FIP-400B Fiber Inspection Probe

ADVANCED FIELD-INSPECTION TOOL WITH EMBEDDED ANALYSIS

ConnectorMax2
ANALYSIS SOFTWARE

A truly intelligent and automated tool that provides crisp digital images of optical connectors, thus simplifying the first critical step in fiber testing.

KEY FEATURES

Automatic, fiber image-centering function reduces test time and unnecessary manipulations

On-board connector endface analysis (IEC, IPC or custom standards) via ConnectorMax2

Optimal digital image quality with three levels of magnification

Re-engineered, rugged design with ergonomic access to all controls

Pass/fail LED indicator for immediate diagnosis of connector cleanlines

COVER ALL FIBER APPLICATIONS

FTTx and hybrid networks

Mobile fronthaul (FTTA) and backhaul

DAS and fiber-fed small cells

Data centers

Campus and private networks

Military

Lab and research

COMPLEMENTARY PRODUCTS

TK-MAX-FIP
Stand-Alone Display Kit

ConnectorMax2
Analysis Software

Cleaning Kits

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FAST-TRACKING CONNECTOR INSPECTION

When you outsource your fiber testing, you want to be certain that the technician will apply the best practices and properly certify every connector. Neglecting to do so, at this critical step, will lead to serious, time-consuming problems. The new FIP-400B Series is the result of years of fiber-inspection experience in the field. Its patent-pending, re-engineered design was developed from actual, end-user feedback for the purpose of optimizing and speeding up the inspection process.

THE FIP-400B'S HASSLE-FREE, AUTOMATIC IMAGE-CENTERING FEATURE SAVES PRECIOUS TIME

57%

shorter inspection time

› Save over two hours on a typical FTTH cabinet inspection - 432 fibers

› 14-second inspection time per port (down from 32 seconds) *

› $25 000 in potential savings in one year based on one cabinet inspection per day at a cost of $50 per hour

* Data sourced from EXFO's case study, with calculation based on typical analysis time.

AUTOMATIC, FIBER IMAGE CENTERING

This function cuts inspection time in half because it automatically detects the fiber endface and instantly centers the image. The user simply has to focus and capture. This is especially handy when inspecting patch panels and hard-to-reach connectors. It also ensures that users will not miss defects in the critical zones of the connectors.

It feels like hitting the bullseye. Every time.

Off center   *Centered*

Low mag   *Medium mag*   *High mag*
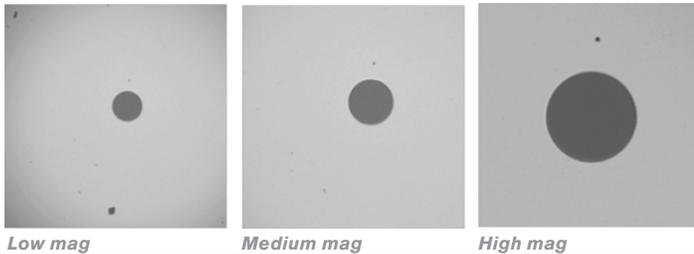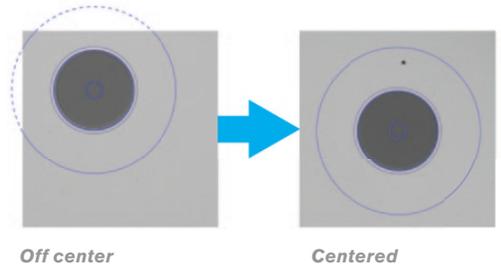
TRIPLE MAGNIFICATION MODE:

By optimizing the image size, users get a detailed view of all defects. This is the only portable probe in the industry to offer three magnification levels.

RE-ENGINEERED DESIGN:

The rubber casing and controls are designed for intense field operation. The controls are strategically positioned to make the inspection process easier. Plus, the very bright status LED can be easily seen from different angles. The FIP-400B is designed so it can be handled seamlessly by both right- and left-handed users.

Magnification control
Capture control
Status LED
Retaining nut
Interchangeable adapter tips
USB interface
Focus

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AUTOMATIC PASS/FAIL CONNECTOR CERTIFICATION WITH CONNECTORMAX2 ANALYSIS SOFTWARE

› Automatic pass/fail analysis of the connector endfaces
› Save time and money
› Lightning-fast results in seconds with simple one-touch operation
› Complete test reports for future referencing
› Stores images and results for recordkeeping

Delivering fast pass/fail assessment of connector endfaces, EXFO's ConnectorMax2 Analysis Software is designed to save both time and money in the field. ConnectorMax2 automated inspection application eliminates guesswork by providing clear-cut connector endface analysis.

Using ConnectorMax2, field technicians are able to analyze defects and scratches, and measure their impact on connector performance. Results are then compared against preprogrammed IEC/IPC standards or user-defined criteria, leading to accurate pass/fail verdicts established right on-site.

ConnectorMax2 therefore helps avoid two-time, money-draining situations (i.e., undetected connector defects requiring that technicians return to the site at a later date) and unnecessary replacement of connectors with slight defects too small to provide a "fail" verdict.

