

FD33X Fiber-optic Intrusion Detection System Specification Sheet

For a high-performance perimeter intrusion detection system designed for rugged outdoor environments, the **Fiber Defender[®] Model FD331/FD332** Alarm Processing Unit (APU) provides a one or two zone solution. Based on the Fiber SenSys[®] 300 series fiber-optic system, the FD331 is a single-channel model and the FD332 is a dual-channel alarm processor capable of supporting two separate zones of sensor cable. Used with the Fiber SenSys SC-3 fiber optic sensor cable in conduit, the FD331/FD332 APU forms a complete intrusion detection system.

The FD332 APU can support sensor cable from two separate zone deployments, regardless of their applications, and enables independent control of the zones. Each channel can be programmed separately for fence line or wall deployments, and both channels support up to 5 km (16,400 feet/3.1 miles) of sensor cable.

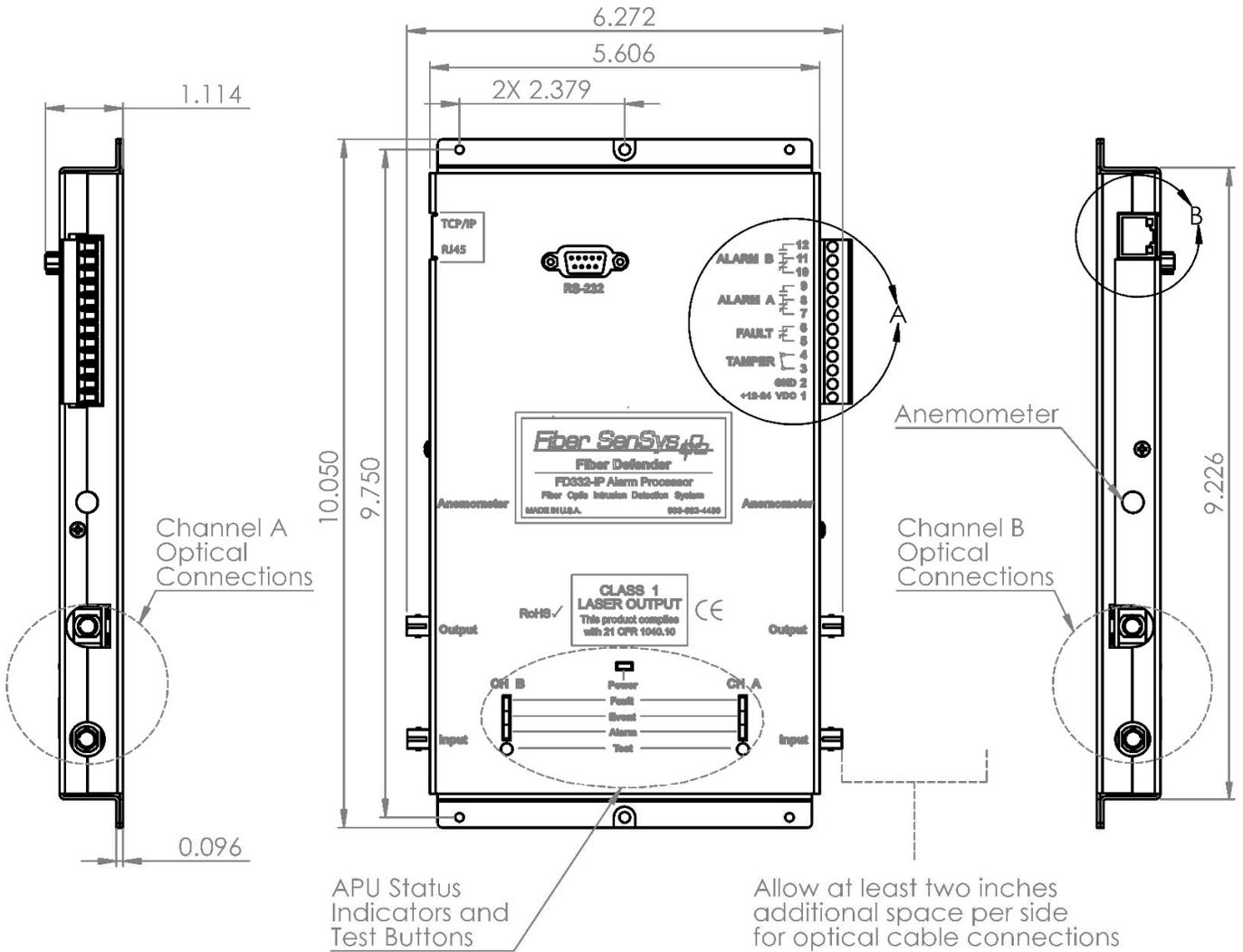
The FD331/FD332's digital signal processing enables detection and analysis of the sensor cable movement and vibration. An on-board digital signal processor (DSP), combined with the Fiber SenSys SpectraView™ calibration software, provides discrimination between natural phenomena and actual intrusion attempts. The Fiber SenSys pre-programmed algorithms, combined with the optional Model AN-200™ wind anemometer, allows for continuous system adjustments to compensate for the effects of wind.



