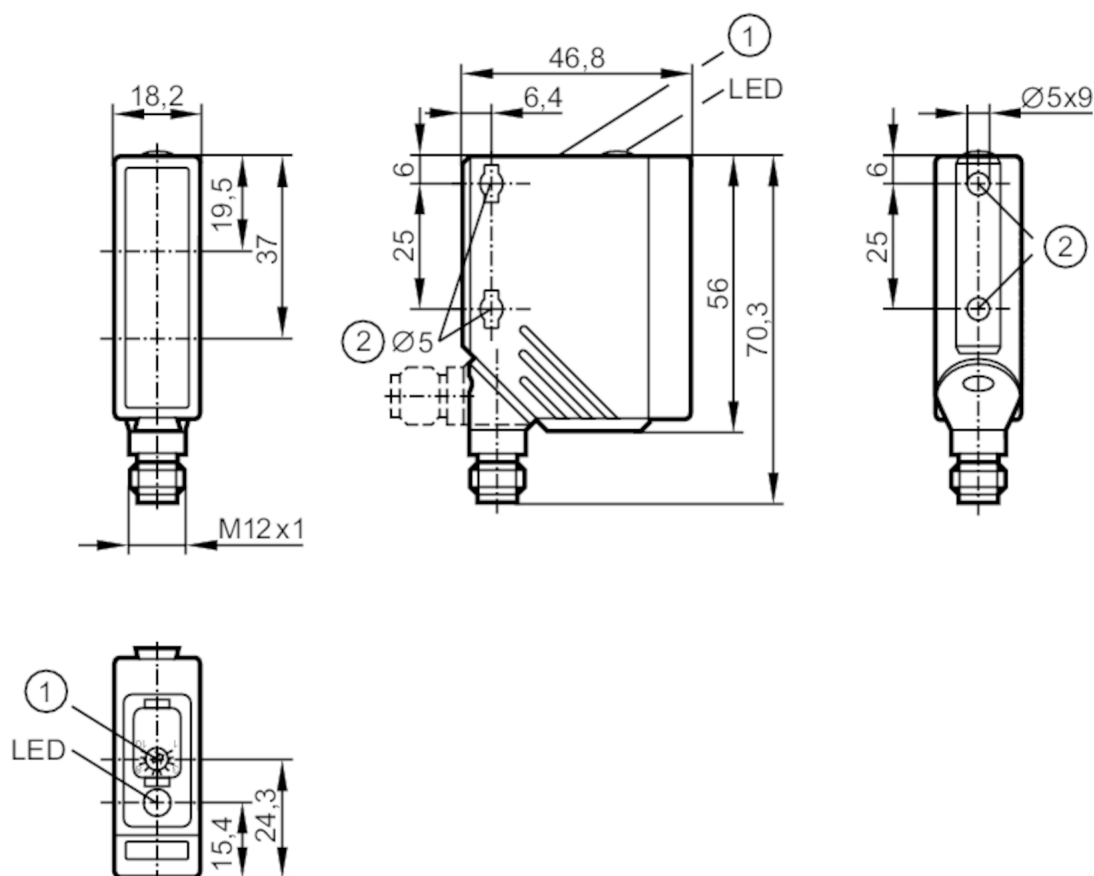


Diffuse reflection sensor with background suppression

O5H-HNKG/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	NPN
Output function	light-on mode



Diffuse reflection sensor with background suppression

O5H-HNKG/US100

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	[ANN]	336

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.

Electrical connection

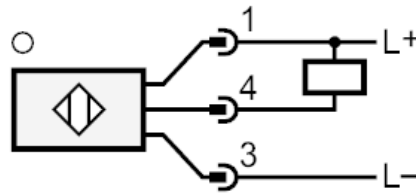
Connector: 1 x M12; coding: A



Diffuse reflection sensor with background suppression

O5H-HNKG/US100

Connection



Diagrams and graphs



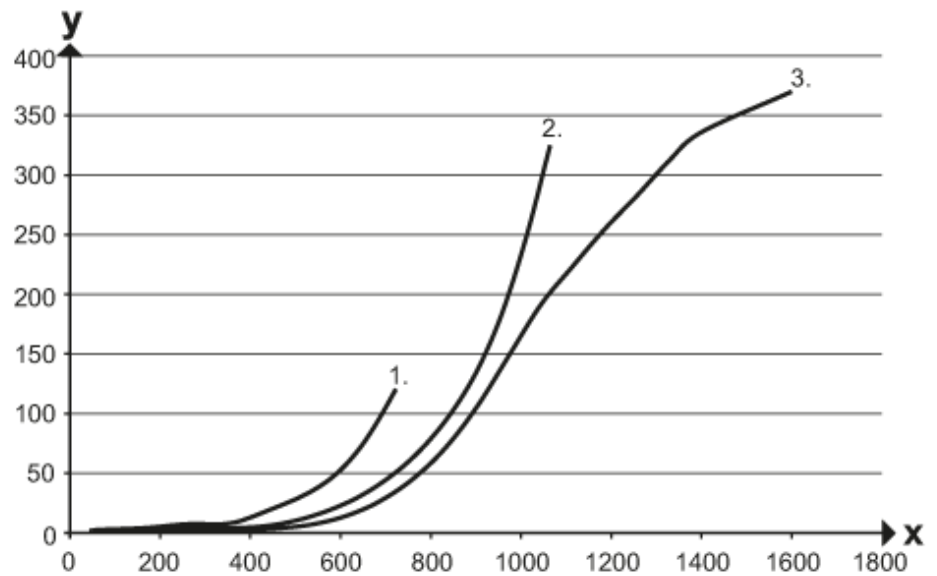
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



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)