

O6H304



Diffuse reflection sensor with background suppression

O6H-FNKG



- 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		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



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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.	E003
Mechanical data		
Weight [g]	81.3	
Housing	rectangular	
Materials	housing: stainless steel (316L/1.4404); 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.	



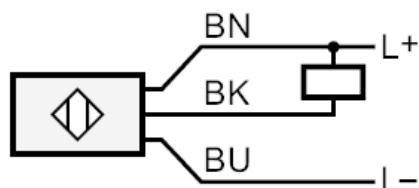
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Electrical connection

Cable: 2 m, PVC; 3 x 0.25 mm²

Connection



Core colours :
 BN = brown
 BK = black
 BU = blue

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)