

FAH-440 Analog heat detector head, fixed/ROR

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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 fire panels. Use it with the FAA-440 family of bases in indoor dry environments with high ambient temperatures. Use it in kitchens, boiler rooms, or drying rooms unsuitable for smoke detectors because of steam or fumes.

	Warning
	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. The address 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 detector power and analog addressable loop communication, 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 always shows a steady red light. Independent from the actual number of activated device LEDs and remote indicator LEDs, the number of activated LEDs is limited to five (called the rolling alarm function).

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	Regulatory compliance/quality marks	
Europe	CE	FAH-/FAP-/FAA-440
USA	UL	UQGS Heat-automatic Fire Detectors (ANSI/UL 521)
	CSFM	see the Bosch website (www.boschsecurity.com)

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. Wall-mounted detectors must be at ≥ 4 in. (10.2 cm) but ≤ 12 in. (30.5 cm) from the ceiling. To prevent unwanted activation of the test switch, the base must be at least 1 ft. (30 cm) from devices containing magnets or producing magnetic fields (for example, loudspeakers).

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

Quantity	Component
1	FAH-440 Analog heat head
1	Dust cover

Technical specifications

Electrical

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

<ul style="list-style-type: none"> Alarm Standby When polled 	0.17 mA (5 mA with LED on) 0.17 mA 22 mA \pm 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)
Installation temperature	+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 temperature	-13°F to +176°F (-25°C to +80°C)

Mechanical

Dimensions

Dimensions (\varnothing x H)	4.4 in. x 2.0 in. (11.2 cm x 5.1 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

All hardware/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 head, fixed/ROR

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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