



Diffuse reflection sensor

O6T-FPKG/AS/4P



- 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                               |      | 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                                            |
| 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 |

## Interfaces

|                                 |                                                                             |                   |
|---------------------------------|-----------------------------------------------------------------------------|-------------------|
| Communication interface         | IO-Link                                                                     |                   |
| Transmission type               | COM2 (38,4 kBaud)                                                           |                   |
| IO-Link revision                | 1.1                                                                         |                   |
| SDCI standard                   | IEC 61131-9                                                                 |                   |
| Profiles                        | Smart Sensor: Device Identification; Binary Data Channel                    |                   |
| SIO mode                        | yes                                                                         |                   |
| Required master port type       | A                                                                           |                   |
| Min. process cycle time [ms]    | 2.5                                                                         |                   |
| IO-Link process data (cyclical) | <b>function</b>                                                             | <b>bit length</b> |
|                                 | process value                                                               | 8                 |
|                                 | binary switching information                                                | 1                 |
| IO-Link functions (acyclical)   | application specific tag; operating hours counter; switching cycles counter |                   |
| Supported DeviceIDs             | <b>Type of operation</b>                                                    | <b>DeviceID</b>   |
|                                 | default                                                                     | 423               |

## 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] | 681             |      |
| UL approval  | UL Approval no. | E010 |

## Mechanical data

|                        |                                                                       |
|------------------------|-----------------------------------------------------------------------|
| Weight [g]             | 34.4                                                                  |
| 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.                                                |

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### Electrical connection

Connector: 1 x M8; coding: A



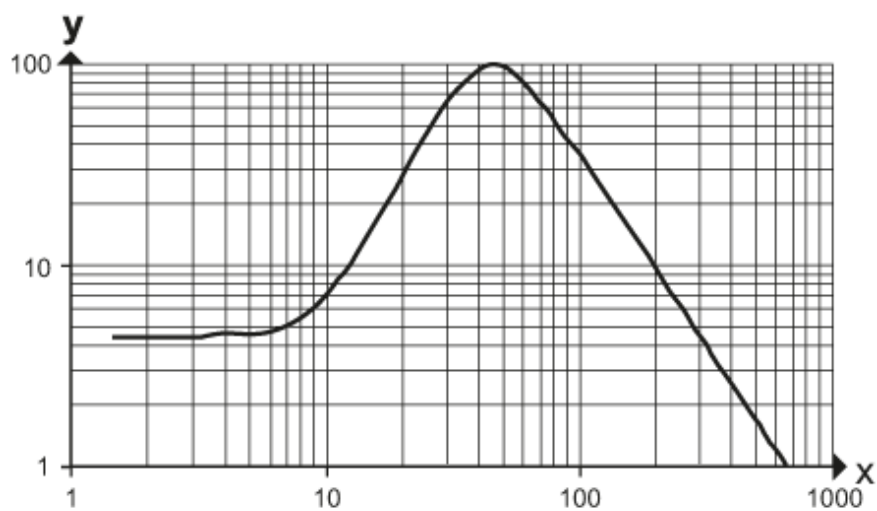
### Connection



4 OUT / IO-Link

### Diagrams and graphs

excess gain graph



x: distance [mm]

y: excess gain factor