



Specification Sheet

Fiber Defender Model FD-331/FD-332 Alarm Processing Unit

FD-331/FD-332

The Fiber Defender Model FD-331/FD-332 Alarm Processing Unit (APU) is the next generation of alarm processor, replacing the FD-205. The FD-331 is a single-channel model while the FD-332 is a dual-channel alarm processor, capable of supporting two separate runs of sensor cable. Used with SC-3 fiber optic sensor cable in conduit or SC-4 fiber optic sensor cable buried in a suitable medium, the FD-331/FD-332 APU forms a complete intrusion detection system.

The FD-332 APU can connect to and support sensor cable from two deployments, regardless of their applications. Each channel in the APU can be programmed separately for fence line or buried deployments. Both channels support up to 5 km (16,400 feet/3.1 miles) of sensor cable.

The FD-331/FD-332's digital signal processing enables detection and analysis of sensor cable stimulation. The Digital Signal Processor (DSP) also provides discrimination between natural phenomena and intrusion attempts. Using either a pre-programmed algorithm or the optional Model AN-200 wind anemometer, the FD-331/FD-332 senses wind effects and continuously adjusts the system sensitivity to compensate.

Two alarm relay outputs are provided in each FD-331/FD-332 channel: a normally-open and a normally-closed set of relay contacts. The corresponding relay changes state when the APU detects an alarm condition from the sensor cable.

The FD-331/FD-332 is fully compatible with the Fiber



The FD-332 dual-channel APU supports dual-channel operation, allowing multiple applications on one processor

Security Network (FSN). Using FSN, up to 127 zones can be interconnected in a single system that provides full integration with a central station or remote control software. Optionally, the FD-331/FD-332 can be fitted with an RJ-45 connector for IP/XML communication.

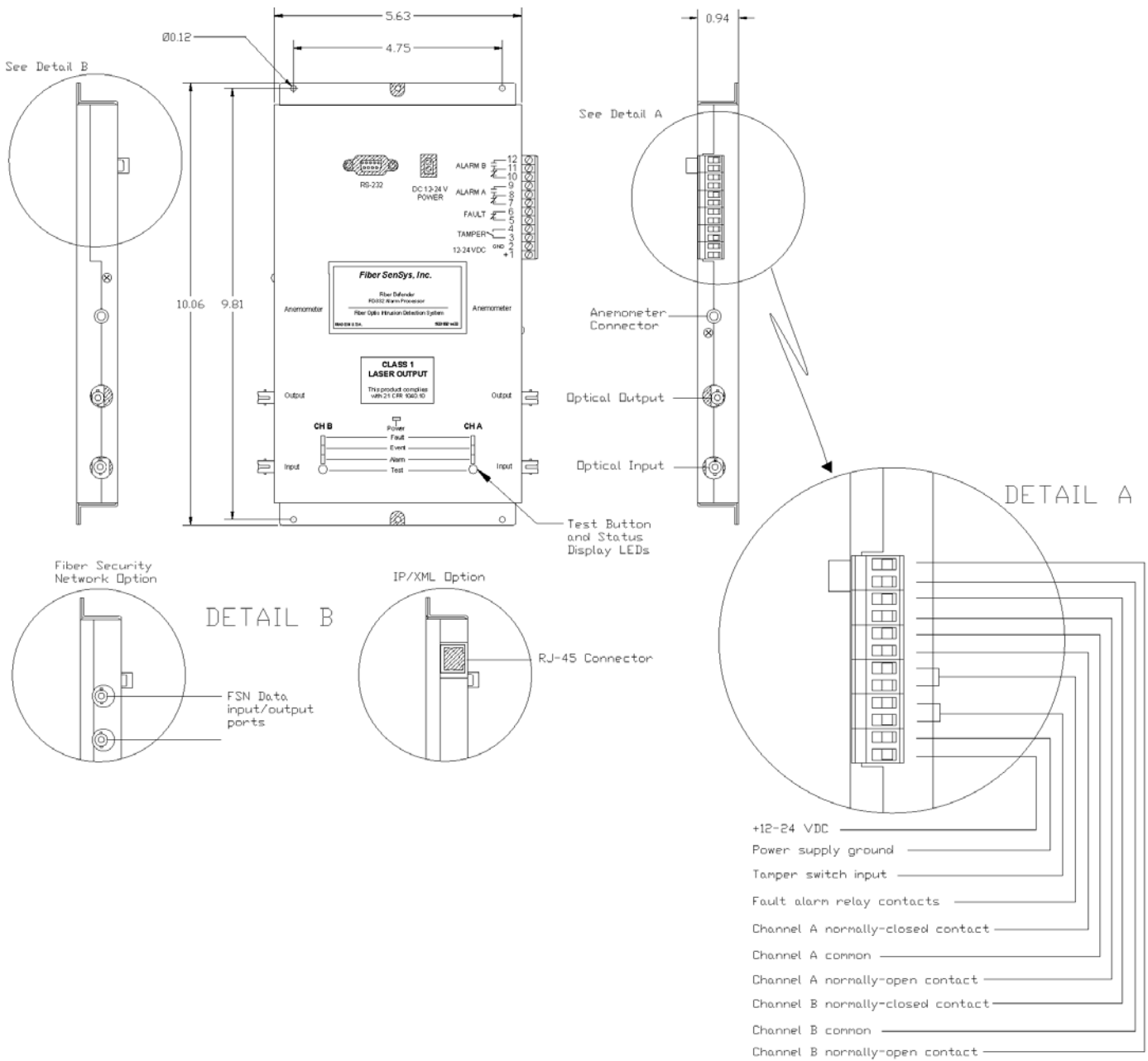
Each FD-331/FD-332 APU comes as either a stand-alone unit or mounted in an optional fiberglass NEMA 4x enclosure.