Thanks to the ConnectorMax2's newly redesigned interface, the unit features a unique all-in-one integrated GUI. The touchscreen provides quick access to all of the instrument's main functionalities.

HIGH-VISIBILITY LED PASS/FAIL INDICATOR:

Located directly on the probe, this LED indicates the status of the connector under test following analysis, providing immediate diagnosis of connector cleanliness. There is no need to consult the platform or display screen, so users can simply focus on getting ready for their next inspection.

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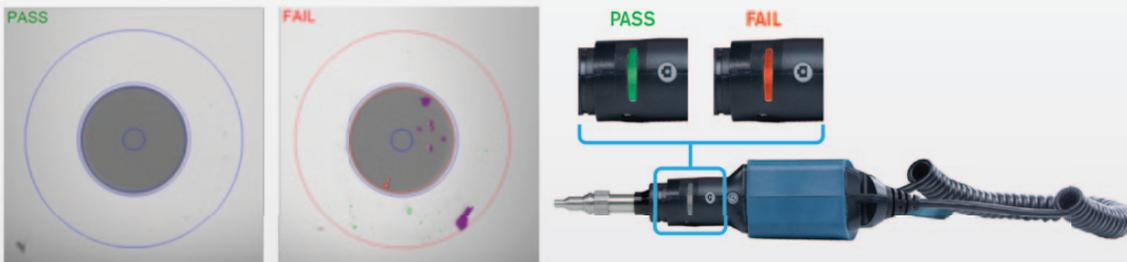
UNIVERSAL COMPATIBILITY*

Thanks to a USB port, the FIP-400B Series is compatible with the entire FTB ecosystem, the MaxTester 700B OTDR Series, the MAX-FIP display as well as PCs and laptops.

FTB-Ecosystem   **MaxTester 700B OTDR Series**   **Standalone MAX-FIP Display**   **PC and Laptops**

For compatibility with EXFO's AXS and FOT Series as well as legacy optical gear, see the FIP-400 model.

TWO MODELS

The FIP-420B offers all the benefits listed above. However, EXFO also has a budget-friendly model for those who are interested in high optical performance without the automated connector certification: the FIP-410B.

FEATURES	FIP-410B	FIP-420B
Connector inspection	YES	YES
Image capture	YES	YES
Three magnification levels	YES	YES
Five-megapixel capturing device	YES	YES
Automatic, fiber image centering function	NO	YES
Pass/fail LED indicator	NO	YES
Pass/fail connector certification	NO	YES

Inspecting and analyzing fiber connector endfaces has never been easier with this digital fiber-inspection probe. In addition, EXFO offers two different models to fit your budget.

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SPECIFICATIONS [a]

Size (H x W x D)	47 mm x 42 mm x 162 mm (1 $^7/_8$ in x 1 $^5/_8$ in x 6 $^3/_8$ in) [b]
Weight	0.3 kg (0.66 lb)
Resolution	0.55 µm
Camera sensor	Five-megapixel CMOS
Visual detection capability	<1 µm
Field of view	304 µm x 304 µm (high mag) 608 µm x 608 µm (mid mag) 912 µm x 912 µm (low mag)
Light source	Blue LED
Lighting technique	Coaxial
Capture button	Available on all models
Magnification button	Available on all models
Digital magnification	Three levels
Connector	USB 2

Note

a. Typical.

b. Measurement excluding tip and including strain relief.

GENERAL SPECIFICATIONS

Temperature	operating storage	−10 ℃ to 50 ℃ −40 ℃ to 70 ℃
Relative humidity		0 % to 95 % non-condensing

ACCESSORIES

Standard	Optional	
Video inspection probe (FIP-410B/420B)	FIPT-BOX	Plastic case divided into various compartments for tips
FC-SC tip for bulkhead	GP-10-2175	Protective cap and cord assembly for FIP-400/400B
U25M universal patch cord tip for 2.5 mm ferrule	GP-10-094	Soft pouch for FIP-400 and FIP-400B
Plastic case with various compartments for tips		

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ORDERING INFORMATION

FIP-4XXB-XX-XX-XX

Model

FIP-410B = Digital Video Inspection Probe
Triple Magnification

FIP-420B = Analysis Digital Video Inspection Probe
Automated pass/fail analysis
Triple Magnification
Auto Center

Base Tips

APC = Includes FIPT-400-U25MA and FIPT-400-SC-APC
UPC = Includes FIPT-400-U25M and FIPT-400-FC-SC

