

## Product Overview

FDAE System fully complies with UL-864 and NFPA-72. While implementing the latest in microprocessor technology for conventional panels ease to operate along with clear visible indications come at an advantage for the end user. These panel are a feature packed control unit performing dual function of detection and controlled release of gaseous agent. These panels have 4 detection circuits and 2 agent release circuit with various programmable options. The panel have all the safety features to prevent accidental release, easy to install, commission with user friendly programmable option, this panel is ideal choice to protect the premises.

## Features:

- 16x2 Dot Matrix LCD Display.
- Operates on 120-220v 60 / 50 Hz, AC Mains power supply.
- 4 Class B initiating device circuit (IDC).
- All zones accept smoke detectors and any normally open contact device.
- Any Zone can be configured as Alarm or supervisory Zone.
- 2 Class B Releasing Agent Circuits (RAC).
- 2 Class B Notification Appliance Circuits (NAC).
- Standby (battery) backup 24v DC power supply with built in charger
- Main, Standby status audio visual indication.
- Battery Low audio visual warning tone.
- 3 Form C programmable relays for Fire / fault / supervisory / Gas Released.
- Two modes of operations Auto / Manual.
- Programmable 24v D.C Outputs.
- RS 485 Communication facility (Optional).
- 200 Events history log with RTC.
- Walk Test facility.
- Zone Isolation facility with voltage cutt off.
- Earth fault annunciation facility.
- All field wiring circuits are Power limited except 220v AC and Battery.
- All field wiring circuits are supervised.
- AC Low voltage cutoff.
- Programmable RAC's with count down timer.
- Programmable AC loss delay
- Programmable Trouble remainder.



## Special Features:

- Switch Mode Power Supply.
- Modular Construction, Serviceable.
- Special logic circuitry to prevent accident release.
- Auto Resettable Fuse.
- Surge Protected.
- Battery polarity & deep discharge protection.

### NAC's Output:

- Variable solenoid ON / OFF time.
- 4 No's of programmable Initiating Device Circuit and 2 No's of Releasing Agent circuit, with the independent correlation of any no of initiating devices circuit with any one of Release Agent Circuit.
- 3 No's Programmable (Fire, Cross Zone & Gas Release) relays for integration of third party system
- Separate LED indications on front facia for individual Releasing Agent Circuit.

# Electrical Specification

## