



## Short range distance sensors (displacement) OD Max

OD350-100T1



**Model Name** > [OD350-100T1](#)  
**Part No.** > [6028957](#)

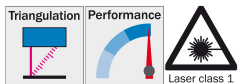


**At a glance**

- Several measurement ranges from 24 ... 26 mm up to 250 mm ... 450 mm
- CMOS receiving element for measurement independent of surface
- High measurement frequency and high linearity
- Variety of selectable integrated calculations based on values from two sensors
- Laser technology for precise measurement or detection of very small objects
- Several output options

**Your benefits**

- Minimum machine downtime due to its reliability on any surface, regardless of brightness or color
- Highly accurate measurement, even during the production process, ensures high product quality
- High measuring frequency of 10 kHz increases processing speeds and reduces cycle times
- Reduce the cost to change your process by making a reference measurement using two sensors
- Comparatively low investment costs for challenging measuring tasks
- An easy-to-read LC display and simple push-button keypad programming ensures simple setup and servicing
- Reduced material costs, when using the distance sensors to control costrelevant production processes



**Features**

System part: Sensor head

**Performance**

|                                  |   |
|----------------------------------|---|
| Measuring range:                 | 250 mm ... 450 mm, 6 % ... 90 % remission |
| Resolution <sup>1)</sup> :       | 50 µm                                     |
| Repeatability <sup>2)</sup> :    | 150 µm                                    |
| Linearity <sup>3)</sup> :        | ± 200 µm                                  |
| Response time <sup>4)</sup> :    | 0.5 ms                                    |
| Measuring frequency:             | 10 kHz                                    |
| Light source:                    | Laser, red                                |
| Typ. light spot size (distance): | 300 µm x 700 µm (350 mm)                  |
| Note:                            | Requires AOD-x                            |
| Laser class:                     | 2 (EN 60825-1) <sup>5)</sup>              |

1) Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256 2) Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256; constant ambient conditions 3) Measurement on 90 % remission (ceramic, white), for OD5-25x measurement on mirror 4) Automatic sensitivity adjustment  $\leq 2$  ms 5) Wavelength: 650 nm, max. output: 1 mW

### Mechanics/electronics

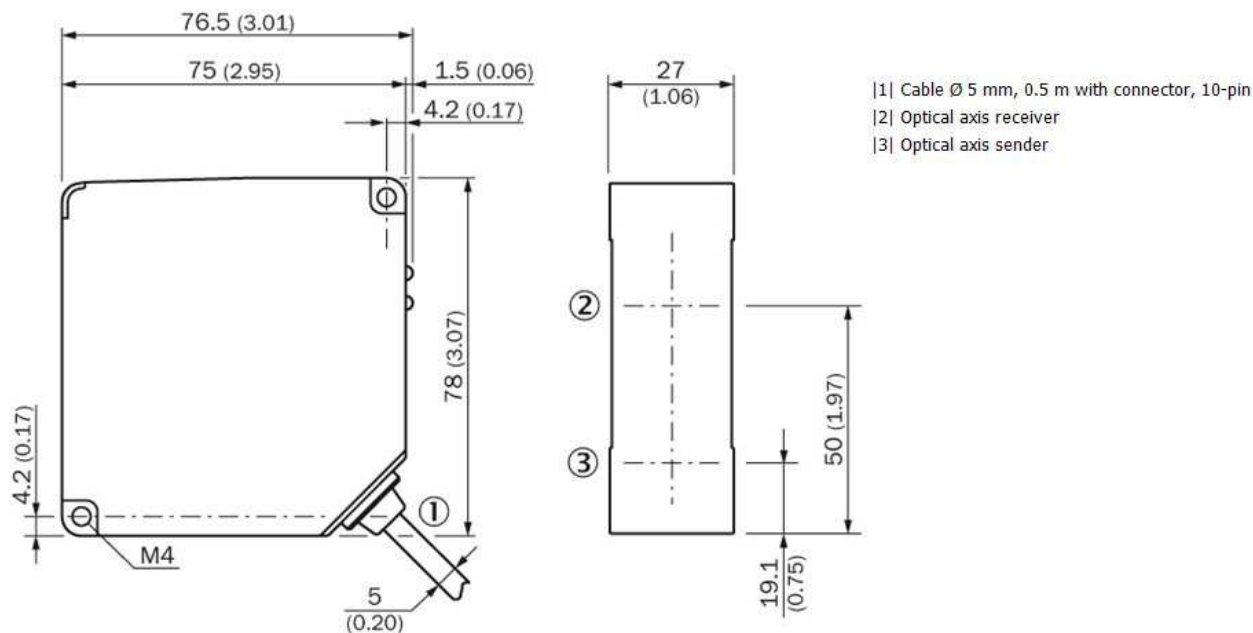
|   |   |
|---|---|
| Electrical connection <sup>1)</sup> : <sup>2)</sup> : | 0.5 m cable with connector                  |
| Warm-up time:   | $\leq 5$ min                                |
| Indication:   | LEDs, 1.4" color-display on controller unit |
| Weight <sup>3)</sup> :                                | 250 g                                       |
| Housing material:                                     | Aluminum housing with glass lens            |

1) Extendable by cable to max. 10 m 2) Sensor must be connected to controller unit 3) Inclusive 0.5 m cable

