SAFE Fire Detection, Inc. is committed to providing the best customer support in the industry. This provides our clients with the satisfaction of knowing that their valuable assets and business operation are our greatest concerns. This trust has been earned through 35 years of proven product reliability, dedication, and by providing unparalleled detection, helping safeguard facilities around the world.

SAFE Fire Detection, Inc. is the innovator in providing new state of the art detection products helping protect companies around the world from downtime, data loss, and business interruption. SAFE Fire Detection’s products are revolutionizing the air sampling, linear heat, and water leak detection industries. SAFE Fire Detection combines extensive industry knowledge with solid technical expertise to help our clients safeguard their assets.

Not Just Products... Customer Focused Solutions
FIVE PRODUCT SOLUTIONS...

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...ONE COMPANY
EARLY WARNING

Early Warning Air Sampling Fire Detection

ASPIRATING DETECTION
When Downtime or Data Loss is Not an Option

Prevent
- Prevent business interruption, downtime, and loss of revenue

Protect
- Protect business investment and irreplaceable data

Preserve
- Preserve irreplaceable artifacts and clean environment integrity

Early Warning
CCD Technology
New Advanced Detection Technology

- Before Smoke
- Before Fire
- Before Downtime

Technology

Full Spectrum Detection

ProSeries - Detection in Every Stage of Fire

1. Incipient, Before any Smoke
2. Smoke
3. Flame
4. Heat

Time/Fire Propagation - Decreases response time before heat stage

*Obscuration (obs/ft)* - Percentage of light decrease per foot due to smoke, dirt, dust or pollutants in an environment. CCD technology only senses combustion and can detect from zero to 100% obs/ft. while remaining immune to false alarms.

- No False Alarms
- Detects in All Four Stages of Fire
The Next Generation in Air Sampling Fire Detection

Select from three different aspirators for better detection performance.

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<td>High Pressure</td>
<td>Special Hazards: Large industrial hazards with high elevations and/or high airflow. Protect multiple large hazards using a single detector.</td>
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Aspirator Comparison

Aspirator Type
- Standard
- Enhanced
- High

Pressure
- 220
- 440
- 800

Technology
Three Types of Aspirators

- Most Versatile
- Hazard Specific
- Cost Effective

Aspirator Options

- Conventional “Laser Style” sample pipe network
- Ideal for simple design, layout, and installation
- Small to medium size areas
- Drop in replacement for most air sampling systems

### STANDARD ASPIRATOR FOR “LASER STYLE” SYSTEMS

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Three Types of Aspirators

ENHANCED ASPIRATOR FOR LONGER PIPE RUNS

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Allows longer pipe runs than Standard “Laser Style” Aspirator systems

Higher pressure aspirator provides greater design flexibility

Multiple room detection from medium to large size areas

Drop in replacement to upgrade any air sampling system
### Three Types of Aspirators

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- Elevations up to 115 feet without multi-layering
- Ideal for high airflow applications
- Protect up to 48 CRAC units per detector
- Protect different pressure hazards on the same detector

**HIGH PRESSURE ASPIRATORS FOR SPECIAL HAZARD APPLICATIONS**
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**“Laser Style” Piping**

- Single Zone
- Up to 10,000 sqft.
- Without Display

- Single Zone
- Up to 20,000 sqft.
- Without Display

- Single Zone
- Up to 20,000 sqft.
- With Display

- Scanning
  - 1, 2, 3, or 4 Zones
  - Up to 20,000 sqft.
  - With Display

**Telecom Sites • In-Cabinet • Smaller Areas**
### Enhanced Aspirator for Longer Pipe Runs

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#### Enhanced Performance Aspirator Type

- **PRO 200+™**
  - Single Zone
  - Up to 20,000 sqft.
  - Without Display

- **PRO 200D+™**
  - Single Zone
  - Up to 20,000 sqft.
  - With LCD Display

- **PRO 200DSC+™**
  - Scanning
  - 1, 2, 3, or 4 Zones
  - Up to 20,000 sqft.
  - With LCD Display

- **Before Smoke**
- **Before Fire**
- **Before Downtime**

**“Laser Style” Piping**

**Enhanced**

- Larger Computer Rooms
- Inaccessible Spaces
- Remote Areas
Scanning • 1, 2, 3, or 4 Zones
• Up to 43,200 sqft.
• With LCD Display
• Largest Aspirator Available
• Longest Pipe Runs Possible
• Up to 115’ Ceiling Heights

Freezers/Coolers • Warehousing • Power Plants • Industrial Sites • Atriums

Engineered Style Piping - ProX4

HIGH PRESSURE ASPIRATOR FOR SPECIAL HAZARD APPLICATIONS

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- Earliest Warning
- Most Versatile
- Before Smoke

No False Alarms
- Not Affected by Stratification
- No In-Rack Detection Needed
- Lower Maintenance Costs
- Single Point Maintenance

Up to 115’ ceiling heights for High Pressure systems. Multi-layering of sample pipe is not required.

