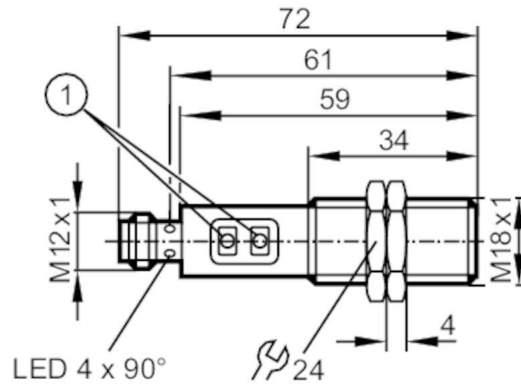


OGH700



LASER diffuse reflection sensor

OGHLFPKG/US100



1 Programming buttons



Product characteristics	
Type of light	red light
Laser protection class	1
Housing	Threaded type
Application	
System	Background suppression
Function principle	Diffuse reflection sensor
Electrical data	
Operating voltage [V]	10...36 DC
Current consumption [mA]	15
Protection class	II
Reverse polarity protection	yes
Type of light	red light
Wave length [nm]	655
Typ. lifetime [h]	50000
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]	200
Switching frequency DC [Hz]	1000
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)
Overload protection	yes
Monitoring range	
Range [mm]	20...200; (white paper 200 x 200 mm 90 % remission)

OGH700



LASER diffuse reflection sensor

OGHLFPKG/US100

Range on white object (90 % remission) [mm]	20...200
Range on grey object (18 % remission) [mm]	20...100
Range on black object (6 % remission) [mm]	20...70
Range adjustable	yes
Diameter of the smallest detectable object [mm]	1.5
Max. light spot diameter [mm]	1.2
Background suppression available	yes

Operating conditions

Ambient temperature [°C]	-10...60
Protection	IP 65; IP 67

Tests / approvals

EMC	EN 60947-5-2	
Laser protection class	1	
Notes on laser protection	Caution:	Laser light
	laser class:	1
		EN / IEC60825-1:2007
		EN / IEC60825-1:2014
	Complies with 21 CFR 1040 except for deviations pursuant to Laser Notice No. 50, dated June 2007.	
MTTF [years]	485	

Mechanical data

Weight [g]	62.3
Housing	Threaded type
Dimensions [mm]	M18 x 1 / L = 72
Thread designation	M18 x 1
Material	stainless steel (1.4404 / 316L); PA; LCP; EPDM; TPU (urethane)
Lens material	PMMA

Displays / operating elements

Display	Switching status	1 x LED, yellow
---------	------------------	-----------------

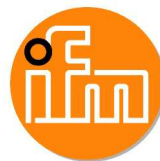
Accessories

Items supplied	lock nuts: 2
----------------	--------------

Remarks

Remarks	cULus - Class 2 source required
Pack quantity	1 pcs.

OGH700



LASER diffuse reflection sensor

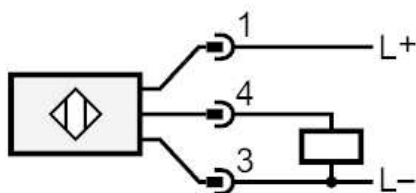
OGHLFPKG/US100

Electrical connection

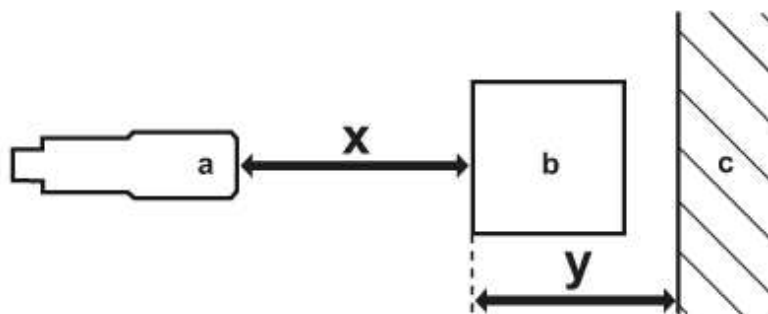
Connector: 1 x M12; coding: A



Connection



Diagrams and graphs



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

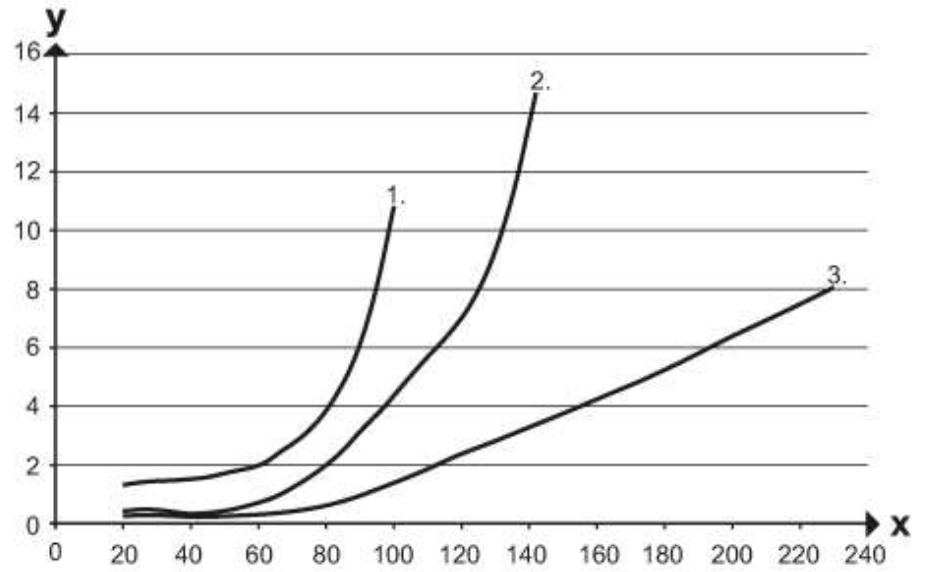
OGH700



LASER diffuse reflection sensor

OGHLFPKG/US100

Background suppression chart



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)