

OGH700



Laser diffuse reflection sensor

OGHLFPKG/US100



1 programming buttons



Application

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		pulsed
Overload protection		yes

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Detection zone		
Range	[mm]	20...200; (white paper 200 x 200 mm 90 % remission)
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; (IEC 60825-1 : 2007; Complies with 21 CFR 1040 except for deviations pursuant to Laser Notice No. 50, dated June 2007.)
MTTF	[years]	485
Mechanical data		
Weight	[g]	63.6
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		

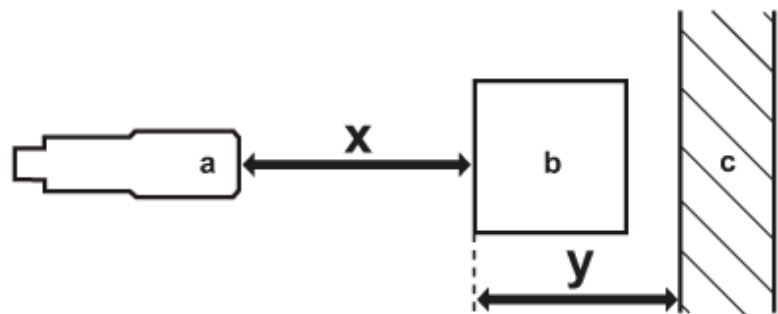
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Connection



Diagrams and graphs



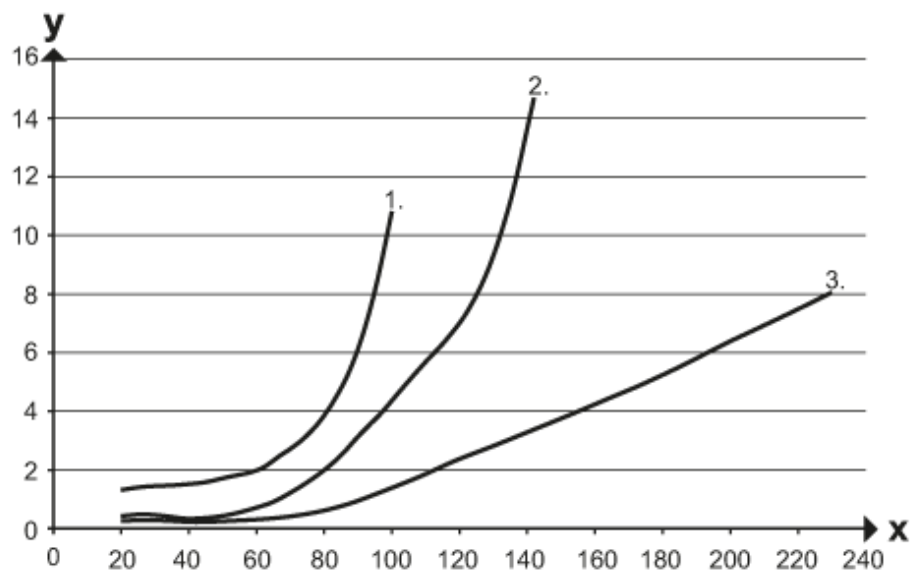
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



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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)