Freezer/Cold Storage

Scanning
• 1, 2, 3, or 4 Zones
• Up to 43,200 sqft.
• With LCD Display
• Largest Aspirator Available
• Longest Pipe Runs Possible
• Up to 115’
ProRemote Display, Network Hub, and Programmer

- LCD Display
- User Friendly
- Easy to Program

**USER FRIENDLY LCD DISPLAY**

- Pin-Point Detector Location
- Identify Each Zone
- Provide specific instructions for your personnel to follow at each level of alarm

Remote Display

28th Floor Computer Room 2A

- Pre-Alarm - Report Alarm to Maintenance x320

Current Alarms
- Section 4 Air Handlers Hot Row 6

Cirrus Pro RDP
Remote Display Programmer
ProRemote Display, Network Hub, and Programmer

- LCD Display
- User Friendly
- Easy to Program
Where’s the Fire?

PORTABLE ASPIRATING FIRE DETECTION

Any air sampling system can tell you which room, only ProLocator can tell you where in the room.
MULTIPLE DETECTOR NETWORKING OPTIONS

- **Peer to Peer Detector Networking**
  - Built-In RS485 Networking

- **Complimentary CirrusPro**
  - Network Software for PC

- **Ethernet TCP/IP Networking**
  - Cirrus ProNet Software
Applications

- **HIGH TECH**
  - Telecom
  - Data Centers
  - Servers

- **SPECIAL HAZARD**
  - Freezer/Cold Storage Facilities
  - Clean Rooms
  - Harsh Industrial Environments

- **INSTITUTIONAL**
  - Museums and Historic Sites
  - Schools, Cathedrals
  - Correctional Facilities

- **ANYWHERE**
  - Shopping Malls and Stores
  - Offices and High Rises
  - Virtually any Application

Customer Focused Solutions

- Before Smoke
- Before Fire
- Before Downtime
### Customer Focused Solutions

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**...ONE COMPANY**
Portable

Pro Locator

Localize the Source of Any Early Warning Fire Detection Alarm

Aspirating Detection
Fires are the greatest threat to business today. Preventing business interruption and downtime is critical.
Portable Aspirating Fire Detection

where's the fire?
PRO Locator

Portable Air Sample Detection

Identify the Source
6. Take corrective action by notifying the appropriate personnel and by following proper emergency procedures.
Any “Laser Style” aspirating detector can tell you which room, only the ProLocator can help you find where in the room!

**FEATURES**

- Works with any “Laser Style” Aspirating System
- Probe inside equipment and above drop ceilings
- Not effected by dirt, dust, temperature or humidity
- Completely self contained
- Includes sampling probe and battery charger
- Does not require any recalibration
- Multi-speed audible tone and LED indicators to help guide you in the right direction
- Operates on both batteries and AC power
Applications

- Computer Rooms
- Power Plants
- Office Buildings
- Warehouses
- Hospitals
- Data Centers
- Cleanrooms
- Fire Departments
Portable Aspirating Fire Detection

PRO Locator™
One Company, Five Great Products

SAFE
FIRE DETECTION, INC.
FIVE PRODUCT SOLUTIONS...

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...ONE COMPANY
Addressable / Conventional Linear Heat Detection
Innovations

Solutions

Support

Linear Heat Detection

Better

- Now for Use on ANY Addressable Panel
- Just Add an Addressable Contact Monitor Module
- Compatible withANY Conventional Fire Alarm Panel

Farther

- Up to 10,000 Linear Feet (3,000m) of ThermoCable per Zone
- RF Tested up to 10,000 Linear Feet (3,000m)
- Longer Spool Lengths Available

Lower Cost

- Lower Material Costs
- Less Installation Time
- No Expensive Linear Heat Detection Panels to Buy and Maintain
Advanced Design Allows Up to 10,000 Linear Feet of ThermoCable per Zone

Tri-Metallic Core Reduces Resistance to Only .05 ohms/ft Resistance per Twisted Pair Wire

Designed to be Compatible with ALL Addressable and Conventional Fire Alarm Control and Releasing Panels

Reduce Material and Installation Costs with Less Splicing, Longer Spool Lengths, and Easier Installation

Multiple alarm temperatures can be combined on the same zone

Total zone length replacement unnecessary after alarm
Nylon - UV protected for outdoor applications and extra durable for harsh industrial environments.

Polypropylene – For chemically harsh and caustic environments such as wet benches.

GuideWire – For spanning distances up to 250 ft. (76m) with supports every 15 ft. (4.6m).