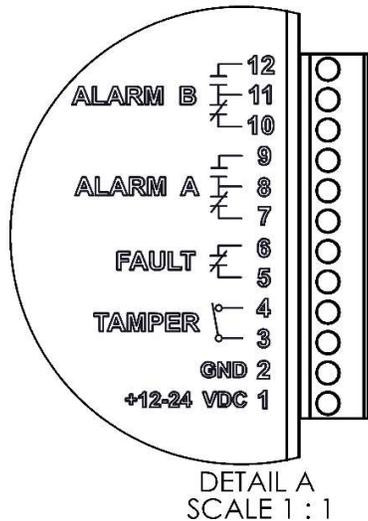
FEATURES	APPLICATIONS
Sensor immune to EMI, RFI and lightning	Electrical substations
Supports dual-zone operation	Solar farms
Sensing cable up to 5 km per channel	Aviation and train locations
Intrinsically safe sensor	Oil and chemical facilities
TCP/IP communication option	Military facilities
Optional anemometer integration	Nuclear power locations
Adaptive wind processing	Correctional facilities
Linear, uniform sensitivity	Corporate and commercial locations

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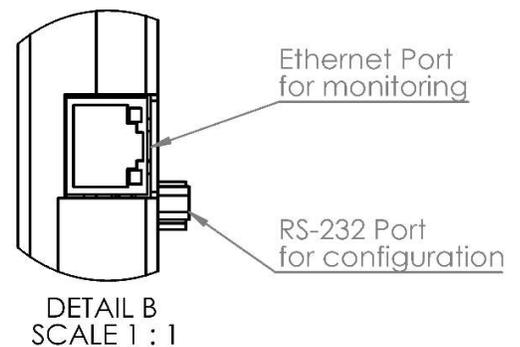
FD331/FD332 ASSEMBLY DIAGRAM



