# FD322–Rapid Fiber Kit™ Intrusion Detection System

Specification Sheet

*The **FD322–Rapid Fiber Kit™** is a Perimeter Intrusion Detection System packaged in a kit to facilitate quick and easy installation at a very competitive price. This solution solves many perimeter security problems inherent at commercial, industrial and critical infrastructure facilities using an all-Fiber-Optic Sensor.*
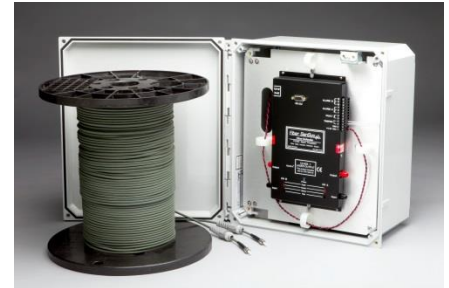
The **FD322–Rapid Fiber Kit™** incorporates technology that has been successfully deployed in thousands of high-security facilities throughout the world, in a low-priced and easy to use sensor. The solution consists of pre-terminated sensing fiber connected to the alarm processing unit (APU) and tuned and calibrated using the **FD322 Tuning Software.** The APU detects intruders attempting to climb or cut through fences. Unlike metallic (coaxial) sensors, the **FD322–Rapid Fiber Kit™** uses advanced fiber-optic sensing that is unaffected by UV radiation, moisture, salt, radio frequencies or other EMI sources such as lightning strikes. As a reliable and efficient solution for fence protection requirements, the system also is capable of operating in the harshest of environments.
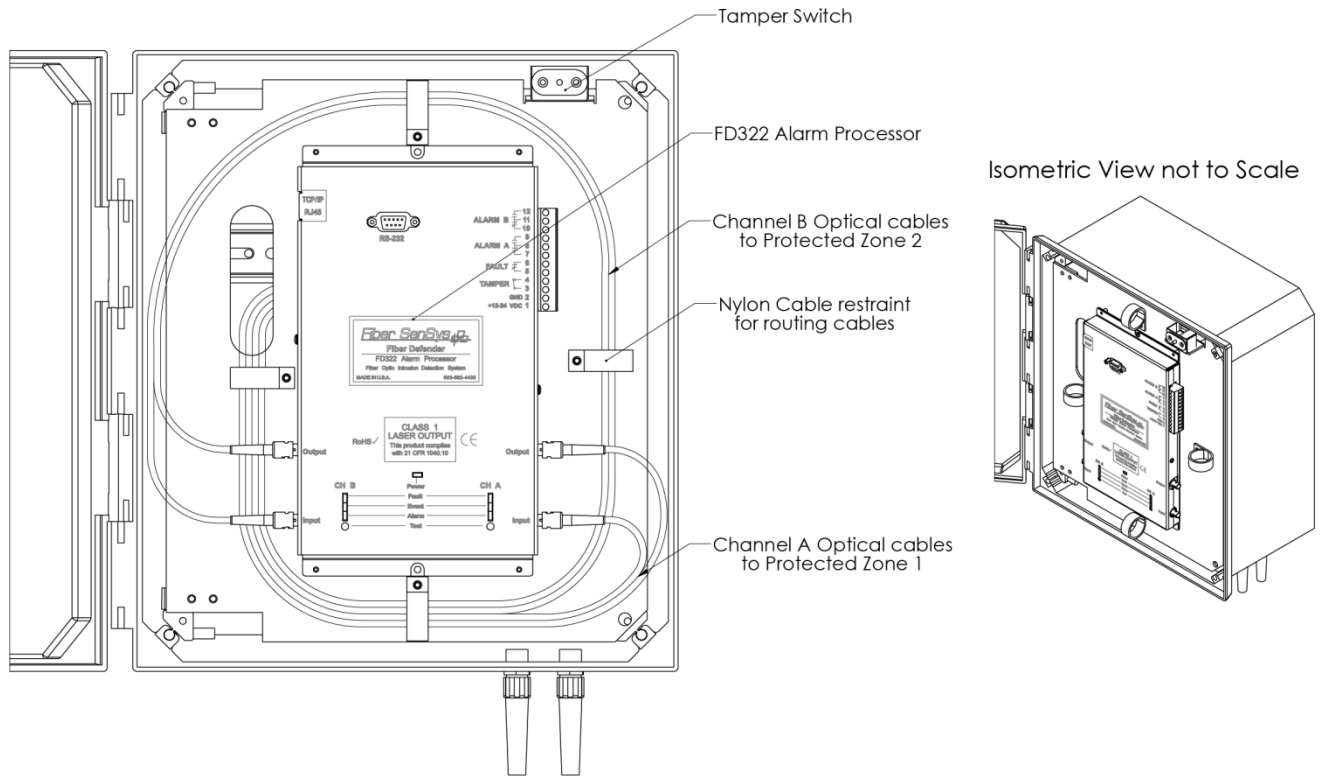
Return on investment – Low total cost of ownership

