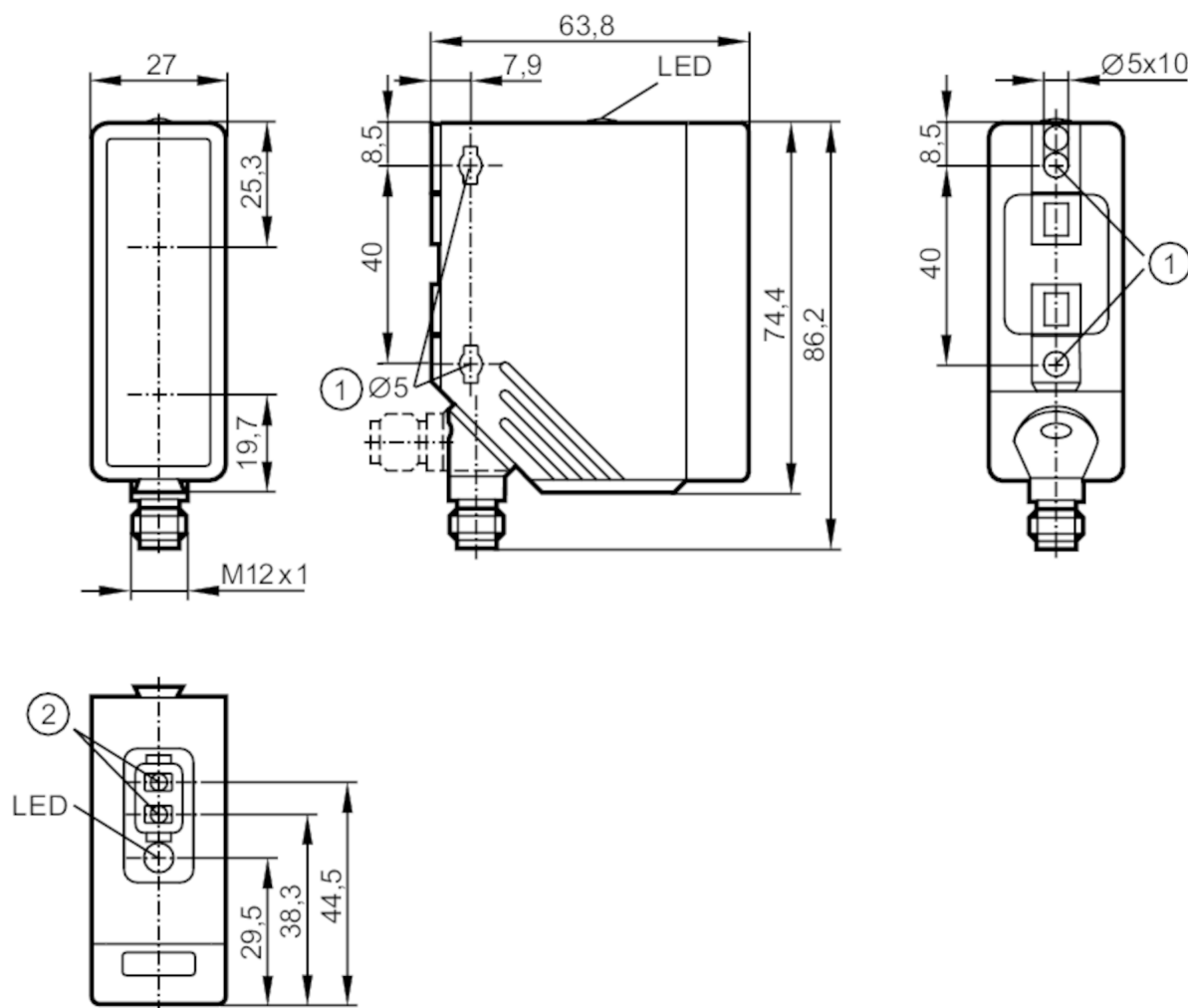


O4H500



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



Application

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

O4H500



Diffuse reflection sensor with background suppression

O4H-FPKG/US100

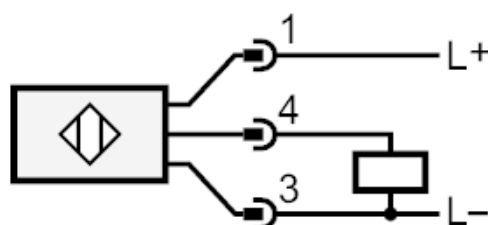
Outputs		
Electrical design	PNP	
Output function	light-on/dark-on mode; (programmable)	
Max. voltage drop switching output DC [V]	2.5	
Permanent current rating of switching output DC [mA]	200	
Switching frequency DC [Hz]	1000	
Short-circuit protection	yes	
Type of short-circuit protection	pulsed	
Overload 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]	126.2	
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.	
Electrical connection		
Connector: 1 x M12		

Diffuse reflection sensor with background suppression

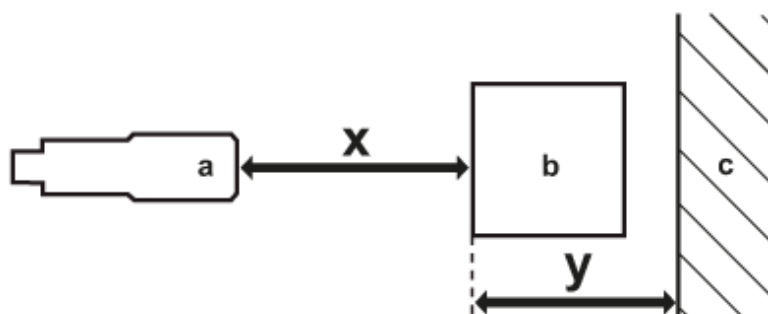
O4H-FPKG/US100



Connection



Diagrams and graphs



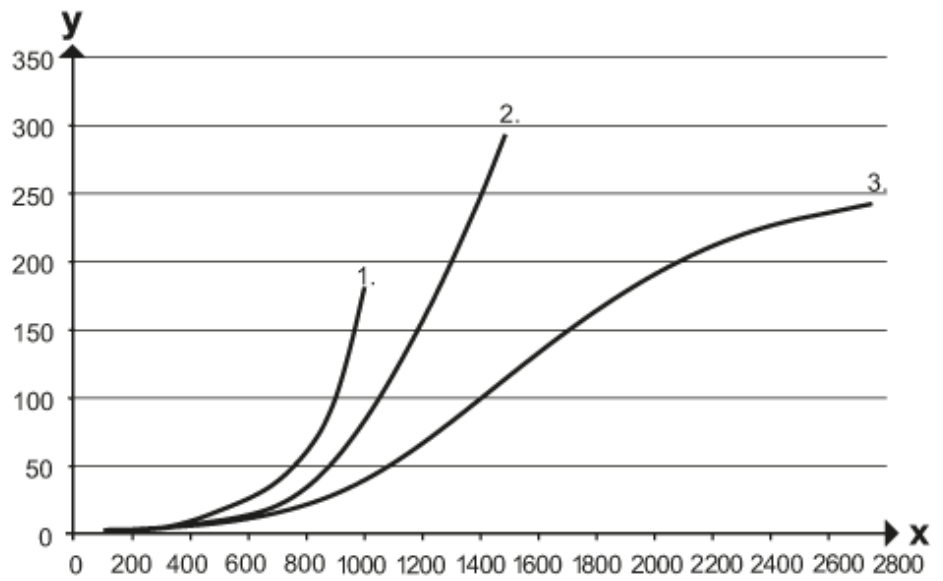
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



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)