NorthLab
PHOTONICS

ProView™ XD – for fiber holders

FIBER END FACE INTERFEROMETER & MICROSCOPE

The ProView XD is a highly advanced interferometer for precise measurement and inspection of fiber end faces with diameters from 220 to 1200 µm. The interferometer is specifically designed for production lines where a simple, fast and very accurate end face inspection is required. But the ProView XD is also well suited for R&D environments and for fiber cleaver maintenance purposes.

In many cases an interferometric fringe pattern can be very complicated to analyse and understand. For ease of use and optimal inspection speed the ProView XD includes highly advanced and fully automatic functions for 2D and 3D topographic analyses of the end face surface. The software automatically indicates the angle, flatness and slope direction of the end face.

To simplify the inspection process even further the ProView XD can be set to a "PASS/FAIL" mode. This function allows the operator to simply determine the end face quality via colour codes on the image.

In addition to cleave angle inspection the ProView XD can also be used to measure several other properties such as fiber diameters and distance between defined points etc.
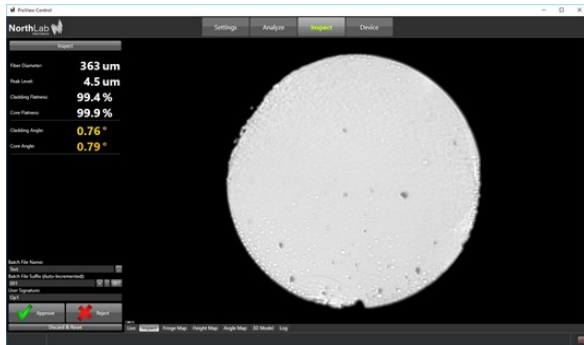
The ProView XD – for fiber holders is delivered with a universal v-groove clamp assembly which can accommodate standard fiber holders from FITEL or Fujikura but also allows the use of bare fibers. There are also optional holders available for inspection of standard SMA, FC/PC, ST/PC or LD80 connectors. Custom made clamps or adapters can be offered on request.

The ProView XD has a compact design which makes it ideal for a production bench and to be used side-by-side with fusion splicers, cleavers and other preparation tools. The ProView XD is connected and powered via an USB 3.0 cable and hosted by an external PC (not included).
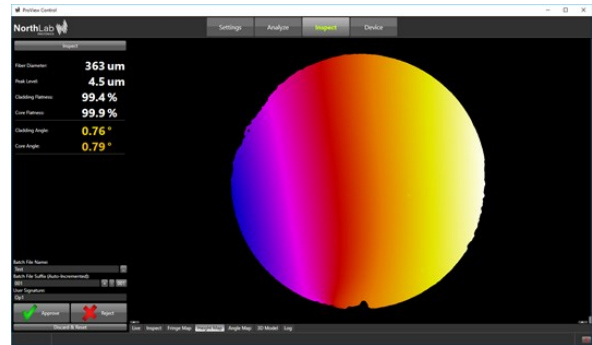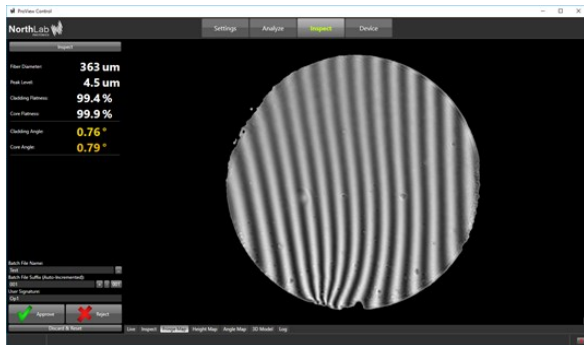

Key Features

- For fiber cladding diameters from 220 to 1200 µm
- 2D and 3D topography
- Fringe & Inspection mode from PC Controller GUI
- Very fast inspection time with automatic angle estimation
- Optional use of PASS/FAIL cleave angle indication
- Inspection of end face properties such as flatness, perpendicularity, hackles and contamination
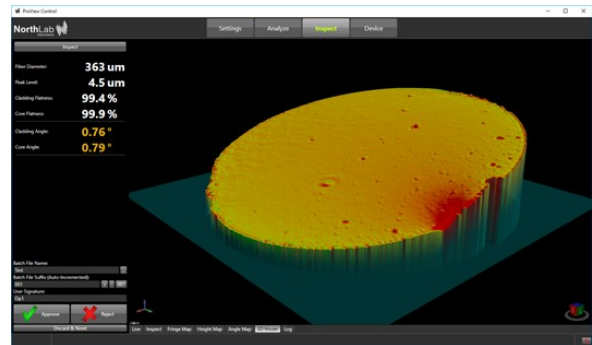- Grab and save 2D and 3D images and cleave data

MICROSCOPE VIEW

HEIGHT MAP VIEW

INTERFEROMETER VIEW

3D MODEL VIEW

FITEL/FUJIKURA FIBER HOLDER PLATFORM

Technical Specifications

Dimensions:	86(W) x 127(D) x 93(H) mm
	86(W) x 140(D) x 97(H) mm (incl. focus knob and rubber feet)
Weight:	1.2 kg
Power supply:	Through USB port
PC connection:	Super Speed USB (USB 3.0) Type-A with 2 m cable
Environment:	Operating temperature: 10 °C ~ 40 °C
	Storage temperature: -20 °C ~ 50 °C
	Humidity: 5% ~ 95% RH (non-condensing)
Fiber diameter:	220 µm – 1200 µm
Field of view:	~1300 µm
Resolution:	2560 x 1920 (4.92 MP)
Sensor:	CMOS (monochrome)
Image file format:	JPEG, PNG, TIFF, GIF

System Acquisition Range and Accuracy

Height, peak to valley:	15 µm
Angle, 220 µm fiber:	up to 3.9°
Angle, 400 µm fiber:	up to 2.1°
Angle, 720 µm fiber:	up to 1.2°
Angle, 1200 µm fiber:	up to 0.7°
Absolute accuracy: [1]	0.03° standard deviation (<400 µm, ROI = 90%)
	0.02° standard deviation (>400 µm, ROI = 90%)
Relative accuracy: [1]	5% up to 2°

[1] Using software calibration compensation.

System Requirements

Computer:	PC with Intel i5 (or better)
USB: [2]	One free USB 3.0 port (Super Speed)
Memory:	4 GB RAM (16 GB RAM recommended)
Disc space:	100 MB (500 MB recommended)
Operating system:	Windows 8/8.1/10 64-bit (with .NET Framework 4.8 or later)
Graphics card:	3D graphics support (dedicated GPU recommended)
Display resolution:	1920 x 1080 (dual monitor system recommended)
Input devices:	Keyboard and a three-button scroll-wheel mouse (or equivalent)

[2] Only use USB 3.0 ports directly connected to the motherboard of the PC (i.e. a port without an internal extension cable).

Product	Part #	Qty.
NorthLab ProView™ XD – for fiber holders	**IF-12-01000**	
Standard Package		
Platform for FITEL (S712) F/H	IF-90-01001	1
Platform for FITEL (S713) & Fujikura F/H	IF-90-01002	1
Shims (100, 400, 600, 800, 1000 um)	IF-90-01003	1
USB 3.0 Cable	N/A	1
User's Manual & PC Software	N/A	1
Accessories and Spares		
Universal V-groove Clamp	IF-90-01004	
SMA Connector Holder	IF-90-01010	
FC/PC Connector Holder	IF-90-01011	
ST/PC Connector Holder	IF-90-01012	
LD80 Connector Holder	IF-90-01013	

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