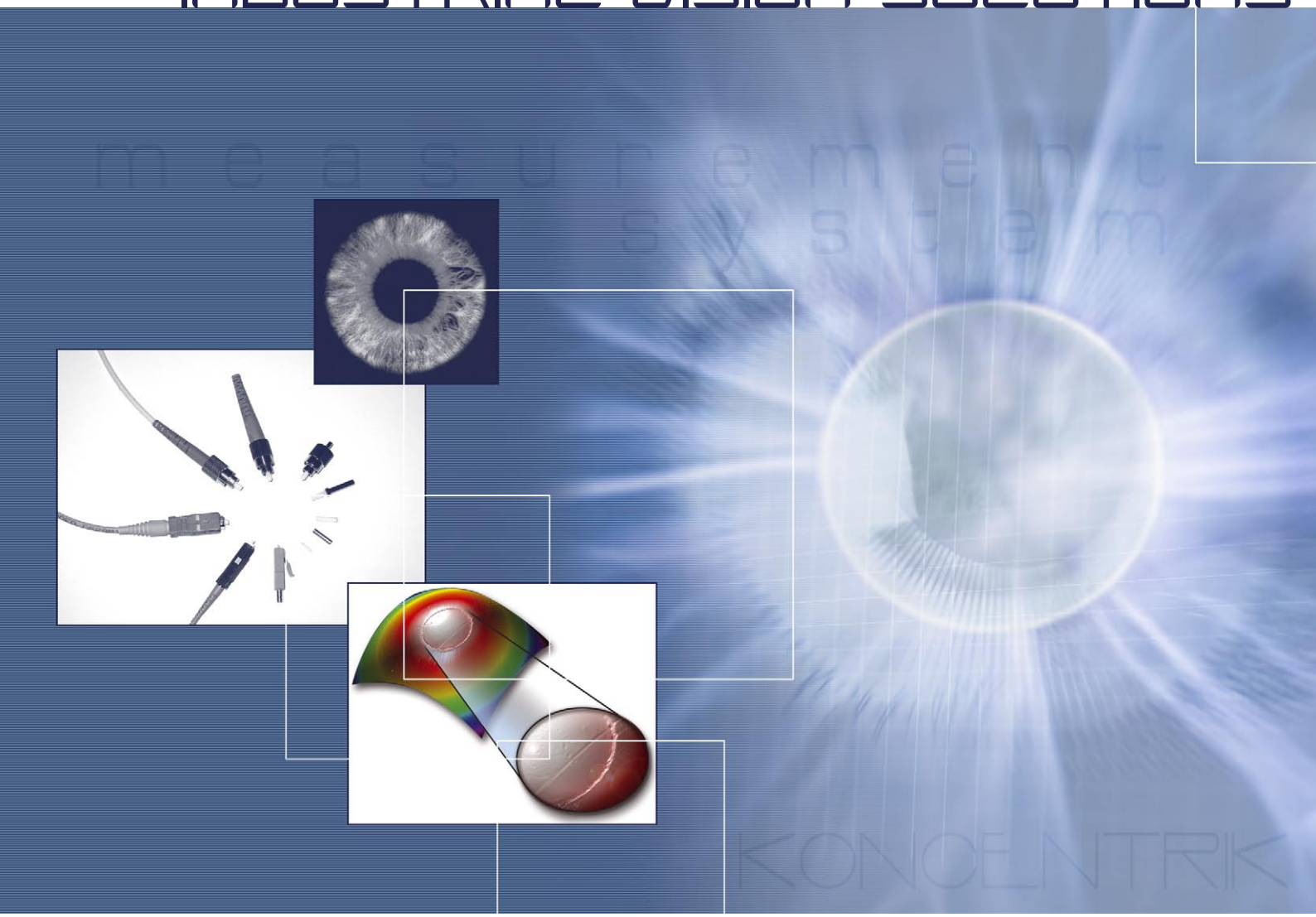
# INDUSTRIAL VISION SOLUTIONS

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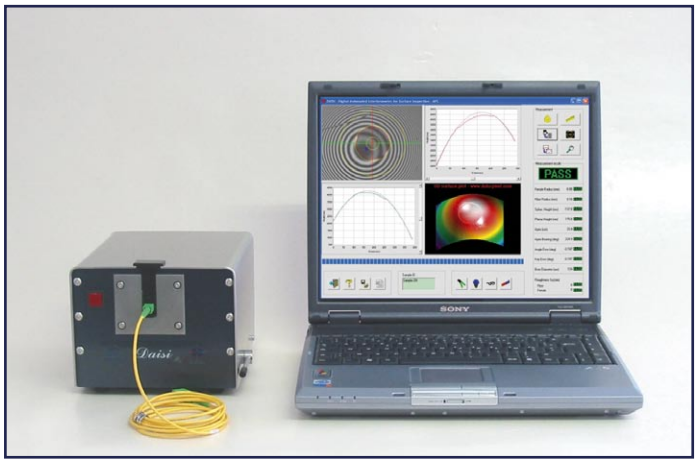
# DAISI

