SIEMENS

HFPT-11 Intelligent Thermal Detector

For FireFinder XLS™ and FS-250 Fire Alarm Control Panel

ENGINEER AND ARCHITECT SPECIFICATIONS

HFPT-11

- Microprocessor Based Design
- Rate of Rise and Fixed Temperature
- Innovative Technology Provides High Speed, Fault Tolerant System/Detector Communications
- Multi-Color Detector Status LED
- Polarity Insensitive Utilizing SureWire™ Technology
- Detectors are Self-Testing, Complete Diagnostics Every 4 Seconds
- Two-Wire Operation
- Compatible with DPU Device Programmer/Tester Unit
- (UL) ULC Listed, CSFM, FM, NYMEA Approved

Introduction

The HFPT-11 intelligent thermal detectors provide an advanced method of detection, address programming and supervision, combined with sophisticated control panel communication. The HFPT-11 detector uses a state-of-the-art thermistor providing 135°F fixed temperature and 15° per minute rate-of-rise alarm points. The user also has the option of disabling the rate-of-rise feature leaving just a fixed temperature sensor.

The HFPT-11 intelligent thermal detector is compatible with the Device Program/Test Unit (DPU). The DPU is a compact, portable, menu-driven accessory which makes programming and testing detectors faster, easier and more reliable than other methods. The DPU eliminates the need for cumbersome, unreliable mechanical programming methods and reduces installation and service costs by electronically programming addresses and functionally testing the HFPT-11's performance before the detector is installed.

The HFPT-11 thermal detector operates with the FireFinder XLS and FS-250 families of control panels.

The HFPT-11 intelligent thermal detector is Underwriters Laboratory and Underwriters Laboratory of Canada listed.

Description

The HFPT-11 is a plug-in, two-wire thermal detector, compatible with FireFinder XLS and FS-250 families of control

panels. Each FPT-11 has microcomputer chip technology and highly stable solid state electronic circuitry.

The FPT-11 utilizes a modern, accurate, shock-resistant thermistor to sense temperature changes. This electronic sensing method virtually eliminates thermal lag associated with mechanical temperature sensing devices and provides almost instantaneous temperature information to the control panel. The HFPT-11, in its default mode, is a combination 135°F fixed temperature and 15° per minute, rate-of-rise detector. It can be programmed from the control panel as a fixed temperature detector without rate-of-rise, at the users option.

The HFPT-11 detector's microprocessor uses an integral EEPROM to store the detector's address. Communications within the detector itself and between the HFPT-11 and the control panel, or with the DPU, are supervised and safeguarded against disruption by reliable, microprocessor based error checking routines. Additionally, the microprocessor supervises all EEPROM memory locations and provides a high degree of EEPROM failure fault tolerance.

The HFPT-11 is listed as a self-testing device. The HFPT-11's visible light emitting diode (LED) flashes green every 4 seconds to indicate it is communicating with the control panel and that it has passed its internal self-test. Should the detector sense a fault

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or failure within its systems, the LED will flash amber and the detector will transmit that information to the control panel. A quick visual inspection is sufficient to indicate the condition of the detector at any time. If more detailed information is required, a printed report can be provided from the FireFinder XLS panel indicating the status and settings assigned to each individual detector.

When the HFPT-11 moves to the alarm mode, it will flash red and continue flashing until the control panel is reset. At that same time, any user defined system alarm functions programmed into the system are activated.

A Device Program/Test Unit (DPU) is used to program and verify the detector's address. The user selects the Program Mode to enter the desired address. The DPU Programmer/Tester then automatically sets and verifies the address as well as tests the detector. The DPU has rechargeable batteries, so a detector's address can be programmed by the user from the most convenient location. The user can also separately test the detector for functionality. When the user selects the Test Mode, a series of tests are automatically conducted and the user is informed whether the detector has passed or failed.

The HFPT-11 detector is compatible on the same FireFinder XLS or FS-250 initiating circuit with other H Series detectors, HMS manual stations, HTRI Series addressable interfaces, or HZM Series addressable conventional zone modules.

The HFPT-11 detectors use a surface mounting base, Model DB-11, which mounts on a 4-inch octagonal, square or single gang electrical box. Relay base Model DB-HR mounts to a 4-inch square deep electrical box.

Audible base Model ADBH-11 also mounts to a 4-inch square deep electrical box.

The DB-11, and the DB-HR and ADBH-11 use screw-clamp terminals for all electrical connections and self-wiping contacts for reliability. The bases also contain a provision for an optional concealed locking mechanism to prevent unauthorized removal of the detector head, Model LK-11.
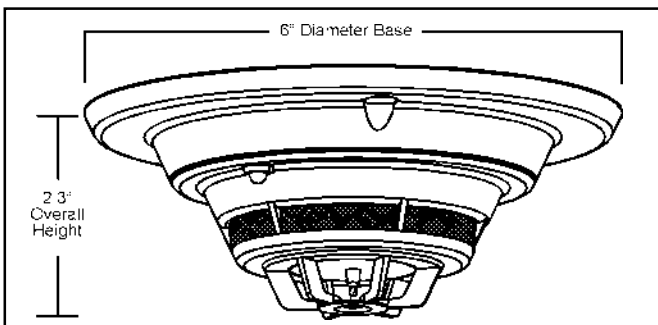
Application Data

The FireFinder XLS and FS-250 control panels use loop circuits with each circuit capable of supporting up to 252 HFPT-11 intelligent detectors.

Locate the HFPT-11 on the ceiling, at least 4 inches from the side walls. For an ideal, smooth ceiling condition, place the detectors at a maximum center spacing of 50 feet (2500 square feet), 25 feet from side walls or room partitions.

Actual job conditions and sound engineering judgement must determine detector spacing. Consider environmental factors including ambient temperature fluctuation, and the nature of the fire hazard. Room or area configuration and ceiling type (sloped or flat, smooth or beamed) also dictates placement.

Should questions arise regarding detector placement, follow the drawing provided and/or approved by Siemens Fire Safety or by its authorized distributors. This is extremely important! The detector placements shown on these drawings were chosen after a careful evaluation of the area being protected. Extensive experience in design of the system assures the best detector placement by following these drawings.

Technical Specifications

Operative Temperatures: +32°F (0°C) to 100°F (38°C)

Humidity: 0-93% Relative Humidity Non-condensating

Maximum Spacing: 50 Foot Centers (2500 Square Feet)

Current Draw: 1mA in alarm or supervisory mode

Ordering Information

Model	Description	Part Number
HFPT-11	Addressable Thermal Fire Detector	500-033380
DB-11	Detector Mounting Base	500-094151
DB-HR	Relay Base	500-033220
ADBH-11	Audible Base	500-033210
RL-HC	Remote (red) alarm indicator-octogan box mount	500-033230
RL-HW	Remote (red) alarm indicator-single gang box mount	500-033310
LK-11	Base Locking Kit for Series 11 detectors	500-695350
In Canada Order:		
ADBH-11C	Audible Base (ULC)	500-033210C
HFPT-11C	Addressable Thermal Fire Detector (ULC)	500-033380C
DB-11C	Detector Mounting Base (ULC)	500-095687
DB-HR-C	Relay Base (ULC)	500-033220C