



Short range distance sensors (displacement) OD Max

OD-25-01T1



Model Name > [OD-25-01T1](#)
Part No. > [6030977](#)

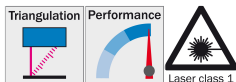


At a glance

- 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
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Performance

Measuring range:	24 mm ... 26 mm, 6 % ... 90 % remission
Resolution:	0.1 μm ¹⁾
Repeatability:	0.3 μm ²⁾
Linearity:	$\pm 2 \mu\text{m}$ ³⁾
Response time ⁴⁾ :	0.5 ms
Measuring frequency:	10 kHz
Light source:	Laser, red
Laser protection class:	1 (EN 60825-1) ⁵⁾
Typ. light spot size (distance):	25 μm x 35 μm (25 mm)
Note:	Requires AODG-x

- 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 ≤ 2 ms 5) Wave length 650 nm, max. output 390 μ W

Mechanics/electronics

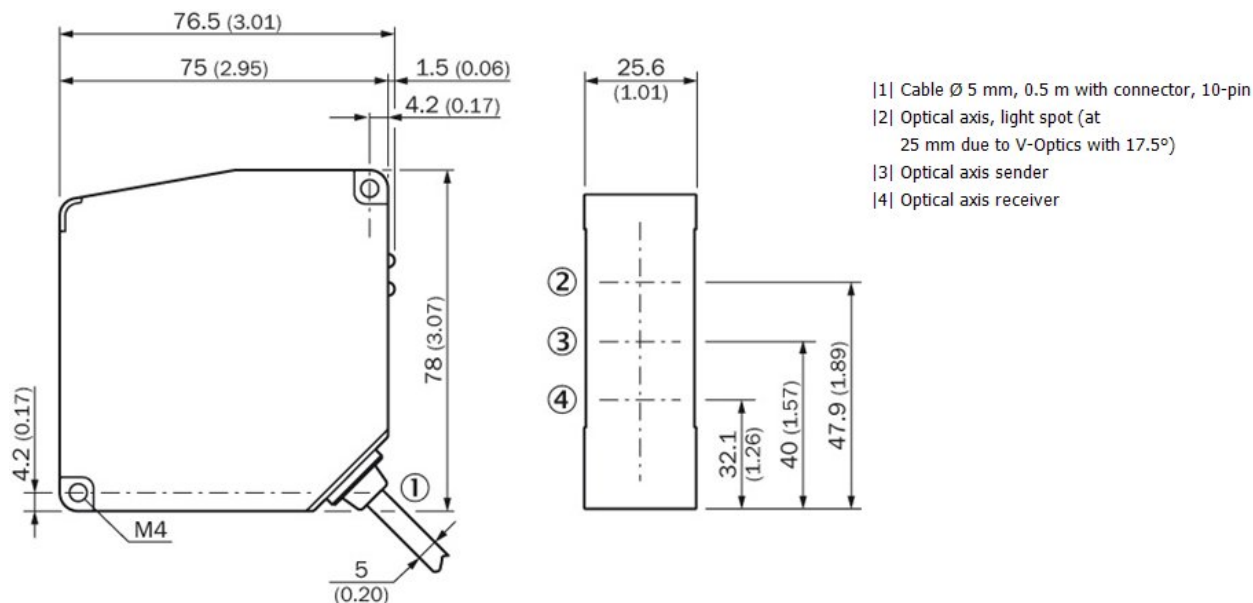
Connection type::	0.5 m cable with connector ^{1) 2)}
Warm-up time:	≤ 5 min
Indication:	LEDs, 1.4" color-display on controller unit
Weight:	250 g ³⁾
Housing material:	Aluminum housing with glass lens

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

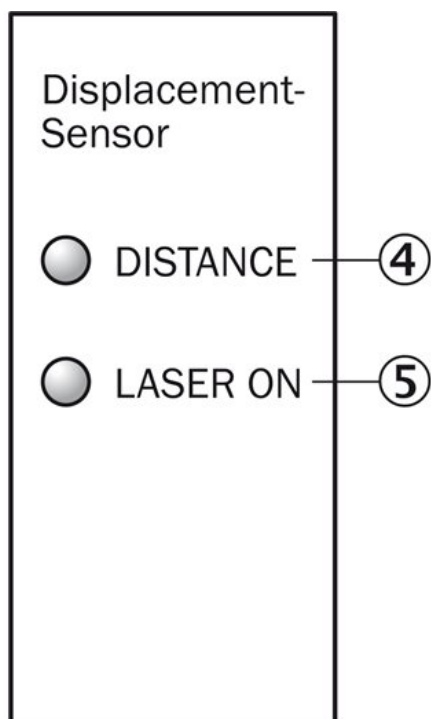
Ambient data

Enclosure rating:	IP 67
Protection class:	III
Ambient temperature:	Operation: -10 ... 45 °C, Storage: -20 ... 60 °C
Temperature drift:	± 0.01 % FS/K (FS = Full Scale = Measuring range of sensor)
Typ. ambient light safety:	Artificial light: $\leq 3,000$ lx 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

