

O6H302



Diffuse reflection sensor with background suppression

O6H-FPKG/AS/3P



- 1: output function switch
2: potentiometer sensitivity



Product characteristics

| | |
|-----------------|----------------|
| Type of light | red light |
| Housing | rectangular |
| Dimensions [mm] | 41.3 x 13 x 21 |

Application

| | |
|--------------------|---------------------------|
| Special feature | Background suppression |
| Function principle | Diffuse reflection sensor |

Electrical data

| | |
|-----------------------------|--------------|
| Operating voltage [V] | 10...30 DC |
| Current consumption [mA] | 22; ((24 V)) |
| Protection class | III |
| Reverse polarity protection | yes |
| Type of light | red light |
| Wave length [nm] | 633 |

Outputs

| | |
|--|-------------------------------------|
| Electrical design | PNP |
| Output function | light-on/dark-on mode; (selectable) |
| Max. voltage drop switching output DC [V] | 2.5 |
| Permanent current rating of switching output DC [mA] | 100 |
| Switching frequency DC [Hz] | 1000 |
| Short-circuit protection | yes |
| Type of short-circuit protection | pulsed |

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| Detection zone | |
|--|--|
| Range | [mm] 2...200; (white paper 200 x 200 mm) |
| Range on white object (90 % remission) | [mm] 2...200 |
| Range on grey object (18 % remission) | [mm] 4...200 |
| Range on black object (6 % remission) | [mm] 8...200 |
| Range adjustable | yes |
| Max. light spot diameter | [mm] 8 |
| 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] 708 |
| UL approval | UL Approval no. E001 |

| Mechanical data | |
|-----------------|---|
| Weight | [g] 34.1 |
| Housing | rectangular |
| Dimensions | [mm] 41.3 x 13 x 21 |
| Materials | housing: stainless steel (1.4404 / 316L); plastics: PPSU; Sealing: EPDM |
| Lens material | PMMA |
| Lens alignment | side lens |

| Displays / operating elements | | |
|-------------------------------|------------------|-----------------|
| Display | switching status | 1 x LED, yellow |
| | operation | 1 x LED, green |

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

Electrical connection

Connector: 1 x M8



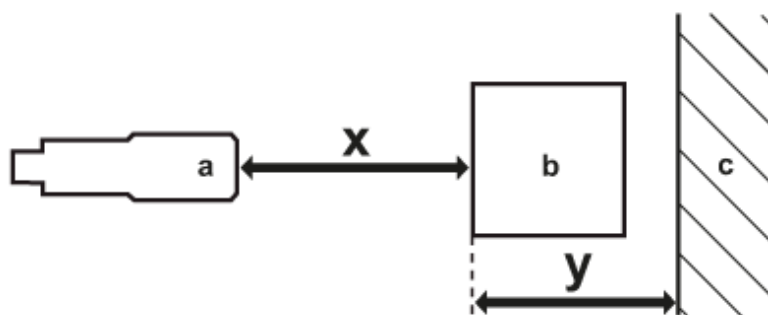
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Connection



Diagrams and graphs



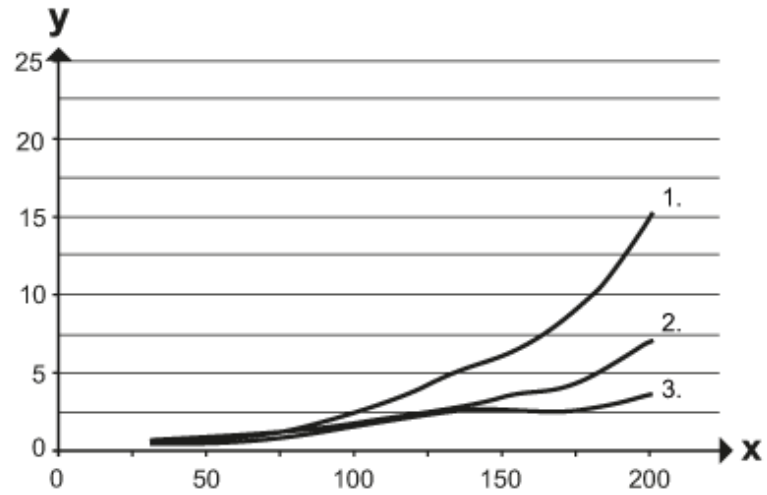
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



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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)