



Diffuse reflection sensor with background suppression

OGH-FPKG/US100



1 programming buttons



Application

Function principle	Diffuse reflection sensor
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Electrical data

Operating voltage	[V]	10...36 DC
Current consumption	[mA]	25
Protection class		II
Reverse polarity protection		yes
Type of light		red light

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
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes



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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
Factory setting		\$Hellschaltung
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 65; IP 67; IP 68; IP 69K

Tests / approvals		
EMC		EN 60947-5-2
MTTF	[years]	362

Mechanical data		
Weight	[g]	64.2
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

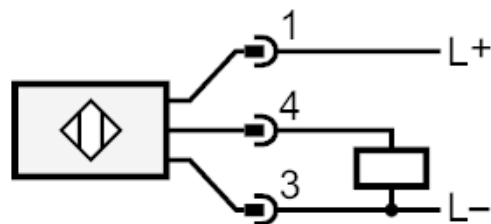
Connector: 1 x M12



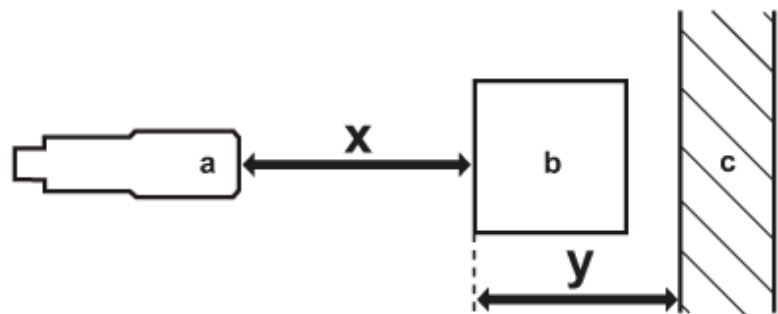
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Connection



Diagrams and graphs



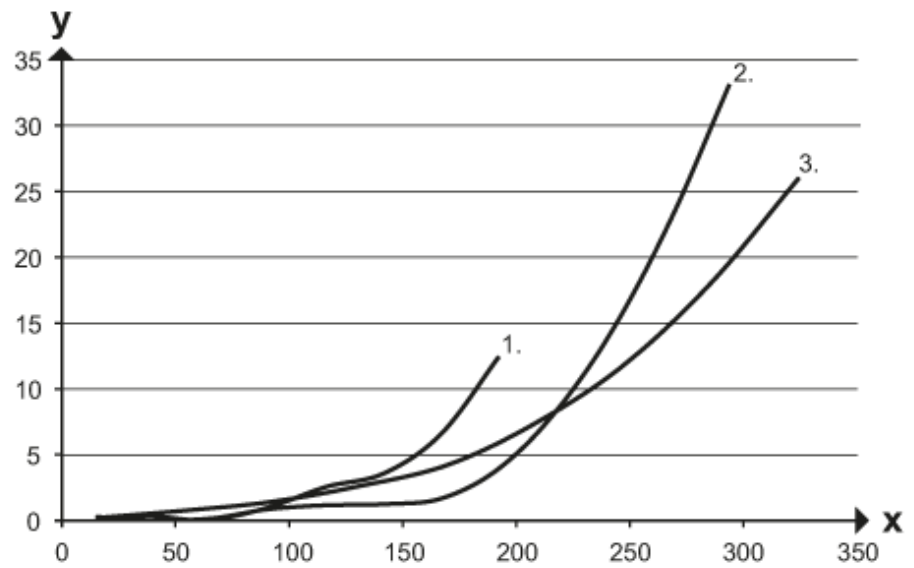
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



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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)