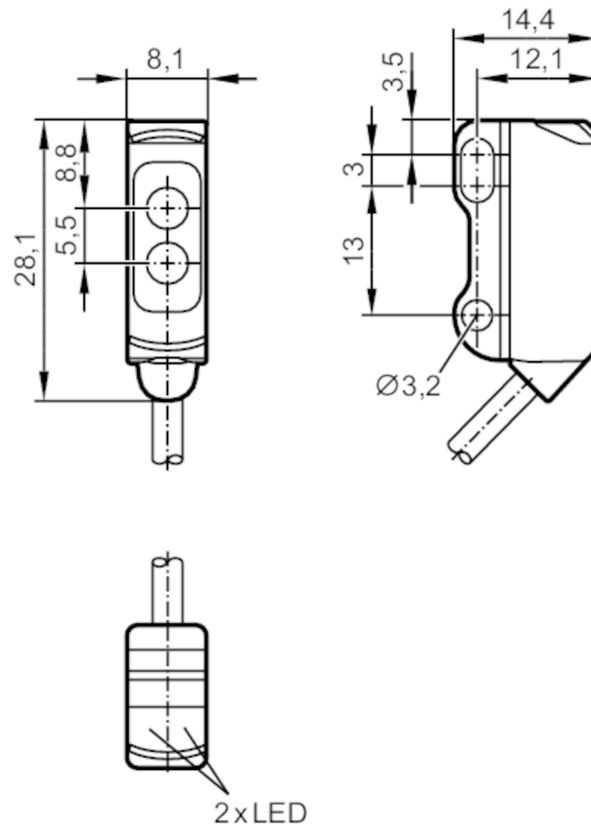


O8H207



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

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
	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; stainless steel (1.4404 / 316L)
Lens material	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.



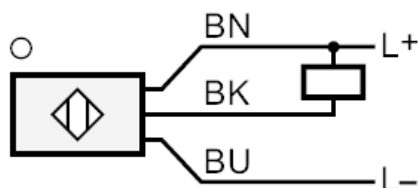
Diffuse reflection sensor with background suppression

O8H-HNKG/2,0M

Electrical connection

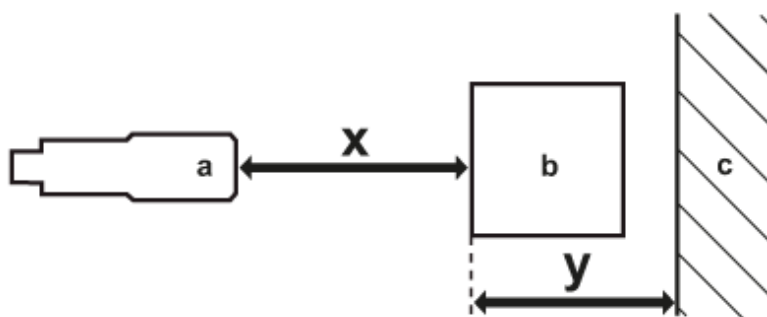
Cable: 2 m, PVC; 3 x 0.08 mm²

Connection



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

Diagrams and graphs



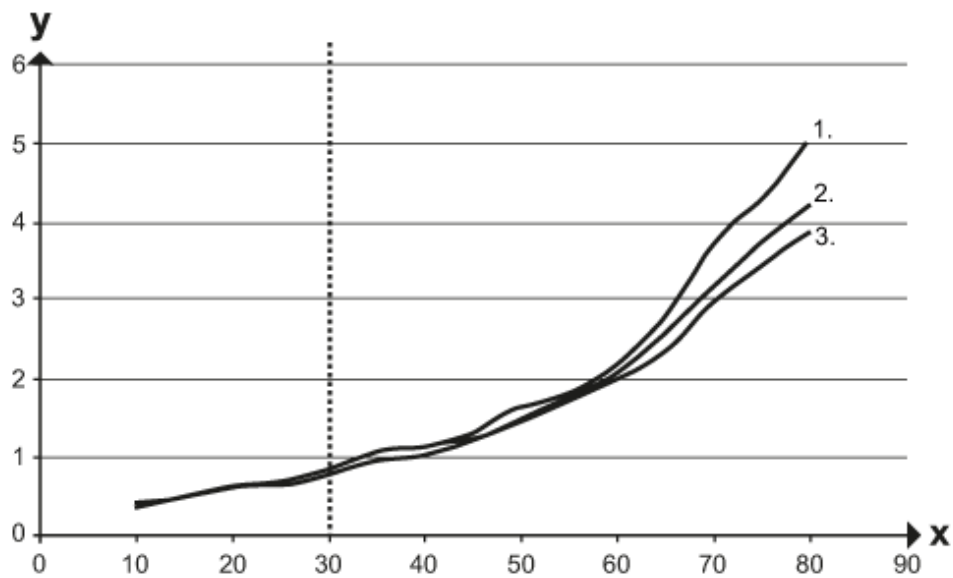
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

O8H-HNKG/2,0M

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)