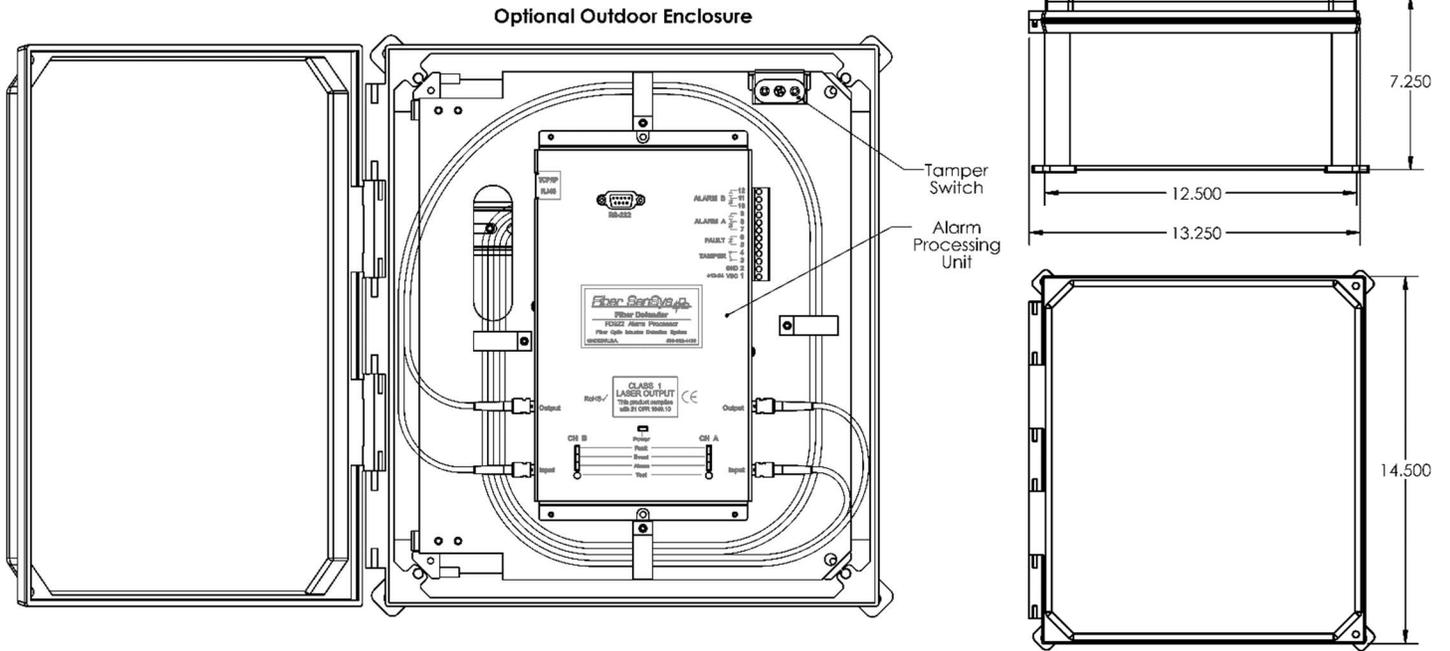
Power, Relay, and Tamper Connection Arrangement