The **FD322–Rapid Fiber Kit™,** available in 100 and 200 meter perimeter kits is the most economical and reliable fiber-optic perimeter sensor you can buy. Its economic advantage is found not only in the low purchase price, but also in its nearly nonexistent cost of ownership. The alarm processor will last for years, and the cost of nuisance alarm investigation is eliminated with the use of the tuning and calibration software.
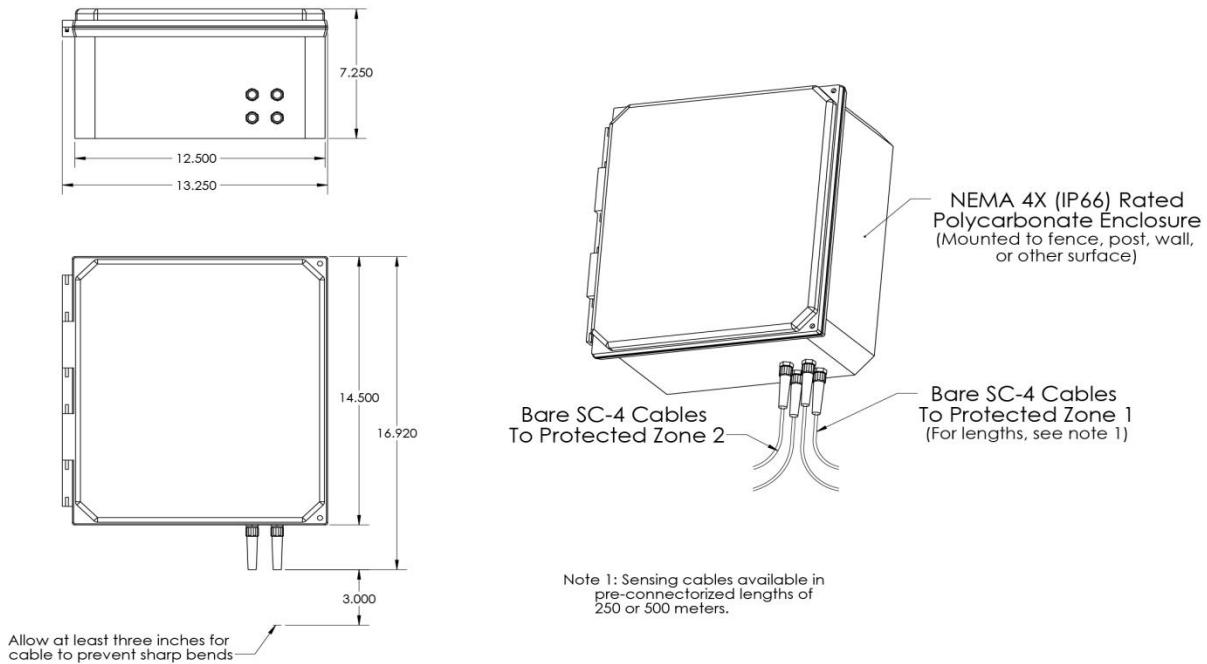
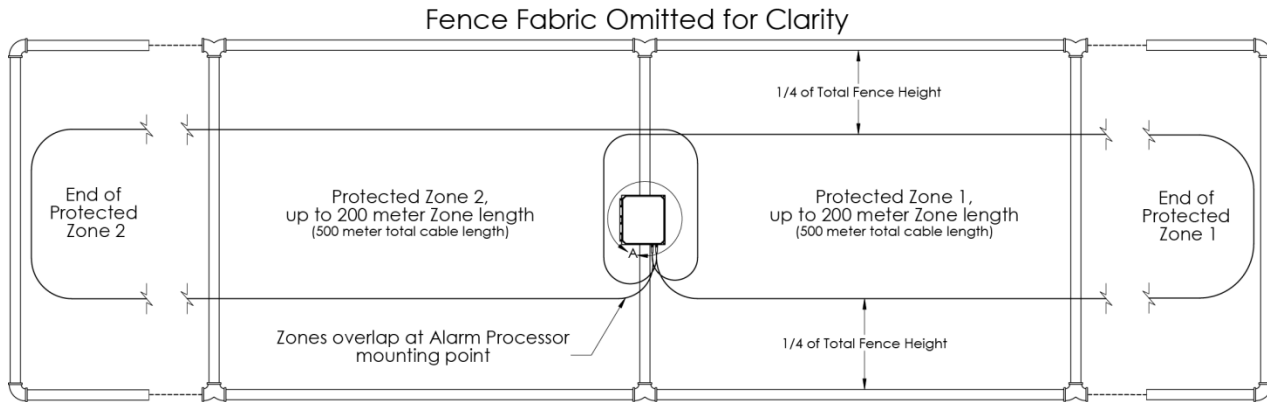| FD322–Rapid Fiber™ Features and Benefits |
|---|
| • Two fully independent zones, each of which can support up to 500 meters of sensing fiber. |
| • Durable fiber-optic sensing unaffected by chemical or electrical environmental elements such as corrosion, RFI, EMI, and lightning. |
| • XML via Ethernet and Form C dry relay contacts ensure a high level of integration and communication options. |
| • The system can be fully integrated with head end systems for a total system solution when combined with other security elements such as video cameras and other third-party devices. |
| • The FD322–Rapid Fiber Kit™ APU, NEMA 4X enclosure, mounting hardware, tamper switch, power supply, pre-terminated fiber-optic cable and custom tuning software. |

