



ZeroTouch®

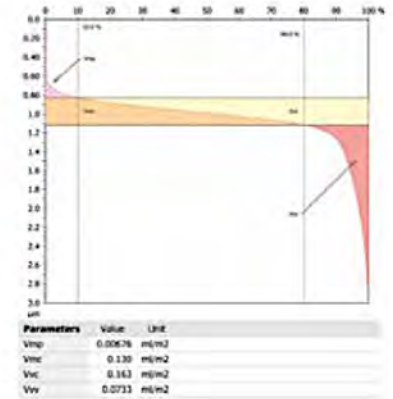
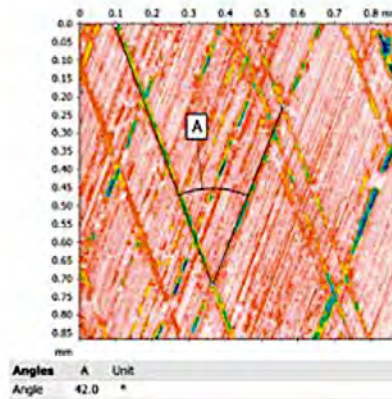
ZTS-9020 / ZTS-9050 / ZTS-9090

NON-CONTACT 3D SURFACE PROFILING SENSOR

A high-speed, precision surface profiling inspection sensor for shop floor installation.

The ZeroTouch® 9000 Series non-contact surface profiling sensor generates a precise 3D point cloud of surface micro-geometrie and micro-structures down to single atom layers.

Determination of the Honing Angle and Volume Parameters



KEY BENEFITS

- Non-contact measurements of smooth, rough, and specular surfaces such as glass, metal, plastic, and composite
- Precise measurement of height and relevant surface parameters
- Installed in the immediate vicinity of the production line
- Inspects mirrors, semiconductor wafers, microlenses, and solar cells
- Micron-level fast measurements of various surface profiles
- 3D sensor with manually interchangeable objective

KEY FEATURES

- White-light interferometry based, very high resolution sensors
- Piezo positioning system with interferometric calibrated closed-loop controller (up to 200µm scan range)
- Optional XY positioning table with manual Z adjustment
- Advanced algorithms improve speed and reduce system noise





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NON-CONTACT 3D SURFACE PROFILING SENSOR

SPECIFICATIONS

HIGH-RESOLUTION CAMERA

Measuring Points	2000 x 2000
Scanning Speed Full Resolution	88 Hz
Scanning Speed ROI	Up to 2 kHz
Topography Reproducibility	<1nm

SYSTEM PERFORMANCE

1-σ Reproducibility 12μm Step Height	<5nm
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SCANNING

Scan Range	Up to 200μm
Scanning Speed Full Resolution	5.9μm/s
Max Scanning Speed	~148μm/s
Digitization	Up to 0.01pm

SOFTWARE

OS	Windows 10
Analysis Software	MountainsMap

MACHINE SIZE

Sensor Weight	~16 kg (35.2 lbs)
Cylinder Diameter	70 mm - 125 mm (standard configuration)
Standard Insertion Axis	~188 mm
Extended Insertion Axis	~270 mm
Motorized Insertion Axis	~200 mm / stitching

POSITIONING TABLES

Positioning Area	100 x 100 mm ²
Positioning Options	Manual or Automatic
Load Capacity	2 kg
Resolution	0.01μm
Orthogonality	<10arcsec
Vibration Isolation	Options available

ENVIRONMENTAL

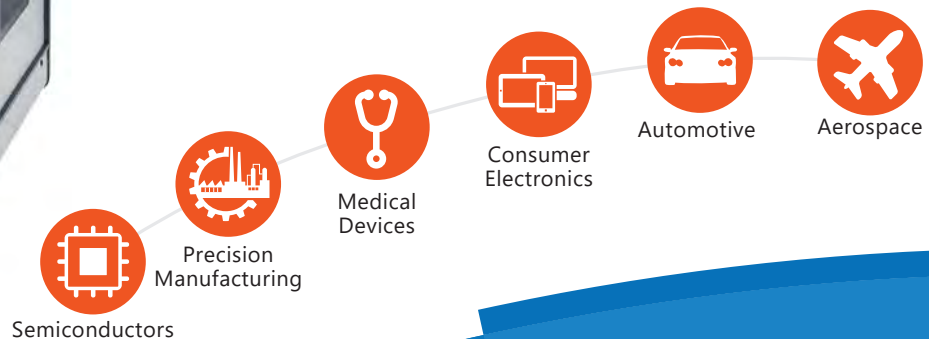
Temperature (Operational)	10°C (50°F) to 35°C (95°F)
Relative Humidity (Non-Condensing)	Up to 80%

ELECTRICAL SUPPLY

Electrical Service	100 to 240 VAC, 50/60Hz
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KEY INDUSTRIES



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DWFritz Metrology is a global provider of high-speed, non-contact metrology and inspection platforms for advanced manufacturing. The company designs, builds, and supports engineer-to-order automation systems, as well as provides world-class build-to-print manufacturing capabilities.