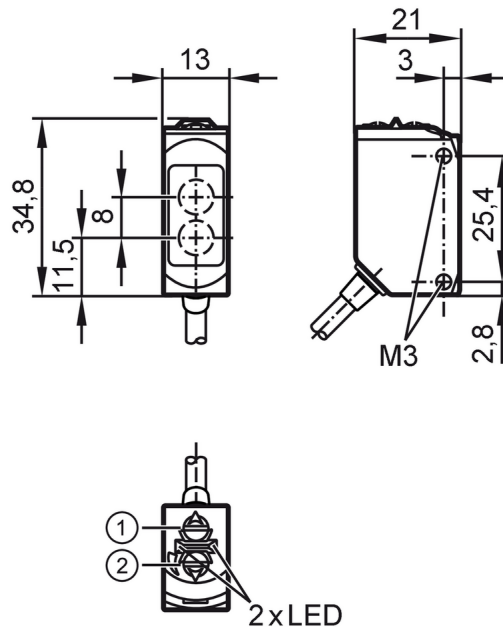


O6H304



Diffuse reflection sensor with background suppression

O6H-FNKG



- 1 output function switch
- 1 potentiometer sensitivity 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
Application	food and beverage industry

Electrical data

Operating voltage	[V]	10...30 DC
Current consumption	[mA]	22; ((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/dark-on mode; (selectable)
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

O6H304



Diffuse reflection sensor with background suppression

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Type of short-circuit protection		pulsed
Detection zone		
Range [mm]		2...200; (white paper 200 x 200 mm)
Range on white object (90 % remission) [mm]		2...200
Range on grey object (18 % remission) [mm]		4...200
Range on black object (6 % remission) [mm]		8...200
Range adjustable		yes
Max. light spot diameter [mm]		8
Light spot dimensions refer to		at maximum range
Background suppression available		yes
Operating conditions		
Ambient temperature [°C]		-25...80
Protection		IP 65; IP 67; IP 68; IP 69K
Tests / approvals		
EMC	EN 60947-5-2	
MTTF [years]		708
UL approval	Ta	-25...80 °C
	Enclosure type	Type 1
	voltage supply	Class 2
	UL approval no.	E003
Mechanical data		
Weight [g]		81.3
Housing		rectangular
Dimensions [mm]		34.8 x 13 x 21
Materials		housing: stainless steel (316L/1.4404); Sealing: EPDM; plastics: PPSU
Lens material		front pane:PMMA
Lens alignment		side lens
Tightening torque [Nm]		1; (screws)
Displays / operating elements		
Display	switching status	1 x LED, yellow
	operation	1 x LED, green
Remarks		
Remarks		operating voltage "supply class 2" according to cULus
Pack quantity		1 pcs.



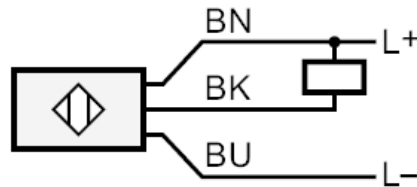
Diffuse reflection sensor with background suppression

O6H-FNKG

Electrical connection

Cable: 2 m, PVC; 3 x 0.25 mm²

Connection



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

Diagrams and graphs



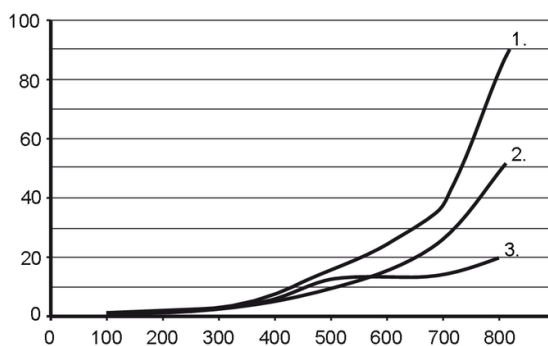
a: sensor
 b: object
 c: background
 x: distance sensor/object [mm]
 y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

O6H-FNKG

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)