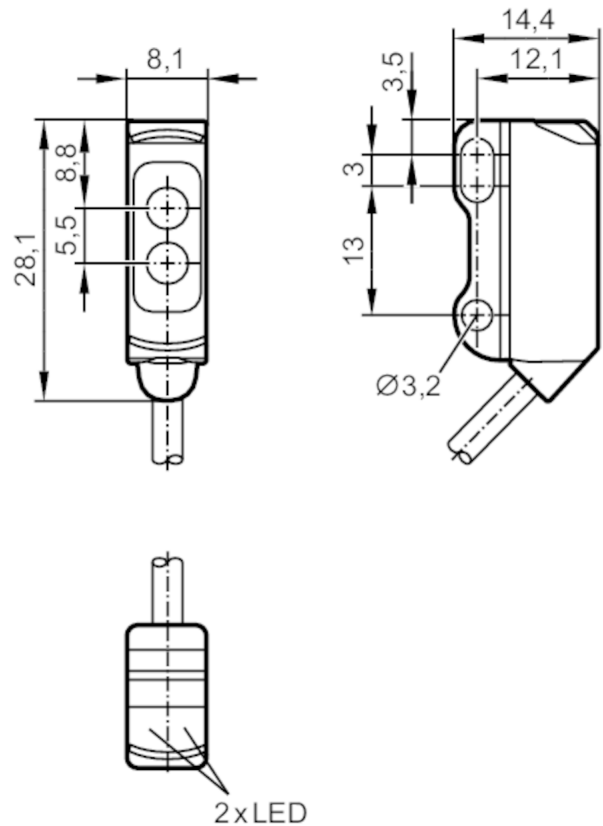




Diffuse reflection sensors with background suppression

O8H-HNKG/2,0M



Receiver in upper lens
transmitter in lower lens



Product characteristics		
Type of light		red light
Housing		rectangular
Application		
System		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



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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...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 number	E014
	File number UL	E174191

Mechanical data

Weight [g]	38.2
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	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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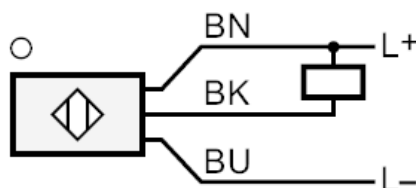
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Electrical connection

Cable: 2 m, PVC; 3 x 0.08 mm²

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]



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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)