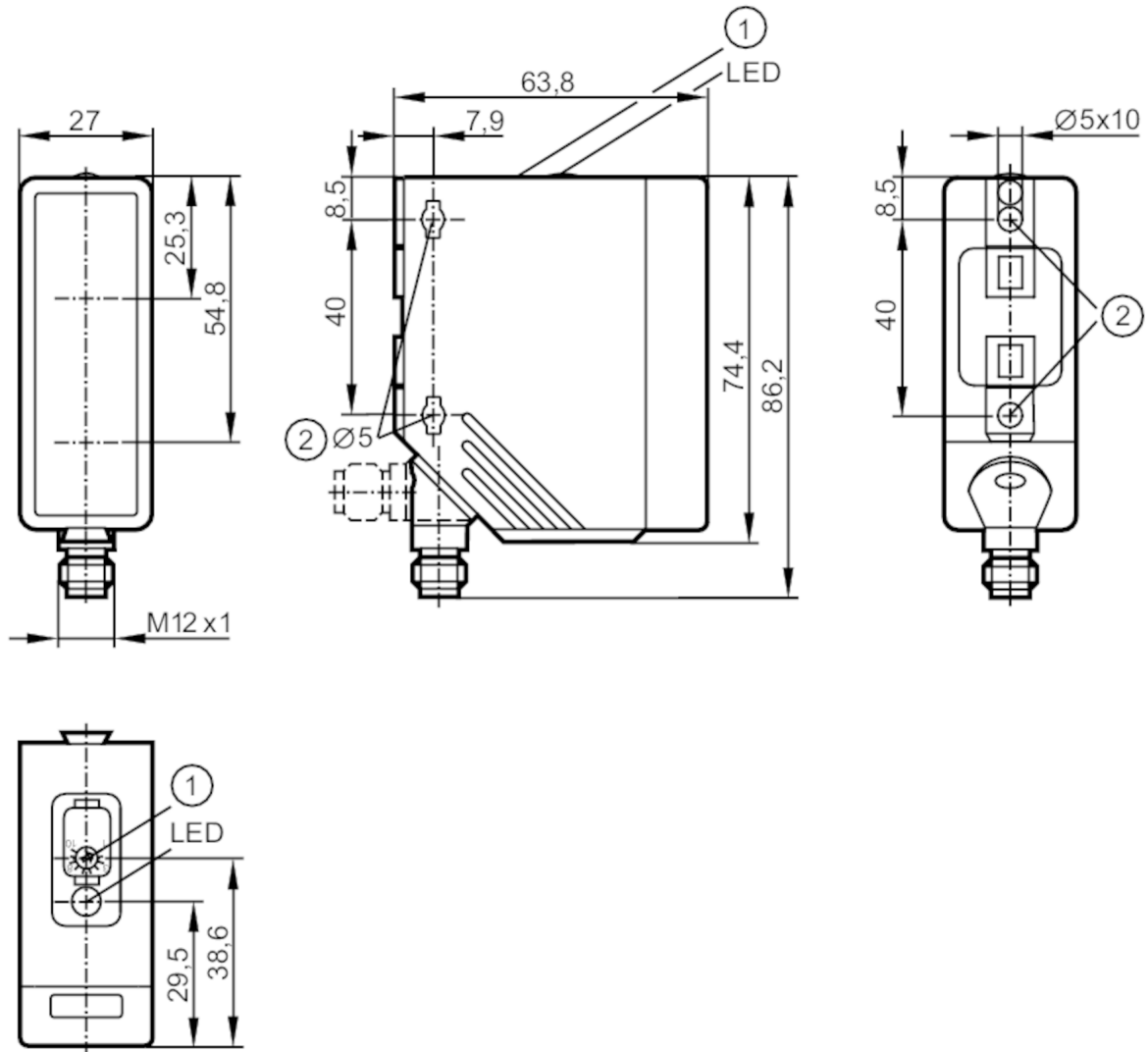


O4H200



Diffuse reflection sensors with background suppression

O4H-HPKG/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



Product characteristics

Type of light	red light
Housing	rectangular

Application

System	Background suppression
Function principle	Diffuse reflection sensor

O4H200



Diffuse reflection sensors with background suppression

O4H-HPKG/US100

Electrical data		
Operating voltage	[V]	10...36 DC; (cULus - Class 2 source required)
Current consumption	[mA]	25
Protection class		II
Reverse polarity protection		yes
Type of light		red light
Wave length	[nm]	624
Outputs		
Electrical design		PNP
Output function		light-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		yes (non-latching)
Overload protection		yes
Monitoring range		
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]	121.5
