

OD-25-01T1

OD Max

DISPLACEMENT MEASUREMENT SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
OD-25-01T1	6030977

Other models and accessories → www.sick.com/OD_Max



Detailed technical data

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 ¹⁾
Linearity	± 2 μm ¹⁾
Response time	0.5 ms ²⁾
Measuring frequency	10 kHz
Light source	Laser, red
Laser class	1 (EN 60825-1) ³⁾
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; constant ambient conditions.

²⁾ Automatic sensitivity adjustment ≤ 2 ms.

³⁾ Wavelength: 650 nm, max. output: 390 μW.

Mechanics/electronics

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

¹⁾ Can be extended to up to 10 m with extension cable.

²⁾ Sensor must be connected to controller unit.

³⁾ Includes 0.5 m cable.

Ambient data

Enclosure rating	IP 67
Protection class	III
Ambient temperature	Operation: -10 °C ... +45 °C Storage: -20 °C ... +60 °C
Relative air humidity (non-condensing)	35 % ... 85 %

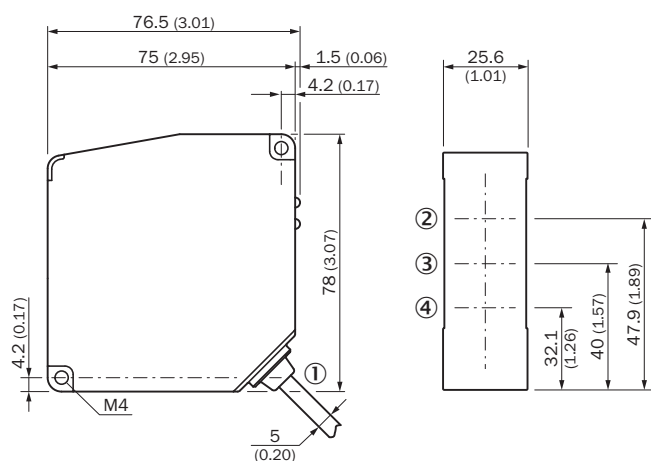
Temperature drift	± 0.01 % FS/K (FS = Full Scale = Measuring range of sensor)
Typ. Ambient light immunity	Artificial light: ≤ 3,000 lx Sunlight: ≤ 10,000 lx
Vibration resistance	10 Hz ... 55 Hz (amplitude 1.5 mm, x-, y-, z-axis 2 hours each)
Shock resistance	50 G (x, y, z axis 3 times each)

General notes

Note on use	OD Max sensor head OD25-x is only to be used with AODG-P/N1; All other types (OD350-x, OD85-x, OD30-x) are to be used with AOD-P/N1
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Dimensional drawing (Dimensions in mm (inch))

OD25-01T1



- ① Cable Ø 5 mm, 0.5 m with connector, 10-pin
- ② Optical axis, light spot (at 25 mm due to V-Optics with 17.5°)
- ③ Optical axis sender
- ④ Optical axis receiver

Connection type

Sensor head Hirose connector 10-pin

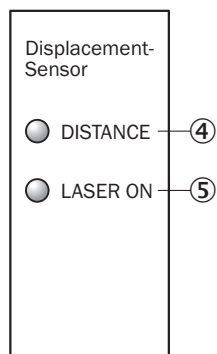


Connection diagram



Adjustment possible

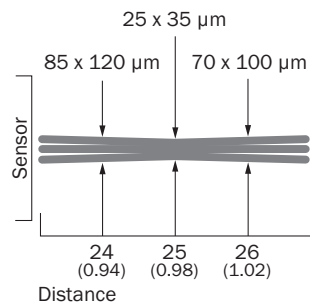
ODxx-xxxx



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

Light spot size

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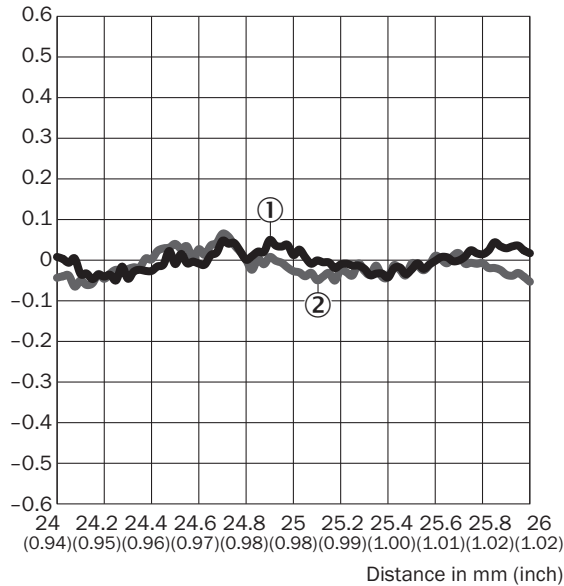


All dimensions in mm (inch)

Linearity

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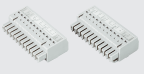
Linearity [% FS]



- ① Mirror (SENS = min)
- ② Glass (SENS = 8)

Recommended accessories

Other models and accessories → www.sick.com/OD_Max

	Brief description	Type	Part no.
Adapters and distributors			
		TERM.-AOD/AODG	6033129
Plug connectors and cables			
	Head A: female connector, M12, 10-pin, straight Head B: male connector, M12, 10-pin, straight Cable: unshielded, 2 m	DSL-1210-G02M	6028943
	Head A: female connector, M12, 10-pin, straight Head B: male connector, M12, 10-pin, straight Cable: unshielded, 5 m	DSL-1210-G05M	6028944
	Head A: female connector, M12, 10-pin, straight Head B: male connector, M12, 10-pin, straight Cable: unshielded, 10 m	DSL-1210-G10M	6033614

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SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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