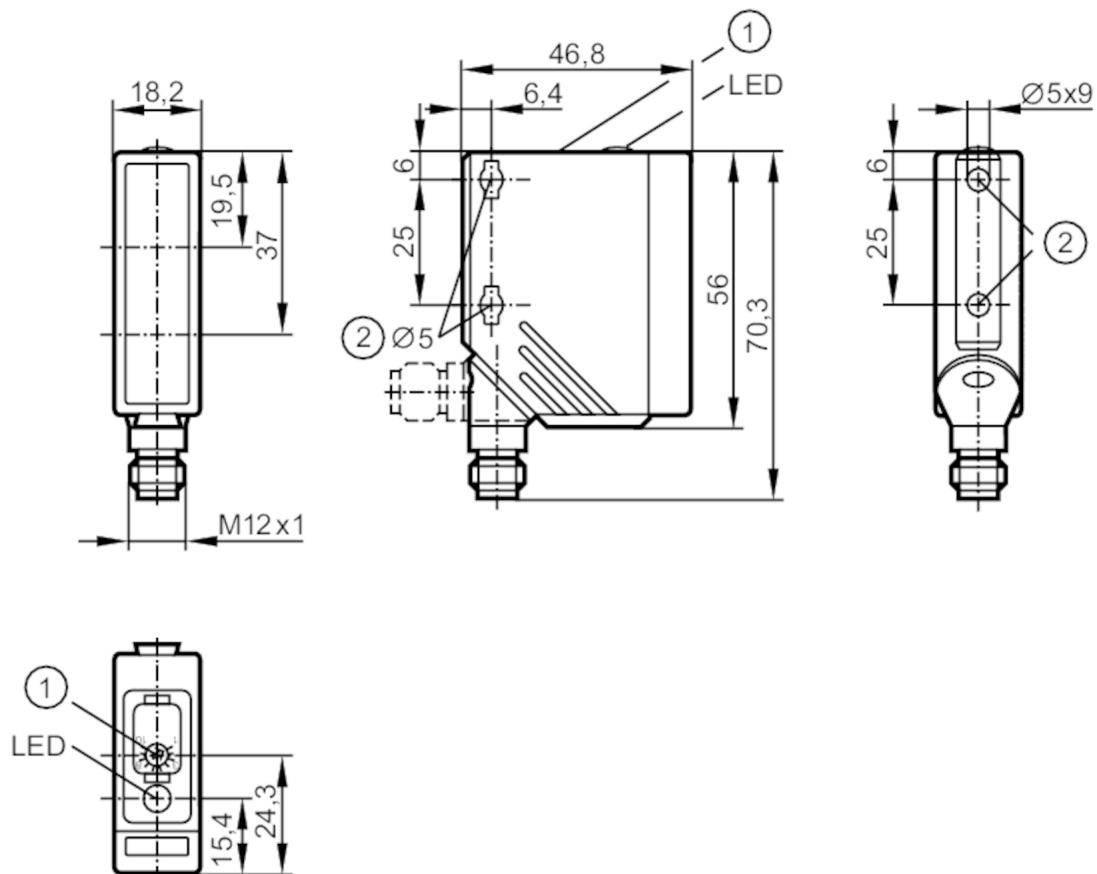


Diffuse reflection sensor with background suppression

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



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

Outputs

Electrical design		PNP
Output function		dark-on mode
Max. voltage drop switching output DC	[V]	2.5



Diffuse reflection sensor with background suppression

O5H-DPKG/US100

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	[ANN]	331

Mechanical data		
Weight	[g]	63
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.

Diffuse reflection sensor with background suppression

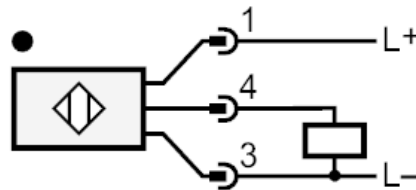
O5H-DPKG/US100

Electrical connection

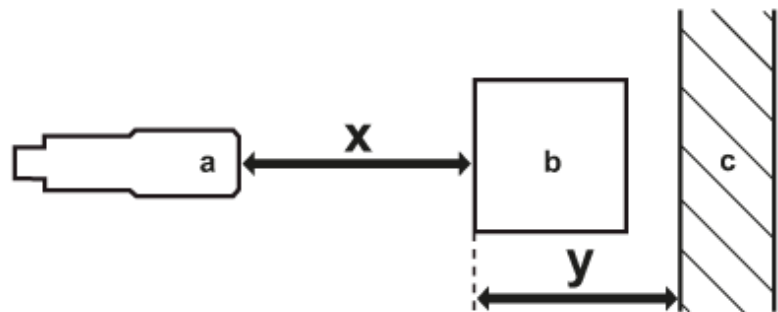
Connector: 1 x M12; coding: A



Connection



Diagrams and graphs



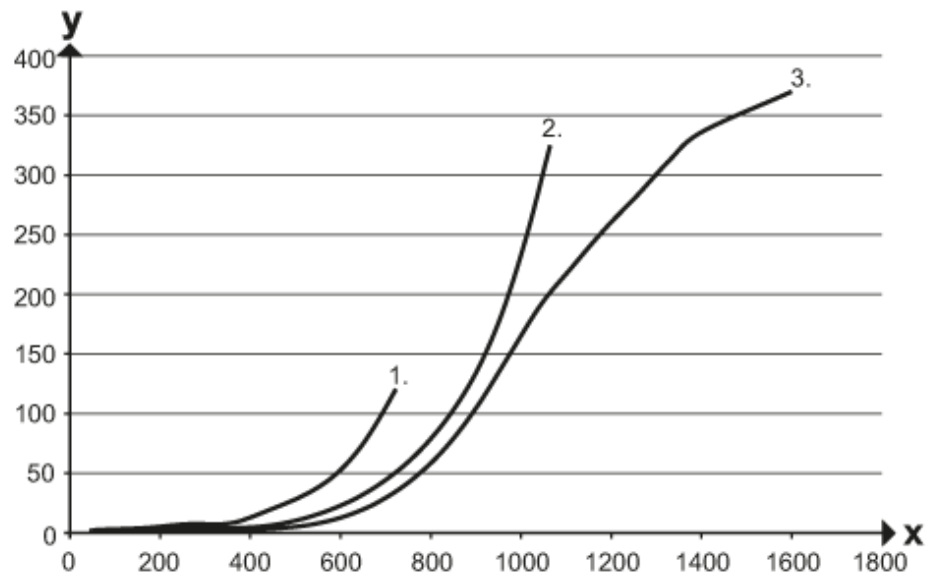
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

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)