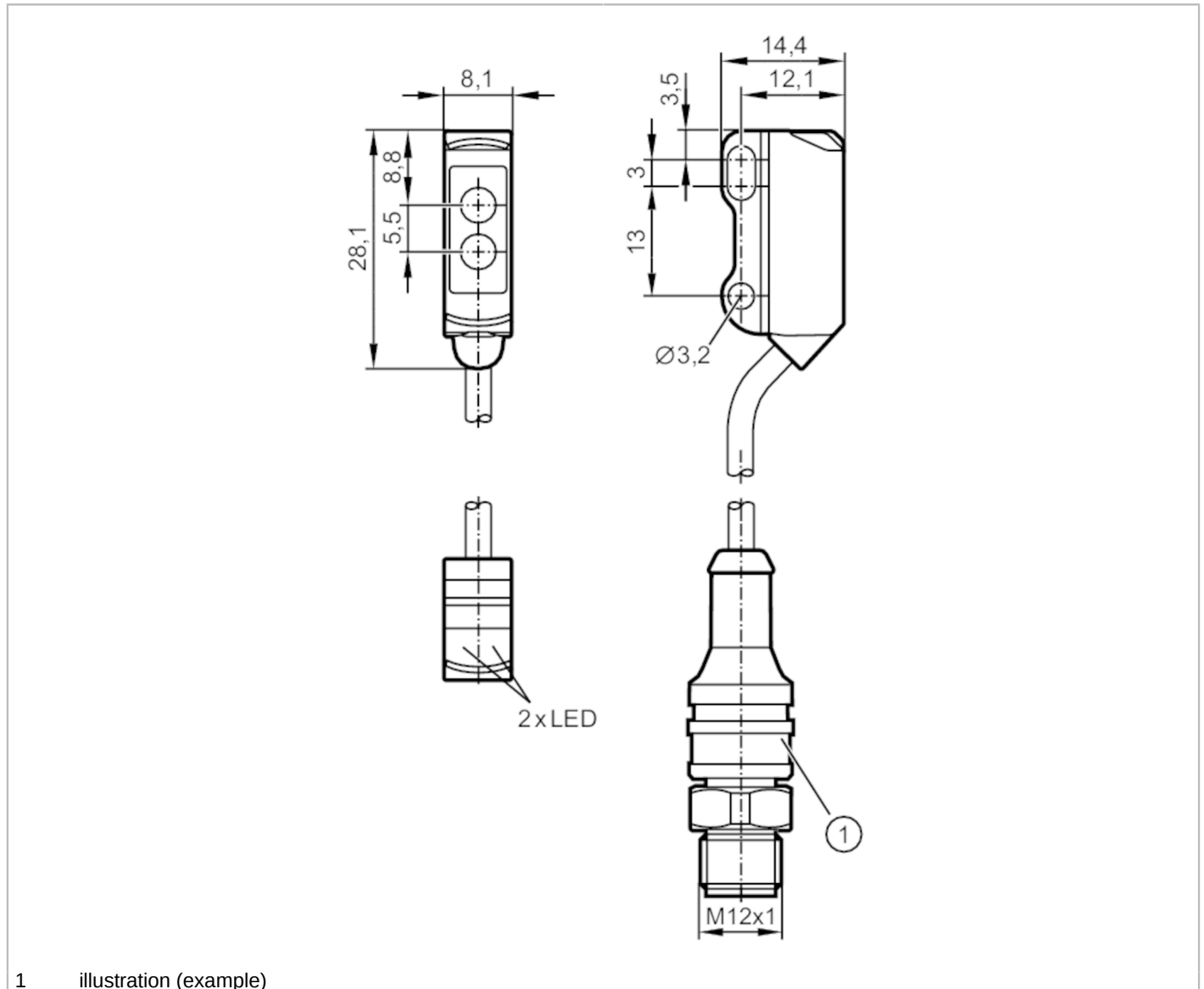




Diffuse reflection sensor with background suppression

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 - 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)	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

O8H273



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Operating conditions

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

Tests / approvals

EMC		EN 60947-5-2
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; rear of the housing: 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

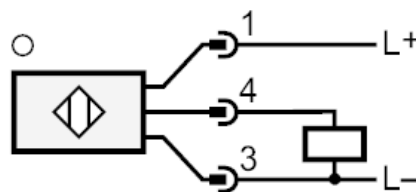
Remarks

Pack quantity		1 pcs.
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Electrical connection

Cable: 0.3 m, PVC; 3 x 0.08 mm²

Connection





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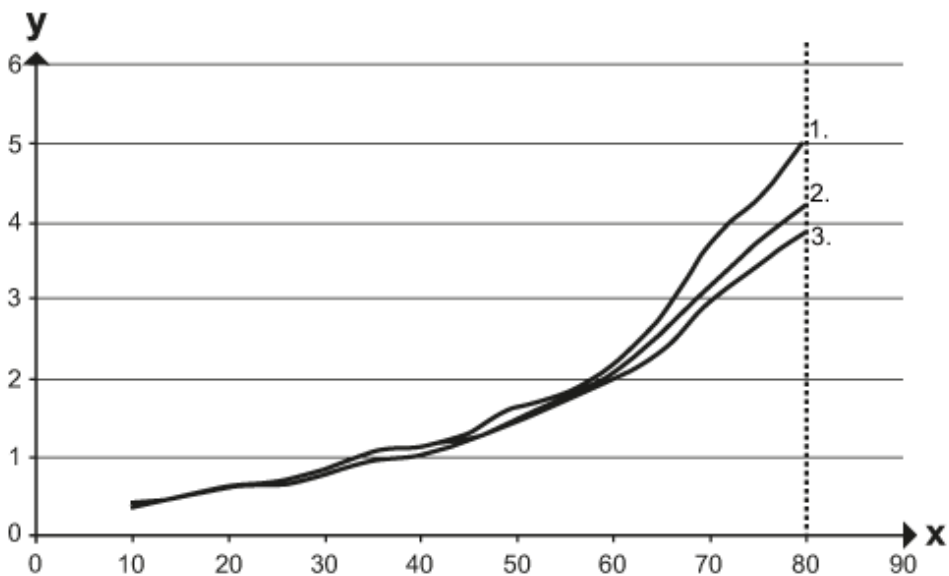
Electrical connection - plug

Connector: 1 x M12; coding: A

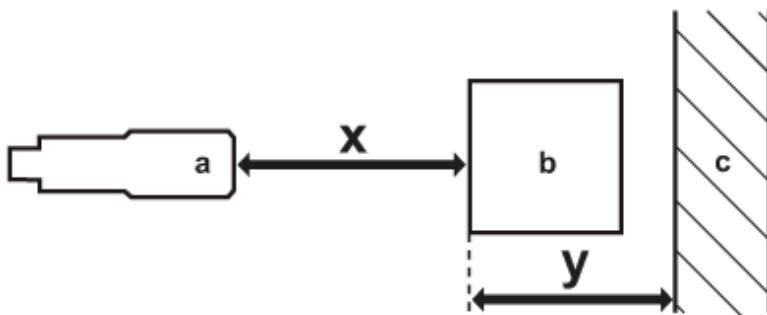


Diagrams and graphs

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]