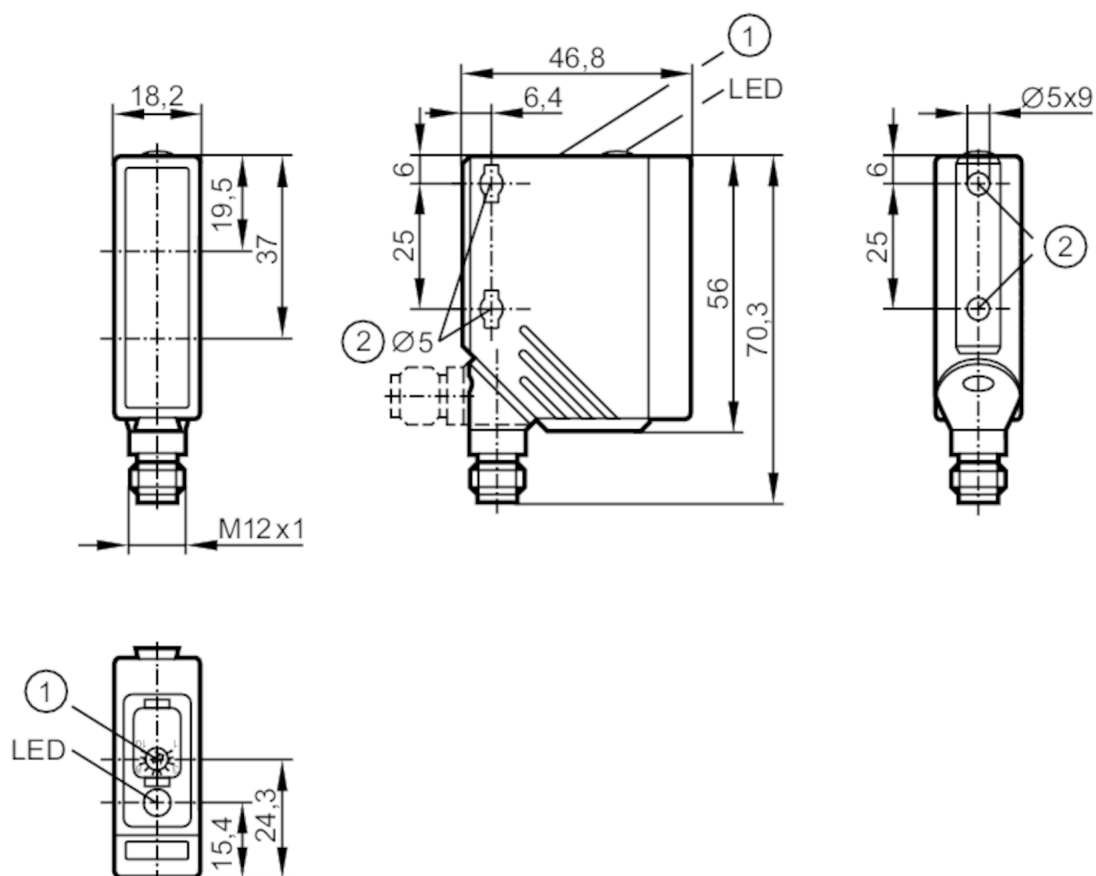


O5H205



Diffuse reflection sensor with background suppression

O5H-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

O5H205



Diffuse reflection sensor with background suppression

O5H-DPKG/US100

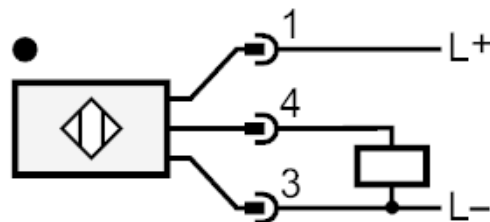
Outputs		
Electrical design		PNP
Output function		dark-on mode
Max. voltage drop switching output DC [V]		2.5
Permanent current rating of switching output DC [mA]		200
Switching frequency DC [Hz]		1000
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Detection zone		
Range [mm]	50...1400; (white paper 200 x 200 mm 90 % remission)	
Range on white object (90 % remission) [mm]	50...1400	
Range on grey object (18 % remission) [mm]	50...800	
Range on black object (6 % remission) [mm]	50...550	
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 65	
Tests / approvals		
EMC	EN 60947-5-2	
MTTF [years]	331	
Mechanical data		
Weight [g]	61.4	
Housing	rectangular	
Dimensions [mm]	56 x 18.2 x 46.8	
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
Operating elements	potentiometer	
Remarks		
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12		

Diffuse reflection sensor with background suppression

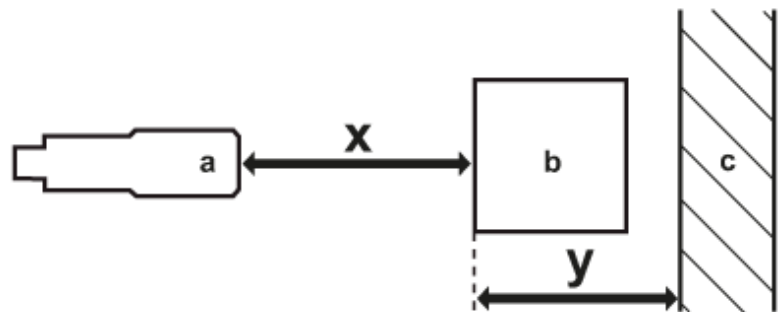
O5H-DPKG/US100



Connection



Diagrams and graphs



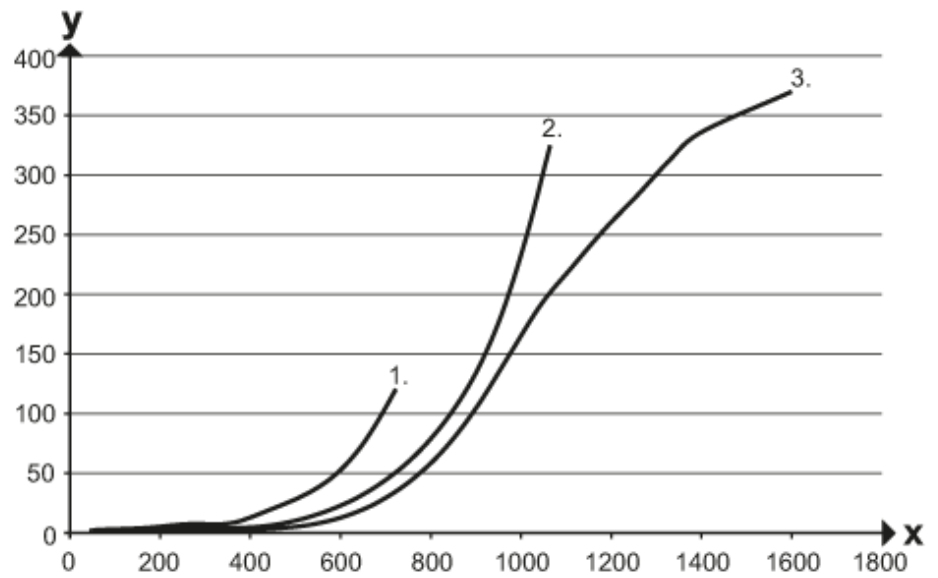
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

O5H-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)