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FD322–Rapid Fiber™ ENCLOSURE APU PANEL VIEW

Tamper Switch

FD322 Alarm Processor

Channel B Optical cables to Protected Zone 2

Nylon Cable restraint for routing cables

Channel A Optical cables to Protected Zone 1

Isometric View not to Scale

FD322–Rapid Fiber™ ENCLOSURE DIMENSIONS AND OVERVIEW

7.250

12.500

13.250

14.500

16.920

3.000

Allow at least three inches for cable to prevent sharp bends

NEMA 4X (IP66) Rated Polycarbonate Enclosure
(Mounted to fence, post, wall, or other surface)

Bare SC-4 Cables To Protected Zone 2

Bare SC-4 Cables To Protected Zone 1
(For lengths, see note 1)

Note 1: Sensing cables available in pre-connectorized lengths of 250 or 500 meters.

FD322–Rapid Fiber™ FENCE DEPLOYMENT DETAIL

Fence Fabric Omitted for Clarity

1/4 of Total Fence Height

End of Protected Zone 2

Protected Zone 2,
up to 200 meter Zone length
(500 meter total cable length)

Protected Zone 1,
up to 200 meter Zone length
(500 meter total cable length)

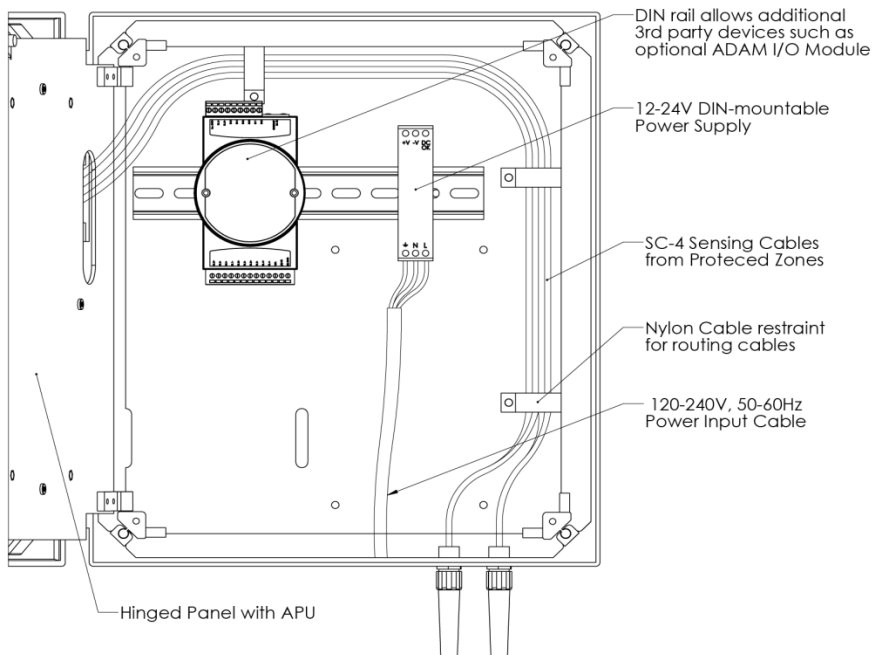End of Protected Zone 1
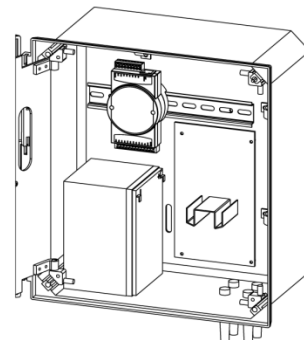
A

