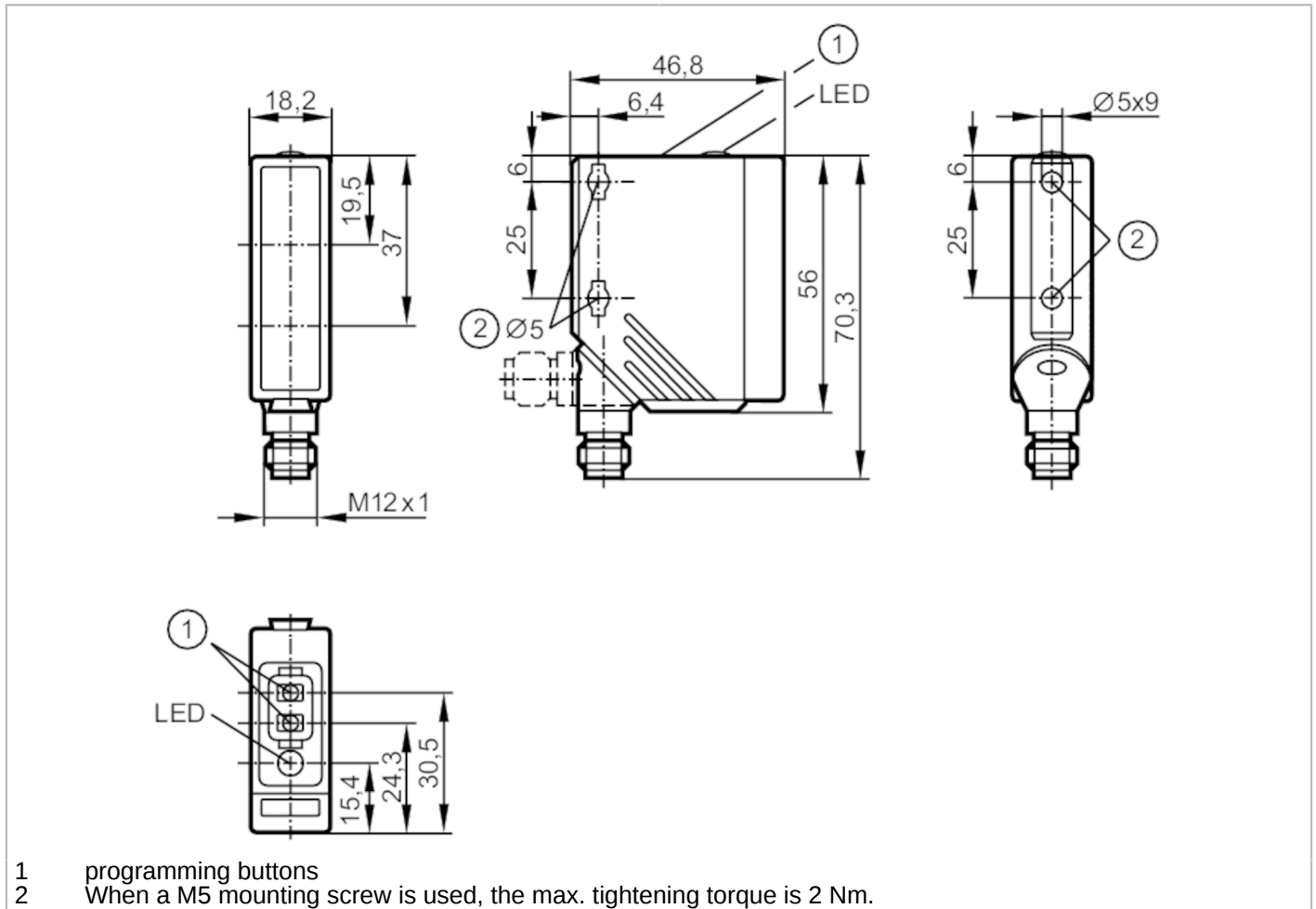


O5H504



Diffuse reflection sensor with background suppression

O5H-FNKG/US100



Product characteristics	
Type of light	red light
Housing	rectangular
Dimensions [mm]	56 x 18.2 x 46.8
Application	
Special feature	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



