

# FIREWOLF

## BY NAPCO

## Advanced photoelectric smoke detectors with or without built-in thermal heat sensor



**Advanced Photoelectric Smoke Detector FW-2 & FW-4**

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

### 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 requirements in NFPA 72, Chapter 7, Inspection, Testing and Maintenance

### Application:

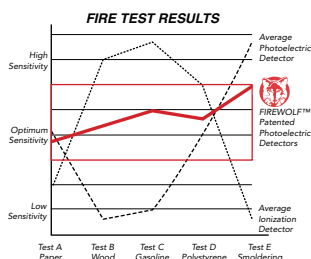
Firewolf Smoke Detectors can be used in all areas where photoelectric smoke detectors are required. They are suited for smoldering or flaming fires.

### Operation:

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 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:

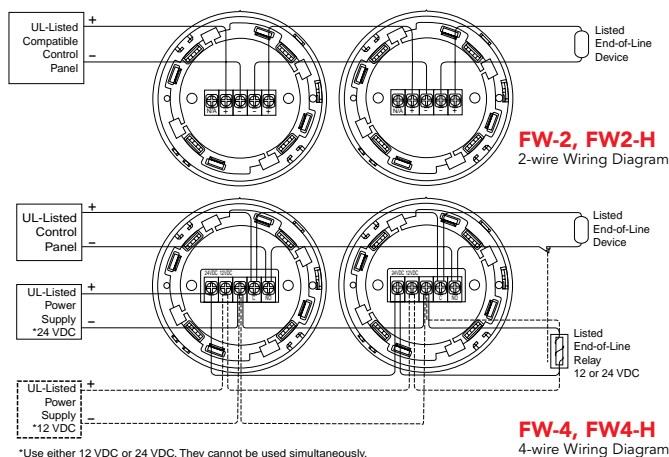
- Detector head UL-listed compatible with a UL-listed fire alarm panel
- Flashing status LED for visual supervision. When the detector is actuated, the flashing LED latches on steady at full brilliance. The detector may be reset by actuating the control panel reset switch.
- Sensitivity window verification feature.
- Vandal resistant, field selectable, security locking feature
- Smokeless testing method simulates the effects of products of combustion in the chamber to ensure testing of detector circuits.
- Voltage and RF transient suppression techniques to minimize false alarm potential.



### Specifications

Light Source:	GaAs 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 70µa Avg @ 35 Vdc
Ambient Temperature:	32°F - 120°F (0°C - 49°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

### Wiring diagrams



\*Use either 12 VDC or 24 VDC. They cannot be used simultaneously.

# 12/24VDC Carbon Monoxide Detector:

Independently tested to be the only  
*false-alarm-free* CO detector technology,  
by a leading authority on indoor air quality\*

## FIREWOLF BY NAPCO



### FW-CO12 12VDC

### FW-CO1224 12/24 VDC selectable

- The first commercially available gas sensor that uses patented biometric technology to simulate CO gas level response in the human blood stream for immunity to false alarms from common household gases
- Independent lab tests prove superior false alarm immunity over electrochemical units (\*Berkeley National Laboratory, report #40566)
- Powerful 85db alarm sounder & LED
- Solid state electronics, won't leak or dry up; not subject to orientation problems of other detectors
- Smart microprocessor and infrared sensor optimize life safety & detection accuracy
- Active self test and LED indicator
- Minimal current draw by incorporating infrared monitoring sensor: 20 ua (microamps) standby. 60mA alarm 30mA trouble
- Form C alarm & trouble relays
- Convenient wall or ceiling mount (includes hardware)
- UL2075 Listed. Tested to meet UL2034 CO response requirement
- Superior long life expectancy of 6 years, backed by an unsurpassed 6 year warranty+

### GENERAL DESCRIPTION

These CO alarms are suited for residences, motels, hotels, and commercial or industrial system applications. The FW-CO12 is designed for 4-6 wire connection to 12VDC alarm system control panels. The FW-CO1224 is designed for 4-6 wire connection to 12 or 24VDC alarm system control panels. Reference: UL Listed Household Fire and/or Burglary Panel with auxiliary signaling zones. Connect to signaling zones which can be designated for CO alarm use only.

### PRODUCT DATA

**Sensitivity Setting:** Unit will alarm at 150 ppm CO within 50 minutes.

**Power:** 12VDC nominal, operating voltage range 10-15 Vdc

**Current Draw:** Standby 20 microAmp. Alarm 60 mA, max. Trouble 30 mA.

**Field Wiring:** 14-22 AWG

Alarm and Trouble Signal Relays Non-Latching

**Contact ratings:** Form "C", 1A - 30Vdc

**Operating Temperature:** 4.4° C - 37.8° C (40° F - 100° F)

**Operating Humidity:** 15-95% RH

**Horn (Sounder) Loudness:** 85 db @ 10 ft(3.3 meters)

4-15/16" diameter x 1-1/2"H (w/ base)

**Compliance:** UL2075 Listed. Tested to meet UL2034 CO response requirement



### Wall or ceiling mount

4-15/16" diameter x 1-1/2"H (with base)

333 Bayview Avenue, Amityville, NY 11701 USA

1-800-645-9445 • Fax (631) 789-9292

www.napcosecurity.com

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