

# O6T400



## 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                   |
| Application        | suited for use in the machine tool industry |

### 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                |      | yes (non-latching)                  |

### Monitoring range

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

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|                                |      |                  |
|--------------------------------|------|------------------|
| Setting range                  | [mm] | 100...500        |
| Range adjustable               |      | yes              |
| Max. light spot diameter       | [mm] | 15               |
| Light spot dimensions refer to |      | at maximum range |

### Operating conditions

|                     |      |                     |
|---------------------|------|---------------------|
| Ambient temperature | [°C] | -25...60            |
| Protection          |      | IP 65; IP 67; IP 68 |

### Tests / approvals

|             |                    |              |
|-------------|--------------------|--------------|
| EMC         |                    | EN 60947-5-2 |
| MTTF        | [years]            | 910          |
| UL approval | Ta                 | -25...40 °C  |
|             | Enclosure type     | Type 1       |
|             | voltage supply     | Class 2      |
|             | UL approval number | E010         |

### Mechanical data

|                   |      |                                                                        |
|-------------------|------|------------------------------------------------------------------------|
| Weight            | [g]  | 34.4                                                                   |
| Housing           |      | rectangular                                                            |
| Dimensions        | [mm] | 41.3 x 13 x 21                                                         |
| Material          |      | housing: stainless steel (1.4404 / 316L); plastics: PPSU; sealing: FKM |
| Lens material     |      | PMMA                                                                   |
| Lens alignment    |      | Side sensing                                                           |
| Tightening torque | [Nm] | 1; (screws)                                                            |

### Displays / operating elements

|         |                  |                 |
|---------|------------------|-----------------|
| Display | Switching status | 1 x LED, yellow |
|         | Power            | 1 x LED, green  |

### Remarks

|               |                                 |
|---------------|---------------------------------|
| Remarks       | cULus - Class 2 source required |
| 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