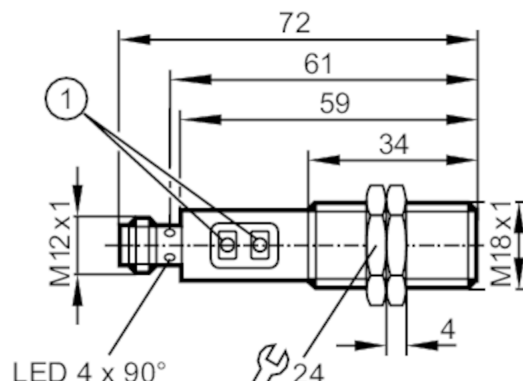


Diffuse reflection sensor with background suppression

OGH-FPKG/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	PNP
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
Factory setting	light-on mode
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes



Diffuse reflection sensor with background suppression

OGH-FPKG/US100

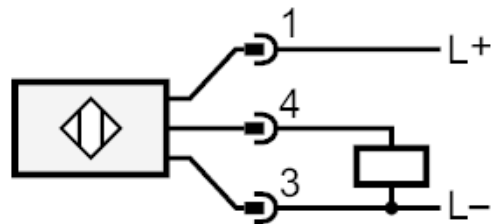
Detection zone		
Range	[mm]	15...300; (white paper 200 x 200 mm 90 % remission)
Range on white object (90 % remission)	[mm]	15...300
Range on grey object (18 % remission)	[mm]	15...290
Range on black object (6 % remission)	[mm]	15...190
Range adjustable		yes
Max. light spot diameter	[mm]	25
Light spot 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]	362
Mechanical data		
Weight	[g]	61.1
Housing		threaded type
Dimensions	[mm]	M18 x 1 / L = 72
Thread designation		M18 x 1
Materials		stainless steel (1.4404 / 316L); PA; LCP; EPDM; TPU
Lens material		PMMA
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		



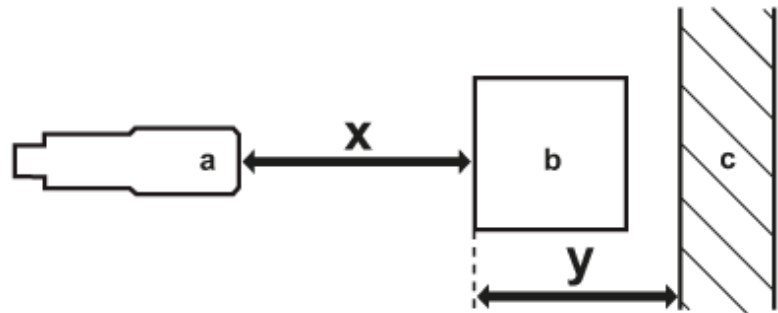
Diffuse reflection sensor with background suppression

OGH-FPKG/US100

Connection



Diagrams and graphs



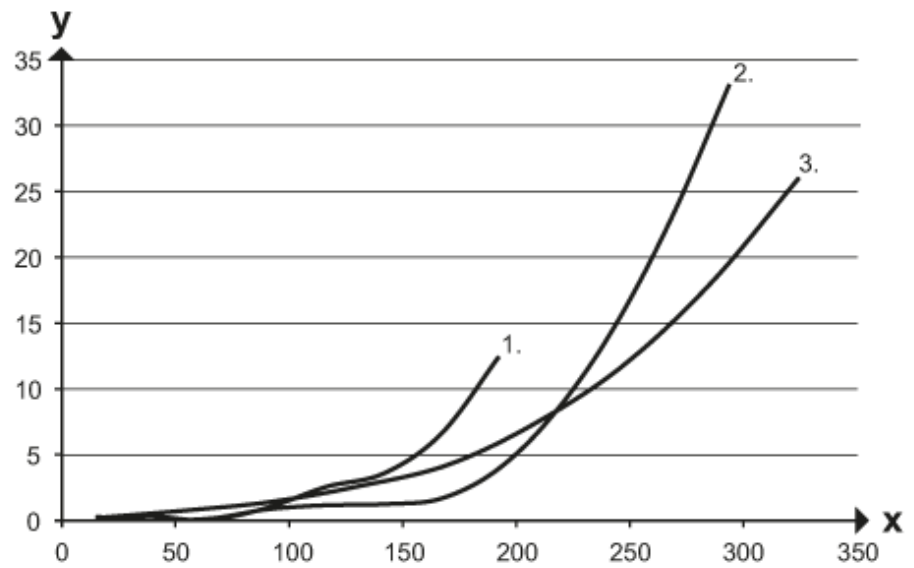
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

OGH-FPKG/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)