

# O6T401



## Diffuse reflection sensor

O6T-FNKG/AS/4P



- 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

|                    |   |
|--------------------|---|
| 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                                    | 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                              |

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| Detection zone                 |      |   |
|--------------------------------|------|---|
| Range                          | [mm] | 5...500; (white paper 200 x 200 mm 90% remission) |
| Range adjustable               |      | yes   |
| Max. light spot diameter       | [mm] | 15  |
| Light spot dimensions refer to |      | at maximum range                                  |
| Monitoring range final value   | [mm] | 100...500   |

| 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       |         | UL Approval no. E010 |

| Mechanical data |      |  |
|-----------------|------|--|
| Weight          | [g]  | 35.7   |
| Housing         |      | rectangular  |
| Dimensions      | [mm] | 41.3 x 13 x 21   |
| Materials       |      | housing: stainless steel (1.4404 / 316L); plastics: PPSU; Sealing: FKM |
| 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

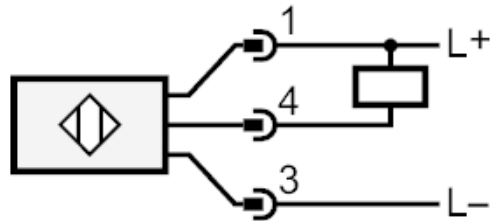
Connector: 1 x M8



## Diffuse reflection sensor

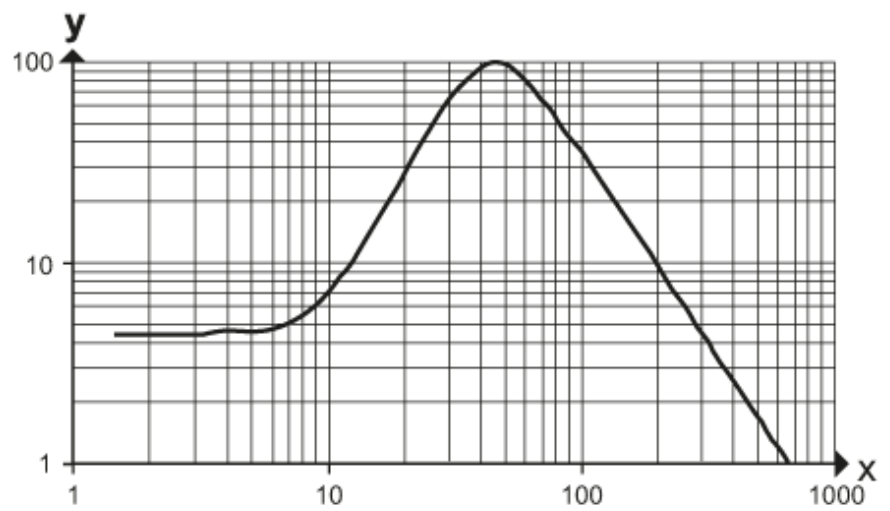
O6T-FNKG/AS/4P

### Connection



### Diagrams and graphs

excess gain graph



x: distance [mm]

y: excess gain factor