



INSTALLATION AND MAINTENANCE INSTRUCTIONS

Smoke detectors are not to be used with detector guards unless the combination has been evaluated and found suitable for that purpose.

FW-4-E Conventional 4-Wire Photoelectric Smoke Detector and Base		
Sensing Element	Smoke	IR LED, Blue LED, Photodiode Blue LED enhances the photoelectric smoke sensor to reduce sensitivity to false alarms and increase sensitivity to fire conditions.
Supply Voltage	FOR USE WITH A UL LISTED 24VDC POWER SUPPLY	
Current Consumption	Typical Current	43mA (24VDC)
	Maximum Current	58mA (30VDC Max.)
Included Separable Base	FW-4-EHSC-BASE 6 inch diameter base	
Included Separable Head	FW-4-E-HEAD Smoke Detector	
Temperature	UL Listed Ambient: 32F ~ 120F, Storage: -22F ~ +140F	
Operating Humidity	<95%RH at 104F, <80%RH at 120F	

FW-4-H-E Conventional 4-Wire Photoelectric Smoke and Heat Detector and Base		
Sensing Element	Smoke	IR LED, Blue LED, Photodiode Blue LED, thermistor enhance the photoelectric smoke sensor to reduce sensitivity to false alarms and increase sensitivity to fire conditions.
	Heat	Thermistor
Heat Sensitivity Range	135F	
Supply Voltage	Operating Voltage Range	8 – 35VDC
Current Consumption	Typical Current	43mA (24VDC)
	Maximum Current	58mA (30VDC Max.)
Included Separable Base	FW-4-EHSC-BASE 6 inch diameter base	
Included Separable Head	FW-4-H-E-HEAD Smoke and Heat Detector	
Temperature	UL Listed Ambient: 32F ~ 117F, Storage: -22F ~ +140F	
Operating Humidity	<95%RH at 104F, <80%RH at 120F	

SEPARABLE BASE SPECIFICATIONS			
MODEL	Base ID	Current	Mounting Box
FW-4-EHSC-BASE	N/A	43mA (58mA @ 30V Max.)	4"Octagonal / 4"Square

**CAUTION**

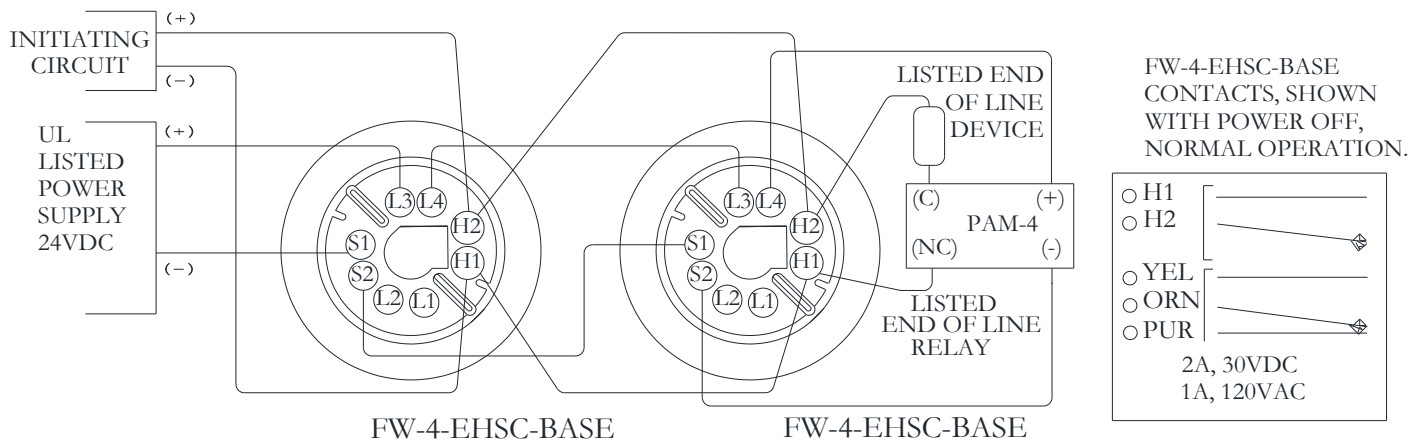
Install this and all life safety devices in accordance with applicable NFPA standards, local codes, and the authorities having jurisdiction. Failure to follow these instructions may result in failure of the detector to initiate an alarm condition. Napco Security Systems, Inc. and the original equipment manufacturer, are not responsible for detectors that have been improperly installed, tested, or maintained.



