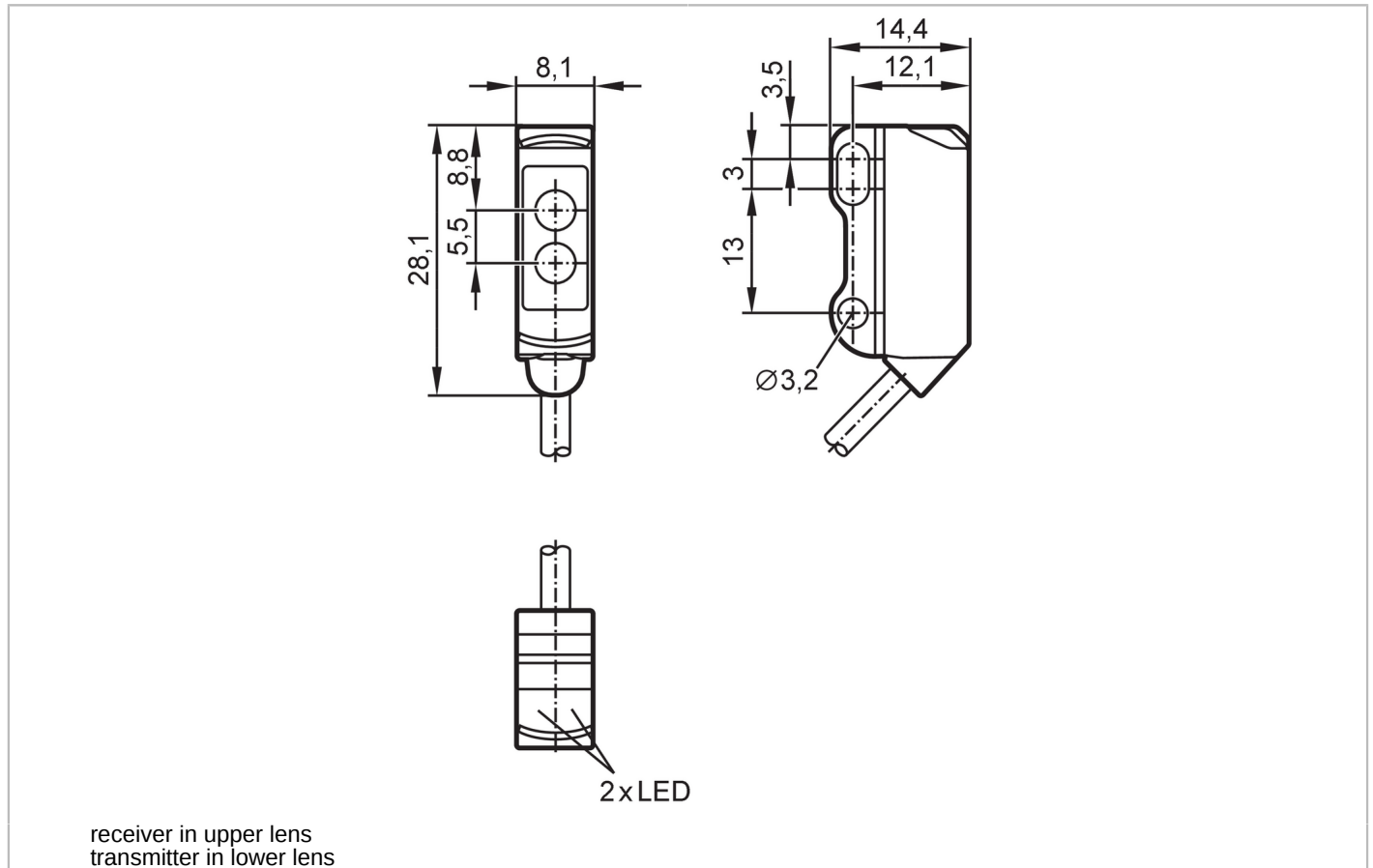




Diffuse reflection sensor with background suppression

O8H-HNKG/2,0M



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
Max. voltage drop switching output DC [V]	2.5
Permanent current rating of switching output DC [mA]	100

O8H207



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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.	E014
	File number UL	E174191
Mechanical data		
Weight	[g]	38.2
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.



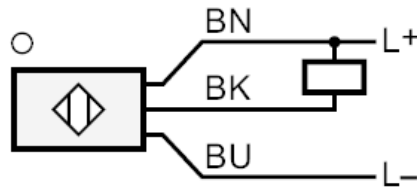
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Electrical connection

Cable: 2 m, PVC; 3 x 0.08 mm²

Connection



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

Diagrams and graphs



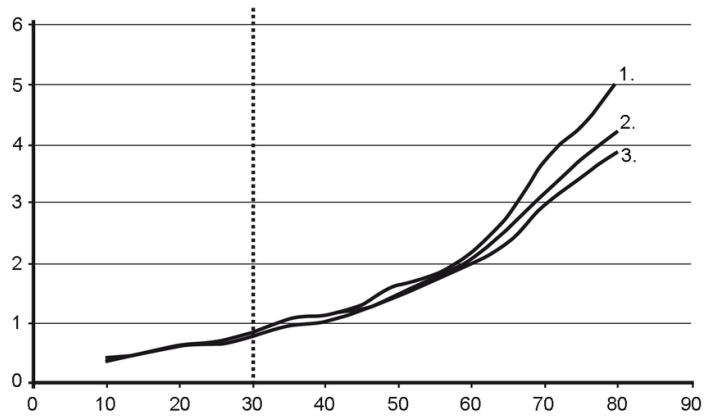
a: sensor
b: object
c: background
x: distance sensor/object [mm]
y: min. distance object/background [mm]



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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)