Diffuse reflection sensor with background suppression

O5H-FNKG/US100

Outputs	
Electrical design	NPN
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	pulsed
Overload protection	yes
Detection zone	
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]	341
Mechanical data	
Weight [g]	67.5
Housing	rectangular
Dimensions [mm]	56 x 18.2 x 46.8
Materials	housing: PA; bezel: stainless steel; operator interface: TPU
Lens material	PMMA
Lens alignment	side lens
Displays / operating elements	
Display	switching status 1 x LED, yellow
Teach function	yes
Electronic lock	yes
Remarks	
Remarks	operating voltage "supply class 2" according to cULus
Pack quantity	1 pcs.

Diffuse reflection sensor with background suppression

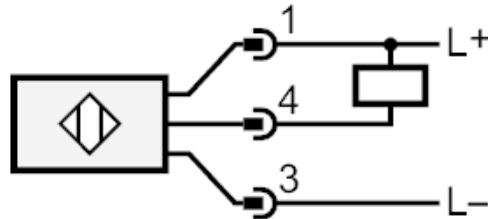
O5H-FNKG/US100

Electrical connection

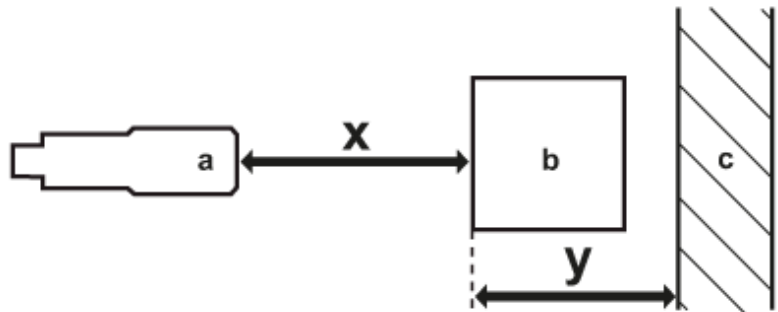
Connector: 1 x M12



Connection



Diagrams and graphs



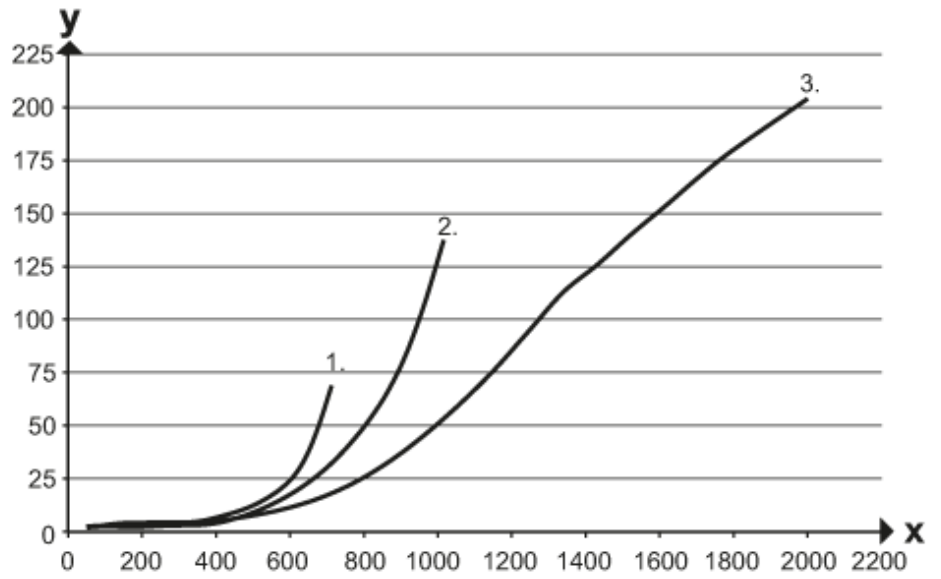
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

O5H-FNKG/US100

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)