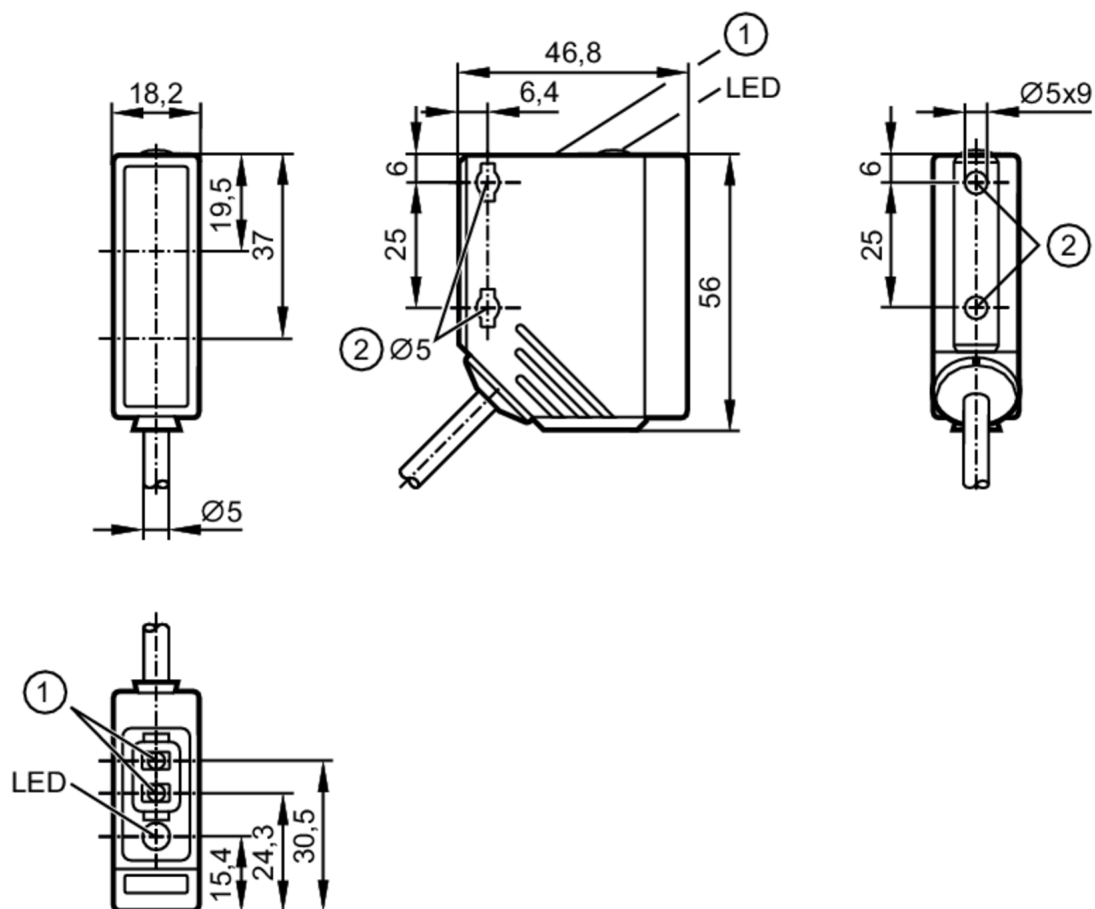


Diffuse reflection sensors with background suppression

O5H-FPKG/2M



- 1 Programming buttons
 2 When a M5 mounting screw is used, the max. tightening torque is 2 Nm.
 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...36 DC
Current consumption	[mA]	25
Protection class		II
Reverse polarity protection		yes
Type of light		red light
Wave length	[nm]	624

Outputs

Electrical design	PNP
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Diffuse reflection sensors with background suppression

