



FTI-10 Single-Channel Conditioner

Industrial, Laboratories, Process, R&D



The FTI-10 is a single-channel, battery-powered fiber optic signal conditioner especially designed to work with all Fabry-Pérot FISO's fiber optic sensors. It is a general-purpose instrument ideally suited to perform single-point measurements in a myriad of industrial and R&D applications .

Description

The FTI-10 conditioner is designed to perform accurate single-channel measurements. Thanks to its unique, patented technology, the FTI-10 conditioner is capable of measuring the absolute cavity length of FISO's Fabry-Pérot fiber optic sensors with astonishing accuracy, providing highly accurate and reliable measurements.

The FTI-10 has a 0.01% full-scale resolution and a 0.025% full-scale precision.

It comes standard with an RS-232 communication port and a ± 10 V adjustable analog output. Moreover, the unit's internal Flash ROM can be accessed to allow firmware upgrades and updates.

Data is stored in the internal memory buffer for later retrieval or sent directly to any analog input signal reading device through the ± 10 V adjustable analog output available on the back panel of the FTI-10 unit.

FISO's fiber sensors offer complete immunity to RF / EMI and microwave radiations with high temperature operating capability, intrinsic safety, and non-invasive use.

A unique gauge factor assigned to each sensor allows the FTI-10 conditioner to recognize automatically the sensor type and calibration, reducing test setup time.

The FTI-10 conditioner has a non-volatile memory buffer that can store up to 50 000 data points. Data logging sequences, duration, and other acquisition and data management parameters are easily programmable using the front-panel interface, through RS-232 remote control commands or, even more easily, thanks to its accompanying software, *FISO Commander*.

The FTI-10 comes in a rugged $\frac{1}{8}$ DIN casing designed to withstand heavy use and operation in industrial environments and has up to 8 hours of battery autonomy.

Key Features

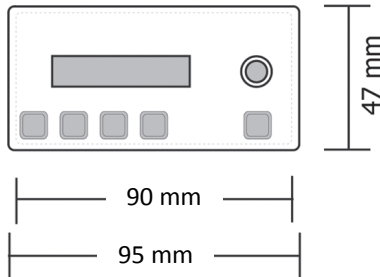
- Compatible with all of Fabry-Pérot FISO's fiber optic sensors ST connectorized
- ± 10 V Analog Output
- Voltage output and RS-232 communication port
- Backlighted LCD screen
- Small footprint
- Rugged and easy to use
- Battery powered
- $\frac{1}{8}$ DIN enclosure

Applications

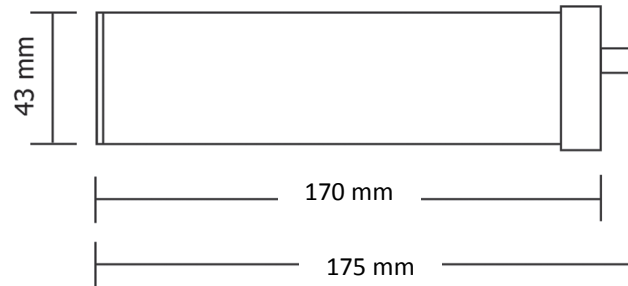
- Microwave food processing
- Packaging design
- NMR / MRI environments
- Automotive
- Aerospace
- High temperature
- Multi-purpose laboratory applications
- *In-situ* process monitoring
- Civil engineering
- New material research
- Hazardous environments

Dimensions

FRONT



SIDE



Specifications

Channel	1	Communication	RS-232
Sampling rate	10 Hz	Upgradeability	Flash ROM firmware
Averaging	1 to 500 samples	Lamp life²	40 000 hours of continuous use
Precision	0.025% of full scale	Weight	0.9 kg
Resolution	0.01% of full scale	Dimensions (W × D × H)	95 x 175 x 47 mm (¹ / ₈ DIN)
Dynamic range	15 000 : 1	Power requirements	12 Volts DC (wallmount adapter included)
Display	1 line 16 characters liquid crystal display with back-light	Autonomy	8 hours with fully-charged battery (0.5 Watt power consumption)
Data logging	50 000 data points	Operating temperature	-20°C to 40°C
Analog outputs	±10 V with screw connectors ¹		

1. 4-20 mA optional

2. Lamp is replaceable

Ordering information

FTI-10: Single channel fiber optic signal conditioner, 10Hz sampling rate, battery powered, ¹/₈ DIN, integrated datalogger (50 000 samples), ± 10V Analog Output, RS-232 communication and control port. ST Connector.

FTI-10-A1: Single channel fiber optic signal conditioner, 10Hz sampling rate, battery powered, ¹/₈ DIN, integrated datalogger (50 000 samples), internally powered 4-20 mA Analog Output, RS-232 communication and control port. ST Connector.