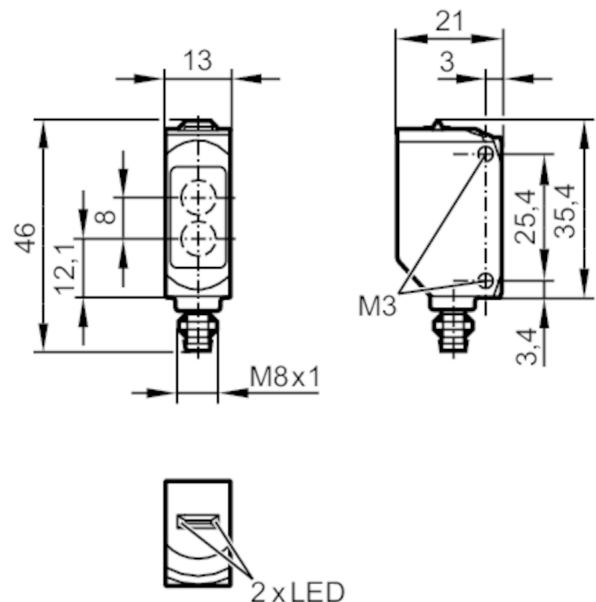


O6H214



Diffuse reflection sensors with background suppression

O6H-HNKG/AS/4P



Receiver in upper lens
transmitter in lower lens



Product characteristics		
Type of light		red light
Housing		rectangular
Application		
System		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		NPN
Output function		light-on mode
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		yes (non-latching)

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Monitoring range		
Range	[mm]	< 200; (white paper 200 x 200 mm)
Range on white object (90 % remission)	[mm]	< 200
Range on grey object (18 % remission)	[mm]	4...200
Range on black object (6 % remission)	[mm]	8...200
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
Tests / approvals		
EMC	EN 60947-5-2	
MTTF	[years]	1113
UL approval	Ta	-25...40 °C
	Enclosure type	Type 1
	voltage supply	Class 2
	UL approval number	E001
Mechanical data		
Weight	[g]	14.4
Housing		rectangular
Dimensions	[mm]	46 x 13 x 21
Material		housing: ABS; PPSU
Lens material		PMMA
Lens alignment		Side sensing
Tightening torque	[Nm]	0.5
Displays / operating elements		
Display	Switching status	1 x LED, yellow
	Power	1 x LED, green
Remarks		
Remarks		cULus - Class 2 source required
Pack quantity		1 pcs.
Electrical connection		
Connector: 1 x M8; coding: A; Locking: brass, coated		



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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]

**Diffuse reflection sensors with background suppression**

O6H-HNKG/AS/4P

Background suppression chart



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)