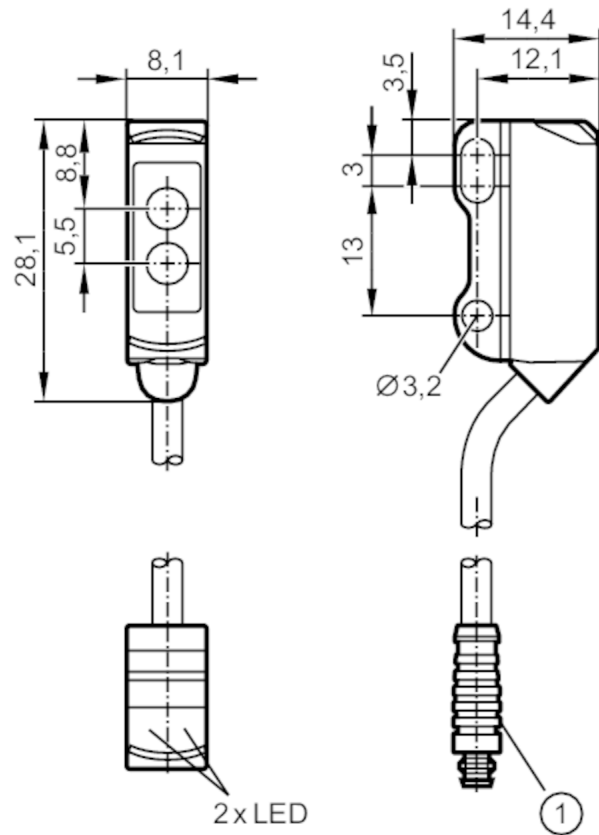




Diffuse reflection sensor with background suppression

O8H-HNKG/0,30M/AS/4P



1: illustration (example)
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		NPN
Output function		light-on mode



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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...30; (white paper 200 x 200 mm)
Range on white object (90 % remission)	[mm]	1...30
Range on grey object (18 % remission)	[mm]	5...30
Range on black object (6 % remission)	[mm]	5...29
Range adjustable		no
Max. light spot diameter	[mm]	4
Light spot dimensions refer to		at maximum range
Background suppression available		yes

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

Tests / approvals		
EMC	EN 60947-5-2	
MTTF	[years]	757
UL approval	Ta	-25...60 °C
	Enclosure type	Type 1
	power supply	Limited Voltage/Current
	UL Approval no.	E015
	File number UL	E174191

Mechanical data		
Weight	[g]	22.9
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.

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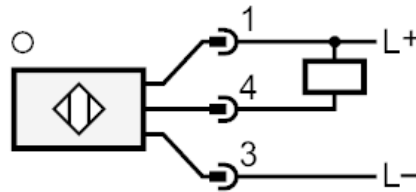
Electrical connection

Cable: 0.3 m, PVC; 3 x 0.08 mm²

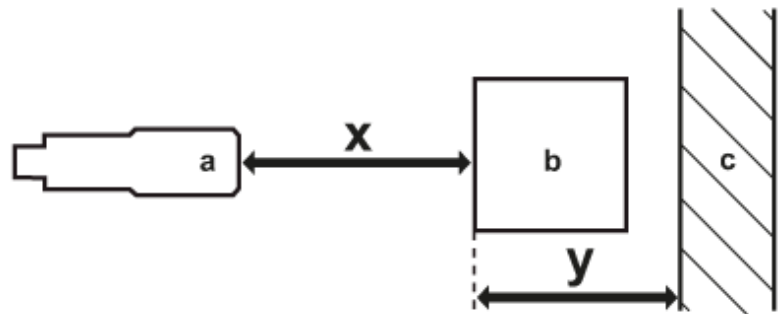
Connector: 1 x M8; coding: A



Connection



Diagrams and graphs



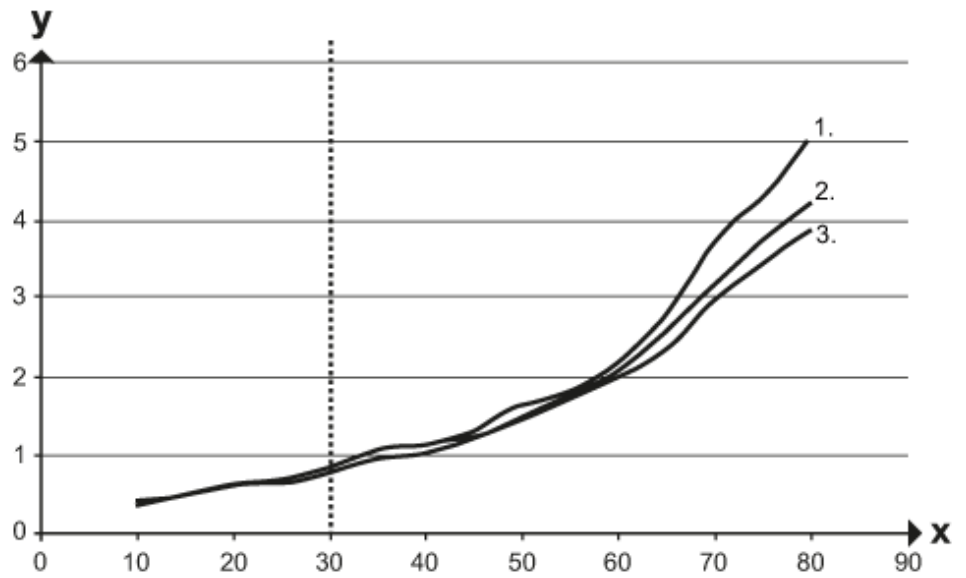
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



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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)