Zones overlap at Alarm Processor
mounting point

1/4 of Total Fence Height

Note: Sensing cables are pre-connectorized and available in
lengths of 500m (~200m zone) and 250m (~100m zone)

NEMA Enclosure Mounted To Fence Post
(Universal mounting hardware included)
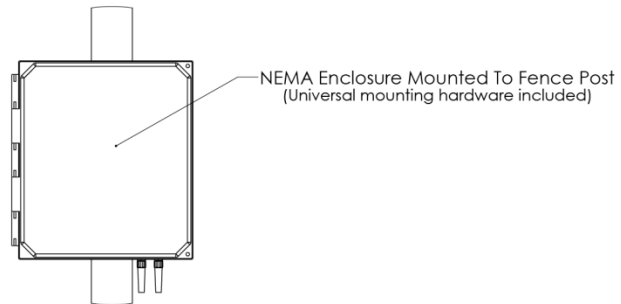
FD322–Rapid Fiber™ ENCLOSURE BACKPLANE VIEW

DIN rail allows additional
3rd party devices such as
optional ADAM I/O Module

12-24V DIN-mountable
Power Supply

SC-4 Sensing Cables
from Proteced Zones

Nylon Cable restraint
for routing cables

120-240V, 50-60Hz
Power Input Cable

Hinged Panel with APU

Isometric View not to Scale

Optional Battery Backup accessory
kit (shown above) available,
call Fiber SenSys for details.

FD322-Rapid Fiber Kit™ Features

- Two zones per APU, each fully independent and tunable
- Pre-terminated 250 and 500 meter cable lengths
- Ethernet and relay output for total system integration
- Simple user interface
- Automatic adaptive wind rejection
- Durable enclosure and universal power supply included
- Online Training and Certification

Product Applications

- Construction sites
- Commercial facility locations
- High-end residences
- Corporate buildings
- Manufacturing plants
- RV/Marine storage
- Industrial facilities

FD322-Rapid Fiber™ Technical Specifications

Component	Specification
Enclosure Specifications	• Polycarbonate Construction • NEMA 4X rated • Dimensions: 14" x 12" x 6"
Sensor Cable	• Passive optical fiber; corrosion resistant, and immune to EMI • Pre-terminated with ST polished connectors • 500 meter maximum length per zone
Power Supply	• 12VDC DIN rail mounted • Input range – 85VAC to 264VAC, or 120DC to 370DC • Output of 12VDC, 10 Watt (0.84 Amp) maximum • Operating temperature: -20°C to +70°C
Optional battery back-up kit	• 12 Amp-hour battery (approx. 36 hours operation on FD322) • Power Supply – output of 12V or 24V, selectable • Input requirements of 115AC or 230VAC, 50-60Hz • Operating temperature range of -20°C to +49°C

FD322 Alarm Processor Specifications

Parameter	Specification
Number of zones per APU	2
Communications	• RS-232 serial communications (used for system configuration) • XML via Ethernet (SDK available from Fiber SenSys) • Form C Contact Closures (100mA, 24VDC maximum)
Tuning parameters	• Sensitivity (for cuts and climbing) • Number of events before alarming (for cuts and climbing) • Low-frequency cutoff (for cuts/climbing) • Wind rejection • Alarm relay time

For more information, contact us at:

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Fiber SenSys®

High Performance – High Reliability – High Security