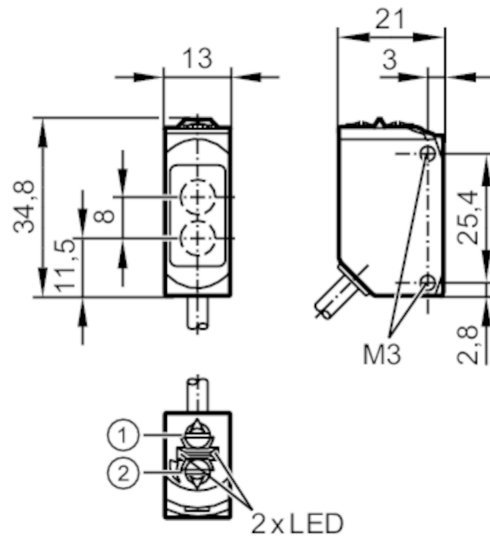


# O6H403



## Diffuse reflection sensor with background suppression

O6H-FNKG/5M



- 1 output function switch
  - 2 potentiometer sensitivity
- receiver in upper lens  
transmitter in lower lens



### Product characteristics

Type of light	red light
Housing	rectangular
Dimensions [mm]	34.8 x 13 x 21

### Application

Special feature	Background suppression
Function principle	Diffuse reflection sensor
Application	suited for use in the machine tool 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

# O6H403



## Diffuse reflection sensor with background suppression

O6H-FNKG/5M

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
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...60
Protection		IP 65; IP 67; IP 68
Tests / approvals		
EMC		EN 60947-5-2
MTTF	[years]	698
UL approval		UL Approval no. E022
Mechanical data		
Weight	[g]	132.6
Housing		rectangular
Dimensions	[mm]	34.8 x 13 x 21
Materials		housing: stainless steel (1.4404 / 316L); plastics: PPSU; Sealing: FKM
Lens material		PMMA
Lens alignment		side lens
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.

# O6H403



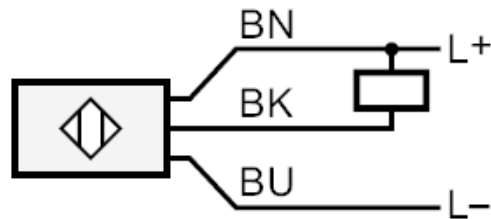
## Diffuse reflection sensor with background suppression

O6H-FNKG/5M

### Electrical connection

Cable: 5 m, PUR; 3 x 0.25 mm<sup>2</sup>

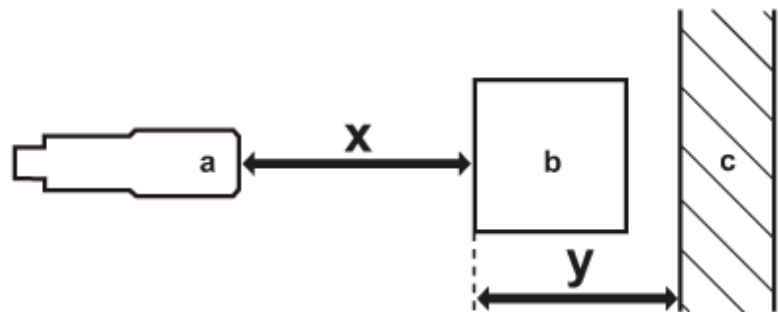
### Connection



Core colours :

BN = brown  
BK = black  
BU = blue

### Diagrams and graphs



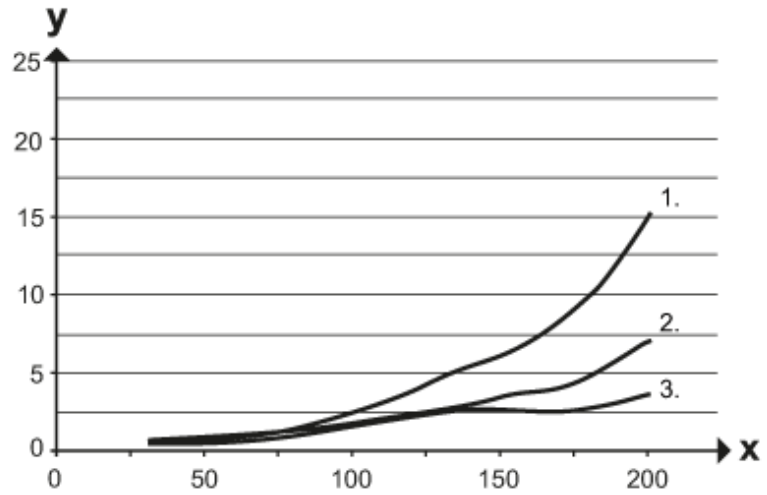
a: sensor  
b: object  
c: background  
x: distance sensor/object [mm]  
y: min. distance object/background [mm]



## Diffuse reflection sensor with background suppression

O6H-FNKG/5M

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)