### Ambient data

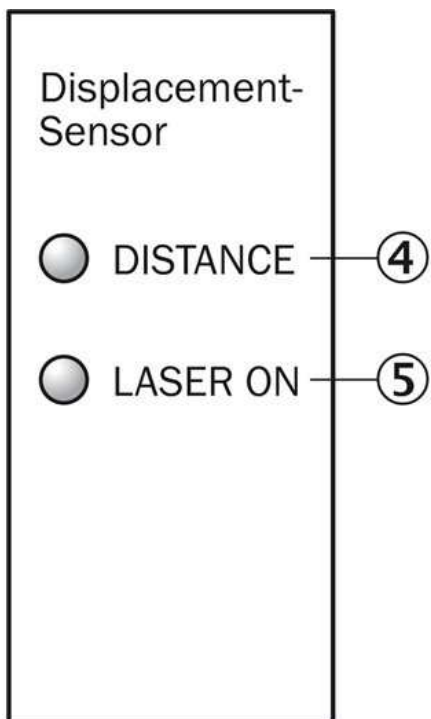
|                                     |   |
|-------------------------------------|---|
| Enclosure rating:                   | IP 67   |
| Protection class:                   | III   |
| Ambient temperature:                | Operation: $-10 \dots 45$ °C, Storage: $-20 \dots 60$ °C        |
| Temperature drift:                  | $\pm 0.01$ % FS/K (FS = Full Scale = Measuring range of sensor) |
| Typ. ambient light safety:          | Artificial light: $\leq 3,000$ lx<br>Sunlight: $\leq 10,000$ lx |
| Vibration resistance:               | 10 Hz ... 55 Hz (amplitude 1.5 mm, x-, y-, z-axis 2 hours each) |
| Shock resistance:                   | 50 G (x-, y-, z-axis 3 times each)                              |
| Relative humidity (not condensing): | 35 % ... 85 %   |

### Dimensional drawing



**Adjustment possible**

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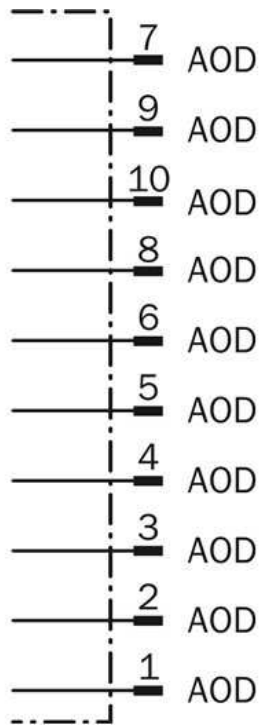
- |4| Distance indicator
- |5| Status indicator laser (laser on)

**Connection type**

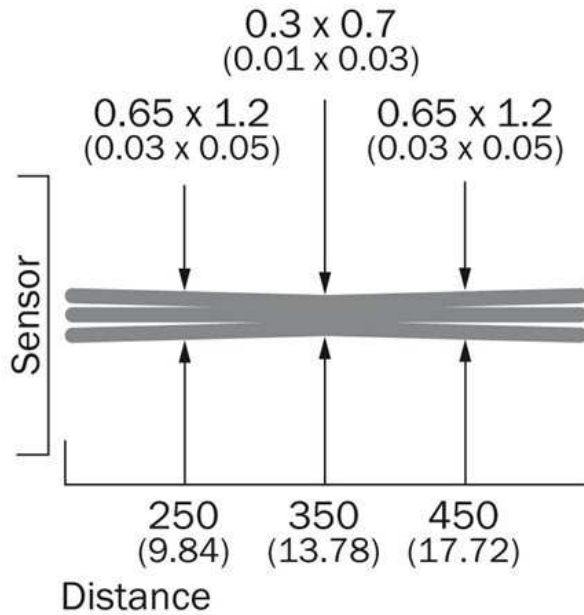
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Connection diagram

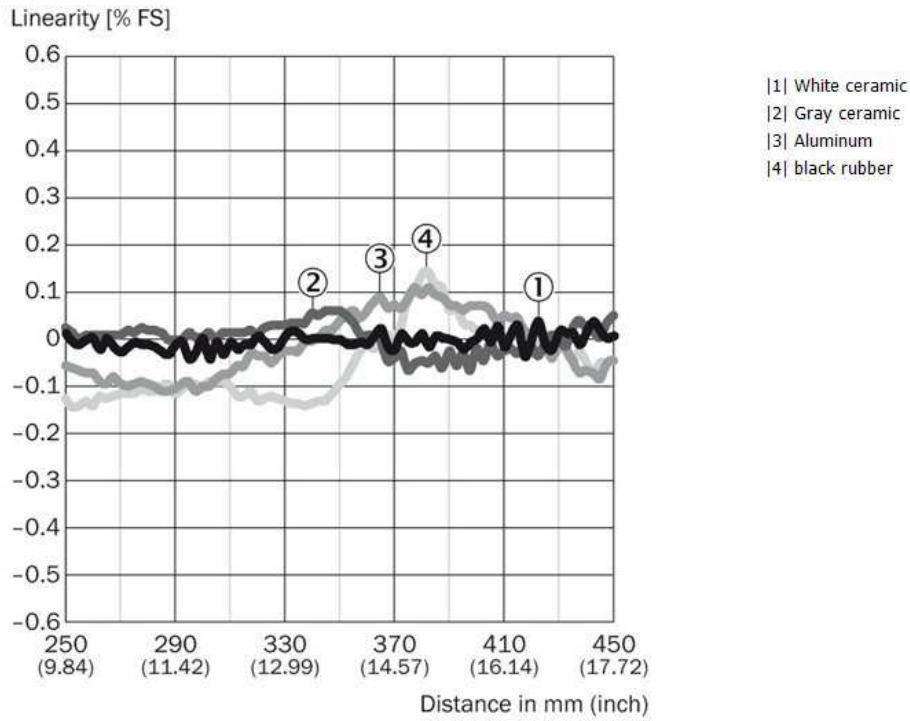


Light spot size



All dimensions in mm (inch)

# Linearity



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