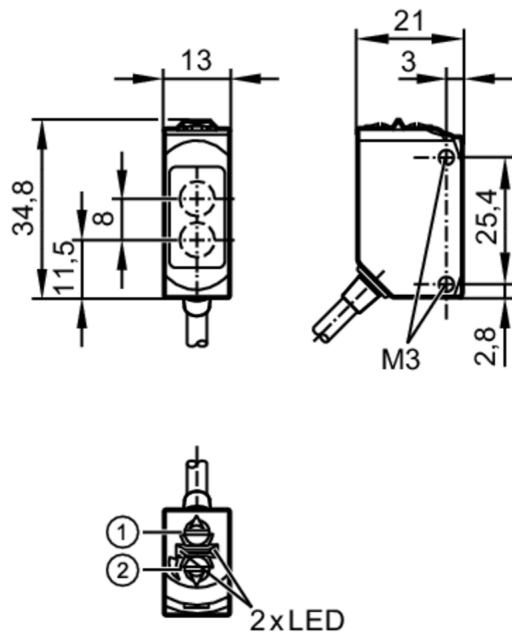


# O6H301



## 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

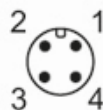


Product characteristics		
Type of light		red light
Housing		rectangular
Application		
Special feature		Background suppression
Function principle		Diffuse reflection sensor
Electrical data		
Operating voltage	[V]	10...30 DC
Current consumption	[mA]	22; ((24 V))
Protection class		III
Reverse polarity protection		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



## Diffuse reflection sensor with background suppression

O6H-FPKG/0,30m/US

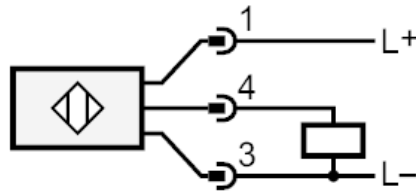
Type of short-circuit protection	pulsed	
Detection zone		
Range [mm]	2...200; (white paper 200 x 200 mm)	
Range on white object (90 % remission) [mm]	2...200	
Range on grey object (18 % remission) [mm]	4...200	
Range on black object (6 % remission) [mm]	8...200	
Range adjustable	yes	
Max. light spot 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 mm²		
Connector: 1 x M12; coding: A		
		



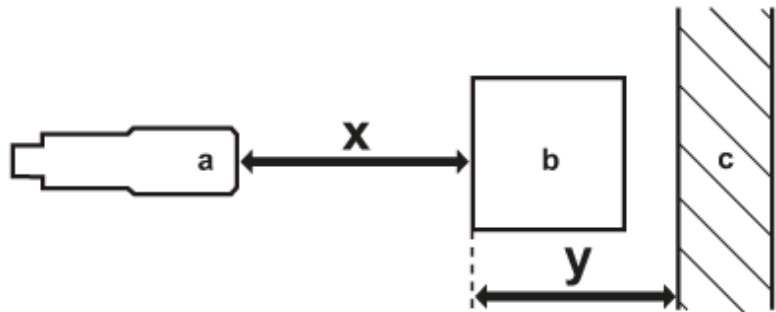
## Diffuse reflection sensor with background suppression

O6H-FPKG/0,30m/US

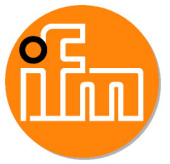
### Connection



### Diagrams and graphs



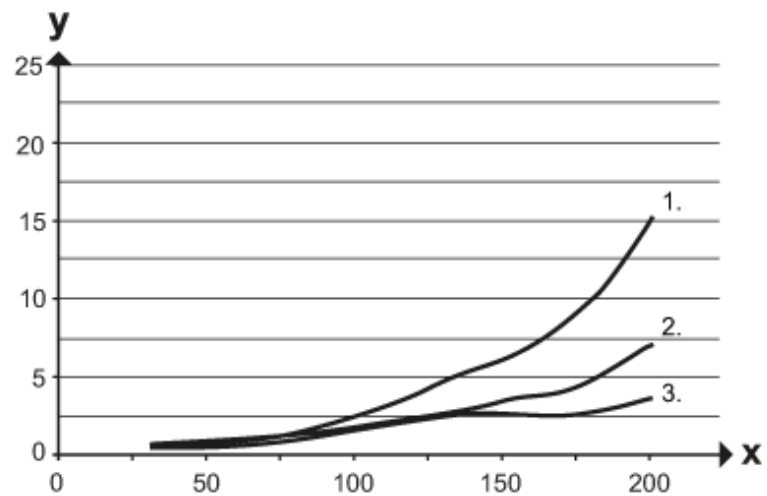
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



## 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) , background white (90 % remission)

2 = object grey (18 % remission) , background white (90 % remission)

3 = object white (90 % remission) , background white (90 % remission)