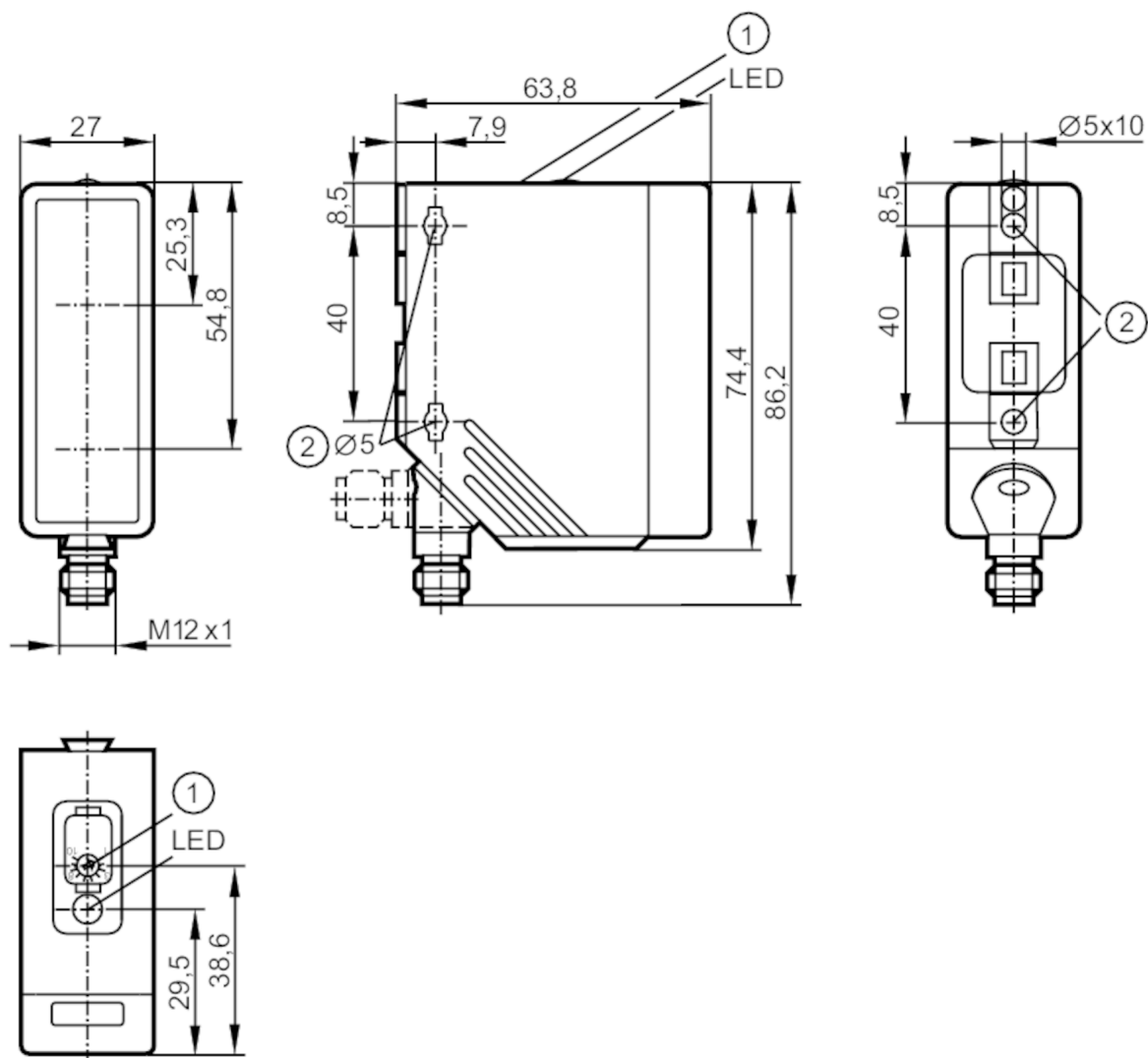


O4H201



Diffuse reflection sensor with background suppression

O4H-DPKG/US100



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



Diffuse reflection sensor with background suppression

O4H-DPKG/US100

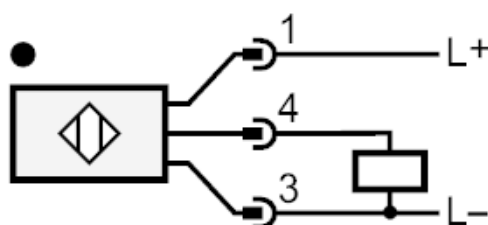
Outputs		
Electrical design	PNP	
Output function	dark-on mode	
Max. voltage drop switching output DC [V]	2.5	
Permanent current rating of switching output DC [mA]	200	
Switching frequency DC [Hz]	1000	
Short-circuit protection	yes	
Type of short-circuit protection	pulsed	
Overload protection	yes	
Detection zone		
Range [mm]	100...2000; (white paper 200 x 200 mm 90 % remission)	
Range on white object (90 % remission) [mm]	100...2000	
Range on grey object (18 % remission) [mm]	100...1100	
Range on black object (6 % remission) [mm]	100...700	
Range adjustable	yes	
Max. light spot diameter [mm]	100	
Light spot dimensions refer to	at maximum range	
Background suppression available	yes	
Operating conditions		
Ambient temperature [°C]	-25...60	
Protection	IP 65	
Tests / approvals		
EMC	EN 60947-5-2	
MTTF [years]	326	
Mechanical data		
Weight [g]	121	
Housing	rectangular	
Dimensions [mm]	74.4 x 27 x 63.8	
Materials	housing: PA; bezel: stainless steel; operator interface: TPE / PC	
Lens material	PMMA	
Lens alignment	side lens	
Displays / operating elements		
Display	switching status	1 x LED, yellow
Operating elements	potentiometer	
Remarks		
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12		

Diffuse reflection sensor with background suppression

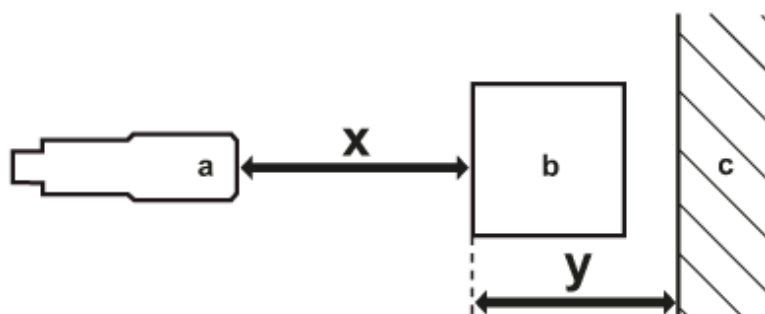
O4H-DPKG/US100



Connection



Diagrams and graphs



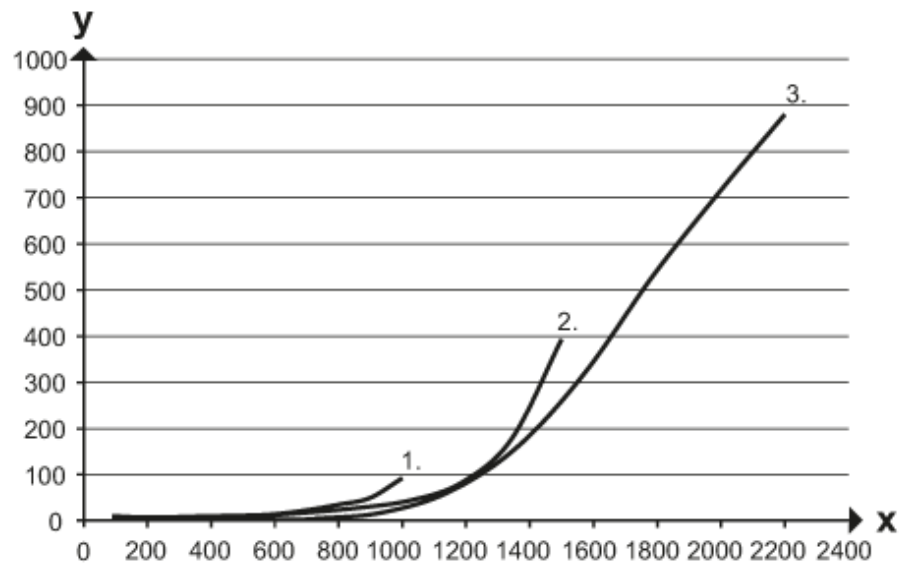
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

O4H-DPKG/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)