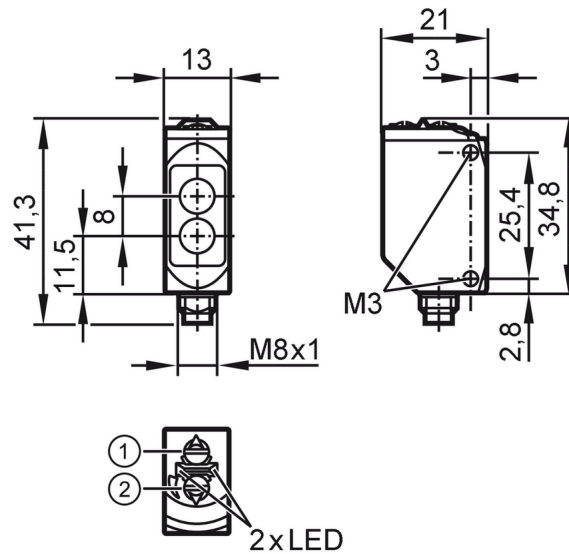


O6H401



Diffuse reflection sensor with background suppression

O6H-FNKG/AS/4P



- 1: output function switch
- 2: potentiometer sensitivity



Product characteristics	
Type of light	red light
Housing	rectangular
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
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)

O6H401



Diffuse reflection sensor with background suppression

O6H-FNKG/AS/4P

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]	706	
UL approval	Ta	-25...40 °C
	Enclosure type	Type 1
	voltage supply	Class 2
	UL approval no.	E001

Mechanical data

Weight [g]	33.9
Housing	rectangular
Dimensions [mm]	41.3 x 13 x 21
Materials	housing: stainless steel (316L/1.4404); plastics: PPSU; Sealing: FKM
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.

Electrical connection

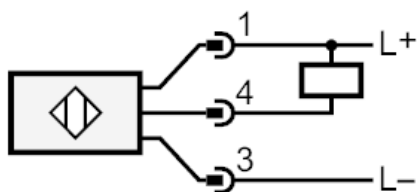
Connector: 1 x M8; coding: A; Contacts: 4



Diffuse reflection sensor with background suppression

O6H-FNKG/AS/4P

Connection



Diagrams and graphs



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

O6H401



Diffuse reflection sensor with background suppression

O6H-FNKG/AS/4P

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)