NOTIFIER by Honeywell

I56-6956-000

FST-951A-SELFT
Intelligent Programmable Temperature Self-Test Sensors

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SPECIFICATIONS

Operating Voltage Range:	15 to 32 VDC
Operating Current @ 24 VDC:	200 uA (one communication every 5 seconds with green LED blink on communication)
Maximum Alarm Current:	2 mA @ 24 VDC (one communication every 5 seconds with red LED solid on)
Maximum Self-Test Alarm Current:	7 mA (Not be used for battery standby calculation as Self-Test will not work in auxiliary power mode)
Maximum Current:	4.5 mA @ 24 VDC (one communication every 5 seconds with amber LED solid on)
Operating Humidity Range:	10% to 93% Relative Humidity, Non-condensing
Installation Temperature:	
Set for fixed-temperature or rate-of-rise (ROR):	–4°F to 100°F (–20°C to 38°C)
Set for high-heat:	–4°F to 150°F (–20°C to 66°C)
Fixed Temperature Rating:	135°F (57°C)
High Heat Temperature Rating:	190°F (88°C)
Storage Temperature Range:	-4°F to 140°F (-20°C to 60°C)
Height:	2.0˝ (51 mm) installed in B300-6A Base
Diameter:	6.2˝ (156 mm) installed in B300-6A Series Base; 4.1˝ (104 mm) installed in B501 Series Base
Weight:	3.4 oz. (95 g)

CAN/ULC S530 listed for Heat Detectors

This sensor must be installed in compliance with the control panel system installation manual. The installation must meet the requirements of the Authority Having Jurisdiction (AHJ). Sensors offer maximum performance when installed in compliance with CAN/ULC S524.

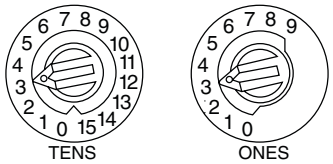
Before installing sensors, please read the system wiring and installation manual thoroughly. This manual provides detailed information on sensor spacing, placement, zoning, and special applications. Copies of these manuals are available from NOTIFIER.

GENERAL DESCRIPTION

Model FST-951A-SELFT is a field programmable intelligent sensors that uses a state-of-the-art thermistor sensing circuit for fast response. These sensors are designed to provide open area protection with 50-foot spacing capability as approved by CAN/ULC S530. The intelligent temperature sensor can be programmed as either a 135°F fixed temperature sensor, a rate of rise and 135°F fixed temperature sensor or a 190°F high temperature sensor through the Fire Alarm Control Panel (FACP). Its internal Self-Test unit and beaconing capability can test the detector to relevant requirements of NFPA 72.

Two LEDs on each sensor light to provide a local, visible sensor indication. Remote LED annunciator capability is available as an optional accessory (Part No. RA100ZA). Rotary dial switches are provided for setting the sensor's address. (See Figure 1.)

FIGURE 1. ROTARY ADDRESS SWITCHES



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NOTIFIER panels offer different feature sets across different models. As a result, certain features of the Intelligent Programmable Temperature Sensors may be available on some control panels, but not on others. FST-951A-SELFT will support only FlashScan® protocol mode.

The possible features available if supported by the control panel include:

1. The sensor's LEDs can operate in three ways—on, off, and blinking–and they can be set to red, green, or amber. This is controlled by the panel.
2. The remote output may be synchronized to the LED operation or controlled independent of the LEDs. Please refer to the operation manual for the ULC listed control unit for specific operation of these models
3. Devices are point addressable up to 159 addresses.
4. The heat sensor operates as a programmable heat detector.
5. Yearly maintenance, in accordance to NFPA 72, can use the built in Self-Test functionality.

Intelligent programmable temperature sensors require compatible addressable communications to function properly. Connect these sensors to listed-compatible control panels only.

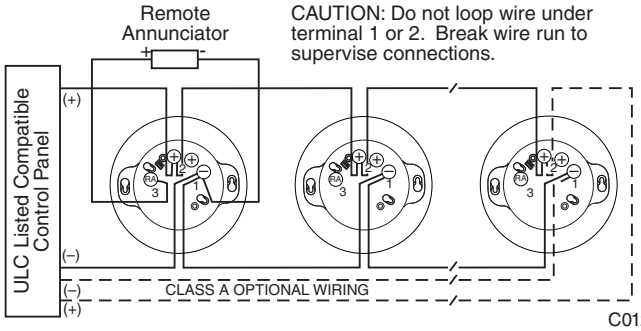
WIRING GUIDE

All wiring must be installed in compliance with the Canadian Electrical Code, applicable local codes and the Authority Having Jurisdiction. Proper wire gauges should be used. The installation wires should be color coded to limit wiring mistakes and ease system troubleshooting. Improper connections will prevent a system from responding properly in the event of a fire. Please note that installation distances, wiring styles and wire gauge requirements may vary for Self-Test sensors in comparison to standard sensors, please refer to the panel's SLC Wiring documentation for further information.

Remove power from the communication line before installing sensors.

1. Wire the sensor base (supplied separately) as shown in the wiring diagram. (See Figure 2.)
2. Set the desired address on the rotary dial switches. (See Figure 1.).
3. Install the sensor into the sensor base. Push the sensor into the base while turning it clockwise to secure it in place.
4. After all sensors have been installed, apply power to the control unit and activate the communication line.
5. Test the sensor(s) as described in the TESTING section of this manual.

FIGURE 2. WIRING DIAGRAM



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TAMPER RESISTANCE

Intelligent programmable temperature sensors include a tamper-resistant capability that prevents their removal from the base without the use of a tool. Refer to the base manual for details on making use of this capability.

