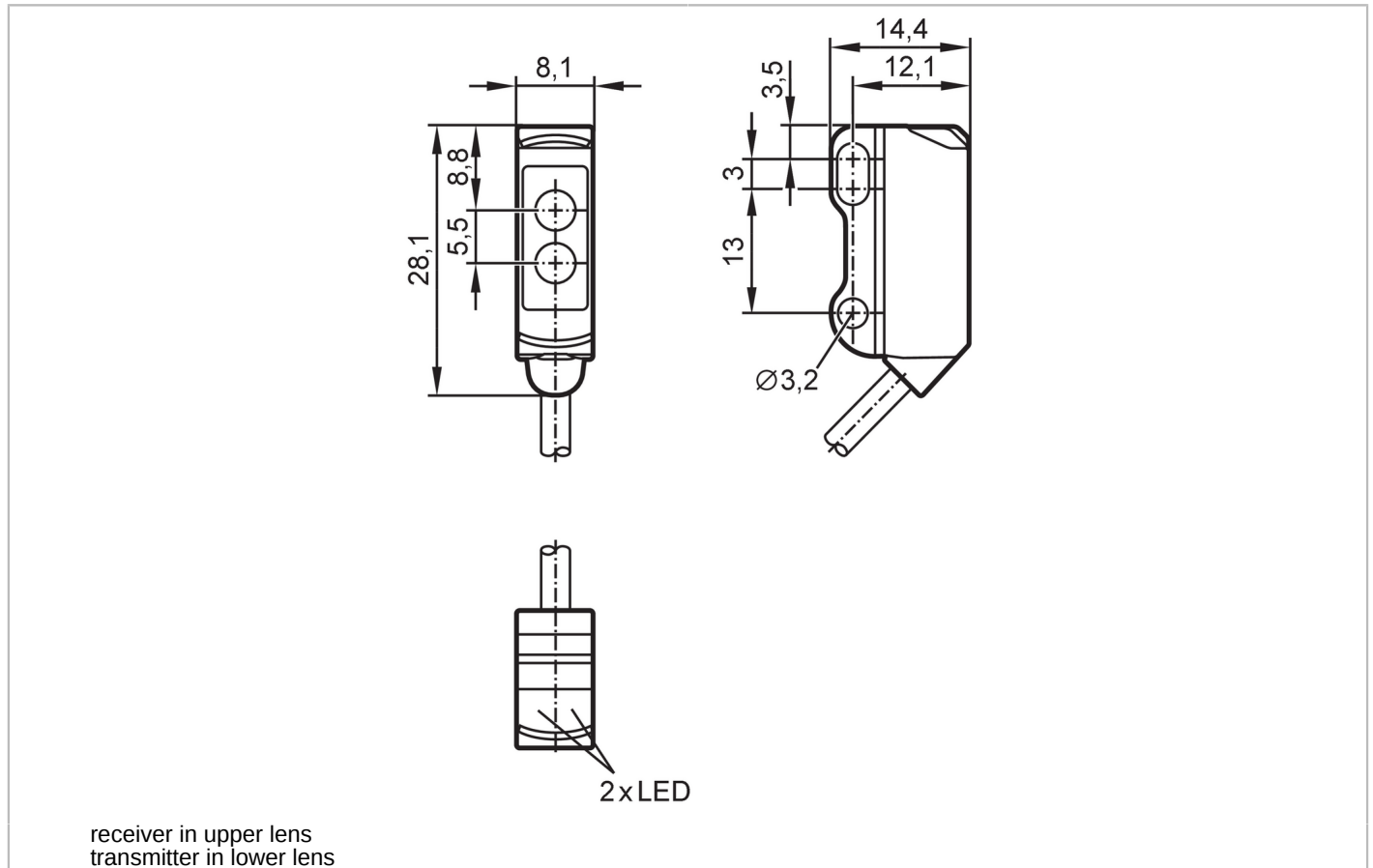


O8H207



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
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

O8H207



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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...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
	voltage 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.



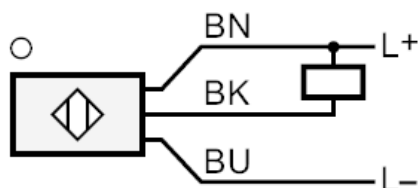
Diffuse reflection sensor with background suppression

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Electrical connection

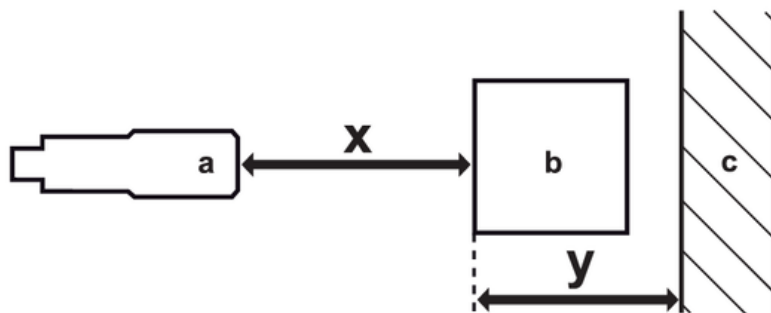
Cable: 2 m, PVC; 3 x 0.08 mm²

Connection



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

Diagrams and graphs



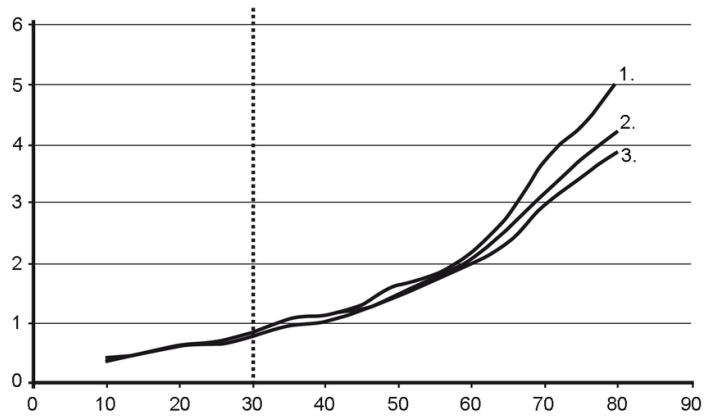
a: sensor
 b: object
 c: background
 x: distance sensor/object [mm]
 y: min. distance object/background [mm]



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)