

NanoCam Sq

4D Technology

Dynamic Surface Roughness Profiler

Portable, Placeable Roughness Metrology

The NanoCam Sq™ dynamic profiler measures surface roughness on small to very large coated and uncoated optics. With impressive portability, now you can bring accurate metrology anywhere you need it, including at production stations for small optics, directly on large optics, on gantries or robots, or on polishing equipment.

The unique NanoCam Sq does away with slow, messy replication methods required by traditional workstation interferometers. Its portability and on-machine capability reduce handling and transportation of optics, increasing throughput and dramatically reducing the risk of damage to expensive, mission-critical optics.

Vibration Insensitive Performance

The NanoCam Sq utilizes Dynamic Interferometry®, incorporating a single camera, high-speed optical sensor that measures in less than 100 microseconds—thousands of times faster than a conventional optical profiler. Because acquisition time is so short, the NanoCam Sq can measure despite vibration, making it possible to mount the instrument in polishing equipment, on gantries or on robots. This flexibility enables the NanoCam Sq to be used in a wide range of configurations.



NanoCam Sq with optional motorized, joystick-controlled tripod stand

Industry Leading Analysis, Standard

4Sight analysis software features a user-friendly interface for acquiring and analyzing data and reporting ISO 25178 surface roughness parameters, PV and Ra. 2D and 3D displays, filtering and masking make it easy to highlight surface roughness and structure. The unique Measurement Stack enables complex data transformations. Comprehensive data sharing lets you read, write, save and print from most file types, including Zygo MetroPro®, Bruker Vision®, ADE-PhaseShift MAP, and HDF5®.

Accessories

Interference objectives are available with 2.0X, 5X, 10X, and 20X magnifications, with an optional 2X magnification multiplier. Each objective can measure samples with reflectivity from 1% to 100%. Multiple mounting options are available, including a motorized, joystick controlled tripod, mobile workstation, and interfaces to polishing equipment, gantries or robots.

FEATURES

- Vibration Insensitive Dynamic Operation
- 1.4 MP, 12-bit, Low-Noise Camera
- 460 nm Pulsed LED Source
- Integrated Alignment System
- ISO 25178 Surface Roughness Parameters
- Motorized, Joystick Controlled Tip/Tilt/Z Tripod
- Workstation, Gantry, Robot Mountable Interfaces

APPLICATIONS

- Portable Roughness Measurement for Small Optics
- 3D Surface Roughness on Large Optics
- On-Machine Polishing Metrology

