

FAP-325 Analog Photoelectric Smoke Detector

www.boschsecurity.com



BOSCH

Invented for life



- ▶ Handles air velocity from 0 ft/min to 4000 ft/min (0 m/s to 20.32 m/s)
- ▶ Adjustable threshold smoke level (determined by FACP)
- ▶ Provides automatic compensation values in case of detector contamination
- ▶ Mounts on FAA-325-B4 Analog Detector Base and the FAA-325-B6S Analog Sounder Base
- ▶ Easy detector removal for cleaning and servicing

The FAP-325 Analog Smoke and Smoke/Heat Detector is an addressable device used in the analog polling circuit. It detects fast-flaming fires and dense smoke typically given off by plastic, foam, paper, wood, and other materials that tend to smolder.

The detection chamber design prevents external light from entering the chamber and uses a light-emitting diode (LED) and a photodiode which measures particulate levels in the detection chamber. These measurements are transmitted in digital form to the fire alarm control panel (FACP). The FACP can adjust the sensor threshold to compensate for contamination.

Functions

Address Range

The detector is compatible with 127 addresses.

Fire Panel Connections

The detector is controlled by a microprocessor and communicates with the fire panel (both power and data) over a two-wire polling circuit. Removing a detector from the base for service initiates a trouble signal but does not interrupt the polling circuit.

Contamination Testing

The FPA-1000 Analog Addressable Fire Panels are UL listed to monitor the contamination level of this detector. The fire panel monitors the contamination level of the detectors as part of its normal polling activity. Based on the compensation values provided by each detector, the electrical test determines if the detector is within its UL-listed calibration range. The fire panel automatically compensates for contamination of the detector and indicates when the detector requires cleaning.

Status Display

Each detector has two LEDs that flash every time the device is polled and can be switched on steady when the detector goes into active condition.

Certifications and approvals

Region	Certification	
USA	UL	UROX_S4992 - Smoke-Automatic Fire Detectors
	CSFM	7272-1615-0236

Installation/configuration notes**Compatible Products**

The following products are compatible with the FAP-325 Analog Smoke Detector:

Category	Product ID	Product Description
Fire Panels	FPA-1000	Analog Addressable Fire Panels
Detector Bases	FAA-325-B4	4-inch Analog Sensor Base
	FAA-325-B6	6-inch Analog Detector Base
Programming Products	D5070	Analog Device Programmer

Modular Construction

The detector is part of a two-piece modular design for detector assemblies. A detector attaches to an FAA-325-B4 4-inch Analog Detector Base or an FAA-325-B6 6-inch Analog Detector Base. The base's security locking tab prevents any unauthorized detector removal from the base.

Mounting

Smoke detectors are typically mounted on the ceiling. However, if smoke 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.

For UL Listing requirements, the spacing between detectors should be no more than 30 ft.

Programming

The address of each detector is set by programming an EEPROM microchip located in the detector. The D5070 Analog Device Programmer is required for address setting.

Parts included

Quant.	Component
1	FAP-325 Analog Smoke Detector
1	Dust cover
1	Literature pack

Technical specifications**Electrical**

Operating Voltage Range	24 VDC to 40.7 VDC
Current Consumption	Typical: 0.39A Maximum: 0.54 mA

Environmental

Operating Temperature	+14°F to +122°F (-10°C to +50°C)
UL-listed Installation Temperature	+32°F to +100°F (0°C to +37.8°C)
Relative Humidity	95%, non-condensing at +104°F (+40°C)

Mechanical

Dimensions (diameter x D)	3.94 in. x 1.5 in. (10 cm x 3.8 cm)
Weight	3.4 oz (96.4 g)
Material	ABS Blend
Color	Ivory

Sensitivity Range

Air Velocity of 300 ft/min (1.5 m/s)	0.88%/ft to 3.57%/ft (2.9%/m to 11.7%/m)
Air Velocity of 2000 ft/min (10.2 m/s)	0.88%/ft to 2.81%/ft (2.9%/m to 9.2%/m)
Air Velocity of 4000 ft/min (20.32 m/s)	0.88%/ft to 2.52%/ft (2.9%/m to 8.3%/m)

Ordering information**FAP-325 Analog Photoelectric Smoke Detector**

Sensitivity range from ~0.88%/ft to 3.57%/ft (2.9%/m to 11.7%/m); compatible with 127 addresses.

Not Available.

Order number **FAP-325**

Represented by:

Americas:

Bosch Security Systems, Inc.
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 800 289 0096
Fax: +1 585 223 9180
security.sales@us.bosch.com
www.boschsecurity.us

Europe, Middle East, Africa:

Bosch Security Systems B.V.
P.O. Box 80002
5617 BA Eindhoven, The Netherlands
Phone: + 31 40 2577 284
Fax: +31 40 2577 330
emea.securitysystems@bosch.com
www.boschsecurity.com

Asia-Pacific:

Robert Bosch (SEA) Pte Ltd, Security
Systems
11 Bishan Street 21
Singapore 573943
Phone: +65 6571 2808
Fax: +65 6571 2699
apr.securitysystems@bosch.com
www.boschsecurity.asia

China:

Bosch (Shanghai) Security Systems Ltd.
201 Building, No. 333 Fuquan Road
North IBP
Changning District, Shanghai
200335 China
Phone +86 21 22181111
Fax: +86 21 22182398
www.boschsecurity.com.cn

America Latina:

Robert Bosch Ltda Security Systems Division
Via Anhanguera, Km 98
CEP 13065-900
Campinas, Sao Paulo, Brazil
Phone: +55 19 2103 2860
Fax: +55 19 2103 2862
latam.boschsecurity@bosch.com
www.boschsecurity.com