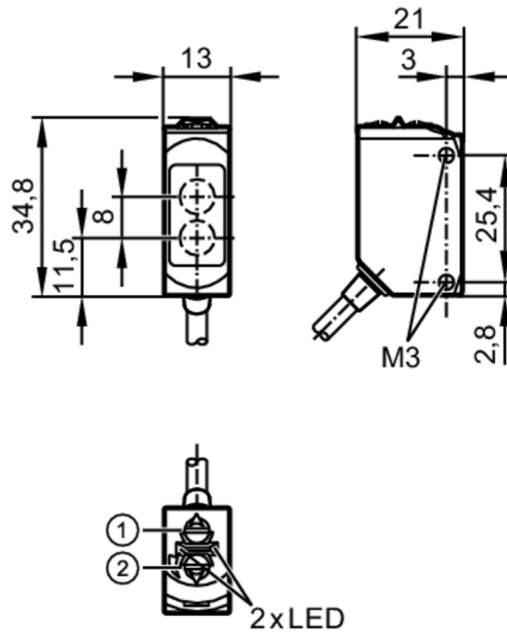


O6H301



Diffuse reflection sensor with background suppression

O6H-FPKG/0,30m/US



- 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

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		PNP
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

O6H301



Diffuse reflection sensor with background suppression

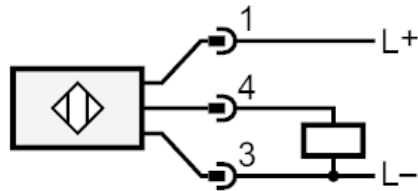
O6H-FPKG/0,30m/US

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	UL Approval no.	E006
Mechanical data		
Weight [g]		51.4
Housing		rectangular
Materials		housing: stainless steel (1.4404 / 316L); plastics: PPSU; Sealing: EPDM
Lens material		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		
Cable: 0.3 m, PVC; 3 x 0.25 mm ²		
Connector: 1 x M12; coding: A		

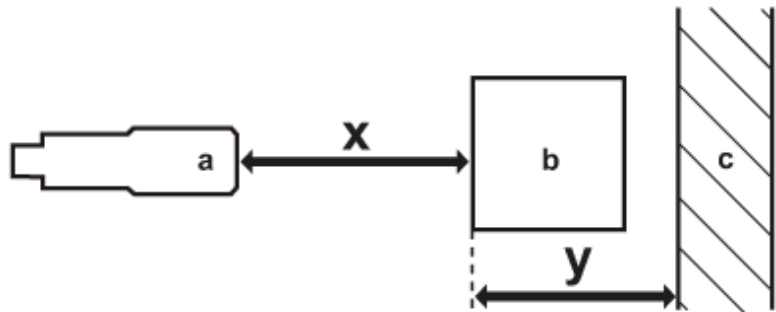
Diffuse reflection sensor with background suppression

O6H-FPKG/0,30m/US

Connection



Diagrams and graphs



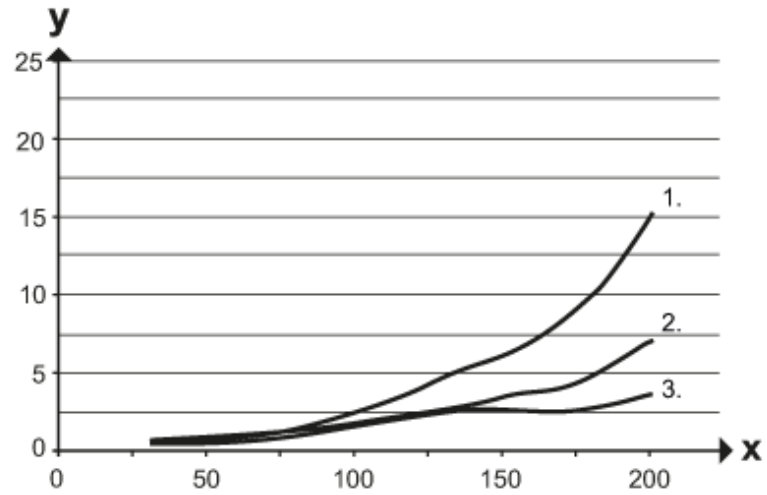
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

O6H-FPKG/0,30m/US

accuracy graph



x: distance sensor/object [mm]

y: min. distance object/background [mm]

1 = object black (6 % remission) , \$Hintergrund_weiss_90_Remission

2 = object grey (18 % remission) , \$Hintergrund_weiss_90_Remission

3 = object white (90 % remission) , \$Hintergrund_weiss_90_Remission