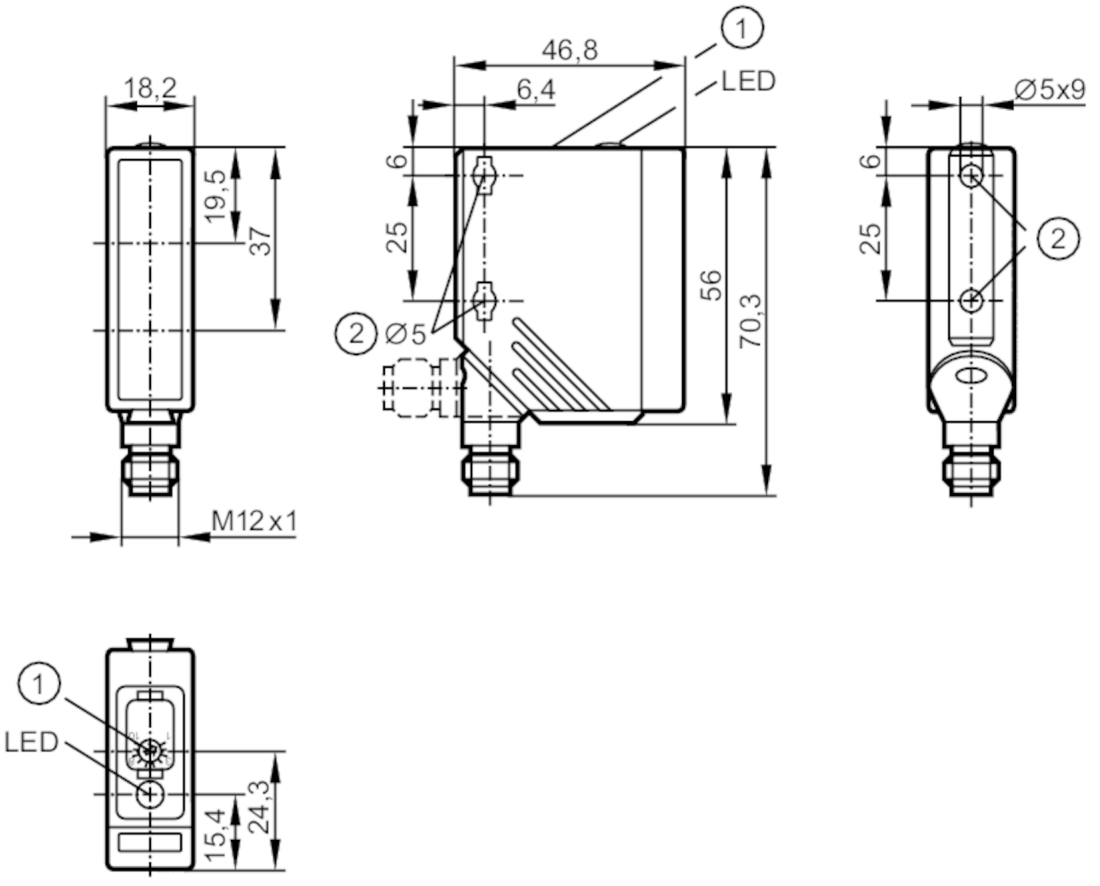
O5H200

Diffuse reflection sensor with background suppression

O5H-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		
Special feature		Background suppression
Function principle		Diffuse reflection sensor
Electrical data		
Operating voltage	[V]	10...36 DC
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

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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]	62.5	
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			
Remarks		operating voltage "supply class 2" according to cULus	
Pack quantity		1 pcs.	

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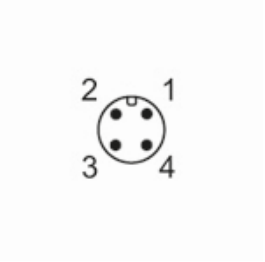
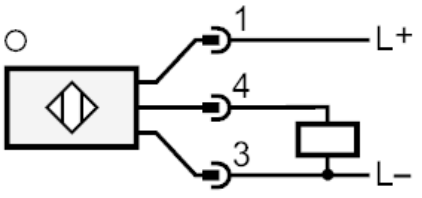
Electrical connection

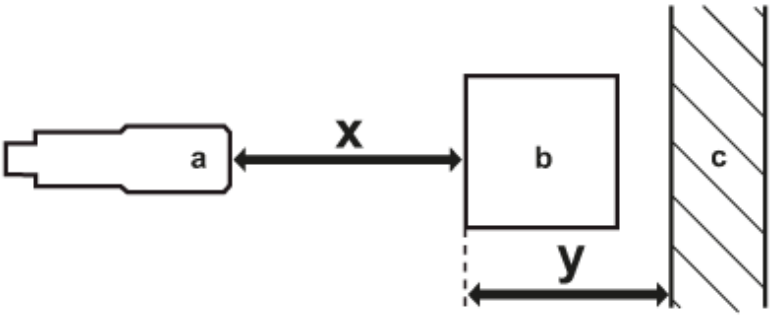
Connector: 1 x M12; coding: A



Connection



Diagrams and graphs



a: sensor

b: object

c: background

x: distance sensor/object [mm]

y: min. distance object/background [mm]

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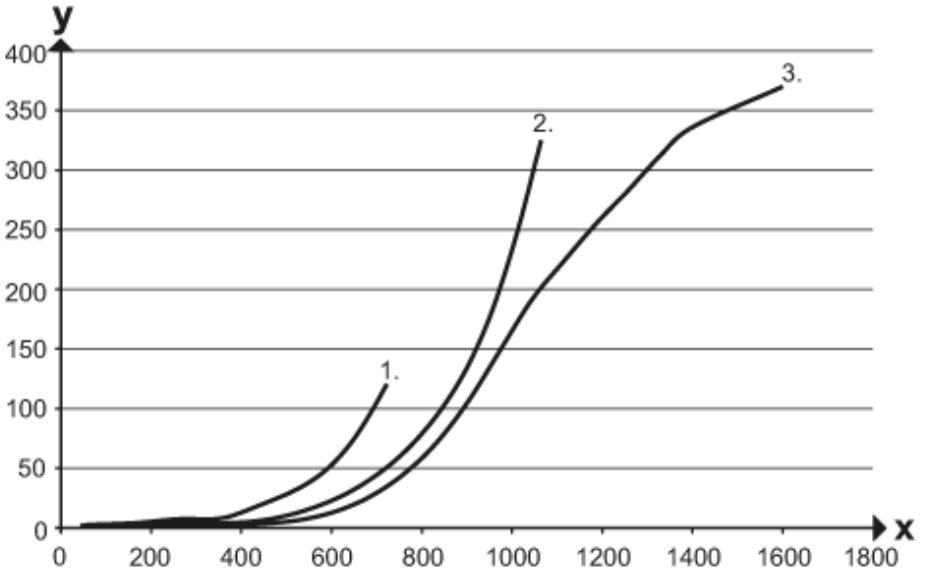
accuracy graph



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)