SafeHous

INDUSTRIAL GRADE LEAK DETECTION SYSTEMS

Safehous In-Line Leak Sensor
Smart Temperature-Based Leak Detection
Model: FL-1000

Product Description

The Safehous FL1000 Smart In-Line Leak Sensor continuously monitors water flow within a condominium, apartment, or home's plumbing system through the main water feed line. Using proprietary temperature-based sensing technology, it can detect even the smallest leaks by identifying subtle changes in water temperature as it passes through the sensor.

This precise detection method enables early identification of potential leaks before they escalate into costly damage. Versatile in design, the FL1000 can be installed on both cold and hot water lines. When paired with the Safehous Valve Controller, the system can automatically shut off the water supply upon leak detection, providing an additional layer of protection.

Features

- Detects leaks using temperature-based sensing technology
- Identifies leaks as small as a few ounces per minute
- Works on both hot and cold water feed lines
- Monitors water flow continuously, 24/7
- Integrates with the FS360 Valve Controller for automatic shut-off
- Easy to install for residential, condominium, and multifamily applications

Technical Data	
Material Pipe Section	**Brass**
Detection Sensitivity	Down .056 LPM
Sensitivity	Down to .015 GPM
Accuracy	+-1% of range =-1% of reading
Repeatability	+-1%
Signal Output	From .056 LPM
Signal Output	From .015 GPM
Medium Temperature	0-90 Degrees Celsius (non-freezing)
Medium Temperature	32-194 Degrees Fahrenheit (non-freezing)
Ambient Temperature	0-70 Degrees Celsius
Ambient Temperature	32-158 Degrees Fahrenheit
Pressure Rating	PN 16
Pressure Rating	Max 232 PSI
Nominal Diameter	DN 20
Nominal Pipe Size	3/4 in.
Process Connection	G 1 Male Thread
Process Connection	1 in. NPT Male Thread
Sensor	Proprietary Heat Sensor Technology
Power Supply	24 VDC

