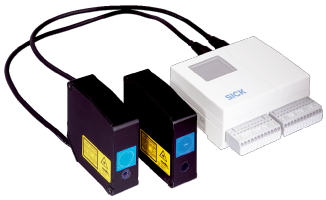
Data sheet

OD25-01T1

OD Max

DISPLACEMENT SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
OD25-01T1	6030977

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

Detailed technical data

Features

System part	Sensor head
Measuring range	24 mm ... 26 mm [1]
Repeatability	0.1 µm [2]
Linearity	± 2 µm [2]
Response time	≥ 0.5 ms [3]
Measuring frequency	≤ 10 kHz
Output time	≥ 0.1 ms
Emitted beam	
Light source	Laser, red
Typ. light spot size (distance)	25 µm x 35 µm (25 mm)
Key laser figures	
Normative reference	IEC 60825-1:2014, EN 60825-1:2014
Laser class	1 [4]
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

[1] 6% ... 90% remission factor.
[2] Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256; constant ambient conditions.
[3] Dependent on the set average or sensitivity.
[4] Wavelength: 650 nm, max. output: 390 µW (laser class 1) / 1 mW (laser class 2).

Interfaces

Serial	✓ , RS-232
Type of fieldbus integration	Optional, over external evaluation unit AOD
Digital output	
Number	5 [1]
Type	PNP/NPN, selectable
Maximum output current I_A	≤ 100 mA
Analog output	
Number	2 [1]

[1] Optional over evaluation unit AOD.

Type	Current output
Current	4 mA ... 20 mA, ≤ 300 Ω

[1] Optional over evaluation unit AOD.

Electronics

Warm-up time	≤ 5 min
Display	LEDs, 1.4" color display on evaluation unit
Enclosure rating	IP67
Protection class	III
Connection type	0.5 m cable with connector

Mechanics

Dimensions (W x H x D)	25.9 mm x 71.5 mm x 53.2 mm
Housing material	Metal (Aluminum)
Window material	Glass
Weight	250 g [1]

[1] Includes 0.5 m cable.

Ambient data

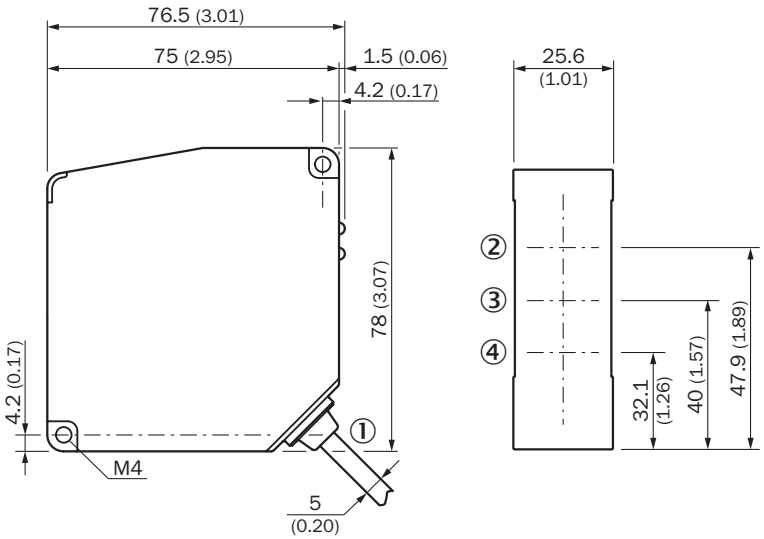
Ambient temperature, operation	–10 °C ... +45 °C
Ambient temperature, storage	–20 °C ... +60 °C
Relative air humidity (non-condensing)	35 % ... 85 %
Temperature drift	± 0.01 % FS/K (FS = Full Scale = Measuring range of sensor)
Typ. Ambient light immunity	Artificial light: ≤ 3,000 lx Sunlight: ≤ 10,000 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)

Classifications

ECLASS 5.0	27270801
ECLASS 5.1.4	27270801
ECLASS 6.0	27270801
ECLASS 6.2	27270801
ECLASS 7.0	27270801
ECLASS 8.0	27270801
ECLASS 8.1	27270801
ECLASS 9.0	27270801
ECLASS 10.0	27270801
ECLASS 11.0	27270801
ECLASS 12.0	27270916
ETIM 5.0	EC001825
ETIM 6.0	EC001825
ETIM 7.0	EC001825

ETIM 8.0	EC001825
UNSPSC 16.0901	41111613

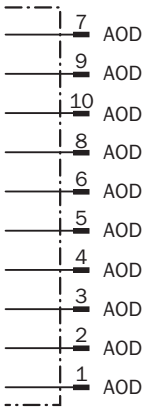
Dimensional drawing OD25-01T1



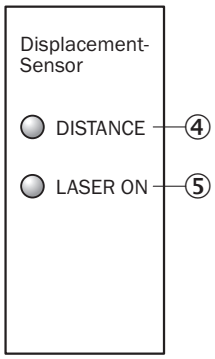
Dimensions in mm (inch)
① Cable Ø 5 mm, 0.5 m with connector, 10-pin
② Optical axis, light spot (at 25 mm due to V-Optics with 17.5 °)
③ optical axis, sender
④ optical axis, receiver

Connection type Sensor head hirose connector 10-pin

Connection diagram

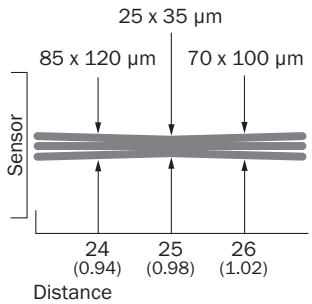


Adjustment possible



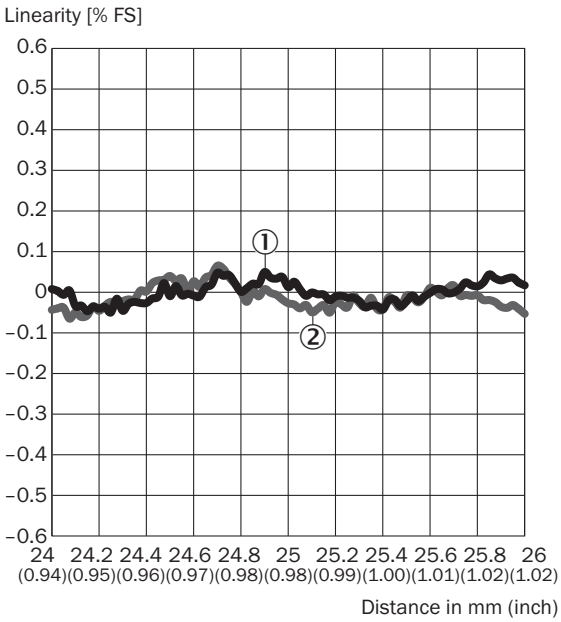
④ Distance indicator
⑤ Status indicator laser (laser on)

Light spot size OD25-01T1



All dimensions in mm (inch)

Linearity



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

Recommended accessories

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

	Brief description	Type	part no.
connectors and cables			
	Strich		On request
	Strich		On request

SICK AT A GLANCE

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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.”

WORLDWIDE PRESENCE:

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