Detection Temperatures:
- 155°F (68°C)
- 172°F (78°C)
- 190°F (88°C)
- 220°F (105°C)

**WHY THERMOCABLE?**

Features and Benefits

Multiple Outer Coverings Available for Specific Hazards

- Nylon
- Polypropylene
- GuideWire

TC155NG

- Temperature
- Guidewire
- Nylon

- Tri-Metallic Core:
  - Steel provides tensile strength
  - Copper increases conductivity
  - Tin for corrosion resistance

- Advanced Polymer Thermal Reactant Sheathing

- No Protective Tape Required

- Chemical and UV Resistant Polymer Outer Covering

- Wire O.D. 1/8”

- Longer Runs
- Less Resistance
- Lower cost
Alarm Point Distance Locating Displays in Both Feet and Meters

May be Used for Both Class “A” and “B” Applications

Detection Temperatures:
- 155°F (68°C)
- 172°F (78°C)
- 190°F (88°C)
- 220°F (105°C)

WHY THERMOCABLE?

- Longer Runs
- Less Resistance
- Lower cost
Only .05 ohms/ft resistance per Twisted Pair

**Spacing and Temperature**

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**Listed Spacing**

**Area Spacing**

- .7x
- 17’6” (5.3m)
- 35’ (10.7m)
- Any Panel
- Addressable
- Conventional

System Components

ThermoCable
10,000 ft. (3,000m) max.

3'-5' (1-1.5m)
Mounting
15' (4.6m) when Using Guidewire

Optional Distance Locating Module
Displays Distance in Both Feet and Meters

Screw Terminal

6" (15cm)

Leader Wires
Min. 18 AWG
Max. 8,000' (2.4km)

Addressable Contact Monitor Module or Conventional Panel

Junction Box

Strain Relief Connector

End of Line Resistor

ELR-Box
Typical System Configurations

ADDRESSABLE SYSTEM CONFIGURATION

Conventional System Configuration
- Mounting
- Connecting
- Splicing

Installation Accessories

Mounting
- Clamps, Clips, Ties, Mounts, Adhesive

Connecting
- Junction Boxes and Fittings

Splicing
- Terminal Blocks, Tapes, Sealers
Flexibility to Adapt to Your Environment

- Commercial
- Industrial
- Utilities
Addressable / Conventional Linear Heat Detection

Linear Heat Detection
One Company, Five Great Products
**FIVE PRODUCT SOLUTIONS...**

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...ONE COMPANY
Prevent

- Prevent business interruption, downtime, and loss of revenue

Protect

- Protect business investment and electrical equipment

Where water based leaks cannot be tolerated
- Any Panel
- Addressable
- Conventional

ProH2O Water Leak Detection System Components

Components

Surface Mount Interface Module with Built-In Distance Locating

24VDC Power Connections Run in Conduit

Alarm and Fault Relay Connections run in conduit to either Addressable Modules or a Conventional Panel

ProH2O Cable

Mounting 3'-5' (1 - 1.5m)

ProH2O Cable Length:
Min.: 150' (46m) - Max.: 1,000' (305m)

Strain Relief Connector

J/EJR Box with Screw Terminals
- Any Panel
- Addressable
- Conventional

ProH2O Water Leak Detection System
Features

- Use with any panel, Addressable or Conventional
- Built-in distance locating
- Self restoring
- Up to 1,000 feet (305m) per zone
- Can detect a leak anywhere along the entire cable
- 4-20mA and 0-10VDC analog output
- Alarm and fault relay outputs
- Interface module with internal alarm and fault sounder
Typical System Configuration

- Any Panel
- Addressable
- Conventional

Typical System

- Interface Module displays distance to leak in both feet and meters
Water Leak Detection

- Any Panel
- Addressable
- Conventional

![PRO Cable H2O](image)
One Company, Five Great Products
FIVE PRODUCT SOLUTIONS...

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...ONE COMPANY
LIQUID NATURAL GAS

Liquid Natural Gas Leak Detection Cable
Liquid Natural Gas Leak Detection

Components

- ThermoCable LNG
- Gland Connector
- Water Proof Junction Box
- Explosion Proof Interface Module
- Fire and Gas Detection and Alarm System
- DCS Distributed Control System

Any Panel
Addressable
Conventional
FEATURES

- Lower cost
- Detects rapid decreases in temperature
- Less than 30 second response time
- Self restoring, no need to replace detection cable
- Can detect anywhere along the entire length of wire
- Long lengths, up to 400 feet
Liquid Natural Gas Leak Detection

**Features**

- Interface with any FACP, BMS, or DCS
- LED and audible Alarm and Fault indicators
- Explosion proof enclosure
- Intrinsically Safe detection circuit
Liquid Natural Gas Leak Detection

- Automatically adjusts for ambient temperatures
- Compensates for day and night temperatures
- Compensates for seasonal temperature changes
Liquid Natural Gas Hazards

- Any Panel
- Addressable
- Conventional

Hazards

Pipe Protection
- Insulated LNG Transfer Piping
- 3 to 6 (1 - 1.5m) intervals

Tank Protection
- ThermoCable LNG Between Inner and Outer Tank Walls

Perimeter
- ThermoCable LNG within Bund Perimeter Retaining Wall

From Gas Field

To Pipeline System

Vaporizers
Liquid Natural Gas Leak Detection System

Any Panel
Addressable
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One Company, Five Great Products
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...ONE COMPANY

[End Slideshow]