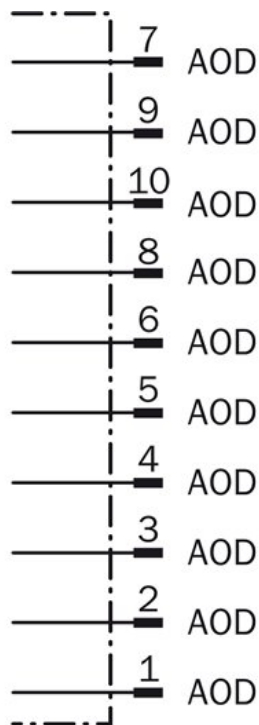


- |4| Distance indicator
- |5| Status indicator laser (laser on)

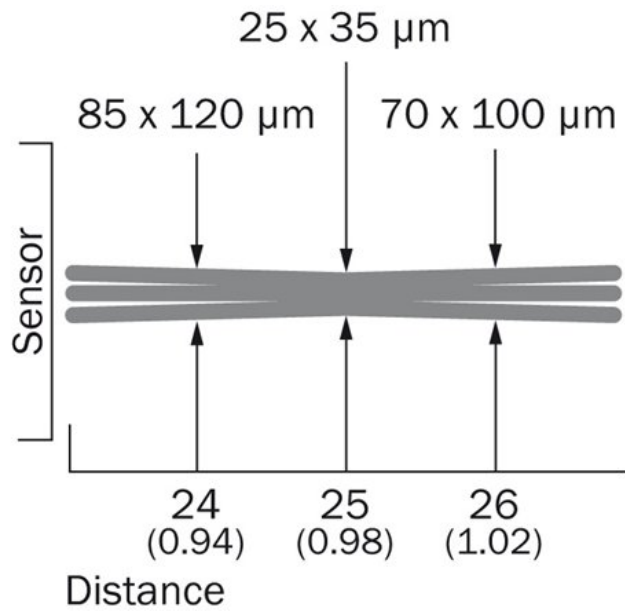
Connection type



Connection diagram

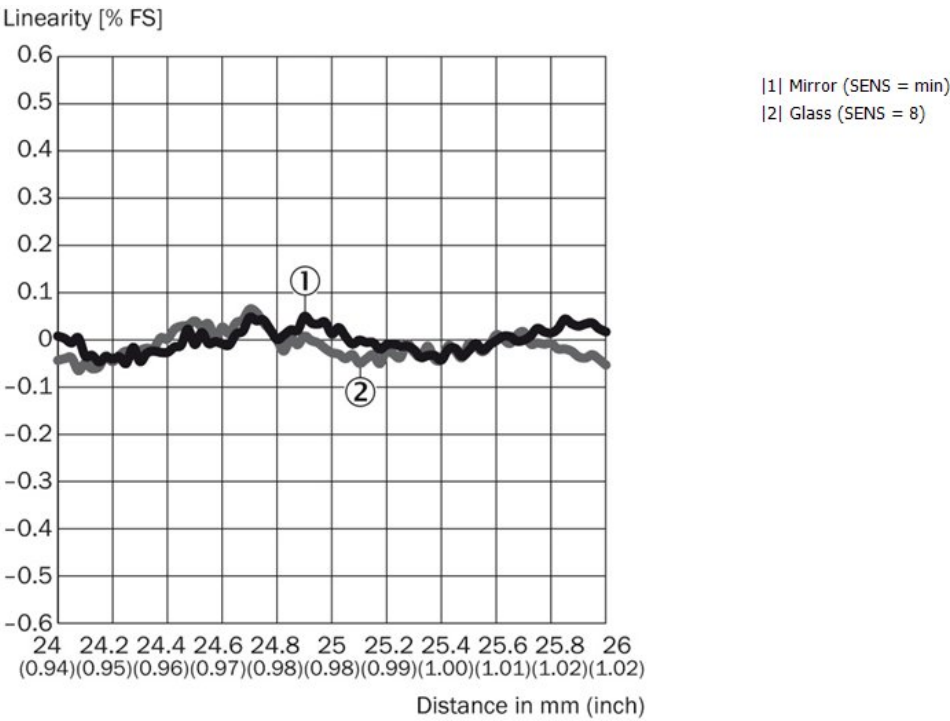


Light spot size



All dimensions in mm (inch)

Linearity



Australia

Phone +61 3 9457 0600
1800 334 802 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail sac@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Ceská Republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail kundenservice@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6801000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederlands

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail austefjord@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail admin@sicksgp.com.sg

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886-2-2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 8865 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com