The FD-331/FD-332 Alarm Processing Unit is designed and manufactured in the U.S.A., and is backed by a full two-year warranty.

Features	Applications	Deployments
Sensor immune to lightning and EMI	Commercial	Fences
Supports dual-zone operation	Oil pipelines	Buried
Zones up to 5 km long	Chemical depots	Walls
IP/XML communication option	Military facilities	Gratings
Optional anemometer output	Campuses	Rooftops
Linear, uniform sensitivity	Electrical substations	Lawns
Adaptive wind processing	Corrections	Beaches

Assembly Diagram

FD-331/FD-332 Alarm Processing Unit

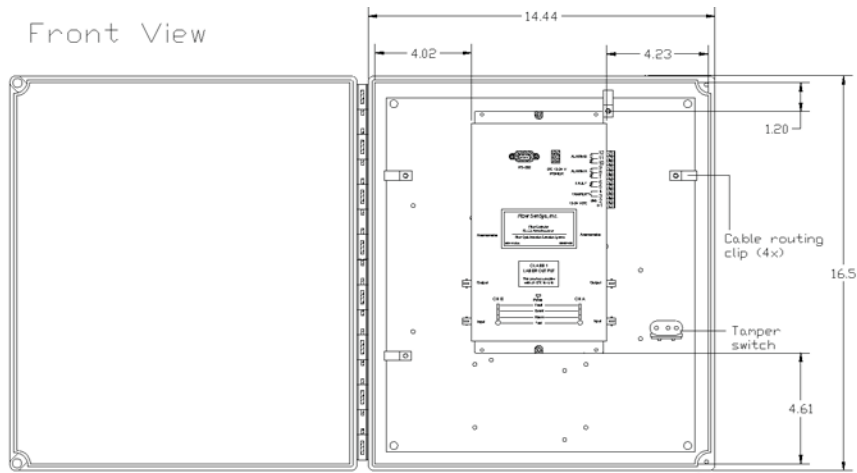


NOTES:

1. All units in inches unless otherwise noted
2. Channel A only for FD-331 models

FD-331/FD-332 Enclosure Drawing

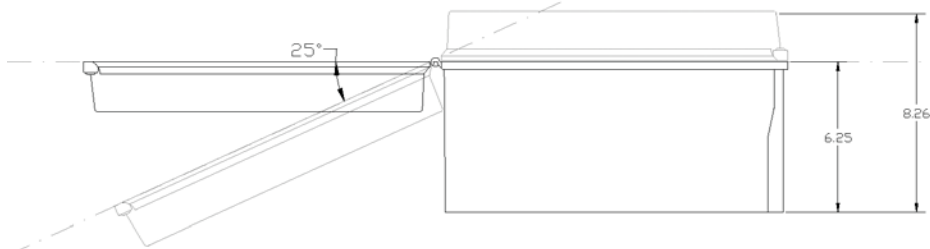
Front View



NOTES:

