

FW-2 & FW-4 Advanced Photoelectric Smoke Detectors & New FW2-H & FW4-H With Built-in Thermal Heat Sensor



Advanced Photoelectric Smoke Detector FW-2 & FW-4

Standard Features:

- Low Profile- Only 1.8" High
- FW2-H & FW4-H Models with built-in thermal heat sensor - for more accurately detecting



- a wide range of fires (135°F Heat Detector)
- 2 or 4 Wire Models
- Highly Stable Operation, RF/Transient Protection
- Two built-in power/sensitivity supervision/alarm LED's
- Non-directional Smoke Chamber
- Vandal Resistant Security Locking Feature
- Built-in magnetic go/no go detector test feature
- Removable smoke labyrinth for cleaning or replacement
- Automatic Sensitivity window verification function meets outlined equirements in NFPA 72, Chapter 7, Inspection, Testing and Maintenance





FW2-H & FW4-H with Built-in Thermal Heat Sensor

Application:

The NAPCO Firewolf Smoke Detectors can be used in all areas where photoelectric smoke detectors are required. They are suited for smoldering or flaming fires.



Operation:

The NAPCO Firewolf

advanced photoelectric smoke detectors utilize two bicolored LEDs for indication of status. In a normal standby condition, the LEDs will flash Green every 3 seconds. When the detector senses that's its sensitivity has drifted outside the UL-Listed sensitivity window, the LEDs will flash red every 3 seconds. When the detector senses smoke and goes into alarm the status, LEDs will latch on Red.

The unit is comprised of an LED light source and silicon photo diode receiving element. In a normal standby condition, the receiving element receives no light from pulsing light source. In the event of fire, smoke enters the detector and light is reflected from the smoke particles to the receiving element. The light received is converted to an electronic signal.

Signals are processed in the comparator, and when two consecutive signals exceeding the basic level are received within a specific period of time, the time delay circuit triggers the SCR switch to activate the alarm signal. The status LED lights continuously during alarm period

Engineering specifications:

The contractor shall furnish and install where indicated on the plans of the NAPCO FW2, FW2-H, FW4, or FW4-H baseless photoelectric smoke detector. The detector head shall be UL-listed compatible with a UL-listed fire alarm panel.

The smoke detector shall have flashing status LED for visual supervision. When the detector is actuated, the flashing LED will latch on steady at full brilliance. The detector may be reset by actuating the control panel reset switch.

The detector shall have a sensitivity window verification feature.

The vandal resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be field selectable.

It shall be possible to perform a functional test of the detector without the need of generating smoke. The method shall simulate effects of products of combustion in the chamber to ensure testing of detector circuits.

Voltage and RF transient suppression techniques shall be employed to minimize false alarm potential.

Wiring diagrams

Specifications

Light Source:	Gaal As Infrared Led
Voltage:	Nominal: 12 Vdc Or 24 Vdc Working: 8.0-35.0 Vdc (35.0 Vdc Max.)
Wave Form:	Filtered Dc 15% Ripple Max
Alarm Current:	55ma Maximum
Surge Current:	200µa Maximum (2 Wire)
Average Stand-by Current:	38µa Avg @ 12 Vdc 55µa Avg @ 24 Vdc 70µa Avg @ 35 Vdc
Ambient Temperature:	32°f - 120°f (0°c49°c)
Sensitivity Test Feature:	Automatic Sensitivity Window Verification Test
Compatibility Identifier:	Hd-6
Order Codes:	2-wire Detector & Trim Ring White: Fw-2 Or Fw2-h
	4-wire Detector & Trim Ring White: Fw-4 Or Fw4-h
Product Listings:	Underwriters Laboratories S1383





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