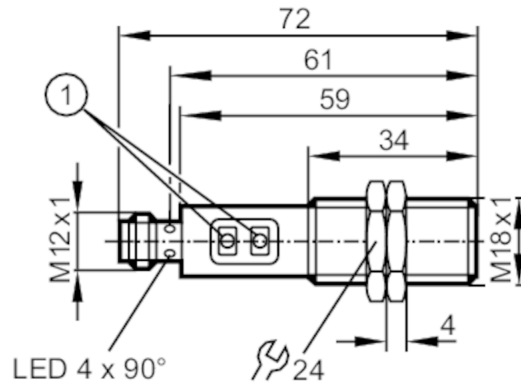


# OGH504



## Diffuse reflection sensor with background suppression

OGH-FNKG/US100



1 programming buttons



### Product characteristics

Type of light	red light
Housing	threaded type
Dimensions [mm]	M18 x 1 / L = 72

### 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/dark-on mode; (programmable)
Max. voltage drop switching output DC [V]	2.5
Permanent current rating of switching output DC [mA]	150; (200 (...60 °C))
Switching frequency DC [Hz]	1000
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes

# OGH504



## Diffuse reflection sensor with background suppression

OGH-FNKG/US100

Detection zone	
Range [mm]	15...300; (white paper 200 x 200 mm 90% remission)
Range on white object (90 % remission) [mm]	15...300
Range on grey object (18 % remission) [mm]	15...290
Range on black object (6 % remission) [mm]	15...190
Factory setting	light-on mode
Range adjustable	yes
Max. light spot diameter [mm]	25
Light spot dimensions refer to	at maximum range
Background suppression available	yes

Operating conditions	
Ambient temperature [°C]	-25...80
Protection	IP 67

Tests / approvals	
EMC	EN 60947-5-2
MTTF [years]	368

Mechanical data	
Weight [g]	61.4
Housing	threaded type
Dimensions [mm]	M18 x 1 / L = 72
Thread designation	M18 x 1
Materials	stainless steel (1.4404 / 316L); PA; LCP; FKM; TPU
Lens material	glass

Displays / operating elements	
Display	switching status 1 x LED, yellow

Accessories	
Accessories (supplied)	lock nuts: 2 x

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

### Electrical connection

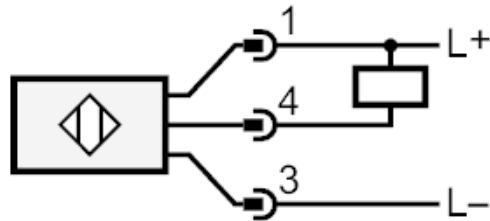
Connector: 1 x M12



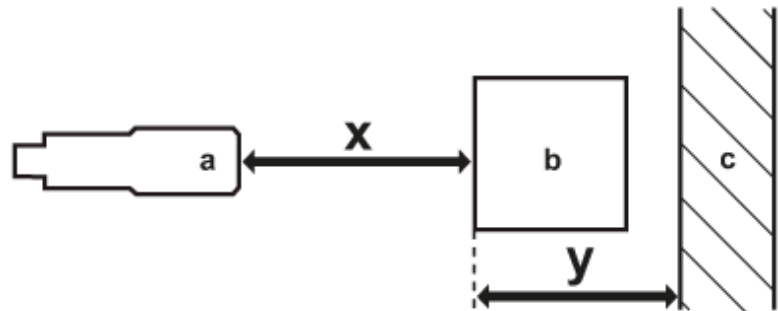
## Diffuse reflection sensor with background suppression

OGH-FNKG/US100

### Connection



### Diagrams and graphs



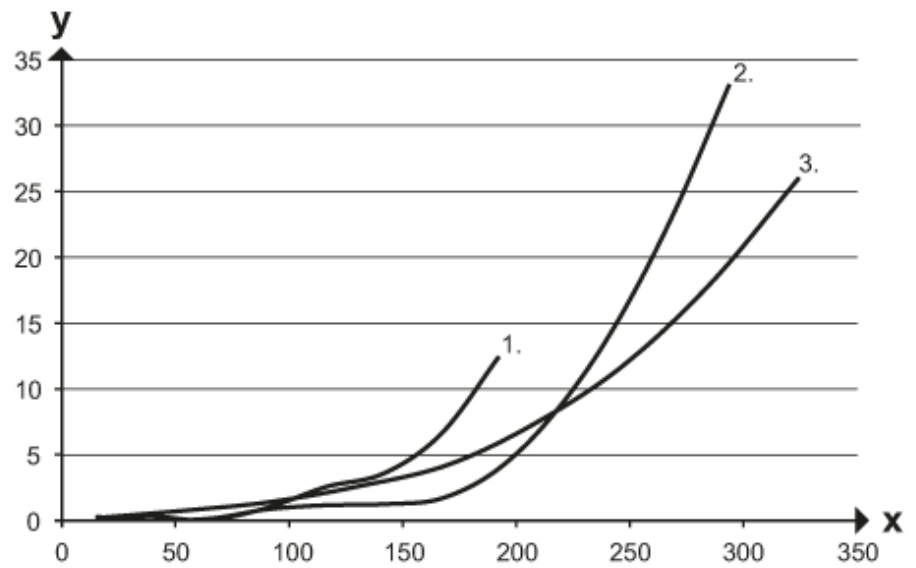
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



## Diffuse reflection sensor with background suppression

OGH-FNKG/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)