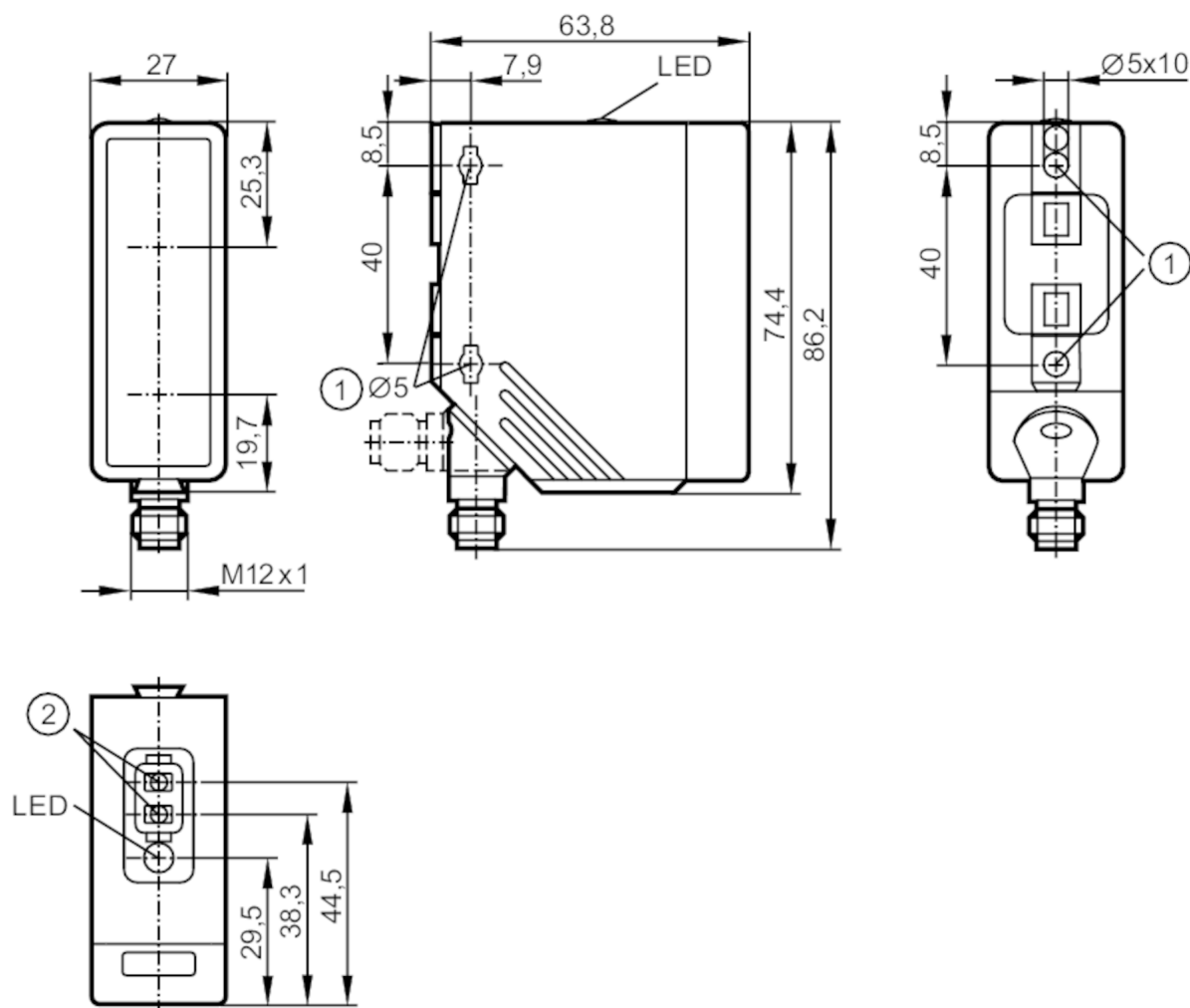


O4H500



Diffuse reflection sensor with background suppression

O4H-FPKG/US100



- 1 When a M5 mounting screw is used, the max. tightening torque is 2 Nm.
 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

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



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	housing: PA; bezel: stainless steel; operator interface: TPE	
Lens material	PMMA	
Lens alignment	side lens	
Displays / operating elements		
Display	switching status	1 x LED, yellow
Teach function	yes	
Electronic lock	yes	
Remarks		
Pack quantity	1 pcs.	

Diffuse reflection sensor with background suppression

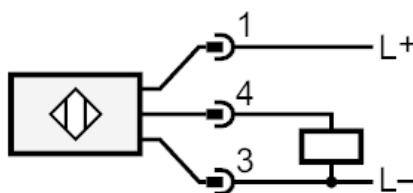
O4H-FPKG/US100

Electrical connection

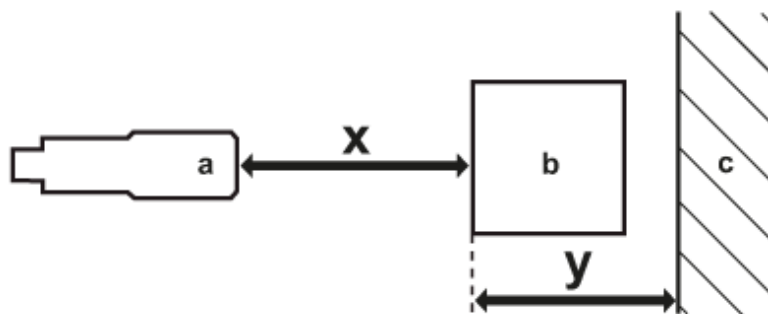
Connector: 1 x M12; coding: A



Connection



Diagrams and graphs



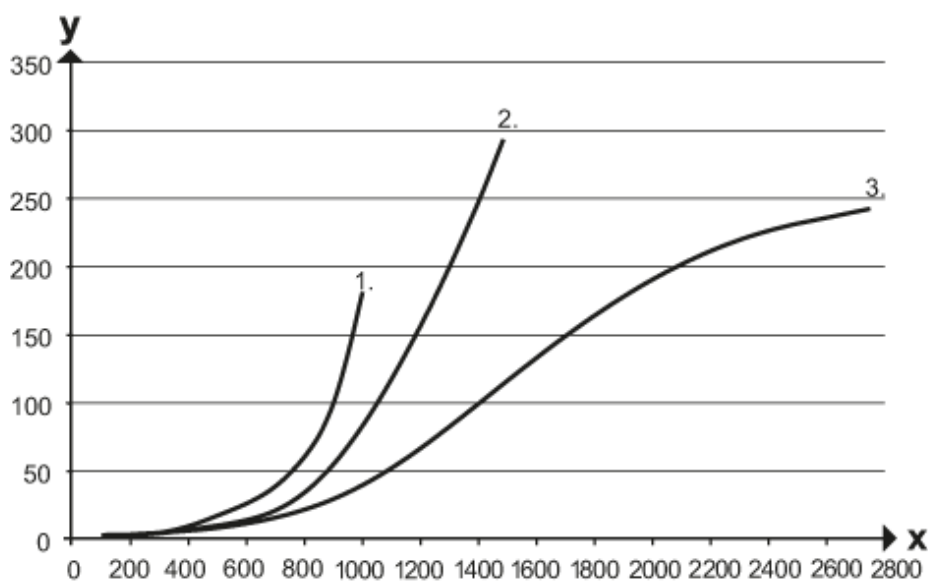
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

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)