

# O6T306



## Diffuse reflection sensor

O6T-FNKG/AS/3P



- 1: output function switch  
2: potentiometer sensitivity



### Product characteristics

|               |             |
|---------------|-------------|
| Type of light | red light   |
| Housing       | rectangular |

### Application

|                    |                           |
|--------------------|---------------------------|
| Function principle | Diffuse reflection sensor |
|--------------------|---------------------------|

### Electrical data

|                             |      |              |
|-----------------------------|------|--------------|
| Operating voltage           | [V]  | 10...30 DC   |
| Current consumption         | [mA] | 16; ((24 V)) |
| Protection class            |      | III          |
| Reverse polarity protection |      | yes          |
| Type of light               |      | red light    |
| Wave length                 | [nm] | 633          |

### Outputs

|                                                 |      |                                     |
|-------------------------------------------------|------|-------------------------------------|
| Electrical design                               |      | NPN                                 |
| 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                              |

### Detection zone

|               |      |                                                   |
|---------------|------|---------------------------------------------------|
| Range         | [mm] | 5...500; (white paper 200 x 200 mm 90% remission) |
| Setting range | [mm] | 100...500                                         |

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|                                |                  |
|--------------------------------|------------------|
| Range adjustable               | yes              |
| Max. light spot diameter [mm]  | 15               |
| Light spot dimensions refer to | at maximum range |

### 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] | 910             |      |
| UL approval  | UL Approval no. | E001 |

### Mechanical data

|                        |                                                                       |
|------------------------|-----------------------------------------------------------------------|
| Weight [g]             | 35.7                                                                  |
| Housing                | rectangular                                                           |
| Dimensions [mm]        | 41.3 x 13 x 21                                                        |
| Materials              | housing: stainless steel (316L/1.4404); plastics: PPSU; Sealing: EPDM |
| Lens material          | PMMA                                                                  |
| Lens alignment         | side lens                                                             |
| Tightening torque [Nm] | 1; (screws)                                                           |

### 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; coding: A



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### Connection



### Diagrams and graphs

excess gain graph



x: distance [mm]

y: excess gain factor