Housing		rectangular
Dimensions	[mm]	74.4 x 27 x 63.8
Material		housing: PA; Front framework: stainless steel; operator interface: TPE / PC
Lens material		PMMA
Lens alignment		Side sensing

O4H200



Diffuse reflection sensors with background suppression

O4H-HPKG/US100

Displays / operating elements		
Display	Switching status	1 x LED, yellow
Operating elements		potentiometer

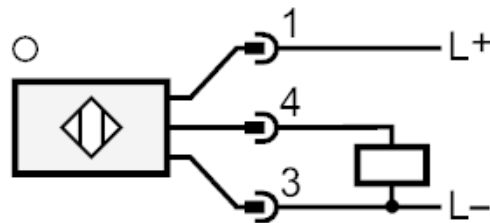
Remarks	
Pack quantity	1 pcs.

Electrical connection

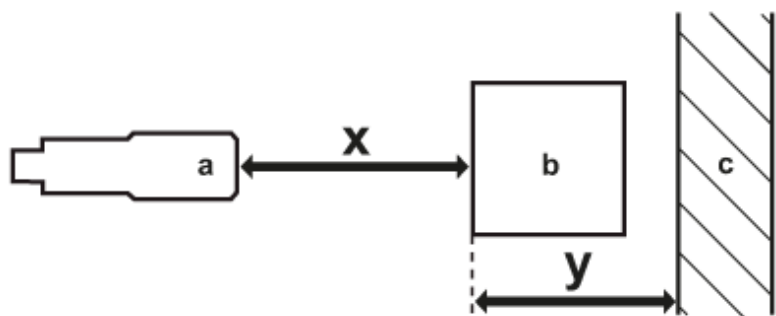
Connector: 1 x M12; coding: A



Connection



Diagrams and graphs



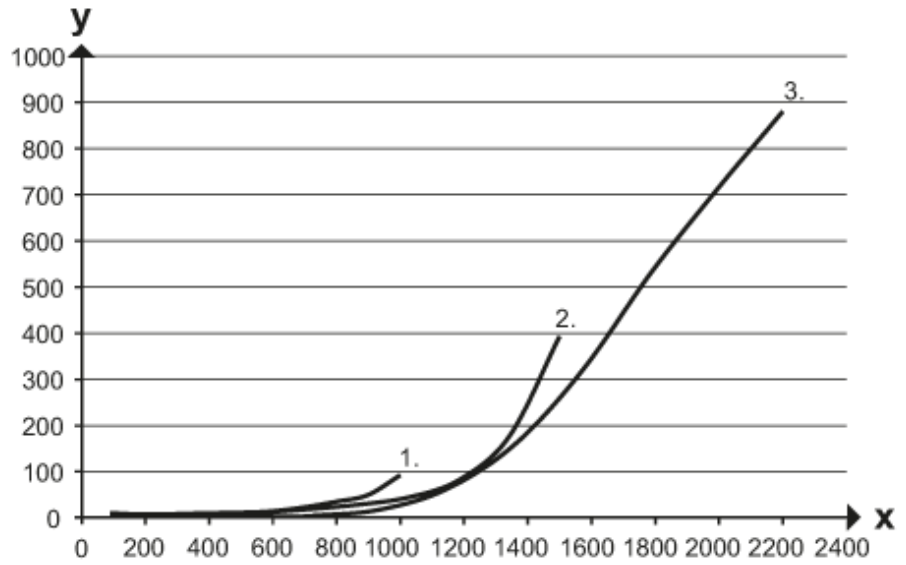
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensors with background suppression

O4H-HPKG/US100

Background suppression chart



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)