

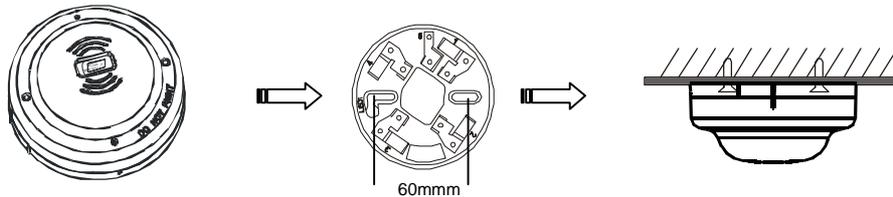
INSTALLATION AND MAINTENANCE INSTRUCTIONS

Flame Detector with Relay Output

SPECIFICATIONS

Operating Voltage Range:	12 to 30 VDC Volts
Standby Current:	≤10 mA @ 24 VDC
Alarm Current:	≤30 mA @ 24 VDC
Spectrum:	180~290nm
Detection Angle:	110 degree
Detection Sensitivity:	Grade I, 25m@flame (Container 33cmX33cm,Height 5cm with 2Kg ethanol)
Relay Contact Load:	1A@DC24V
Normal Status:	LED blinking in 5 seconds interval
Alarm Status:	LED lit steady
Protection rating:	IP 32
Operating Humidity Range:	10% to 93% Relative Humidity, Non-condensing
Operating Temperature Range:	-10°C to 50°C (14°F to 122°F)
Height:	1.8" (45 mm) installed in Base
Diameter:	4.0" (103 mm)
Weight:	5.4 oz. (153g)

INSTALLATION



BEFORE INSTALLING

NOTICE: This manual should be left with the owner/user of this equipment.

GENERAL DESCRIPTION

The device is an Ultraviolet-only flame detector designed to detect fires and provide alarm outputs directly from the detector while maintaining false alarm immunity. It detects in the ultraviolet (UV) spectral range for optimized speed of response.

It is fast and capable to detecting the ultraviolet (UV) rays emitted by a burning substance and is used in high hazard applications such as petrochemical plants, munitions factories and other areas where flammable or explosive liquids or solids are handled or stored.

The flame sensor adopts an ultraviolet photosensitive tube, with qualities of highly sensitive, reliable, dust-resistant, corrosion proof and moisture-resistant, therefore is not sensitive in sunlight, dust, oil, tolerance of fume, and humidity. Set in a standard calibration to detect a flames at a distance of 25 meters, which flame created by 2Kg ethanol in a Container of Base 33cmX33cm, Height 5cm.

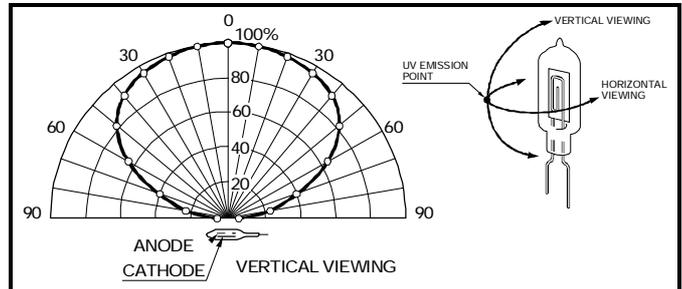


FIGURE1 Vertical Detection Angular Sensitivity(Directivity)

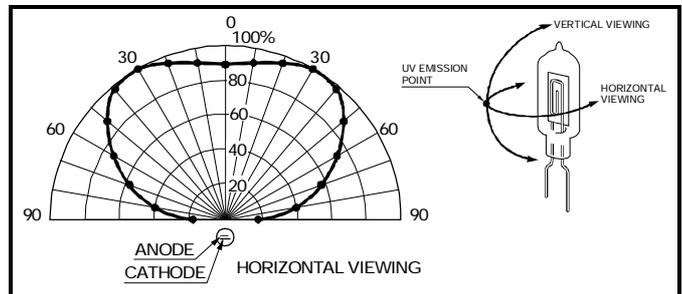


FIGURE2 Horizontal Detection Angular Sensitivity(Directivity)

Loop Design and Wiring

The system designer must make sure that the total current drawn by the devices on the loop does not exceed the current capability of the panel supply, and that the last device on the circuit is operated within its rated voltage. When calculating the voltage available to the last device, it is necessary to consider the voltage drop due to the resistance of the wire. The thicker the wire, the smaller the voltage drops. Wire resistance tables can be obtained from electrical handbooks.