**D**igital **A**utomated **I**nterferometer for **S**urface **I**nspection

**The ultimate production interferometer for measuring end-face geometry on single fiber and MT-RJ connectors, equipped with a revolutionary "no-exterior-moving-parts" mechanical design.**




## *Key Features*

- Single unit for measurement of PC and APC ferrules, connectors and bare fibers
- Non-contact measurement
- Fast autofocus
- One-button easy operation
- Servo-controlled reference mirror for automatic Apex calibration
- Strongest ferrule holder in the industry with automated open/close feature. Can perform measurements while handling the cable
- No exterior moving parts or adjustment screws -> No apex decalibration
- Vibration insensitive. Measurements can be made when holding the system by hand
- Easy and fast switching from PC to APC, no change of ferrule holder required
- Connector key adaptors for most connector types. Special design provides easy loading feature
- Interfaceable to laptop computers, only one USB2.0 link required

## *Measurements:*

- Fast and automated measurement of radius, apex offset, fiber height + more
- Measure fiber and ferrule roughness (Sq parameter)
- Measure angle of cleaving of bare fibers with great precision
- Accurate and repeatable measurements
- High resolution 2D & 3D surface profiles
- Measurement report and history report in Excel
- Compliance with Industry Standards for interferometer measurements

| Measured parameter (unit) | Range | Accuracy / Precision* / Reproducibility** |
|---|---|---|
| Ferrule radius (mm) | 3 to 100 | 5% / 0.5% / 0.8% |
| Fiber spherical height (nm) | +/- 160 | 10nm / 1.5nm / 2nm |
| Fiber planar height (nm) | +/- 160 | 10nm / 1 nm / 1.5nm |
| Apex Offset (µm) | 0 to 300 | 5µm / 0.5µm / 1µm |
| Apex Bearing (degrees) | 0 to 360 | n/a |
| Angle error (degrees) | calculated from Apex | n/a |
| Key error (degrees) | calculated from Apex | n/a |
| Ferrule roughness Sq (nm) | 0 to 160 | 10nm / 2nm / 2nm |
| Fiber roughness Sq (nm) | 0 to 160 | 10nm / 2nm / 2nm |

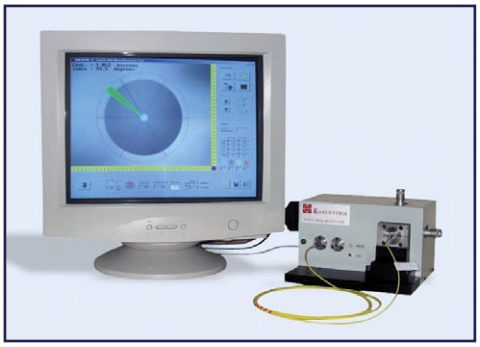
*Precision and **Reproducibility : 1 sigma values
Precision values calculated from 50 consecutive measurements without removal of connector from interferometer
Reproducibility values calculated from 50 consecutive measurements with removal of connector from interferometer

# Koncentrik

Multi-functional system for test and measurement
of fiber optic ferrules & cable assemblies

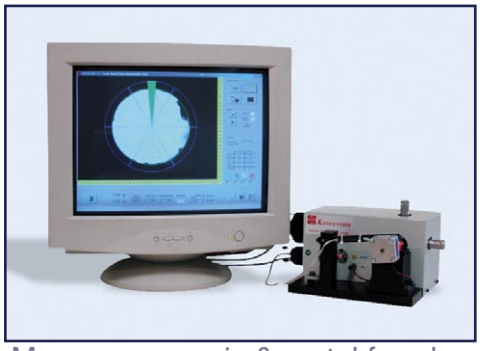
**The following distinct functions are available as separate modules attached to the same bench top unit :**

