



Diffuse reflection sensor with background suppression

OGH-FPKG/US100



1 programming buttons



Product characteristics

Type of light	red light
Housing	threaded type

Application

Special feature	Background suppression
Function principle	Diffuse reflection sensor
Application	food and beverage industry

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

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

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Factory setting	light-on mode
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]	50
Housing	threaded type
Dimensions [mm]	M18 x 1 / L = 72
Thread designation	M18 x 1
Materials	stainless steel (316L/1.4404); PA; LCP; EPDM; TPU
Lens material	front pane: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

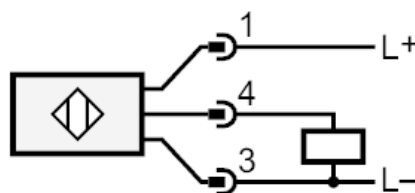
Remarks	operating voltage "supply class 2" according to cULus
Pack quantity	1 pcs.

Electrical connection

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



Connection

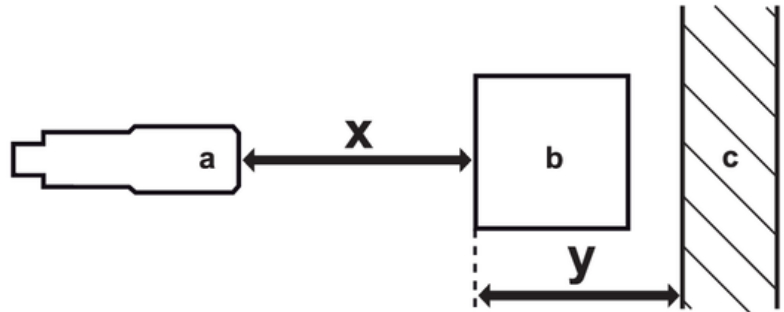




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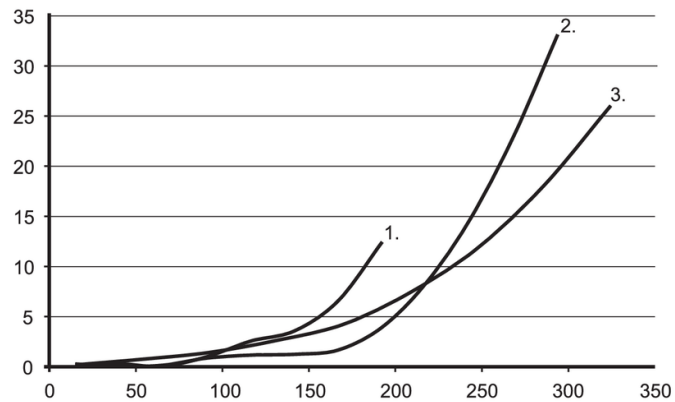
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Diagrams and graphs



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

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)