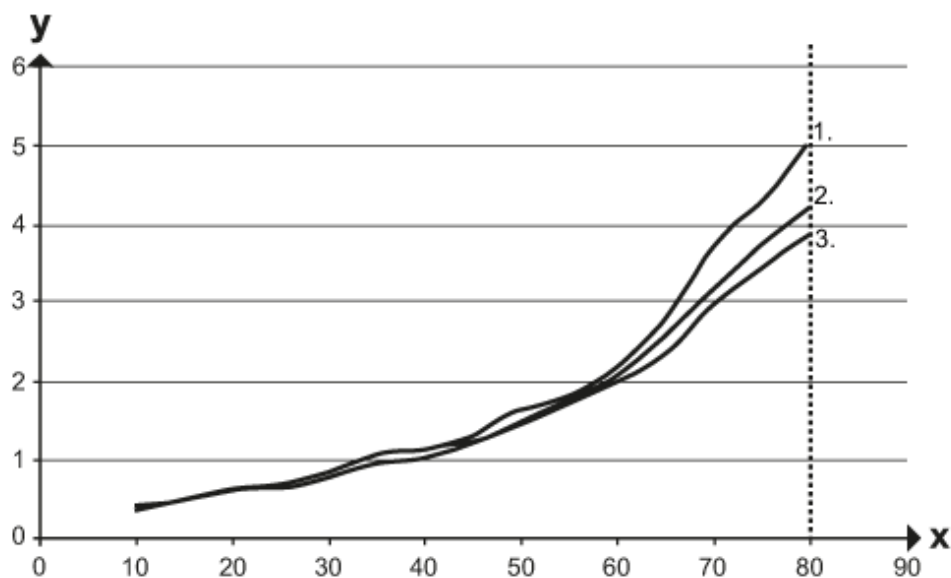
b: object

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)