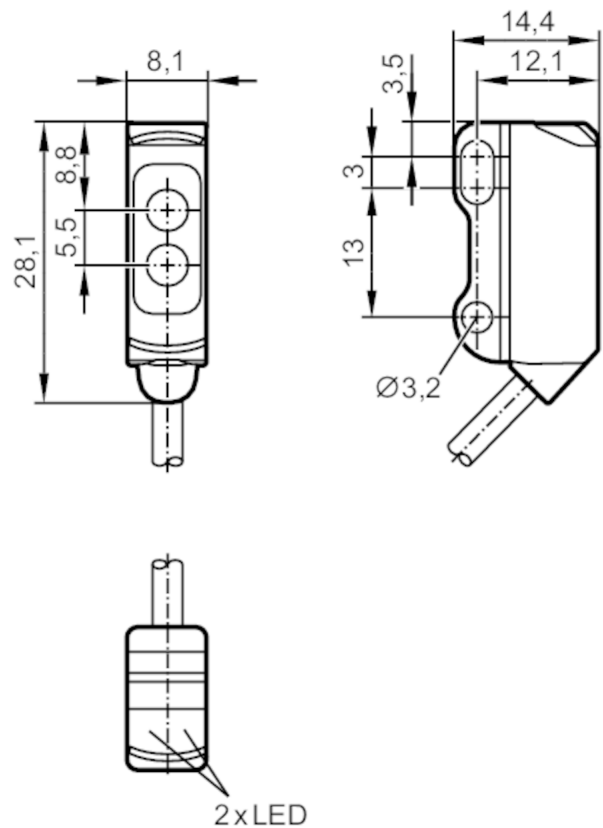


O8H201



Diffuse reflection sensor with background suppression

O8H-HNKG/2,0M



receiver in upper lens
transmitter in lower lens



Application	
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



Diffuse reflection sensor with background suppression

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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	
Switching frequency DC [Hz]	1000	
Short-circuit protection	yes	
Type of short-circuit protection	pulsed	
Detection zone		
Range [mm]	3...15; (white paper 200 x 200 mm)	
Range on white object (90 % remission) [mm]	3...15	
Range on grey object (18 % remission) [mm]	5...15	
Range on black object (6 % remission) [mm]	5...15	
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	
Mechanical data		
Weight [g]	39	
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.	



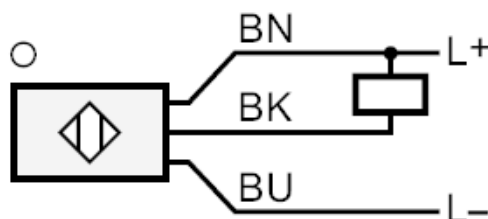
Diffuse reflection sensor with background suppression

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Electrical connection

Cable: 2 m, PVC; 3 x 0.08 mm²

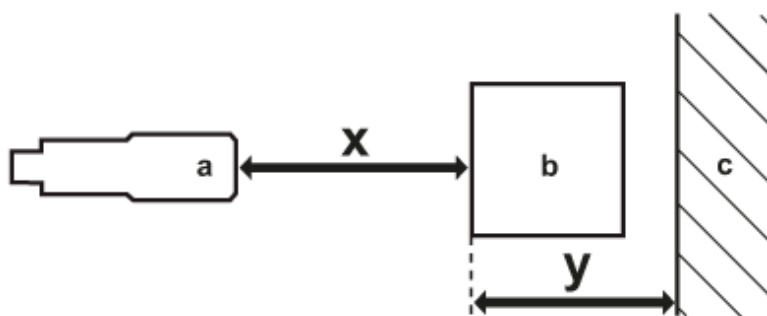
Connection



Core colours :

BN = brown
BK = black
BU = blue

Diagrams and graphs



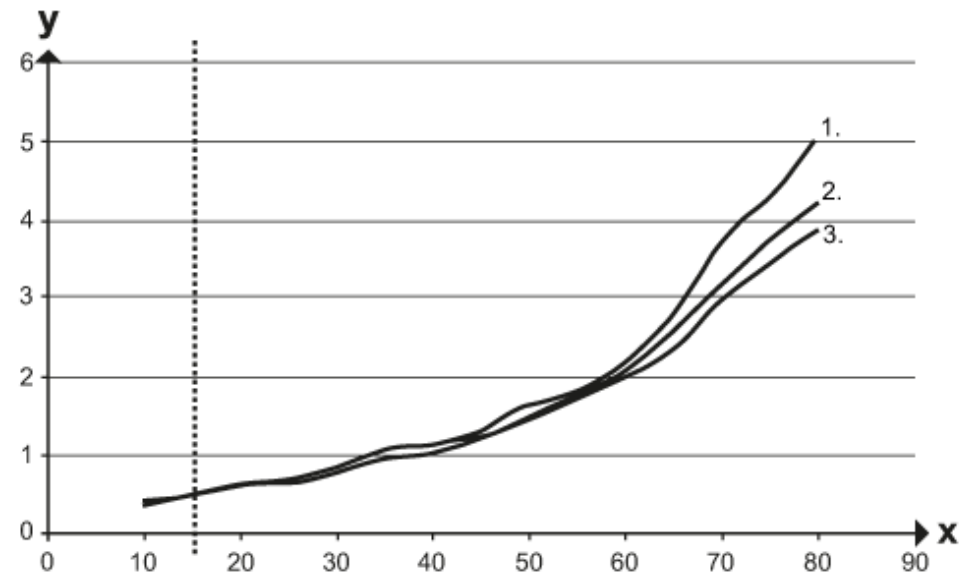
a: sensor
b: object
c: background
x: distance sensor/object [mm]
y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

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)