For More Info Please Call

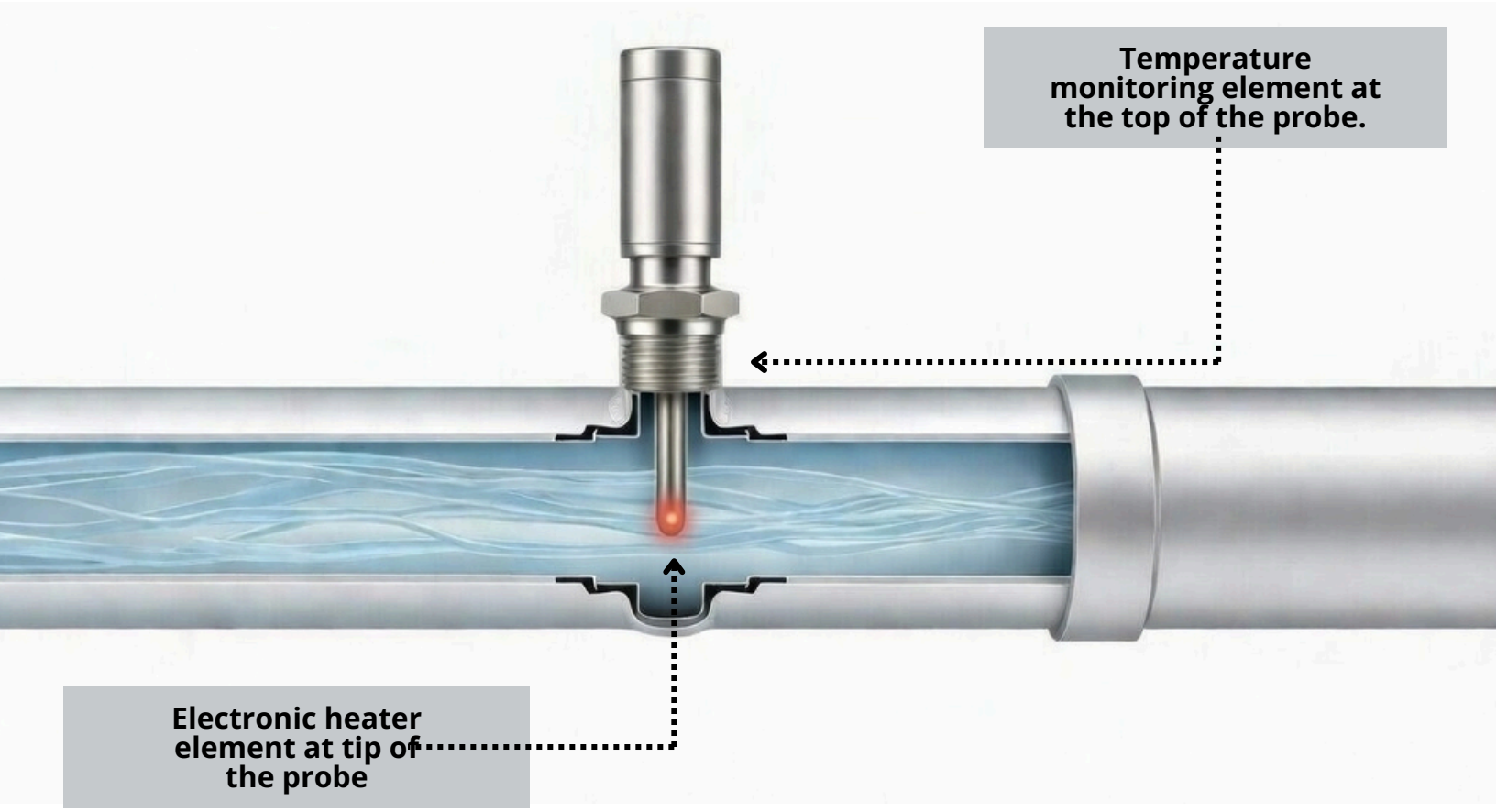
866-310-1055 www.safehous.com

How it Works

The Safehous FL1000 In-Line Leak Sensor utilizes a precision-engineered stainless steel probe that contains two distinct sensing elements, each designed to ensure highly accurate leak detection.

The first element is a proprietary electronic heater positioned at the tip of the probe and submerged directly in the water path. This heater is maintained at approximately 50°F above the ambient water temperature inside the pipe. Under normal no-flow conditions, the heater maintains a stable temperature because the surrounding water remains still. When water begins moving through the pipe, even at extremely low flow rates caused by a small leak, the moving water passes over the heated tip and draws heat away from it. This cooling effect produces a measurable change in the voltage across the heater element. That voltage change is continuously transmitted to the onboard microprocessor within the controller, which analyzes the data to determine whether a leak condition exists.

The second element is a temperature monitoring sensor located near the top of the probe, away from direct exposure to moving water. Its role is to monitor the baseline temperature of the water within the pipe. Because plumbing systems naturally experience temperature fluctuations due to seasonal conditions, hot water usage, or environmental factors, these changes could otherwise be mistaken for water movement. The temperature monitoring sensor provides a real-time reference point that allows the system to compensate for these variations. By comparing readings from both sensing elements, the microprocessor can filter out voltage changes caused by ambient temperature shifts rather than actual water flow. This ensures that only genuine flow events indicative of a leak trigger an alert or valve shut-off, minimizing false alarms while maintaining extremely high sensitivity.



SafeHous

INDUSTRIAL GRADE LEAK DETECTION SYSTEMS

Safehous® In-Line Fire Sprinkler Leak Sensor
Smart Temperature-Based Leak Detection
Model: FL-1000F

Product Description

The Safehous FL-1000F Smart In-Line Fire Sprinkler Leak Sensor continuously monitors water flow within a building's fire sprinkler system through the main sprinkler feed line. Using proprietary temperature-based sensing technology, it can detect even the smallest leaks by identifying subtle changes in water temperature as it flows past the sensor.

This precise detection method allows the FL-1000F to identify potential leaks early, helping protect fire suppression systems from unnoticed water loss and costly damage.

Features

- Detects leaks using temperature-based sensing technology
- Identifies leaks as small as a few ounces per minute
- Monitors water flow continuously, 24/7
- Easy to install for residential, condominium, and multifamily applications

Technical Data	
Material Pipe Section	**Brass**
Detection Sensitivity	Down .056 LPM
Sensitivity	Down to .015 GPM
Accuracy	+-1% of range =-1% of reading
Repeatability	+-1%
Signal Output	From .056 LPM
Signal Output	From .015 GPM
Medium Temperature	0-90 Degrees Celsius (non-freezing)
Medium Temperature	32-194 Degrees Fahrenheit (non-freezing)
Ambient Temperature	0-70 Degrees Celsius
Ambient Temperature	32-158 Degrees Fahrenheit
Pressure Rating	PN 16
Pressure Rating	Max 232 PSI
Nominal Diameter	DN 20
Nominal Pipe Size	3/4 in.
Process Connection	G 1 Male Thread
Process Connection	1 in. NPT Male Thread
Sensor	Proprietary Heat Sensor Technology
Power Supply	24 VDC

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