

FAH-440 Analog Heat Detector

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- ▶ Selectable Fixed Temperature threshold
- ▶ Rate-of-Rise feature can be switched on or off
- ▶ Selectable base locking mechanism prevents malicious removal of the detector

The FAH-440 Analog Heat Detector is an open-area fire detector that works with the FPA-1000 Analog Addressable Fire Panels. Use it with the FAA-440 family of bases in indoor dry environments with high ambient temperatures where smoke detectors might not be suitable because of steam or fumes; such as kitchens, boiler rooms, or drying rooms.



Notice

The FAH-440 Analog Heat Detector is not a life safety device.

Functions

Address Range

The detector has a valid address range from 1 to 254 which is set by rotary switches on the back of the detector.

Indicator LED

The detector head has a multi-color LED to indicate status. To verify power to the detector and functioning communication of the analog addressable loop, the LED indicator flashes green when operating normally (polling). Through panel parameter setting, it is

possible to turn on or off operation of the polling indicator. In the event of an alarm condition, the detector LED will always show a steady red light.

Modular Construction

The detector is part of a two-piece modular design for detector assemblies. A detector attaches to a base in the FAA-440 Analog Standard Base or Analog Isolator Base family. The base's security locking tab prevents any unauthorized detector removal from the base.

Programming

Local programming is carried out at the panel keypad or by computer through a Web browser. Remote programming is carried out through a Web browser.

Selectable Threshold Setting

The detector has an alarm threshold temperature range of +135°F to +194°F (+57°C to +90°C) with 17 possible settings. The rate-of-rise feature can be switched on or off.

Certifications and approvals

| Region | Certification | |
|--------|---------------|---|
| USA | UL | UROX Smoke-automatic Fire Detectors (ANSI/UL 268) |
| | CSFM | see our website |

Installation/configuration notes

Compatible Products

The following products are compatible with the FAH-440 Analog Heat Detector:

| Category | Product ID | Product Description |
|------------------------|-----------------|---------------------------------------|
| Fire Panels | FPA-1000 Series | Analog Addressable Fire Panels |
| Fire Panel Accessories | FPE-1000-SLC | Signaling Line Circuit Plug-in Module |
| Detector Bases | FAA-440-B4 | 4-inch Analog Standard Base |
| | FAA-440-B6 | 6-inch Analog Standard Base |
| | FAA-440-B4-ISO | 4-inch Analog Isolator Base |
| | FAA-440-B6-ISO | 6-inch Analog Isolator Base |

Mounting Considerations

Detectors are typically mounted on the ceiling. However, if detectors are mounted on a wall, they must be at least 4 in. (10.2 cm), but no more than 12 in. (30.5 cm), below the ceiling. When other devices containing magnets or producing magnetic fields (for example, loudspeakers) are present in the area, the base must be at least 1 ft (30 cm) from these devices to prevent unwanted activation of the test switch.

For UL Listing requirements, the spacing between heat detectors should be no more than 50 ft (15.24 m).

Wiring Considerations

The control panel communicates to the detectors via the analog addressable loop (SLC), which allows the use of standard non-twisted, non-shielded wiring. The following wire gauges were tested and approved:

| Wire Gauge | Maximum length |
|------------------------------------|------------------|
| 18 AWG (ISO 0.75 mm ²) | 4000 ft (1200 m) |
| 16 AWG (ISO 1.5 mm ²) | 6225 ft (1900 m) |
| 14 AWG (ISO 2.5 mm ²) | 7200 ft (2200 m) |
| 12 AWG (ISO 4 mm ²) | 9850 ft (3000 m) |

Remote Indicator

If a remote indicator is used in the circuit, it must be no more than 10 ft (3 m) from the base.

Parts included

| Quant. | Component |
|--------|------------------|
| 1 | FAH-440 detector |
| 1 | Dust cover |

Technical specifications

Electrical

Maximum current consumption detector head at 77°F (25°C) and 39 V bus voltage

| | |
|------------------------------------|------------------|
| • Alarm: | 5 mA |
| • Standby: | 0.17 mA |
| • When polled: | 22 mA ± 20% |
| Operating voltage (SLC loop): | 24 VDC to 41 VDC |
| Maximum allowable line resistance: | 50 Ω |

Environmental

| | |
|----------------------|------------------------|
| Protection category: | IP 42 |
| Relative Humidity: | < 95% (non-condensing) |

Temperatures

| | |
|-----------------|--|
| • Installation: | +32°F to +100°F (0°C to +38°C) If the sensitivity temperature is programmed within a range of +175°F to +249°F (+79.4°C to +120.6°C), the maximum installation temperature is +150°F (+66°C). |
| • Storage: | -13°F to +176°F (-25°C to +80°C) |

Mechanical

Dimensions

| | |
|----------------------------|--------------------------------------|
| • Detector: | 4.4 in. x 2.0 in. (11.2 cm x 5.1 cm) |
| • Detector in 4-inch base: | 5.0 in. x 2.5 in. (12.7 cm x 6.4 cm) |
| • Detector in 6-inch base: | 7.0 in. x 2.5 in. (17.8 cm x 6.4 cm) |
| Housing Material: | CYCOLOY/ABS |

Sensor

| | |
|--------------|---|
| Airflow: | 4000 ft/min (20 m/s) maximum |
| Sensitivity: | +135°F to +194°F (+57°C to +90°C), programmable + RoR |

Trademarks

All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.

Ordering information

FAH-440 Analog Heat Detector

Use with FAA-440 family bases and FAP-1000 Analog Addressable Fire Panels to provide general property protection

Order number **FAH-440**

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