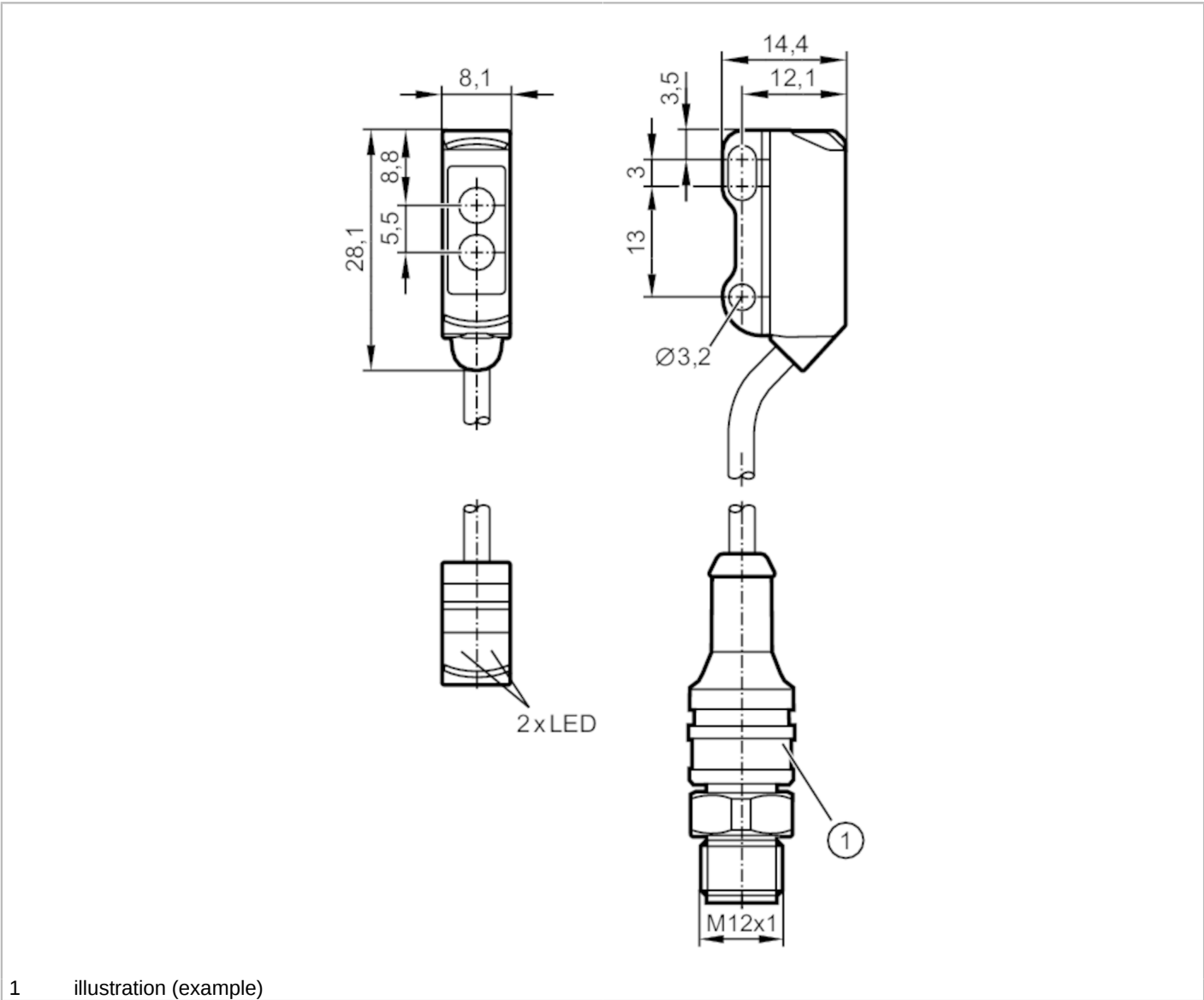




Diffuse reflection sensor with background suppression

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



1 illustration (example)



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



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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		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: Device Identification; Device Diagnosis; Teach Channel; Switching Channel; Process Data Variable
SIO mode		yes
Required master port type		A
Min. process cycle time	[ms]	10
IO-Link process data (cyclical)	function	bit length
	process value	32
	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	1117
Operating conditions		
Ambient temperature	[°C]	-25...60
Protection		IP 65; IP 67
Tests / approvals		
EMC	EN 60947-5-2	



Diffuse reflection sensor with background suppression

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MTTF	[years]	756
UL approval	Ta	-25...60 °C
	Enclosure type	Type 1
	power supply	Limited Voltage/Current
	UL Approval no.	E017
	File number UL	E174191

Mechanical data		
Weight	[g]	27
Housing		rectangular
Dimensions	[mm]	28.1 x 8.1 x 14.4
Materials		housing: ABS; stainless steel (316L/1.4404)
Lens material		PMMA
Lens alignment		side lens

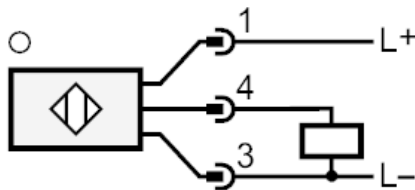
Displays / operating elements		
Display	switching status	1 x LED, yellow
	operation	1 x LED, green

Remarks	
Pack quantity	1 pcs.

Electrical connection

Cable: 0.3 m, PVC; 3 x 0.08 mm²

Connection



Electrical connection - plug

Connector: 1 x M12; coding: A



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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]