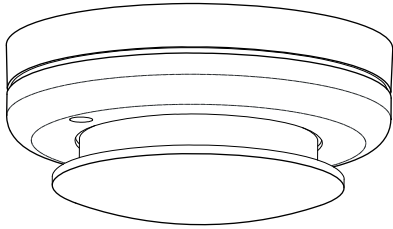# Kidde
United Technologies

V-HFD Fixed-Temperature Heat Detector Installation Sheet

Description

The V-HFD Fixed-Temperature Heat Detector is an intelligent analog device that contains a 135°F (57°C) fixed-temperature heat sensor to detect heat from fire. The heat sensor monitors the temperature of the air in its surroundings and the detector analyzes the data and determines whether an alarm should be initiated.

A heat detector by itself does *not* provide life safety protection. For life safety situations, a heat detector should be used in conjunction with ionization or photoelectric smoke detectors or a combination thereof.

The detector is capable of performing comprehensive self-diagnostics and storing the results.

LED operation

The detector uses a bicolor LED to show its status:

- Normal: Green LED flashes
- Alarm/active: Red LED flashes

Electronic addressing

The control panel automatically assigns addresses to the detectors. Use a laptop computer to assign custom addresses. No addressing switches are used.

Installation

Install and wire this device in accordance with applicable national and local codes, ordinances, and regulations.

For information on detector placement and spacing, refer to the *Vigilant Detector Application Bulletin* (P/N 3101109-EN).

WARNINGS

- Risk of system failure. This detector does not operate without electrical power. As fires frequently cause power interruption, discuss further safeguards with your local fire protection specialist.

- Risk of system failure. This detector does not sense fires that start in areas where heat cannot reach the detector. Heat from fires in walls, roofs, or on the opposite side of closed doors may not reach the detector.

Notes

- This heat detector by itself does not provide life safety protection. Use this detector with ionization and/or photoelectric smoke detectors.

- This detector does not detect oxygen levels, smoke, toxic gases, or flames. Use this device only as part of a broad-based, life-safety program which includes a variety of information sources pertaining to heat and smoke levels, extinguishment systems, visual and audible devices, and other safety measures.

- Independent studies recommend using heat detectors only for property protection. Never rely on heat detectors as the sole means of fire protection.

- Do not use a detector guard with this detector unless the combination has been evaluated and found suitable.

- To ensure proper operation, schedule maintenance (regular or selected) in accordance with the requirements of the authority having jurisdiction. Refer to NFPA 72 and CAN/ULC-S536.

- To ensure proper operation, store the detector within the recommended temperature ranges. Allow the detector to stabilize to room temperature before applying power.

- Keep the dust cover (supplied) on the detector during installation and remove it prior to commissioning and service. The dust cover is not a substitute for removing the detector during new construction or heavy remodeling.

To install the detector:

1. Install and wire the detector base using the installation sheet supplied with the detector base.

2. Connect the detector to the base by rotating the detector clockwise until it snaps into the locked position.

   To remove the detector turn it counterclockwise.

3. If the detector must lock to the base, break away the locking tab using a pair of pliers. See Figure 1.

   To remove the detector head after breaking away the locking tab, insert a small screwdriver into the slot on the side of the base and press in while simultaneously turning the detector head counterclockwise.

4. Remove the serial number label from the detector and attach it to the project documentation.

Figure 1: Locking tab
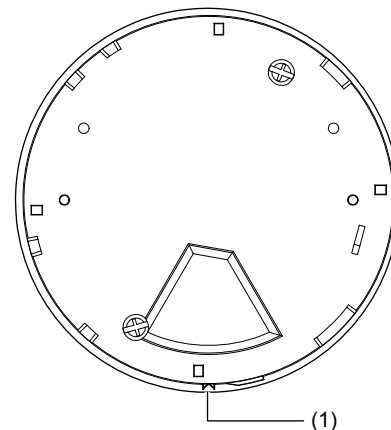
(1) Locking tab

Testing

NFPA 72 and CAN/ULC-S537 require a calibrated sensitivity test upon installation and following any modifications or additions to the system. The detector can perform this test and generate a system sensitivity report.

To test the detector:

1. Before initial testing, remove the dust cover from the detector and notify the proper authorities that the fire alarm system is undergoing maintenance and will be temporarily out of service.

2. Test the detector for proper operation using a heat gun while maintaining a six-inch minimum. Use caution as excess heat can damage the detector and detector housing.

Specifications

Communication line voltage	20 Vp-p max.
Current	
Normal operating	45 µA
Alarm	45 µA
UL/ULC fixed-temp alarm rating	135°F (57°C)
Actual alarm point	125 to 140°F (54 to 60°C)
Environmental compensation	Automatic
Compatible bases	
Standard	B4U, B4U-LP
Relay	RB4U
Isolator	IB4U
Audible	SB4U, SB4U-LF
Operating environment	
Temperature	32 to 120°F (0 to 49°C)
Relative humidity	0 to 93% noncondensing
Storage temperature	−4 to 140°F (−20 to 60°C)

Regulatory information

North American standards	Meets: CAN/ULC-S530, UL 521
	Follow: CAN/ULC-S524, CAN/ULC-S537, *National Building Code of Canada*, *National Fire Code of Canada*, and NFPA 72
FCC compliance	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.
Industry Canada compliance	This Class A digital apparatus complies with Canadian ICES-003.

Contact information

For contact information, see www.kiddelifesafety.com.