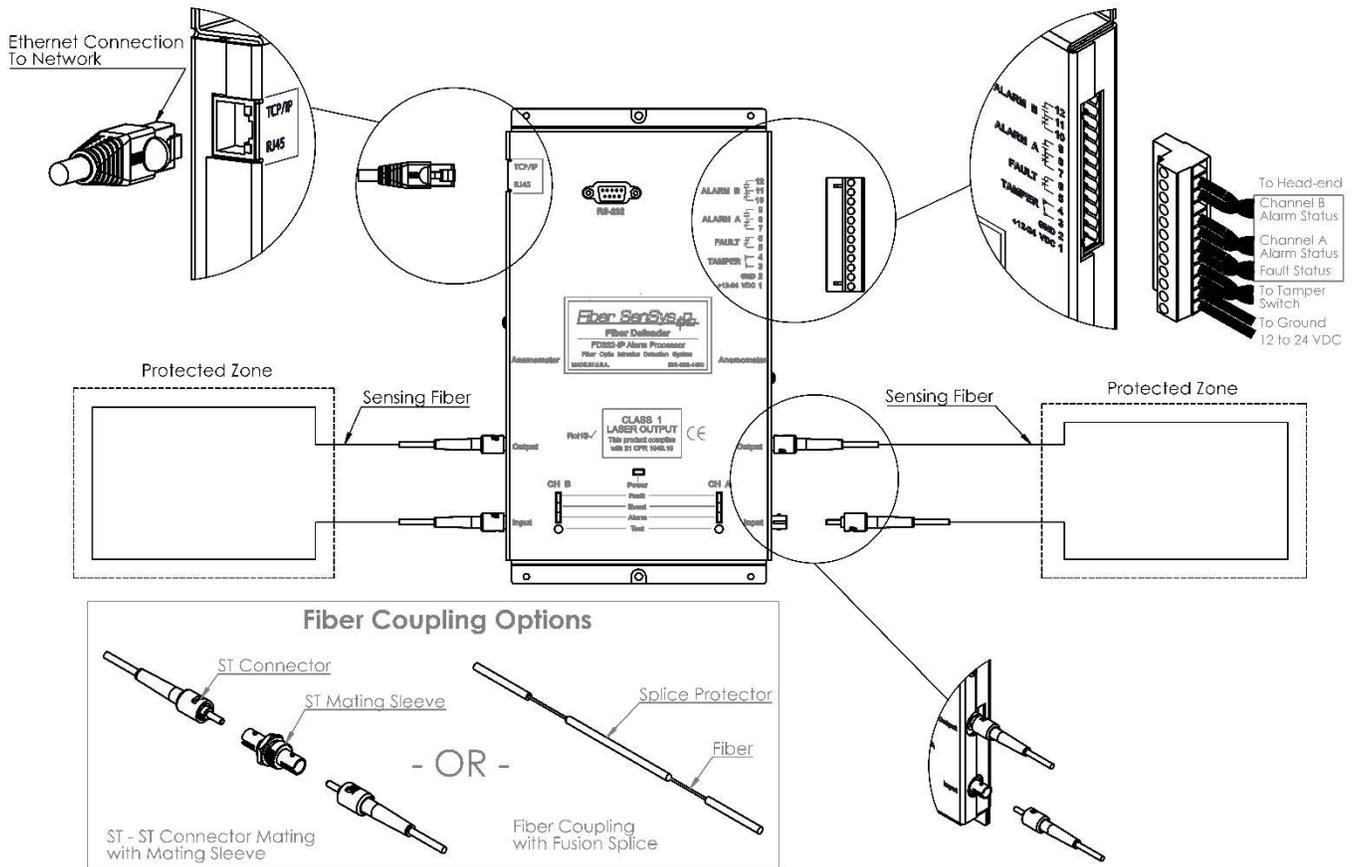
Ethernet and Serial Connections



FD331/FD332 ENCLOSURE DIAGRAM



FD332 APPLICATION BLOCK



FD331/FD332 PRODUCT SPECIFICATIONS	
Number of Channels	(1) Channel FD331 or (2) Channel FD332
Voltage / Power	12-24 VDC / 4.0 Watts
Communications	<ul style="list-style-type: none"> • TCP/IP to XML via optional RJ-45 connector • PC Programming via RS-232 (also with USB adaptor)
Fault and Alarm Relays	<ul style="list-style-type: none"> • Individual dry contact relays for each zone alarm – both Normally Open and Normally Closed (NO / NC) • Dry contact relay for fault – Normally Closed (NC) • 28 to 14 AWG • 100 mA, 24 VDC non-inductive • Dry Contact Resistance 11 Ω typical, 17 Ω max • Alarm relay duration adjustable from 0 to 10s
Operating Temperature Range	-40°C to 70°C
Humidity	95% non-condensing
Maximum Sensor Cable Length	5 km (16,400 feet/3.1 miles) per channel (loop-back design will affect distance)
Sensor Cable Sensitivity	Uniform over entire length
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
Product Compatibility	SpectraView™ and AutoTune™ Calibration Software; Fiber Commander™

SYSTEM ORDERING INFORMATION		
Model / Part Number	Description	Options
SC-3 (fence)	Fiber optic cable	SC-3 duplex or single-strand
SC3-C (fence)	Sensing cable in conduit	Max. continuous length 800m
Outdoor Enclosure	IP66 Enclosure for 300 series APUs	

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