

# 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

Special feature	Background suppression
Function principle	Diffuse reflection sensor
Application	Industrial applications

### 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)
Range on white object (90 % remission) [mm]	20...200

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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 class:  EN / IEC60825-1:2007 EN / IEC60825-1:2014 Complies with 21 CFR 1040.10 except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56, dated May 8, 2019.
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	front lens:PMMA

### Displays / operating elements

Display	Switching status	1 x LED, yellow
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### Accessories

Items supplied	lock nuts: 2
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### Remarks

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

### Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4





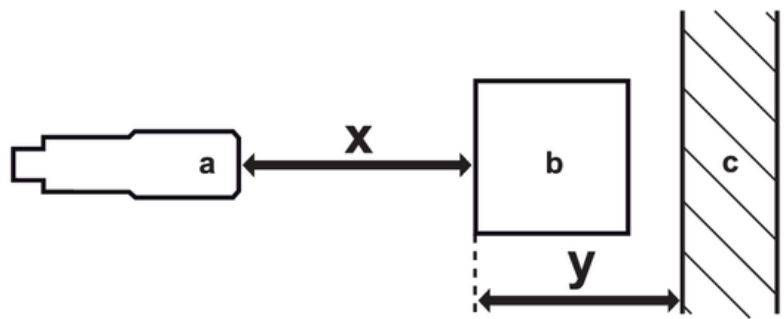
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### Connection



### Diagrams and graphs



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

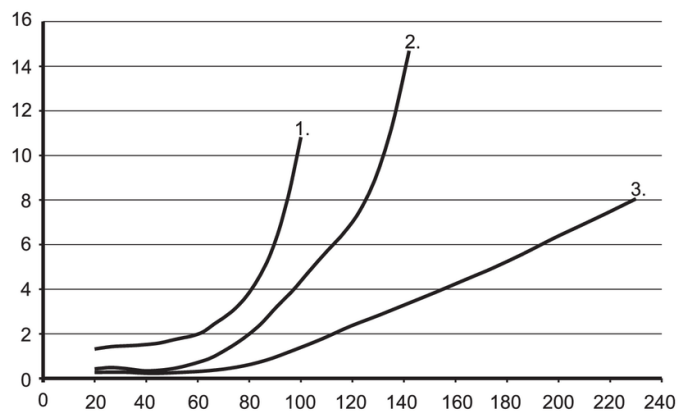
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### Background suppression chart



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)