Fiber SenSys

Fiber Defender Model FD-208R
Alarm Processing Unit

Specification Sheet

FD-208R

The Fiber Defender series Model FD-208R Alarm Processing Unit (APU) is a rack-mounted alarm processor ideal for applications that require the control electronics of multiple zones to be placed in one central remote location. The FD-208R is designed for installation and operation with the RK-208, a 19-inch instrument rack capable of holding up to eight FD-208R APU modules.

As with all FD-208 alarm processors, each FD-208R APU requires insensitive leads to connect to a deployed sensor cable, leaving only the fiber optic sensor cable in the detection zone. This allows the FD-208 system to be deployed successfully in the presence of EMI/RFI, in corrosive environments, and in extreme temperatures where other sensor systems fail. Airports, high-end estates, nuclear power plants, petro-chemical facilities, military compounds, and electrical substations are a few examples of deployment applications where the FD-208R is ideal.

The FD-208R's digital signal processing enables detection and analysis of sensor cable stimulation. The Digital Signal Processor (DSP) and companion microprocessor also provide discrimination between natural phenomena and intrusion attempts. Using a pre-programmed algorithm, the FD-208R senses wind effects and continuously adjusts the system sensitivity

The RK-208 assembly shown with rack-mounted FD-208R Alarm Processing Units

to compensate. This ensures optimal intrusion detection performance in most weather conditions.
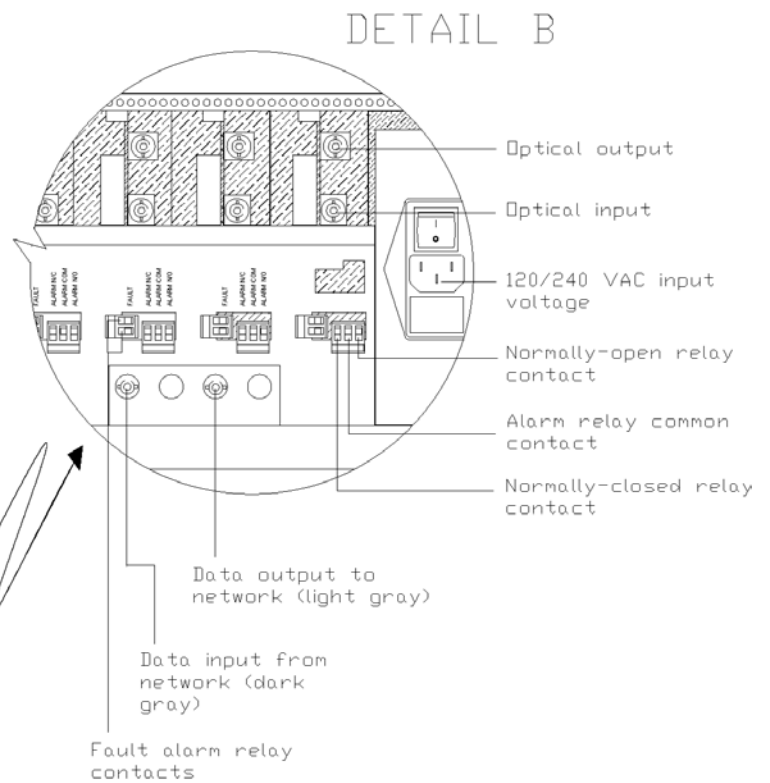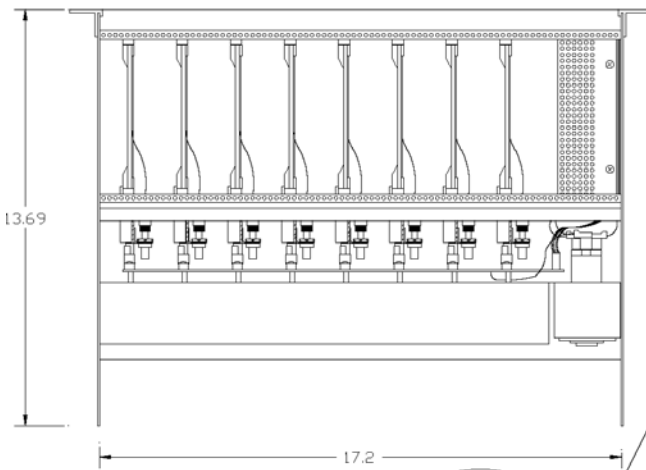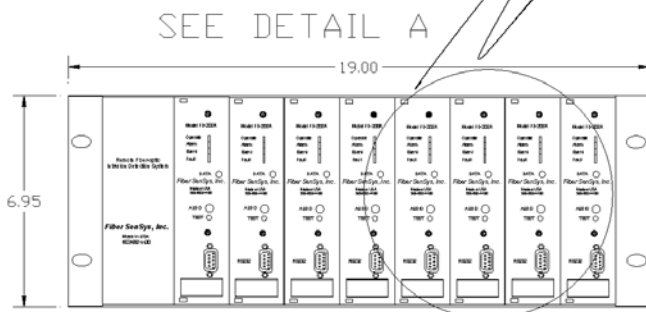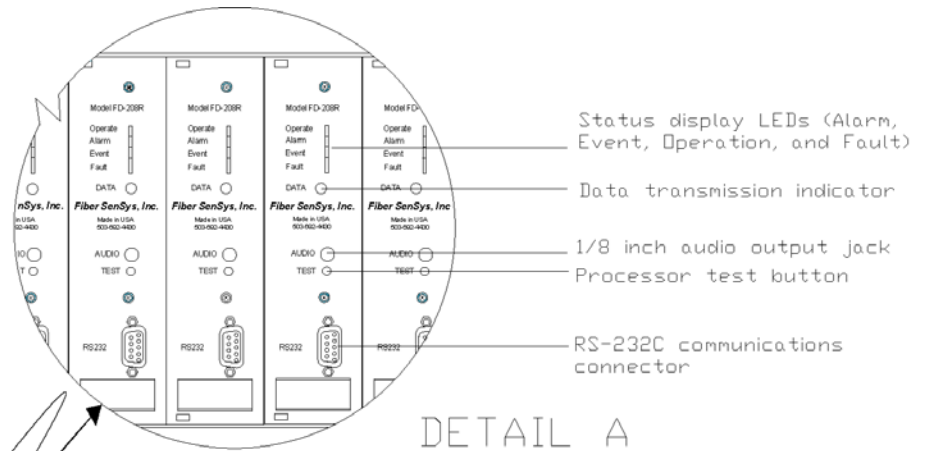
The RK-208 has an optional networking capability (FSN) that enables full integration with a central station or remote control software. Using the Fiber Security Network (FSN), up to 16 racks and up to 127 zones can be interconnected in a single system. Each FD-208R alarm processor supports up to 20 km (12.4 miles) of insensitive cable and up to 5 km (3.1 miles/ 16,400 feet) of sensor cable.