5. The detector can be connected with Security alarm panel as Figure3. Relay output signal can be changed from Normal Close (NC) to Normal Open (NO) by Jump JP1 on the PCB board.

6. The detector can be connected with conventional alarm panel as Figure 4 or Figure5. One 470 ohm resistor should be used.

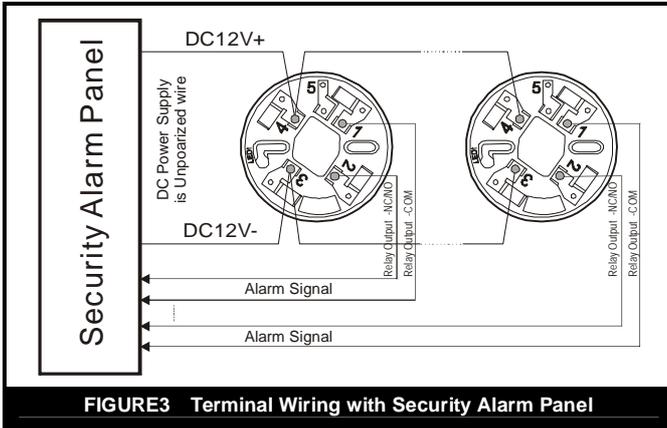


FIGURE3 Terminal Wiring with Security Alarm Panel

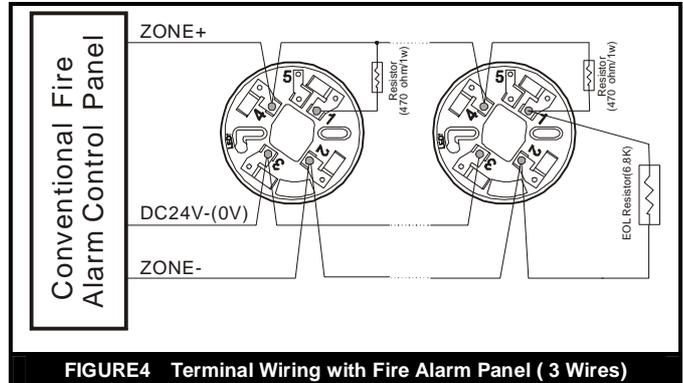


FIGURE4 Terminal Wiring with Fire Alarm Panel (3 Wires)

INSTALLATION

NOTE: All wiring must conform to applicable local codes, ordinances, and regulations.

Mounting Indoor Wall or Ceiling Products

1. Attach mounting base to ceiling or wall.
2. Connect field wiring to terminals:

- Terminal 1: Relay Output -COM**
- Terminal 2: Relay Output – NO/NC (default NO)**
- Terminal 3: DC Power –**
- Terminal 4: DC Power +**

3. To attach product to mounting base.
4. Secure product by tightening the two mounting screws in the front of the product housing.

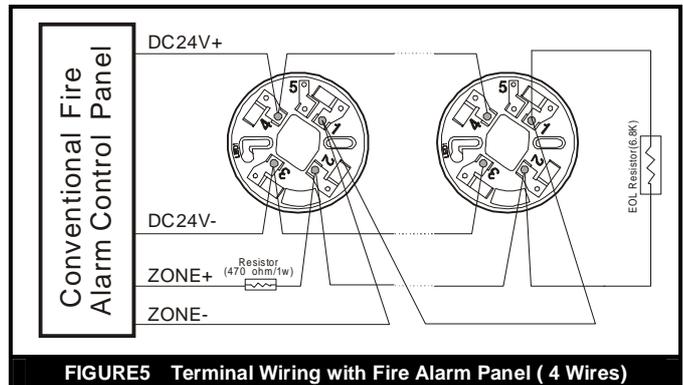


FIGURE5 Terminal Wiring with Fire Alarm Panel (4 Wires)

Please refer to insert for the Limitations of Fire Alarm Systems

THREE-YEAR LIMITED WARRANTY

We warrant its enclosed smoke detector to be free from defects in materials and workmanship under normal use and service for a period of three years from date of manufacture. We makes no other express warranty for this smoke detector. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the repair or replacement of any part of the smoke detector which is found to be defective in materials or workmanship under normal use and service during the three year period commencing with the date of manufacture. After phoning Convoy Security's technical support number for a Return Authorization number, send defective units postage prepaid to Convoy Security local representative office. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to repair or replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.