

O5H700



Laser diffuse reflection sensor

O5HLFPKG/US100



- 1 programming buttons
 2 When a M5 mounting screw is used, the max. tightening torque is 2 Nm.
 receiver in upper lens
 transmitter in lower lens



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

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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	
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...160	
Range on black object (6 % remission) [mm]	20...80	
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 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]	454	
Mechanical data		
Weight [g]	67.4	
Housing	rectangular	
Dimensions [mm]	56 x 18.2 x 46.8	
Materials	housing: PA; bezel: stainless steel; operator interface: TPU	
Lens material	PMMA	
Lens alignment	side lens	
Displays / operating elements		
Display	switching status	1 x LED, yellow
Teach function	yes	
Electronic lock	yes	

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Remarks

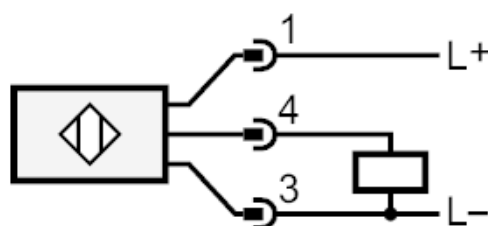
Remarks	operating voltage "supply class 2" according to cULus
Pack quantity	1 pcs.

Electrical connection

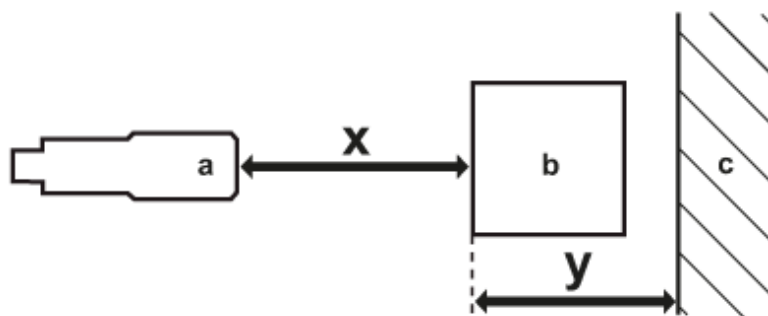
Connector: 1 x M12



Connection



Diagrams and graphs



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

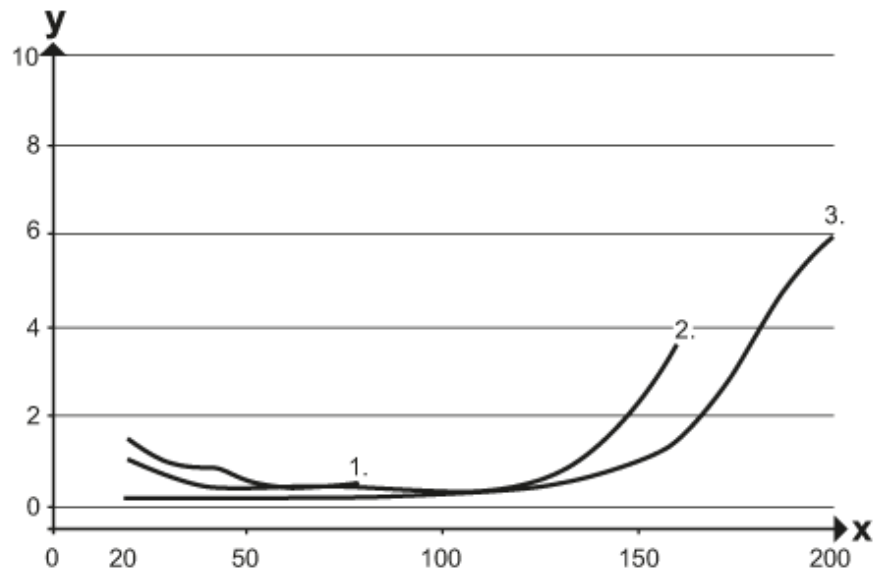
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accuracy graph



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)