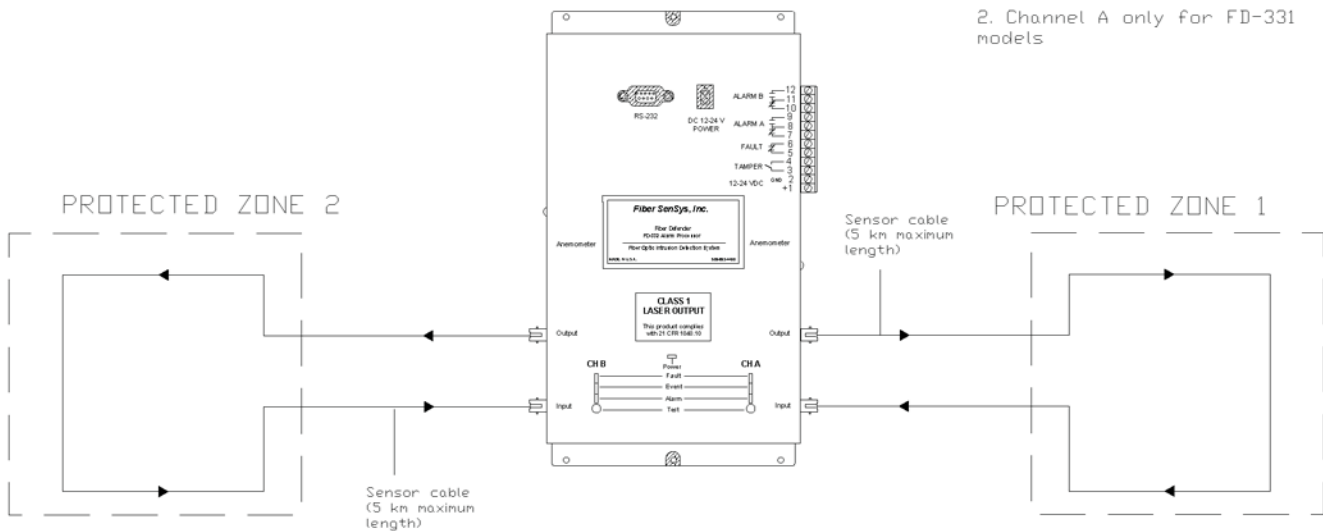
1. All units in inches unless otherwise noted
2. Channel A only for FD-331 models

Bottom View



FD-331/FD-332 Application Block Diagram

FD-332 APU



NOTES:

1. Drawing not to scale
2. Channel A only for FD-331 models

Product Specifications FD-331/FD-332

Number of Channels	1 (FD-331) or 2 (FD-332)
Input Power Requirements Voltage Power	12-24 VDC 3.0 Watts @12 VDC
Communications	RS-232 serial communications (standard), Fiber Security Network (FSN) compatible (FSN option) or IP/XML (IP option)
Programming Method	RS-232 using laptop PC or Hand Held Calibrator
Alarm Output	100 mA normally-closed/normally-open relay contacts on each channel
Alarm Relay Ratings	28 to 14 AWG 100 mA, 24 VDC non-inductive
Operating Temperature Range Humidity	-30°C to 55°C 90% non-condensing
Maximum Sensor Cable Length	5 km (16,400 feet/3.1 miles) per channel
Sensor Cable Sensitivity Alarm Relay Activation Duration	Uniform over entire length Programmable
APU Dimensions	10.06 in x 5.63 in x 0.94 in (25.55 cm x 14.30 cm x 2.39 cm) H x W x D
NEMA Enclosure Dimensions	16.50 in x 14.44 in x 8.26 in (41.91 cm x 36.68 cm x 20.98 cm) H x W x D
NEMA Enclosure Material	Fiberglass polyester NEMA-EEMAC type 4x UL 508. Type 4 and 5 standards with an enclosure flammability rating of UL94-5V

Ordering Information

Fiber optic sensor cable types	Fiber SenSys part #SC-3 (fence), SC-4 (buried)
Conduit Kits (required for fence line applications) EZ-300NSS EZ-300SS	100m non-split conduit kit 100m split conduit kit

Alarm Processing Units

FD-33X-X-X

Specify "1" for single channel or "2" for dual channel

Specify "IP" for IP/XML capability, "FSN" for FSN compatibility, or leave blank for relay contacts only

Add an "E" to include the NEMA enclosure option