Intelligent Detection Devices

Intelligent Thermal Detector

[For use with FireFinder® XLS and MXL Panels]
Model FPT-11

──── ARCHITECT AND ENGINEER SPECIFICATIONS ────

- Innovative technology provides high-speed, fault-tolerant system / detector communications

- Compatible with Model DPU or FPI-32 field programmer / tester

- Multi-color, detector-status light-emitting diode (LED)

- Optional fully-programmable relay and audible bases

- ⓊL and ⓊLC Listed; FM, CSFM & NYCFD Approved

- Microprocessor-based design
- Two-wire operation
- Rate compensated

Product Overview

The Intelligent Thermal Detector (Model FPT-11) from Siemens — Fire Safety provides an advanced method of detection, address programming and supervision — combined with sophisticated fire alarm control panel (FACP) communication. Model FPT-11 uses a state-of-the-art thermistor that provides up to 135°F (57.2°C) rate-compensated temperature.

Model FPT-11 is compatible with Model DPU and FPI-32 Field Programmer / Testers, which are compact, portable and menu-driven accessories that make programming and testing detectors faster, easier and more reliable than other methods.

Each of these field programmers / testers eliminate the need for cumbersome, unreliable mechanical programming methods, and they reduce installation and service costs, via electronically erasable programmable read-only memory (EEPROM), and can test Model FPT-11's performance (for proper function) before the detector is even installed. Moreover, mechanical-addressing mechanisms — such as program jumpers, DIP switches or rotary dials — are no longer necessary to use.

Specifications

Model FPT-11 is a plug-in, two-wire thermal detector that is compatible with FireFinder XLS and MXL FACPs. Each Model FPT-11 detector has microcomputer-chip technology, as well as highly stable, solid-state electronic circuitry.

Model FPT-11 utilizes a modern, accurate and 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 FACP.

Model FPT-11 is a 135°F (57.2°C) rate-compensated detector. The microprocessor for Model FPT-11 detector uses the EEPROM means to store the detector's address. Communications within the detector, as well as between Model FPT-11; the FACP, or with each field programmer / tester, 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 tolerance to EEPROM faults.

Intelligent Thermal Detector **6176**

Specifications – (continued)

Model FPT-11 is ⓤUL and ⓤULC Listed as a self-testing device. The visible LED from Model FPT-11 flashes green every four seconds to indicate Model FPT-11 is communicating with the FACP, as well as to signify Model FPT-11's successful passing of its self-test. Should the detector sense a fault or failure within its systems, the LED will flash amber, and the detector will transmit the fault or failure back to the FACP.

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 FACP, indicating the status and settings assigned to each individual detector.

When Model FPT-11 moves to the *Alarm* mode, Model FPT-11 will flash amber, and will transmit data to the FACP. When the FACP confirms the current condition of Model FPT-11, the panel will instruct Model FPT-11 detector to flash red until the system is reset at the FACP. At that same time, any user-defined, system-alarm functions programmed into the FireFinder XLS or MXL system are activated. Each Model FPT-11 detector can operate one (1) remote alarm indicator; one (1) auxiliary relay — or one (1) audible base, and only one (1) accessory, per detector.

Model DPU or Model FPI-32 is used to program and verify the address for Model FPT-11. The end-user selects the *Program* mode to enter the desired address. Then, the programmer / tester automatically sets and verifies the address, as well as test the detector. The programmer / tester contains rechargeable batteries in order for the address of Model FPT-11 to be programmed by the end-user from a portable location. The user can also separately test the Model FPT-11 detector for functionality.

When the end-user selects the 'test' mode, a series of tests are automatically conducted, and the user is informed whether Model FPT-11 detector has passed or failed.

Model FPT-11 detector is compatible on the same initiating circuit with other Model IL-series, Model FP-series or Model ID-60-series addressable ionization, photoelectric, or thermal detectors; Model MSI addressable manual stations; Model TRI-series addressable interfaces, or Model CZM-series addressable conventional-zone modules.

