

Cool solutions to thermal problems.

Rocky  
Research

COMMERCIAL | INDUSTRIAL | DEFENSE

AFP1100  
ABP1000

### Key Features

- Designed to Withstand Harsh Environments
- Integrated Battery Back-Up
- Controls 500 Addressable Devices
- Four-Levels of Programming Authority
- Supports Remotely Programmable Devices
- Networked for Communication

## Rocky Research Advanced Fire and Smoke Sensor System



Utilizing commercial-off-the-shelf, state-of-the-art components, Rocky Research has designed an Advanced Fire and Smoke Sensor System (AFSSS) that provides high reliability fire and smoke detection for industrial and military environments.

The Rocky Research Fire & Smoke Sensor System is composed of two enclosure/panels – an Alarm Panel (**AFP1100**) and a Battery Panel (**ABP1000**). Both are designed to withstand the harsh environments encountered aboard Navy ships – high shock, vibration, EMI, temperature, and humidity levels. The unit supports two loops of addressable devices, such as smoke sensors, heat sensors, switch closure modules, and flame detectors with each loop hosting up to 250 devices. Standby power is supplied by the Battery Panel, which contains two 12V, 50 Ah batteries wired in series to supply 24 VDC of backup power in case of AC interruption. Two methods of networking are available for communications with workstations dedicated to ship control systems: via Ethernet using FieldServer technology or via a network that uses RS-485 communications protocol.

The system allows four levels of programmable authorization. With the proper authorization, all addressable devices can be programmed from the Alarm Panel or a remote workstation networked to the unit. Programmable parameters are the temperatures and smoke levels at which alarms sound for the heat and smoke sensors, respectively. Queries can be made to view the temperature level at a heat sensor and smoke reading at a smoke sensor by simply selecting desired sensor.

## System Specifications

Technology:	Addressable Fire Detection and Control Electronics
Master Control Assembly:	4100U Control Panel
CPU:	Enhanced with Dual Configuration Programs
System Power:	Contains (2) System Power Supplies (SPS), Each 28 VDC, 9 amps Powers (2) Loops of Addressable Devices – One for each SPS Outlet Power Requirement – 120 VAC
Operator Interface:	Color Coded, Raised Switches Providing High Confidence Feedback
Alarm Panel Control:	Controls Up to 500 Devices – Two Loops of 250 each, Including: <ul style="list-style-type: none"><li>• Photoelectric Smoke Sensors</li><li>• Ionization Smoke Sensors</li><li>• Heat Sensors</li><li>• Circuit Isolation Modules</li><li>• Zone Addressable Modules</li><li>• Switch Closure Modules</li></ul> Remote Annunciator Module Support Devices Programmable through Operator Interface
Audio Support:	Audio Amplifiers Firefighter Master Phones
Networking Options:	RS-485 Protocol FieldServer Ethernet Communications
Communications Capabilities:	Via RS-485 Networking, Alarm Panel Communicates with: <ul style="list-style-type: none"><li>• Other Alarm Panels</li><li>• Third Party Computer Control Stations</li><li>• Up to 2000 Addressable Devices Counting Other Alarm Panel Devices</li></ul>
Back-Up Power Supply:	(2) 12V, 50 Ah Batteries Wired in Series <ul style="list-style-type: none"><li>• Provides 24 VDC Power when AC Power Lost</li><li>• Duration of Backup Power Dependent on Number of Sensors</li></ul>

## Physical Specifications

Form Factor:	Wall-Mount
Dimensions:	Alarm Panel and Battery Panel – 15.5”H x 36”W x 11.9”D
Weight:	Alarm Panel – 80 lbs.; Battery Panel – 130 lbs.

## Environmental Specifications – Designed to Meet

Shock:	MIL-STD-901D, Grade A, Class I, Type A
Vibration:	MIL-STD-167-1A
EMI:	MIL-STD-461E and F, Certified
Temperature:	0° to 65° C
Humidity:	5% to 95% non-condensing
Enclosure Protection:	MIL-E-2036, Drip-Proof up to 15 degrees