O5H-FPKG/2M

Output function	light-on/dark-on mode; (programmable)	
Max. voltage drop switching output DC [V]	2.5	
Permanent current rating of switching output DC [mA]	200	
Switching frequency DC [Hz]	1000	
Short-circuit protection	yes	
Type of short-circuit protection	yes (non-latching)	
Overload protection	yes	
Monitoring range		
Range [mm]	50...1800; (white paper 200 x 200 mm 90 % remission)	
Range on white object (90 % remission) [mm]	50...1800	
Range on grey object (18 % remission) [mm]	50...900	
Range on black object (6 % remission) [mm]	50...600	
Range adjustable	yes	
Max. light spot diameter [mm]	50	
Light spot dimensions refer to	Range	
Background suppression available	yes	
Operating conditions		
Ambient temperature [°C]	-25...60	
Protection	IP 67	
Tests / approvals		
EMC	EN 60947-5-2	
MTTF [years]	360	
Mechanical data		
Weight [g]	111.55	
Housing	rectangular	
Dimensions [mm]	56 x 18.2 x 46.8	
Material	housing: PA; Front framework: stainless steel; operator interface: TPU (urethane)	
Lens material	PMMA	
Lens alignment	Side sensing	
Displays / operating elements		
Display	Switching status	1 x LED, yellow
Teach function	yes	
Electronic lock	yes	
Remarks		
Remarks	cULus - Class 2 source required	
Pack quantity	1 pcs.	

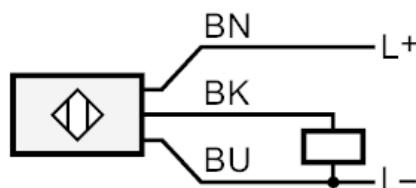
Diffuse reflection sensors with background suppression

O5H-FPKG/2M

Electrical connection

Cable: 2 m, PUR; 3 x 0.34 mm²

Connection



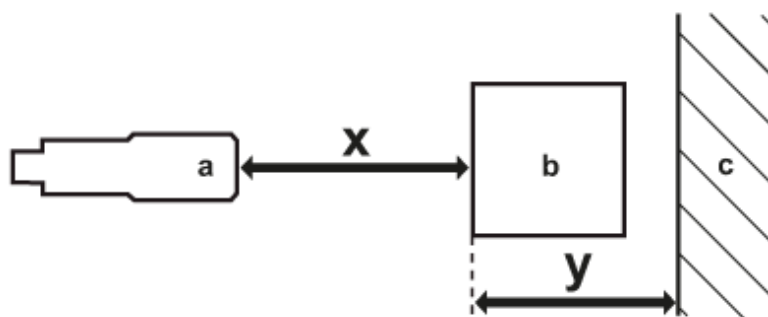
Core colors :

BK = black

BN = brown

BU = blue

Diagrams and graphs



a: sensor

b: object

c: background

x: distance sensor/object [mm]

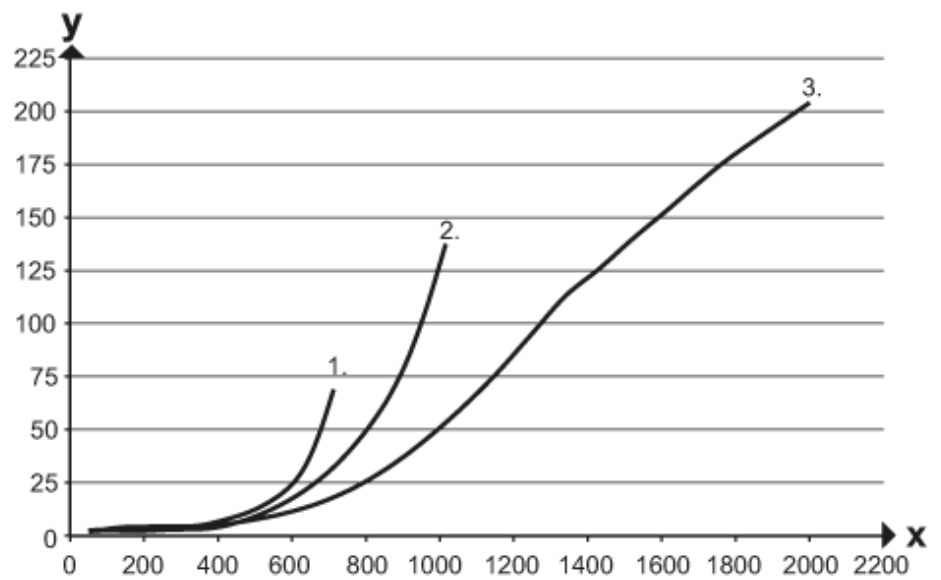
y: min. distance object/background [mm]



Diffuse reflection sensors with background suppression

O5H-FPKG/2M

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)