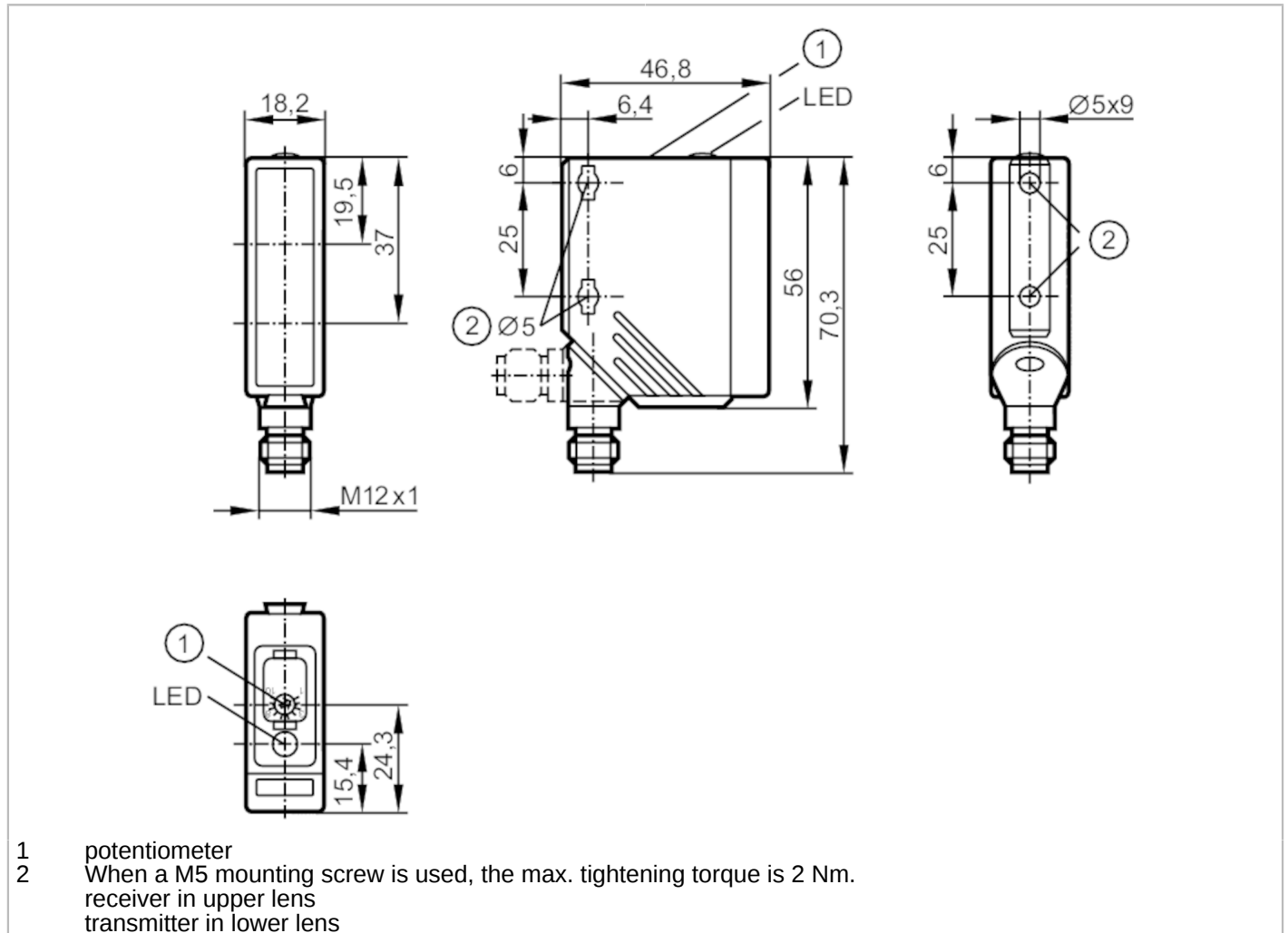


# O5H201



## Diffuse reflection sensor with background suppression

O5H-HNKG/US100



### Application

Function principle	Diffuse reflection sensor
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### 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

