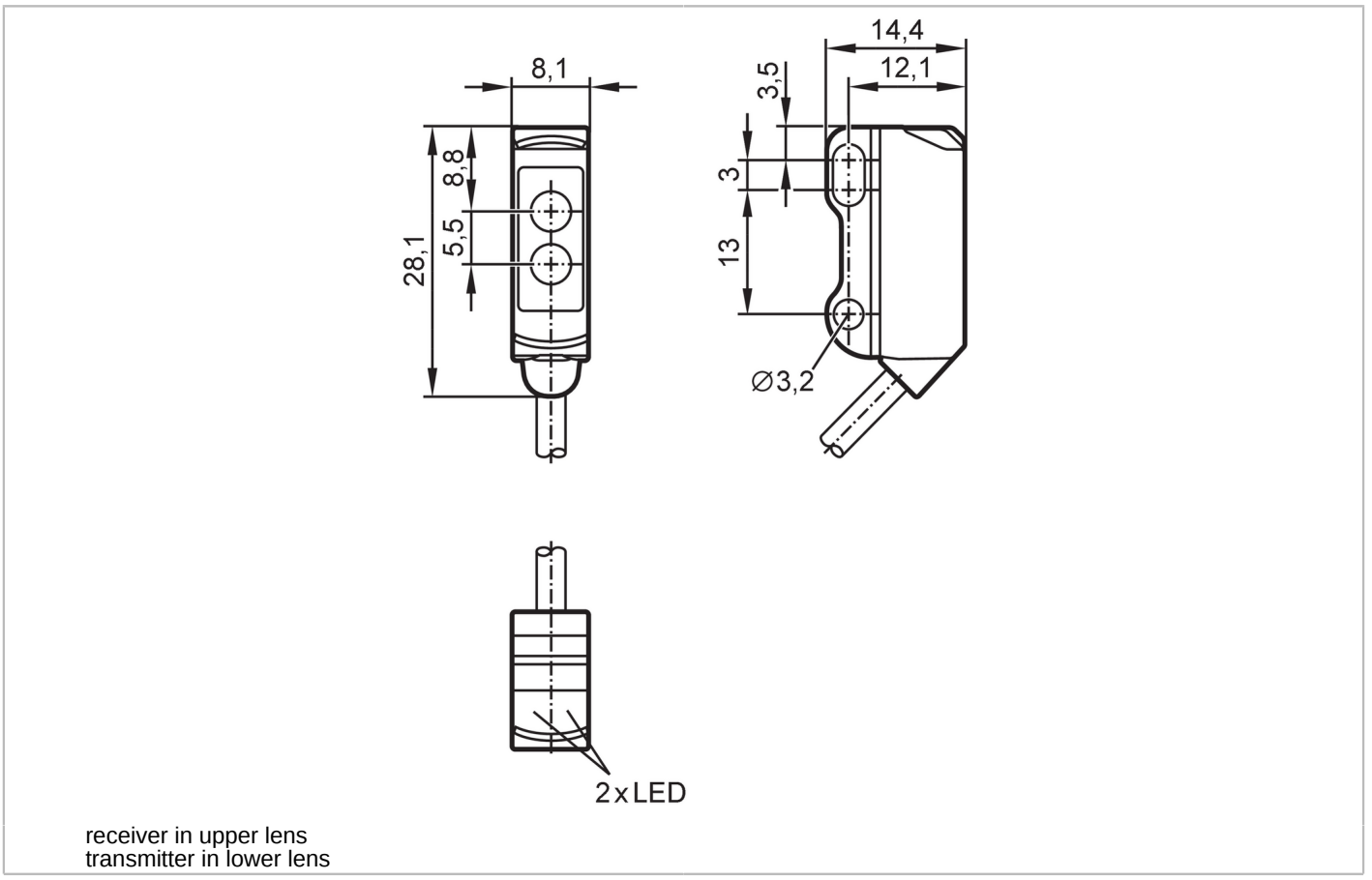
O8H219

Diffuse reflection sensor with background suppression

O8H-HNKG/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
Application		Industrial applications / factory automation
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
Max. voltage drop switching output DC	[V]	2.5

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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		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
		voltage supply	Limited Voltage/Current
		UL approval no.	E014
		File number UL	E174191
Mechanical data			
Weight	[g]	38	
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		front pane: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.	

O8H219

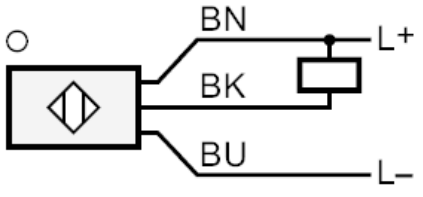
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Electrical connection

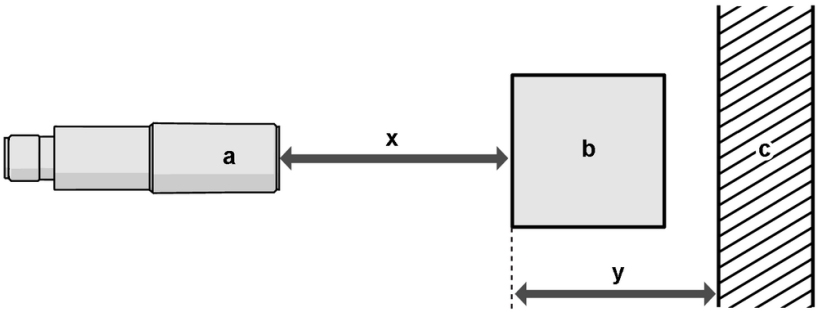
Cable: 2 m, PVC; 3 x 0.08 mm²

Connection



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

Diagrams and graphs



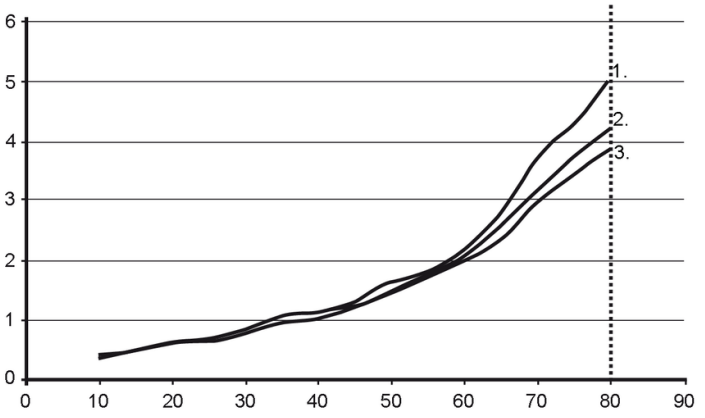
a: sensor
b: object
c: background
x: distance sensor/object [mm]
y: min. distance object/background [mm]

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Diffuse reflection sensor with background suppression

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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)