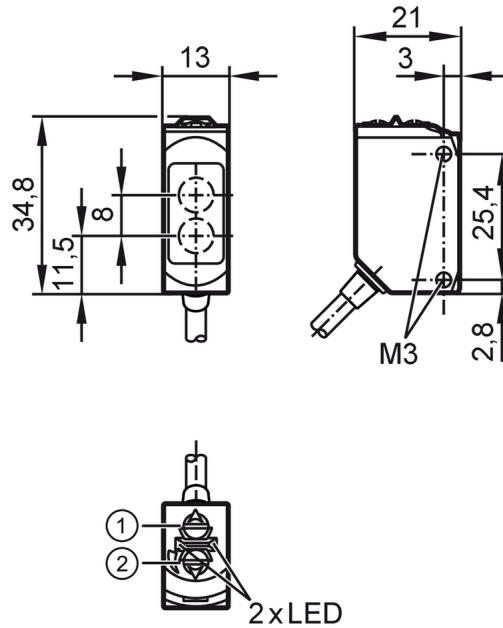


# O6H301



## 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
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	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

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Type of short-circuit protection		pulsed
<b>Detection zone</b>		
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
<b>Operating conditions</b>		
Ambient temperature [°C]		-25...80
Protection		IP 65; IP 67; IP 68; IP 69K
<b>Tests / approvals</b>		
EMC	EN 60947-5-2	
MTTF [years]		708
UL approval	Ta	-25...40 °C
	Enclosure type	Type 1
	power supply	Class 2
	UL approval no.	E006
<b>Mechanical data</b>		
Weight [g]		51.4
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)
<b>Displays / operating elements</b>		
Display	switching status	1 x LED, yellow
	operation	1 x LED, green
<b>Remarks</b>		
Remarks		operating voltage "supply class 2" according to cULus
Pack quantity		1 pcs.
<b>Electrical connection</b>		
Cable: 0.3 m, PVC; 3 x 0.25 mm <sup>2</sup>		
Connector: 1 x M12; coding: A; Contacts: 4		
		

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## Connection



## Diagrams and graphs



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

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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)