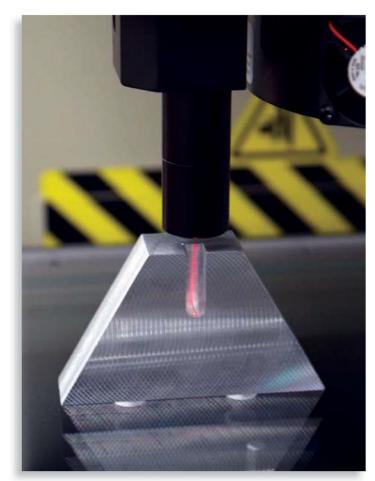


TeleStar Probe is a self-contained, off-axis, interferometric range sensor for surface contour measurement. TeleStar Probe offers sub-micron resolution, while scanning either specular or diffuse surfaces. Spot size as small as 5 µm for measuring miniature features. The TeleStar Probe offers:

- Speed, Accuracy and Long Working Distance -Speeds up to 500 points/second with very high accuracy, internal reference, and up to 70 mm constant working clearance.
- Auto Deployment Automatic deployment mechanism retracts when not in use on SmartScope ZIP® systems.
- Interchangeable Lenses -P-25 probe offers interchangeable objective lenses for different applications.

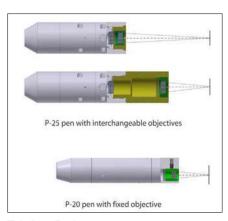


## Off-Axis High Resolution Interferometric Range Sensor

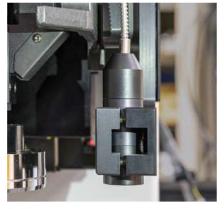


TeleStar P-20 Probe

## TeleStar® Probe







P-25-70 integrated on a SmartScope ZIP with fixed mount



P-20 integrated on FlexPoint® VersaFlex™ Multisensor Array

## **Technical Specifications**

| ,   |  |         |         |
|---|--|---------|---------|
| Available for                                 | Any SmartScope ZIP, Fusion®, or FlexPoint with a VersaFlex multisensor array |         |         |
| Required Metrology Software                   | ZONE3®   |         |         |
| Probe Technology                              | Partial coherence interferometer   |         |         |
| Laser Class (internal laser pointer)          | Class 2  |         |         |
| Deployment Mechanism (SmartScope ZIP Systems) | Mechanical, 38 mm deployment range   |         |         |
| Probes  | P-20   | P-25-35 | P-25-70 |
| Working Distance                              | 25 mm  | 35 mm   | 70 mm   |
| Measuring Range <sup>1</sup>                  | 800 μm   | 800 μm  | 1400 µm |
| Spot Size <sup>2</sup> (nominal-FWHM)         | 5.8 μm   | 5.0 μm  | 9.2 µm  |
| Acceptance Angle                              | > 75° from diffuse surface calibration sphere                                |         |         |
| Resolution <sup>3</sup>                       | 0.1 μm   |         |         |
| Accuracy <sup>4</sup>                         | 1.0 µm   |         |         |
| Repeatability <sup>4</sup>                    | 0.1 μm (1σ)  |         |         |

<sup>1</sup>Measuring Range is the Z-range over which the performance of the sensor is linear and calibrated.
<sup>2</sup>With spot size at best focus. Spot sizes for this particular laser are the full width of the spot at half maximum value (FWHM).

<sup>3</sup>Using high quality specular (polished glass) surface, 1σ.

<sup>&</sup>lt;sup>4</sup>Accuracy/Repeatability of the laser on horizontal specular surfaces within the measuring range. System performance varies with machine type.



## **Safety Considerations**

This system is classified as a Class II laser device by IEC 825 (2001). Do not stare directly into the laser source.



World Headquarters: Rochester, NY, USA • 585.544.0400 • www.ogpnet.com OGP Shanghai Co, Ltd: Shanghai, China 86.21.5045.8383/8989 • www.smartscope.com.cn

OGP Messtechnik GmbH: Hofheim-Wallau, Germany

49.6122.9968.0 • www.ogpmesstechnik.de Optical Gaging (S) Pte Ltd: Singapore • 65.6741.8880 • www.smartscope.com.sg

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