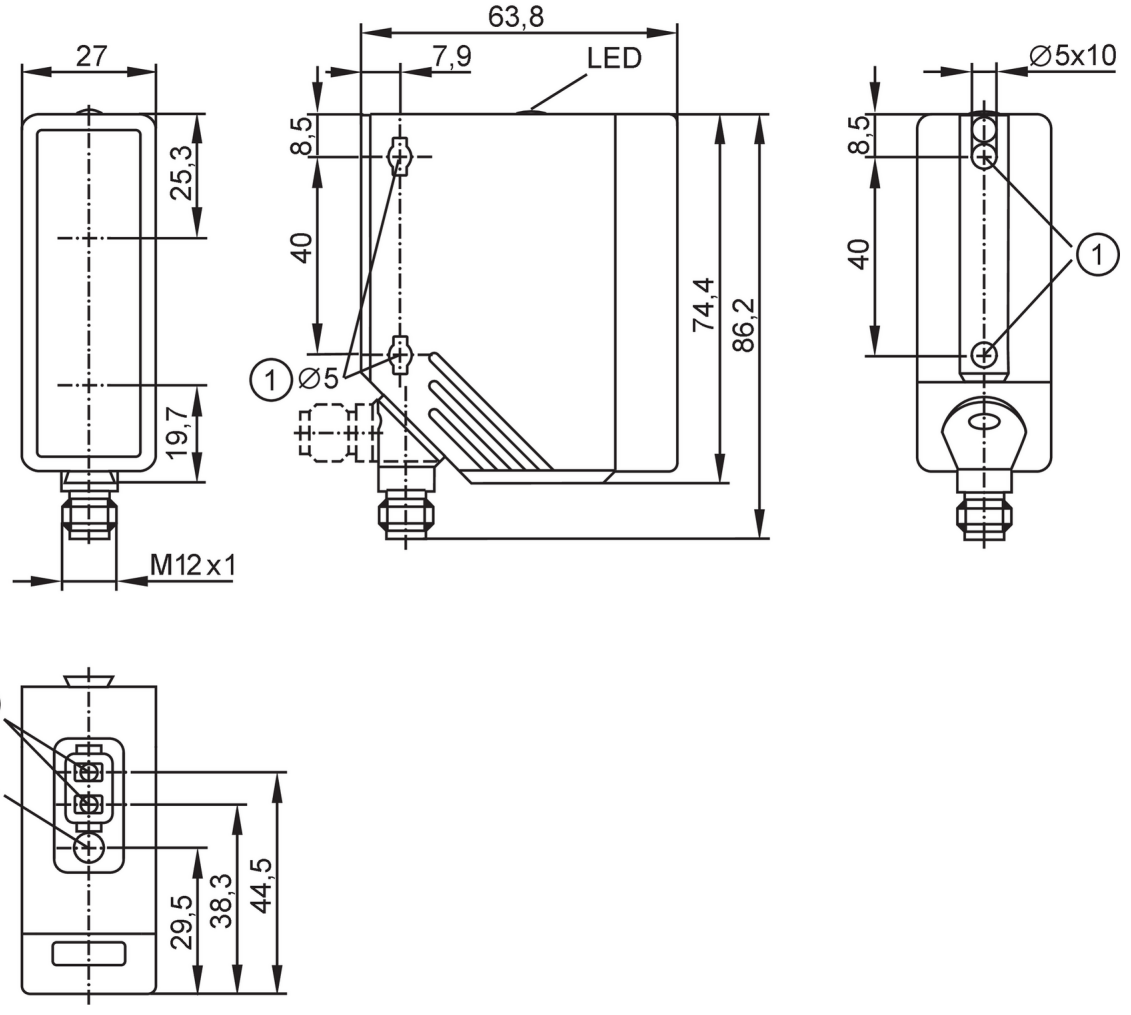
O4H500

Diffuse reflection sensor with background suppression

O4H-FPKG/US100



1 fixing hole
2 programming buttons
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
Application		Industrial applications / factory automation
Electrical data		
Operating voltage	[V]	10...36 DC; ("supply class 2" to cULus)
Current consumption	[mA]	25
Protection class		II
Reverse polarity protection		yes
Type of light		red light
Wave length	[nm]	624

O4H500

Diffuse reflection sensor with background suppression

O4H-FPKG/US100

Outputs		
Electrical design		PNP
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]	100...2600; (white paper 200 x 200 mm 90% remission)
Range on white object (90 % remission)	[mm]	100...2600
Range on grey object (18 % remission)	[mm]	100...1300
Range on black object (6 % remission)	[mm]	100...900
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]	355
Mechanical data		
Weight	[g]	126.5
Housing		rectangular
Dimensions	[mm]	74.4 x 27 x 63.8
Materials		operator interface: TPE; housing: PA; bezel: stainless steel
Lens material		front pane:PMMA
Lens alignment		side lens
Fixing hole		
Tightening torque	[Nm]	< 2; (when using a mounting screw M5)
Displays / operating elements		
Display		switching status: 1 x LED, yellow
Teach function		yes
Electronic lock		yes
Remarks		
Pack quantity		1 pcs.

O4H500

Diffuse reflection sensor with background suppression

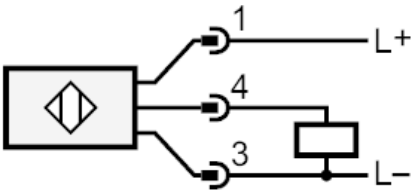
O4H-FPKG/US100

Electrical connection

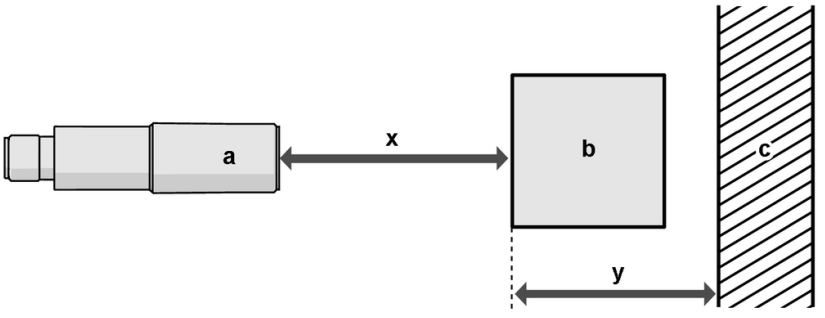
Connector: 1 x M12; coding: A; Contacts: 4



Connection



Diagrams and graphs



a: sensor

b: object

c: background

x: distance sensor/object [mm]

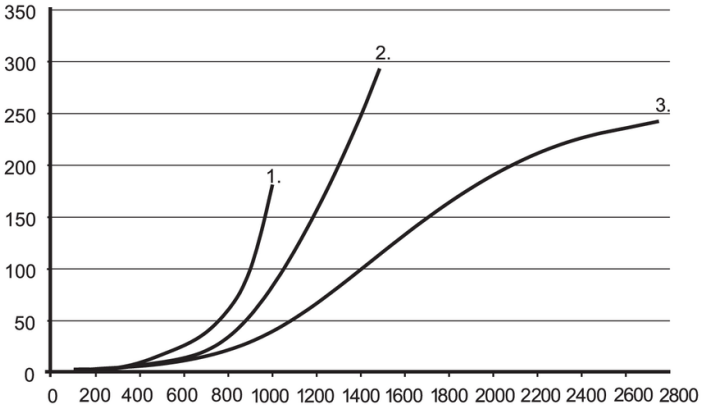
y: min. distance object/background [mm]

O4H500

Diffuse reflection sensor with background suppression

O4H-FPKG/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)