Online data sheet

OD350-100T1

OD Max

DISPLACEMENT MEASUREMENT SENSORS

SICK
Sensor Intelligence.

Ordering information

Type	Part no.
OD350-100T1	6028957

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

Detailed technical data

Features

System part	Sensor head

Performance

Measuring range	250 mm ... 450 mm [1]
Target	Natural objects
Repeatability	50 µm [2]
Linearity	± 200 µm [2]
Response time	≥ 0.5 ms [3]
Measuring frequency	≤ 10 kHz
Output time	≥ 0.1 ms
Light source	Laser, red
Laser class	2 (IEC 60825-1:2014, EN 60825-1:2014) [4]
Typ. light spot size (distance)	300 µm x 700 µm (350 mm)

[1] 6 % ... 90 % remission.
[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
Analog output	2 x 4 mA ... 20 mA (≤ 300 Ω) [1]
Switching output	5 x PNP (100 mA) [1] 5 x NPN (100 mA) [1]

[1] Optional over evaluation unit AOD.

Mechanics/electronics

Warm-up time	≤ 5 min
Housing material	Aluminum
Window material	Glass

[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.

Connection type	0.5 m cable with connector [1) 2)]
Indication	LEDs, 1.4" color display on evaluation unit
Weight	250 g [3)]
Enclosure rating	IP67
Protection class	III

[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

Ambient temperature operation	–10 °C ... +45 °C
Ambient storage temperature	–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

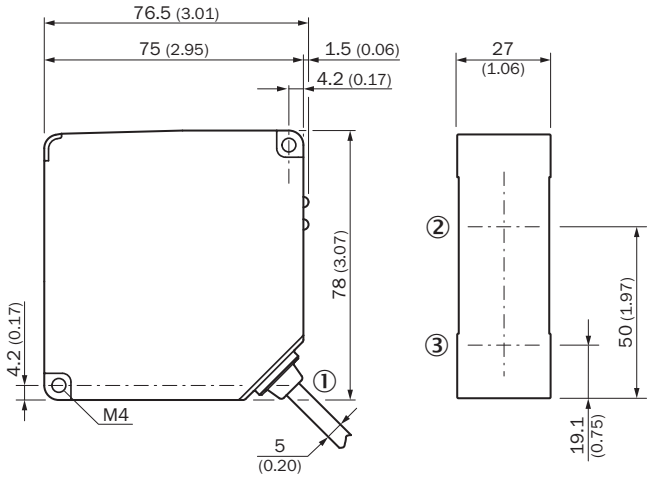
Note on use	OD Max sensor head OD25-x is only to be used with AODG-P/N1; All other types (OD350-x, OD85-x, OD30-x) are to be used with AOD-P/N1

Classifications

ECl@ss 5.0	27270801
ECl@ss 5.1.4	27270801
ECl@ss 6.0	27270801
ECl@ss 6.2	27270801
ECl@ss 7.0	27270801
ECl@ss 8.0	27270801
ECl@ss 8.1	27270801
ECl@ss 9.0	27270801
ETIM 5.0	EC001825
ETIM 6.0	EC001825
UNSPSC 16.0901	41111613

Dimensional drawing (Dimensions in mm (inch))

OD350-100T1



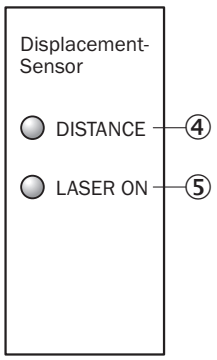
① Cable Ø 5 mm, 0.5 m with connector, 10-pin
② Optical axis, receiver
③ Optical axis, sender

Connection type

Sensor head hirose connector 10-pin

Connection diagram

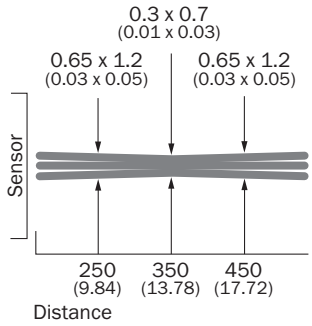
Adjustment possible



④ Distance indicator
⑤ Status indicator laser (laser on)

Light spot size

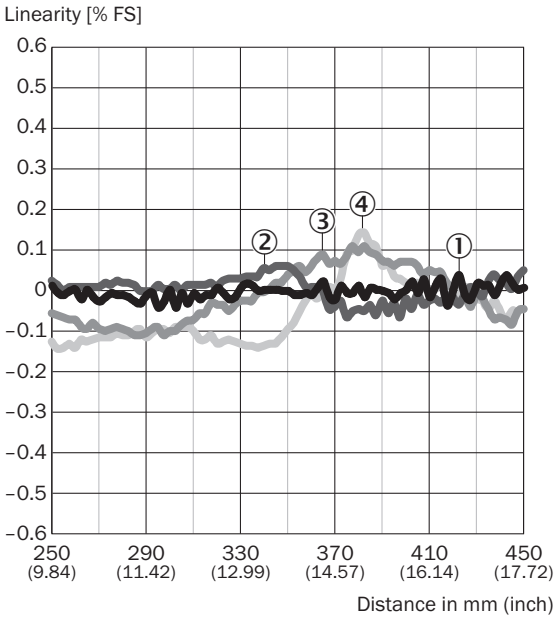
OD350-100T1



All dimensions in mm (inch)

Linearity

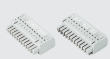
OD350-100T1



① White ceramic
② Gray ceramic
③ Aluminum
④ Black rubber

Recommended accessories

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

	Brief description	Type	Part no.
Adapters and distributors			
	Terminal block for AOD (1x R-coded & 1x L-coded)	TERM.-AOD/AODG	6033129
Modules and gateways			
	OD Max evaluation unit, 5x NPN, required for OD350-x, OD85-x and OD30-x	AOD-N1	6028961
	OD Max evaluation unit, 5x PNP, required for OD350-x, OD85-x and OD30-x	AOD-P1	6028960
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

SICK AT A GLANCE

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.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com