**Patchcord concentricity + index measurement (Tuning)**



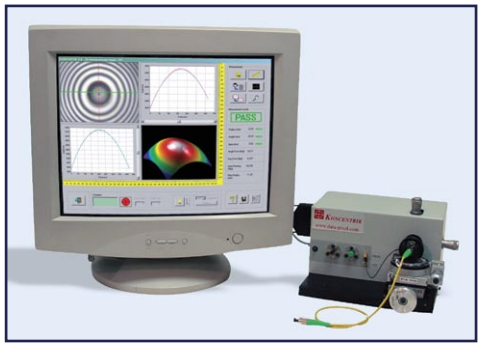
Measure 2.5 & 1.25mm PC-type connectors

**Ferrule concentricity + index measurement**

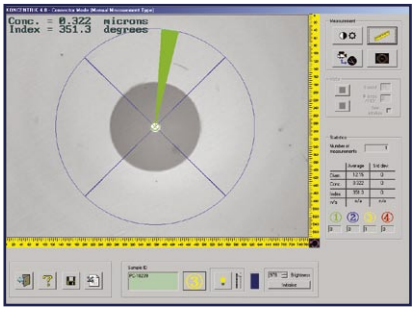


Measure ceramic & metal ferrules

**Ferrule/Connector symmetry measurement (Interferometry)**

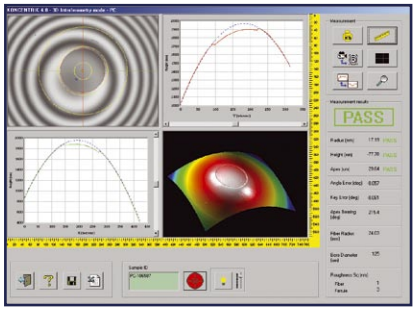


Measure PC & APC connectors + bare fibers



***Key Features common to all modules:***

- Fast and automated measurements
- High resolution 2D & 3D surface profiles
- Measurement report and history report in Excel
- Easy calibration and simple Koncentrik software
- Magnification : x900 or x450



| | Measured parameter (unit) | Range | Accuracy |
|---|---|---|---|
| Connector Module | Eccentricity (µm) | 0 to 100 | +/- 0.15 µm |
| | Indexing (degrees) | 0 to 360 | Up to 1° |
| | Measurement speed (seconds) | 10 + (user variable) | |
| Ferrule Module | Eccentricity (µm) | 0 to 100 | +/- 0.15 µm |
| | Indexing (degrees) | 0 to 360 | Up to 1° |
| | Ferrule outside Ø (mm) | 1 to 4 | |
| | Ferrule bore Ø (µm) | 5 to 500 | |
| | Measurement speed (seconds) | 3 + (user variable) | |
| Interferometer Module | Radius (mm) | 3 to 100 | +/- 0.5 mm |
| | Apex Offset (µm) | 0 to 300 | +/- 5 µm |
| | Fiber Height (nm) | +/- 300 | +/- 5 nm |
| | Fiber Cleave Angle (degrees) | 0 to 20 | +/- 0.05° |
| | Measurement speed (seconds) | 2.5 | |

# Defect Inspector + Autofocus Kit

Automated visual inspection system
with Autofocus kit and footswitch for production

**DEFECT INSPECTOR is a software for ferrule end-face automated visual inspection.**

**A USB autofocus kit adapts on most commercially available microscopes and makes the system completely automated.**

**Within a few seconds, the software will automatically focus, detect the position of the fiber, the dimensional characteristics of scratches, the size and position of surface debris and defects as well as the width and eccentricity of the epoxy ring.**

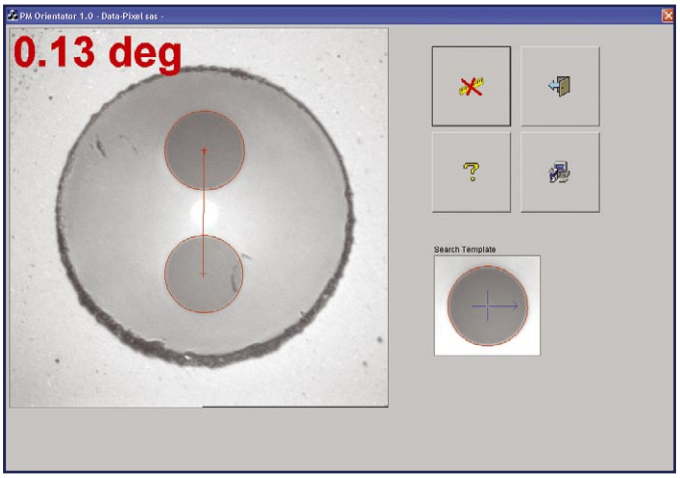

### *Key Features*

- Software suitable for all leading industry microscopes
- USB autofocus kit available (focusing time <2 secs)
- Footswitch operation for easy production use
- All parameters highly flexible and fully adjustable
- Detailed Excel measurement report
- Unlimited customer defined Pass/Fail templates
- Rapid measurement & analysis (<5 Secs)

# PM Orientator

Automated angle measurement of PM fibers ' strain elements

**PM Orientator is a software for the measurement of the orientation of the strain elements of Polarization-Maintaining fibers (PM fibers), so that the alignment of these elements with the key of the connector can be done with a high precision, better than 0.1°.**




Display of the angle between the strain elements and the mechanical vertical axis, on a PANDA fiber

### *Key Features*

- Precise measurements : precision better than 0.1°
- Measurement very stable and robust to lighting and contrast variations
- Real-time measurements (25 per second)
- Software module available as DLL or ActiveX control for system integration

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