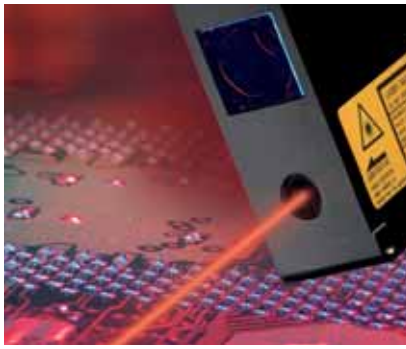


OD Max and OD Max Transparent displacement sensors – highly accurate, non-surface dependent distance measurement





- Highest measuring accuracy
- Non-surface dependent measurements:
matt ... shiny, as well as light ... dark
- Easiest solution for customer-specific
applications, thanks to integrated calculations
based on values from 2 sensors
- Diverse interfaces

OD MAX AND OD MAX TRANSPARENT SERIES

Highly accurate, non-surface dependent distance measurement

OD MAX series →

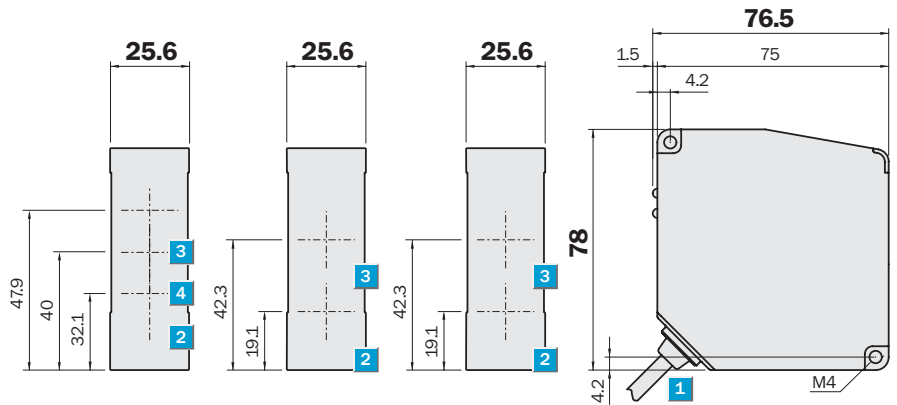
Displacement sensor OD Max, standard, sensor head

	Measurement ranges 25 ± 1 / 30 ± 5 / 85 ± 20 / 350 ± 100 mm
Displacement Sensor	

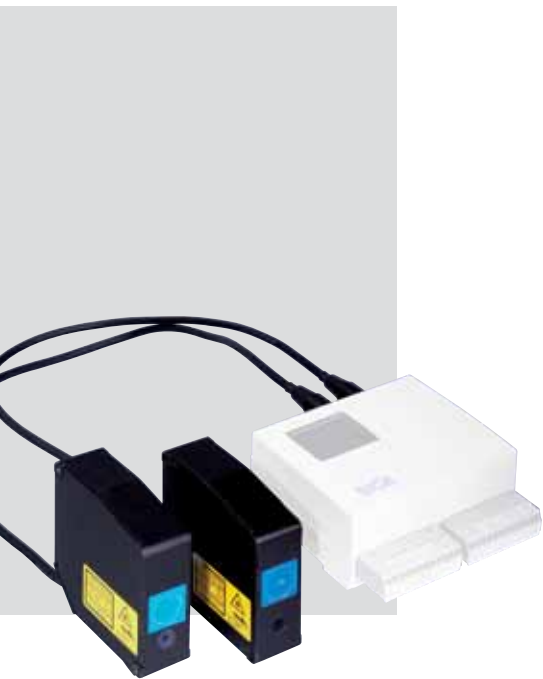
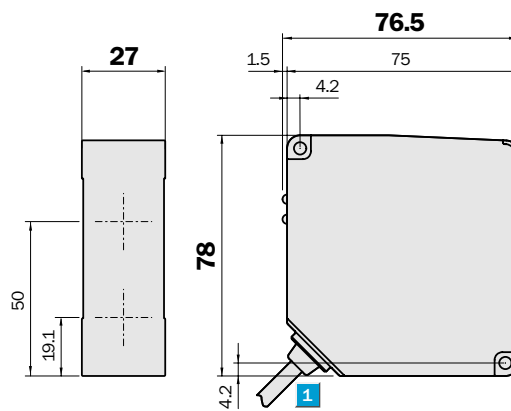
- Highest measuring accuracy
- Non-surface dependent measurements: Standard: matt ... shiny, as well as light ... dark
- Transparent: Transparent materials
- Calculation using 2 sensors values
- Diverse interfaces

