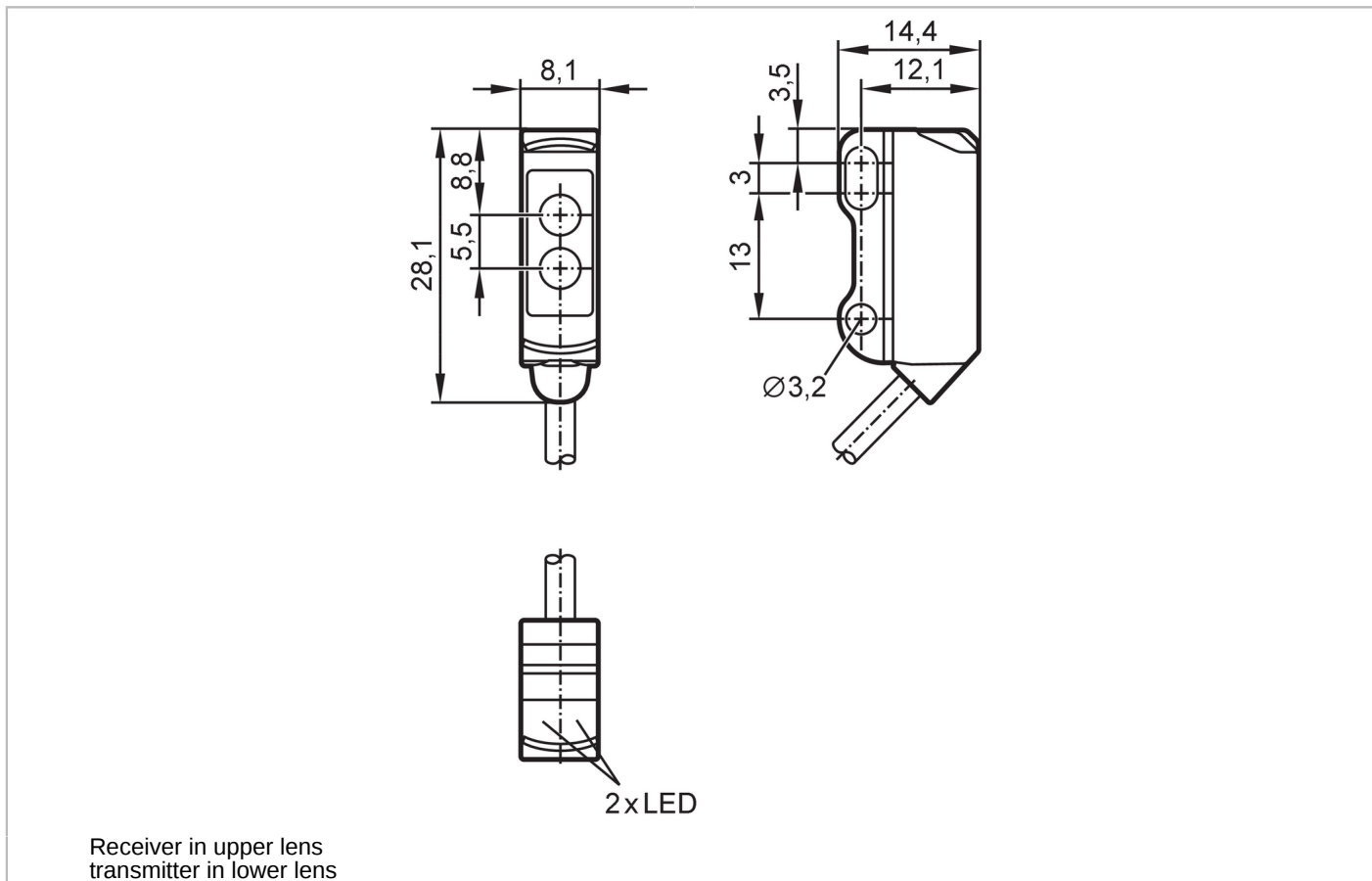


# O8H219



## Diffuse reflection sensors 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
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

# O8H219



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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	yes (non-latching)

### Monitoring range

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 number	E014
	File number UL	E174191

### Mechanical data

Weight [g]	38
Housing	rectangular
Dimensions [mm]	28.1 x 8.1 x 14.4
Material	housing: ABS; rear of the housing: stainless steel (1.4404 / 316L)
Lens material	front lens:PMMA
Lens alignment	Side sensing

### Displays / operating elements

Display	Switching status	1 x LED, yellow
	Power	1 x LED, green

### Remarks

Pack quantity	1 pcs.
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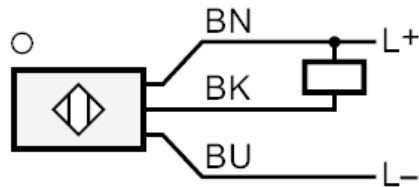
## Diffuse reflection sensors with background suppression

O8H-HNKG/2,0M

### Electrical connection

Cable: 2 m, PVC; 3 x 0.08 mm<sup>2</sup>

### Connection



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

### Diagrams and graphs



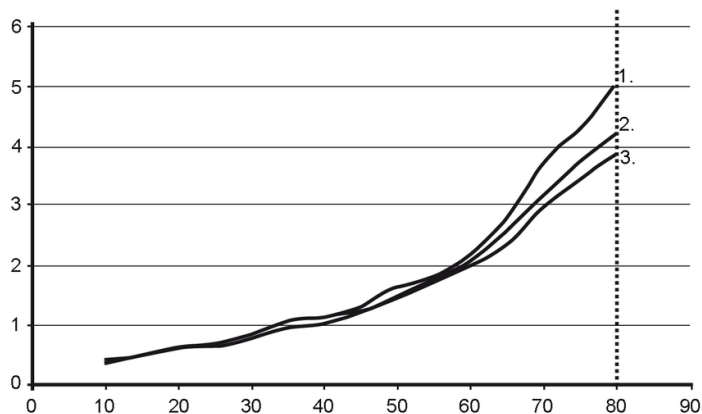
a: sensor  
 b: object  
 c: background  
 x: distance sensor/object [mm]  
 y: min. distance object/background [mm]



## Diffuse reflection sensors with background suppression

O8H-HNKG/2,0M

Background suppression chart



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)