333 Bayview Avenue, Amityville, New York 11701  
 For Sales and Repairs, (800) 645-9445  
 For Technical Service, (800) 645-9440 or visit us at Tech.NapcoSecurity.com  
 (Note: Technical Service is for security professionals only)  
 Publicly traded on NASDAQ Symbol: NSSC

## Wiring Detectors

Seal conduit openings in the electrical box with 3M Weatherban #606 nonflammable sealing compound (or equivalent) to reduce the stack effect. Attach the detector to the base by turning the detector clockwise until it stops.



## Placement of Detectors

Following the guidelines in NFPA 72 and local codes, base the number and location of detectors on an engineering survey of the area to be protected. Factors to consider include: Contents to be protected, Type of construction and use of structure, Human occupancy, Burning characteristics of contents, Space involved, Height of ceiling, Surface condition of ceiling, Total area, Air movement (stratification), Vent location (velocities and dilution), Deflections and obstructions

- One smoke detector covers 450 to 900 square feet
- You may use 30' spacing on smooth ceilings for all smoke detectors
  - \* Beams or other obstructions extending more than 8" but less than 18" require reduced spacing at the perpendicular of the obstructions. Beams or other obstructions extending more than 18" below the ceiling should designate a new separation point and be considered a border for a new section.

**WARNING:** Do not install smoke detectors in the following areas:

- Where temperatures are likely to exceed the operating temperature range specified by detector
- Closer than 4" to any side wall
- Where forced ventilation can dilute the smoke from a fire
- In known areas of combustion such as kitchens or furnace rooms
- In known areas of sustained corrosive atmospheres such as industrial chemical processing areas

## Maintenance

### Cleaning

Use clean, dry compressed air to remove dust from a detector, or return to Napco for service. Disassembly of the detector may result in the failure of the detector to initiate an alarm condition or initiation of a false alarm condition.

### Testing

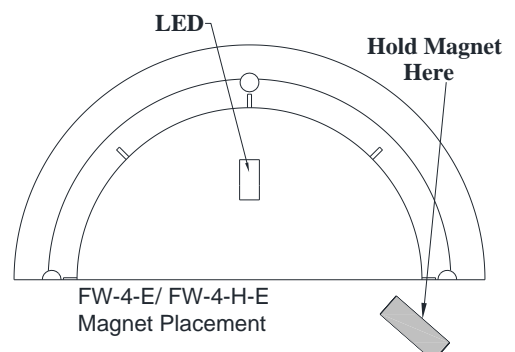
For a smoke detector to operate efficiently, the combustion products must enter the outer chamber. Air flow, stratification, velocity, stagnation, and migration all affect the efficiency and accuracy of the detector. Use an air flow meter to determine the movement of the air within a structure. Consult local codes and ordinances for maintenance requirements. Napco recommends a bi-annual functional testing and visual inspection.

Prior to testing any detector, care should be exercised to ensure proper disabling of live signals and notification circuits of the Fire Alarm Control Panel. Failure to exercise this procedure may result in false alarm signals which could place life and property in jeopardy.

**Caution: Excessive aerosol smoke can contaminate a detector. Do not spray in bursts longer than 1 second. Wait 20 seconds between sprays.** Test with Smoke Sabre aerosol cans or Testifier 1000/1001 or 2000/2001 with TS3 smoke capsules/ heat setting per manufacturer's instructions.

### GO/NO-GO TESTING FW-4-E/FW-4-H-E

1. Hold a magnet (2lb pull force min) on the detector as shown.
2. For go: The detector will blink red. Holding the magnet in position will cause the detector to alarm with a continuous Red LED latched.
3. For no-go: The detector will continue to blink red and never alarm or latch red.
4. Upon reset, the detector LED should flash Green.



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