# O5H201



## Diffuse reflection sensor with background suppression

O5H-HNKG/US100

Outputs		
Electrical design		NPN
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		pulsed
Overload protection		yes
Detection zone		
Range	[mm]	50...1400; (white paper 200 x 200 mm 90 % remission)
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]	336
Mechanical data		
Weight	[g]	61.8
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.
Electrical connection		
Connector: 1 x M12		

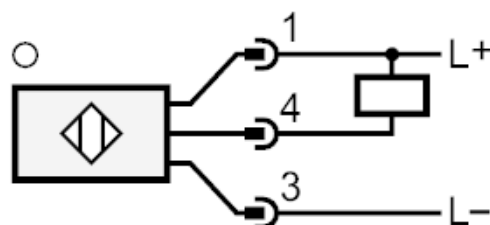


## Diffuse reflection sensor with background suppression

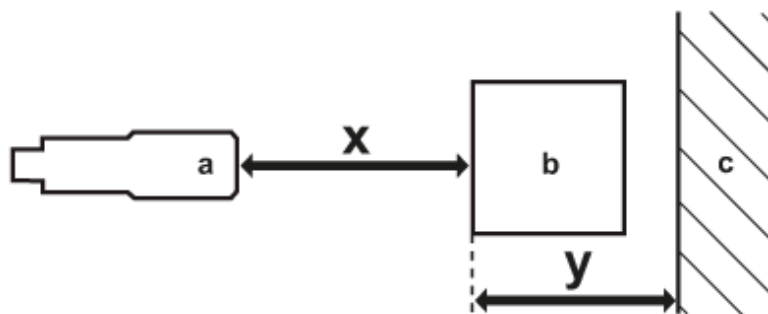
O5H-HNKG/US100



### Connection



### Diagrams and graphs



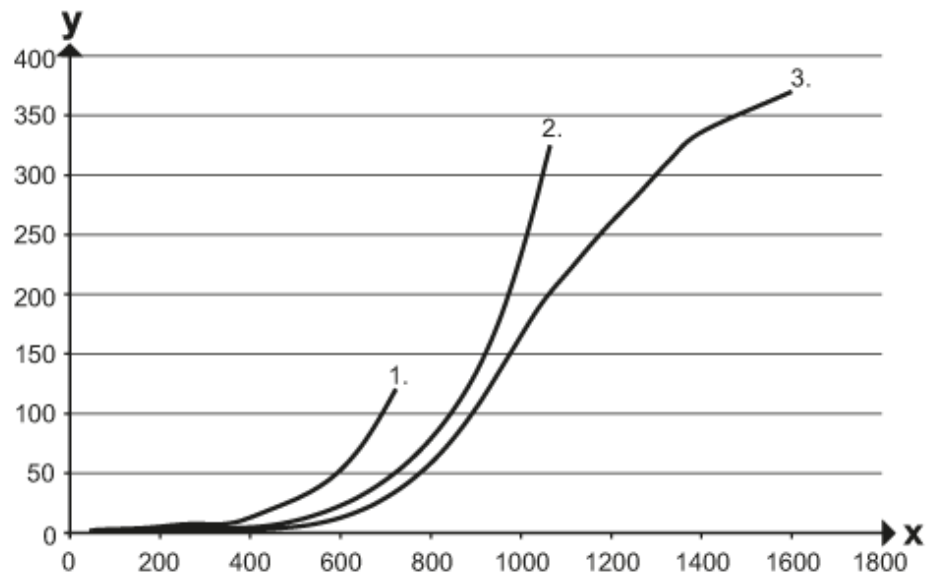
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



## Diffuse reflection sensor with background suppression

O5H-HNKG/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)