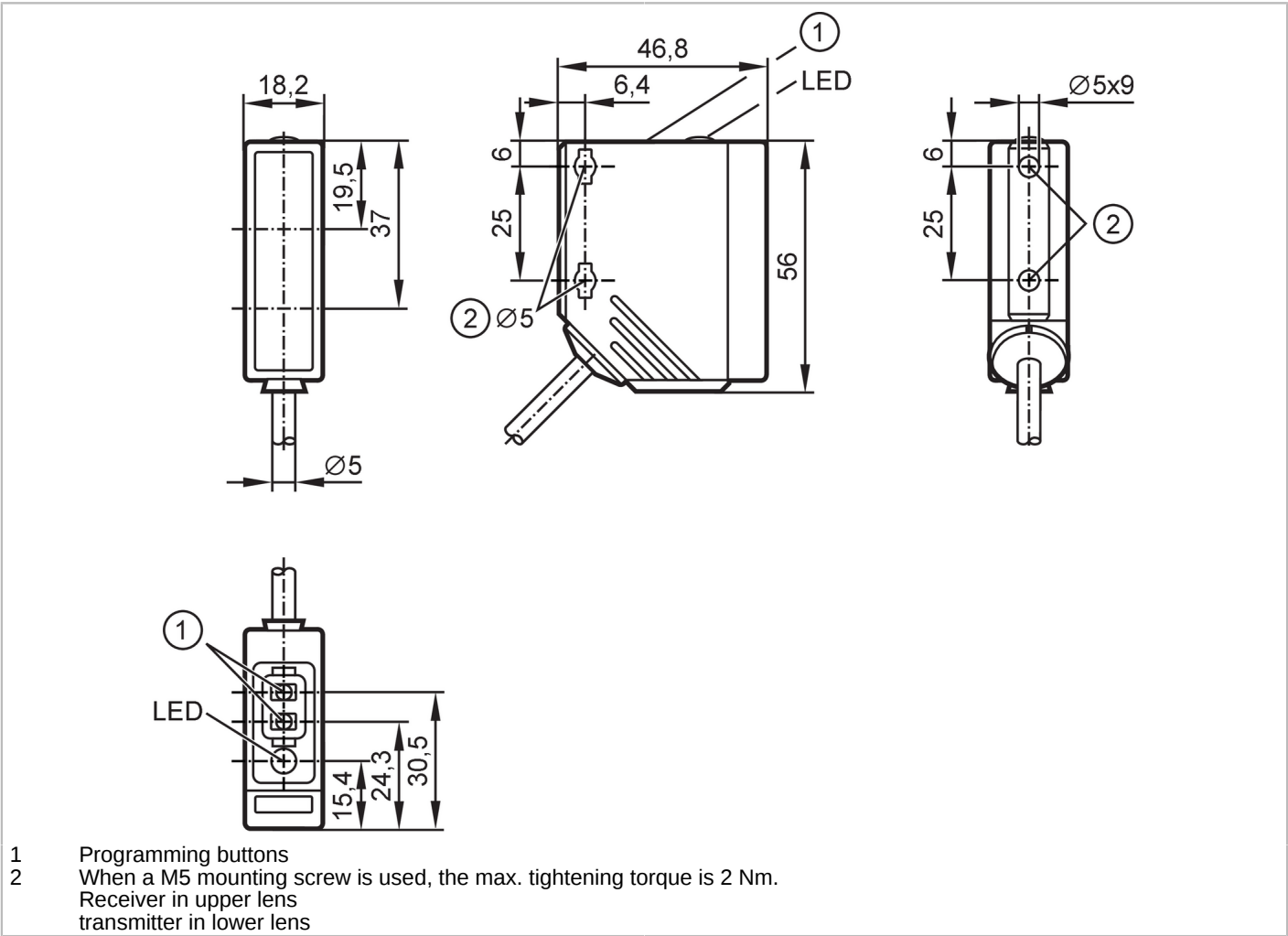


O5H503



Diffuse reflection sensors with background suppression

O5H-FPKG/2M



Product characteristics

Type of light	red light
Housing	rectangular

Application

Special feature	Background suppression
Function principle	Diffuse reflection sensor
Application	Industrial applications

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		front lens: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

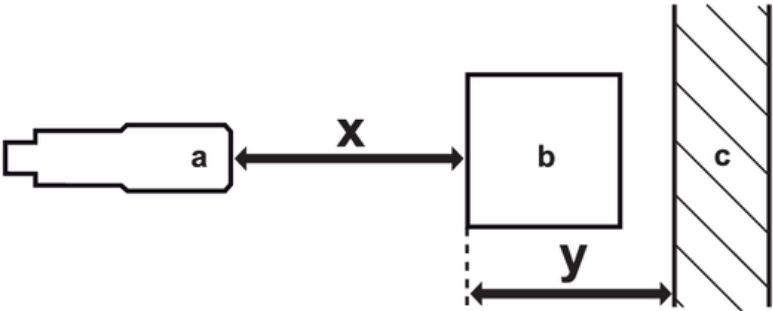
Cable: 2 m, PUR; 3 x 0.34 mm²

Connection



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

Diagrams and graphs



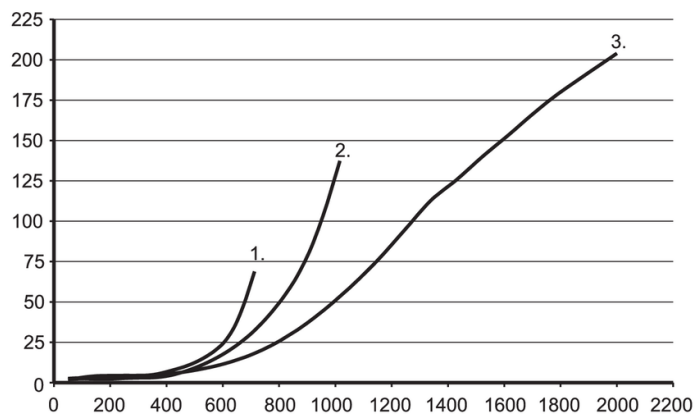
a: sensor
b: object
c: background
x: distance sensor/object [mm]
y: min. distance object/background [mm]



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)