Fixed Temp / Rate of Rise Heat Sensor

VF7010-00

Ordering Codes

VF2010-00	Fixed Temp / Rate of Rise Heat Sensor
VF7001-00	4" Mounting Base
VF7002-00	6" Mounting Base
VF7008-00	6" Sounder Base
VF7005-00	6" Low Frequency Sounder Base

Standard Features

- Low Profile - Only 2.0" high, including base
- Simple and reliable device addressing method
- Uses the noise immune Digital Communication Protocol (DCP), which utilizes interrupts for fast response to fires
- Rate of Rise temperature threshold = 15°F/Min (determined by panel)
- Adjustable threshold temperature = 135°F - 190°F (determined by panel)

NOTE Bases are not included with detectors, please order separately.

Technical Specifications

Operating Voltage	24 - 41 VDC
Standby Current	350μA
Alarm Current	500μA
Transmission Method	DCP—Digital Communication Protocol
Maximum Humidity	up to 95% non-condensing
UL Temperature Range	135° F to 190° F
Operating Temperature Range	14° F to 122° F
Rate of Rise	15° F Minimum
UL Maximum Spacing	70 feet
Color / Case Material	Bone / ABS Blend
Weight	3.2 oz, (4.9 oz with 4" base)

Operation

The VF2010 incorporates a highly linear thermistor circuit. The specially designed cover protects the thermistor while allowing maximum air flow. The thermistor circuit produces a voltage proportional to the temperature; this information is transmitted to the control panel as a digital value. When the ambient temperature exceeds a preprogrammed threshold (fixed temp or rate of rise), the sensor transmits an interrupt to the control panel indicating a fire alarm. The fire alarm control panel can adjust the sensor's fixed temperature threshold for different installation requirements.

Up to 127 devices may be installed on each SLC loop. The sensor address may be set by a hand-held programming unit. The sensor mounts to an electronics-free base and incorporates a locking mechanism for security. The base provides mounting slots, terminals for field wiring and a third terminal for a remote indicator/ LED. The sensor has dual LEDs for easy viewing of the sensor status.

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Application

The VF2010 Fixed Temperature / Rate of Rise sensors provide accurate temperature measurement data to the fire alarm control panel. These sensors are well-suited for environments where dust, cooking fumes, or other factors make the use of smoke sensors impractical.

Engineering Specification

Heat sensors are installed in accordance with NFPA 72 and the rules and regulations set forth by the local authorities having jurisdiction.

The contractor shall furnish and install, where indicated on the plans, Fixed Temp / Rate of Rise Automatic heat sensors. The Sensor and Base shall be UL listed as compatible with the fire alarm control panel (FACP). The base shall permit direct interchange with the VES, VF2002, VF2005, and VF2011 photoelectric smoke sensor, VF2001 ionization type smoke sensor, VF2003 & VF2010 heat sensor, and the VF2008, VF2012 & VF2014 Multi- Criteria sensor.

The vandal-resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be optional and can be implemented when required. It shall be possible for the control panel to perform a functional test of the sensor without heat. The test method shall simulate the effects of heat on the device to insure testing of internal circuitry.

Bases

The VF7001 and the VF7002 mounting bases are electronics free and are a simple rugged design with screw terminals for wiring connections. A common mounting base allows sensor interchange and maintains loop continuity when sensors are removed. A simple anti-tamper head locking system is provided which is enabled by removing a small plastic tab on the back of the sensor. Once locked, the head can be removed using a small diameter screw driver.