The FD-208R's Alarm Processing Unit is designed and manufactured in the U.S.A., and is backed by a full one-year warranty.

Features	Applications	Deployments
20 km remote operation	Commercial	Fences
Centrally located electronics	IT security (SecurLAN™)	Buried
Zones up to 5 km long	Oil pipelines	Walls
Sensor cable immune to lightning/EMI	Chemical Depots	Secure data
Intrinsically safe sensor	Military facilities	Gratings
Compatible with FSN	Campuses	Rooftops
Adaptive wind processing	Electrical substations	Lawns
DSP-based alarm processing	Corrections	Beaches

DETAIL A

Status display LEDs (Alarm, Event, Operation, and Fault)

Data transmission indicator

1/8 inch audio output jack

Processor test button

RS-232C communications connector

SEE DETAIL A

19.00

6.95

13.69

17.2

DETAIL B

Optical output

Optical input

120/240 VAC input voltage

Normally-open relay contact

Alarm relay common contact

Normally-closed relay contact

Data output to network (light gray)

Data input from network (dark gray)

Fault alarm relay contacts

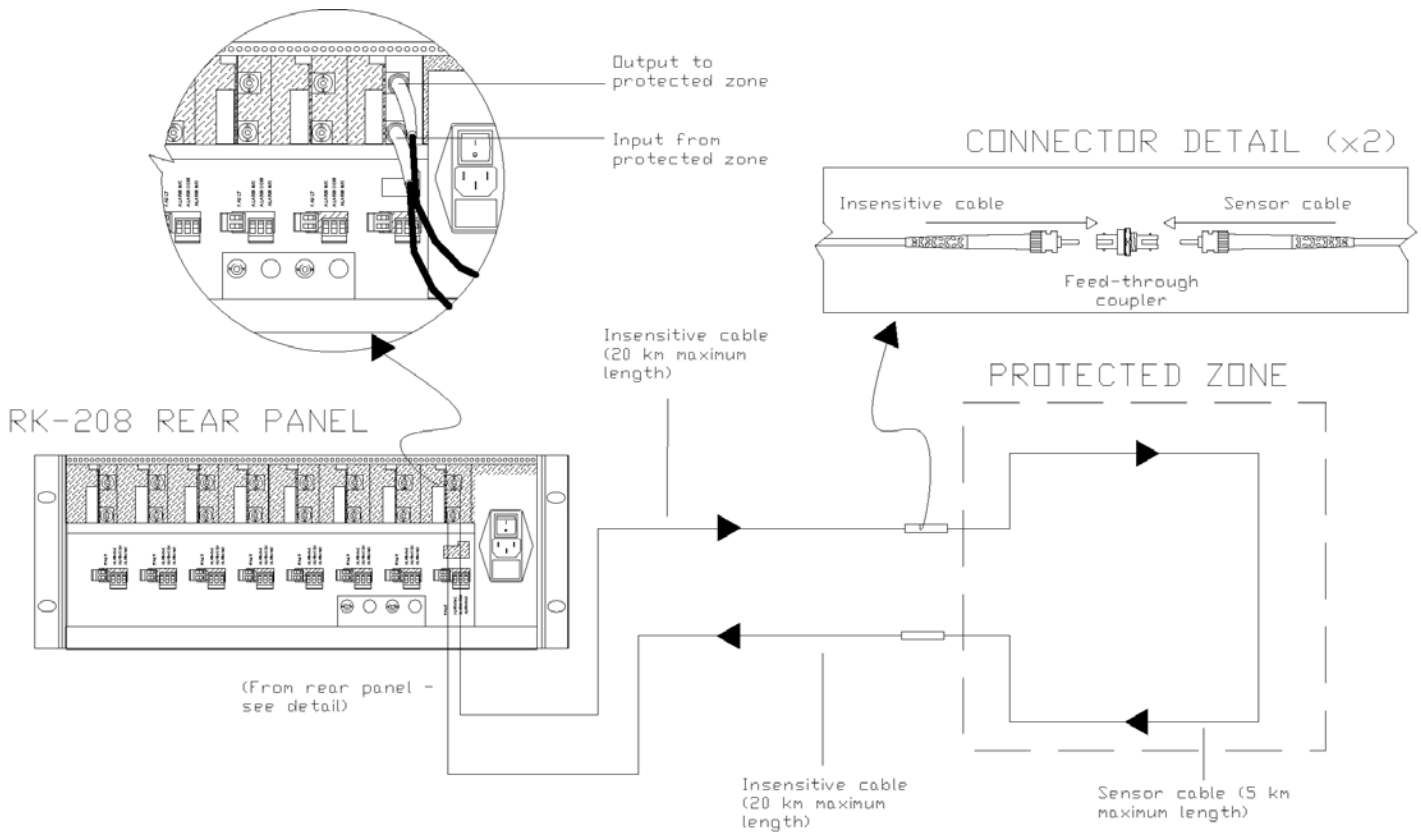SEE DETAIL B

NOTES:

1. All units in inches unless otherwise noted

FD-208R Application Drawing

Product Specifications — FD-208R

Operating Temperature Range	0°C to 55° C
Humidity	95% non-condensing
Communications	Fiber Security Network (FSN compatible)
Programming	RS-232 using laptop PC