Dimensional drawing

OD25-01T1 OD30-05T1 OD85-20T1



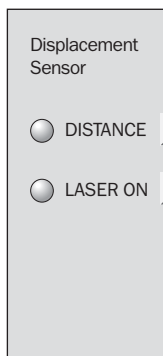
OD350-100T1



- 1** Cable ø 5 mm/0.5 m with 10-pin connector
- 2** Optical axis – sender
- 3** Optical axis – receiver
- 4** Optical axis – light spot (at 25 mm due to V-Optics with 17.5°)
- 5** Distance indicator LED
- 6** Laser on LED

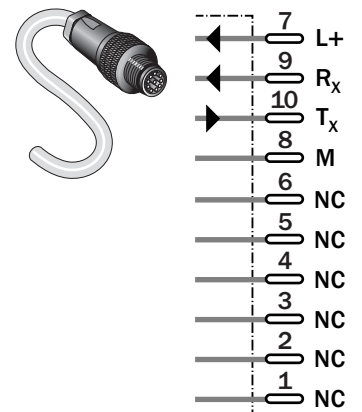
Adjustments possible

All types



Connection types

All types 10-pin



Accessories
Cables and connectors

Technical Data		OD-	25-01T1	30-05T1	85-20T1	350-100T1						
Light source	Red laser diode 1 (II) ¹⁾		■									
	Red laser diode 2 (II) ²⁾			■	■	■						
Measuring range	25 ± 1 mm		■									
	30 ± 5 mm			■								
	85 ± 20 mm				■							
	350 ± 100 mm					■						
Resolution ³⁾	0.1 µm		■									
	1 µm			■								
	5 µm				■							
	50 µm					■						
Reproducibility ⁴⁾	0.3 µm		■									
	3 µm			■								
	15 µm				■							
	150 µm					■						
Accuracy	± 2 µm ⁵⁾		■									
	± 10 µm ⁶⁾			■								
	± 40 µm ⁶⁾				■							
	± 200 µm ⁶⁾					■						
Temperature drift	± 0.05 % FS ⁷⁾ /°C		■	■	■	■						
Measuring frequency	10 kHz		■	■	■	■						
Supply voltage V _S	Supplied from the amplifier unit		■	■	■	■						
Enclosure rating	IP 67		■	■	■	■						
VDE protection class	III		■	■	■	■						
Ambient temperature T _A	Operation -10 °C ... +45 °C ⁸⁾		■	■	■	■						
	Storage -20 °C ... +60 °C		■	■	■	■						
Ambient light limit	max. 3.000 lx (fluorescent light)		■	■	■	■						
	max. 10.000 lx (sun light)		■	■	■	■						
Vibration resistance	10/s ... 55/s ⁹⁾		■	■	■	■						
Shock resistance	50 G (500 m/s ²)		■	■	■	■						
Weight	250 g (including 50 cm cable)		■	■	■	■						
Material	Sensor head housing: Diecast aluminium		■	■	■	■						
Cable extension	0.5 m pig tail with connector ¹⁰⁾		■	■	■	■						
On AOD-P/N1	Standard, materials such as metal		■	■	■	■						
On AODG-P/N1	Transparent/mirror		■									

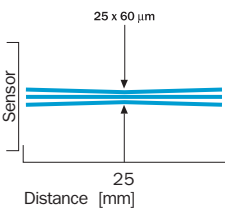
¹⁾ Wavelength 650 nm, max. output 390 µW
²⁾ Wavelength 650 nm, max. output 1 µW
³⁾ Averaging: 256/4096 (OD25) measurement; Object: 90% remission; Distance: middle distance

⁴⁾ With constant environmental conditions; Averaging: 256/1096 (OD25) measurements; Object: 90% remission
⁵⁾ On Glass; Parallel alignment of the active sensor surface to the object surface; Equivalent ± 0.1 % of Full Scale

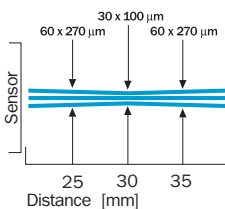
⁶⁾ Equivalent ± 0.1 % of Full Scale for 6 ... 90 % remission
⁷⁾ Full Scale:
 OD25-01T1 = 2 mm
 OD30-05T1 = 10 mm
 OD85-20T1 = 40 mm
 OD350-100T1 = 200 mm

⁸⁾ Non-condensing
⁹⁾ Double amplitude 1.5 mm, 2 h for XYZ-axes
¹⁰⁾ Extendable by cable to max. 10 m

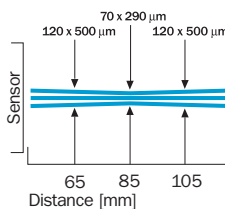
OD25-01T1: Light spot diameter



OD30-05T1: Lightspot diameter



OD85-20T1: Lightspot diameter



Order information

Type	Order no.
OD25-01T1	6030977
OD30-05T1	6028959
OD85-20T1	6028958
OD350-100T1	6028957

OD350-100T1: Lightspot diameter