Each Model FPT-11 is capable of operating one (1) 'X' or 'I'-series remote-alarm indicator, or auxiliary relay or audible base.

Model FPT-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-X11 RS mounts to a 4-inch square deep electrical box. Audible base Model ADBX-11 also mounts to a 4-inch square deep electrical box.

Models DB-11, DB-X11 RS, and ADBX-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

FireFinder XLS uses Model MLC, but the MXL FACP uses Model ALD — with each respective circuit capable of supporting up to 60 Model FPT-11 intelligent detectors.

The detector (or group of detectors) require a minimum two-wire circuit of 18 American Wire Gauge (AWG) thermoplastic-fixture wire enclosed in conduit — or a minimum 18 AWG-limited energy, shielded cable without conduit, per local building codes. Wiring should conform to local and national electrical codes, as well as the wiring specifications of the FACP. 'T-tapping' is permitted only for Class B (Style 4) wiring.

Locate Model FPT-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 (2,500 square feet) — 25 feet from side walls or room partitions. For FM-Approved installations, Model FPT-11 has a relative-temperature index (RTI) rating of 'QUICK.' Use a maximum center spacing of 20 feet (400 square feet) — 10 feet from side walls or room partitions.

Actual job conditions and sound engineering judgment must determine detector spacing. Be sure to 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 drawings provided and / or approved by Siemens — Fire Safety, or by its authorized distributors.
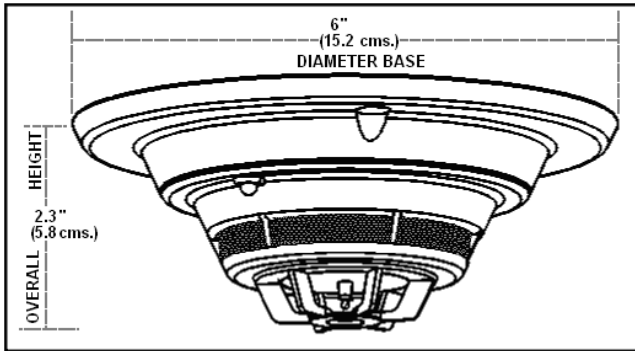
Technical Data

Current Requirements:	**Normal:** 750 μa
	Alarm: 750 μa
Operating Temperatures:	+32°F (0°C) to +120°F (49°C)
Relative Humidity:	0-93%; Non-condensing

Mounting Diagram

Details for Ordering

Model Number	Part Number	Description
ADBX-11	500-096181	Audible Base for Series 11 Detectors
DB-11	500-094151	Detector Mounting Base for Series 11 Intelligent Detectors
DB-11E	500-094151E	Small, 4.5-Inch Diameter Detector Base
DB-ADPT	500-094187	Base Adapter to Model DB-3S Base
DB-X11RS	500-096125	Relay Base for Series 11 Detectors
FPT-11	500-095918	Addressable Thermal Fire Detector
LK-11	500-695350	Base Locking Kit for Series 11 Detectors
RLI-1	500-390673	Remote Alarm Indicator; octagon-box mount, red
RLI-2	500-695350	Remote alarm Indicator; single-gang box mount, red

In Canada, order:

Model Number	Part Number	Description
ADBX-11C	500-096181C	Audible Base for Series 11 Detectors, [⊛ULC]
DB-11C	500-095687	Detector Mounting Base for Series 11 Intelligent Detectors, [⊛ULC]
DB-X11RS	500-096125C	Relay Base for Series 11 Intelligent Detectors, [⊛ULC]
FPT-11C	500-095918C	Addressable Thermal Fire Detector, [⊛ULC]

SIEMENS Industry, Inc.
Building Technologies Division

Notice: This marketing data sheet is not intended to be used for system design or installation purposes. For the most up-to-date information, refer to each product's installation instructions.