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BEFORE TESTING

Before testing, notify the proper authorities that the system is undergoing maintenance, and will temporarily be out of service. Disable the system to prevent unwanted alarms.

All sensors must be tested after installation and periodically thereafter. Testing methods must satisfy the Authority Having Jurisdiction (AHJ). Sensors offer maximum performance when tested and maintained in compliance with CAN/ULC S536.

The sensor can be self-tested or manually tested as described below.

SELF-TEST TESTING

A. Heat Test

The NOTIFIER system with Self-Test temperature sensors can carry out a functional test using the Self-Test function. It places enough energy into the thermistor to allow it register heat and then measures the time it takes to cool down after this heating cycle has been completed.

1. Use the associated app and gateway (see connected life safety services guides).
2. Initiate self-test from app. Wait at least 30 seconds before communicating with the device; wait at least 90 seconds before moving or re-cycling.
3. Take appropriate action based on the outcome of the testing results. If it has failed there may be an issue with the thermistor and the device should be considered for cleaning or replacement.

NOTE: For safer testing the fire system can remain active while Self-Test is in progress. The process will delay any alarm input signal from the SLC including pull stations, input modules and other sensors (not undergoing Self-Test) by a maximum of 30 seconds. Multiple loops and panels may be tested simultaneously.

B. Visual Inspection

This sensor contains a wireless beacon (only active during Self-Test process) which is designed to communicate with the Honeywell Connected Life Safety Services app in order to prove the successful completion of the visual inspection of any Self-Test sensor.

1. A range of Self-Test sensors can be placed into a beaconing mode from the supporting app.
2. The App will display all selected Self-Test devices in range of your smart phone and will place the device with the strongest signal at the top your App display. The App will also provide details on the device address, location and label. (For further details on the associated app and gateway see Connected Life Safety Services guides).
3. Once the sensor is in beaconing range of your smart phone, you must verify the completion of the visual inspection of the sensor via the App (recording any remedial action required if necessary). Criteria for successfully passing the visual inspections is available to review in the relevant section of NFPA 72 guidance.
4. If the label of the self-test sensor is incorrect, you can update this on the App (subject to holding the relevant user licence), which will upload it to the system when you pair the device with the connected life safety services gateway on completion of the visual inspection.

SELF-TEST TOKENS

If your license requires Self-Test tokens in order to activate the Self-Test process, please refer to your connected life safety services guides in order to purchase the required volume of tokens to complete testing on your project.

MANUAL TESTING

A. Test Magnet (Model No. M02-04 - optional)

1. Place the optional test magnet against the cover in the magnet test area, as shown in Figure 3, to activate the test feature.
2. The LEDs should latch on within 10 seconds, indicating alarm and annunciating the panel.
3. Reset the detector at the system control panel.

B. Direct Heat Method (Hair dryer of 1000 – 1500 watts)

1. From the side of the detector, direct the heat toward the sensor. Hold the heat source about 6 inches (15 cm) away to prevent damage to the cover during testing.
2. The LEDs on the detector should light when the temperature at the detector reaches the alarm setpoint. If the LEDs fail to light, check the power to the detector and the wiring in the detector base.
3. Reset the detector at the system control panel.

Detectors that fail these tests may need to be cleaned as described under CLEANING and retested.

When testing is complete, restore the system to normal operation and notify the proper authorities that the system is back in operation.

CLEANING

Before removing the detector, notify the proper authorities that the smoke detector system is undergoing maintenance and will be temporarily out of service.

Disable the zone or system undergoing maintenance to prevent unwanted alarms.

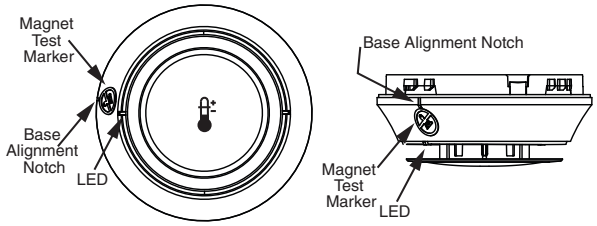
1. Remove the sensor to be cleaned from the system.
2. Use a vacuum cleaner or compressed air to remove dust and debris from the sensing area.
3. Reinstall the detector.
4. Test the detector as described in TESTING.
5. Reconnect disabled circuits.
6. Notify the proper authorities that the system is back on line.

FM CLASSIFICATION

RTI ratings are for installations which must comply with FM 3210.

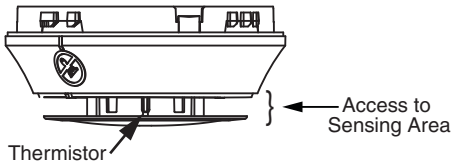
135°F Fixed RTI:	FAST
Rate of Rise/135°F Fixed RTI:	V2-FAST
190°F Fixed RTI:	QUICK

FIGURE 3. FEATURES OF THE HEAT DETECTOR



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FIGURE 4. CLEANING THE HEAT DETECTOR



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SUPPLEMENTAL INFORMATION

For Limitations of Fire Alarm Systems, please go to: http://www.systemsensor.com/en-us/Documents/I56-1558.pdf

Limitations of Fire Alarm Systems

FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

WARNING: Do not make changes to the equipment. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

IC STATEMENT / RAPPORT D'IC

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

DEVICE AND SYSTEM SECURITY

Before installing this product ensure that the tamper seal on the packaging is present and unbroken and the product has not been tampered with since leaving the factory. Do not install this product if there are any indications of tampering. If there are any signs of tampering the product should be returned to the point of purchase.

It is the responsibility of the system owner to ensure that all system components, i.e. devices, panels, wiring etc., are adequately protected to avoid tampering of the system that could result in information disclosure, spoofing, and integrity violation.

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