Extra FIP-400B tips

FIPT-400-LC-K = LC tip kit including: FIPT-400-LC: LC tip for bulkhead adapters, FIPT-400-LC-APC: LC/APC tip for bulkhead adapter, FIPT-400-U12M: Universal patchcord tip for 1.25 mm ferrules, FIPT-400-U12MA: Universal patchcord tip for 1.25mm ferrules APC
FIPT-400-SCA-K = 2,5 mm APC tip kit including: FIPT-400-U25MA, FIPT-400-SC-APC
FIPT-400-ADAPTER = Adapter tip
FIPT-400-D4 = D4 tip for bulkhead adapter
FIPT-400-E2000 = E-2000 tip for bulkhead adapter
FIPT-400-E2000-APC = E2000 APC tip for bulkhead adapters
FIPT-400-FC-APC [a] = FCAPC tip for bulkhead adapter
FIPT-400-FC-SC [b] = FC and SC tip for bulkhead adapter
FIPT-400-FC-SC-A6 = FC and SC angled tip for bulkhead adapter, 60 degree
FIPT-400-LC = LC tip for bulkhead adapters
FIPT-400-LC-A6 = LC angled tip for bulkhead adapters, 60 degree
FIPT-400-LC-APC = LC/APC tip for bulkhead adapter
FIPT-400-LC-L = Extended LC tip for PC bulkhead adapter
FIPT-400-LC-L-137 = 137 mm, Extended LC tip for PC bulkhead adapter
FIPT-400-LEMO = Lemo bulkhead adapter
FIPT-400-LX.5 = LX.5 PC Tip for bulkhead connector
FIPT-400-LX5-APC = LX.5/APC tip for bulkhead adapter
FIPT-400-MTP2 = MTP/MPO UPC tip for bulkhead adapter (includes a bulkhead adapter for patch cord inspection)
FIPT-400-MTP2-K = MTP/MPO tip kit including: Tip for MTP/MPO bulkhead adapter, Nozzle for MTP/MPO APCconnectors, Nozzle for MTP/MPO UPC connectors, Bulkhead adapter for patch cord inspection
FIPT-400-MTP2-TIP = MTP/MPO UPC replaceable nozzle for FIPT-400-MTP2 or FIPT-400-MTPA2 tip
FIPT-400-MTPA2 = MTP/MPO APC tip for bulkhead adapter (includes a bulkhead adapter for patch cord inspection)
FIPT-400-MTPA-TIP = MTP/MPO APC replaceable nozzle for FIPT-400-MTP2 or FIPT-400-MTPA2 tip
FIPT-400-MTRJ = MTRJ tip for MTRJ bulkhead
FIPT-400-MU = MU tip for bulkhead adapters
FIPT-400-MU-L = Extended MU tip for PC bulkhead adapter
FIPT-400-MU-L-149 = 149 mm, Extended MU tip for PC bulkhead adapter
FIPT-400-ODC-4PIN-P = ODC 4 Pin Plug (female) Guide tip
FIPT-400-ODC-4PIN-P-K = ODC 4 Pin Plug (female) Guide & Universal tip
FIPT-400-ODC-2&4PIN-P-K = ODC 2 & 4 Pin Plug (female) Guides & Universal tip
FIPT-400-ODC-S = ODC Socket (male) tip
FIPT-400-ODC-U = ODC Universal Guide tip
FIPT-400-ODC-2PIN-P = ODC 2 Pin Plug (female) Guide tip
FIPT-400-ODC-2PIN-P-K = ODC 2 Pin Plug (female) Guide & Universal tip
FIPT-400-OTAP-APC = Optitap bulkhead adapter
FIPT-400-OTAP-MTP-APC = MT/APC type OptiTip(tm) and OptiTap multifiber adapter for male and female connectors. Comes into a kit compatible with male and female cable ends.
FIPT-400-OTAP-MTP-APC/M = Male adapter tube for FIPT-400-OTAP-MTP-APC tip
FIPT-400-OTIP-MT-APC/M = Male adapter tube for FIPT-400-OTIP-MT-APC tip
FIPT-400-SC-APC = SC APC tip for bulkhead adapter
FIPT-400-SC-APC-L = SC Angled extended tip for bulkhead connector
FIPT-400-SC-L = Extended SC tip for PC bulkhead adapter
FIPT-400-SC-L-149 = 149 mm, Extended SC tip for PC bulkhead adapter
FIPT-400-SC-UPC = SC UPC tip for bulkhead adapter
FIPT-400-SMA = SMA Tips for bulkhead Connector
FIPT-400-SMAM = SMA Tip for male connector
FIPT-400-ST = ST tip for bulkhead adapter
FIPT-400-U12M = Universal patchcord tip for 1.25 mm ferrules
FIPT-400-U12MA = Universal patchcord tip for 1.25mm ferrules APC
FIPT-400-U16M = Universal 1.6 PC tip for male connector
FIPT-400-U20M2 = Universal patchcord tip for 2.0mm ferrules (D4, Lemo)
FIPT-400-U25M [b] = Universal patchcord tip for 2.5 mm ferrules
FIPT-400-U25MA [a] = Universal patchcord tip for 2,5 mm ferrules APC

Example: FIP-420B-UPC

Notes

a. Included when APC base tips selected.
b. Included when UPC base tips selected.

For the most recent version of this spec sheet, please go to the EXFO website at www.EXFO.com/specs.

In case of discrepancy, the web version takes precedence over any printed literature.

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