Alarm	1 Amp, normally-closed/ normally-open relay contact
Fault	Normally open
Audio Jack	1 kilohm, 10-1000 Hz
Maximum Cable Length	
Insensitive Leads	20 km to protected zone
Sensor Cable	5 km (16,400 feet)
Sensor Cable Sensitivity	Uniform over entire length
Alarm Relay Activation Duration	Programmable
Alarm Processor Capacity	Up to 8 APUs each RK-208
Fiber Security Network Communication	Optical input and output connectors (ST-type)

Product Specifications RK-208

Electrical specifications	
Power Input	100-250 VAC @ 1.2 Amps, 50 or 60 Hz
Power Output	+5 V @ 4A, +12 V @ 2A, -5 V @ 7A
Maximum Power Consumption	25 W (convection cooling)
	40 W (30 CFM forced air cooling)
Operating temperature range	0° C to 55° C
Physical Specifications	
Alarm Processor Capacity	Up to 8 FD-208R or FD-208R/N modules
Height	6.95 inches (17.65 cm)
Width	19.00 inches (48.26 cm)
Depth	13.69 inches (34.77 cm)
Fiber Security Network Communication	Optical input and output connectors (ST-type connectors)

Ordering Information

Alarm Processor Units	
FD-208R	Rack-mounted model
FD-208R/N	Rack-mounted model, network enabled
Fiber optic sensor cable types	
Insensitive	Fiber SenSys part #IC-3 (3mm), IC-3D (duplex), IC-4 (buried)
Sensitive	Fiber SenSys part #SC-3 (fence), SC-4 (buried)
Conduit Kits (required for fence line applications)	
EZ-300NSS	100m non-split conduit kit
EZ-300SS	100m split conduit kit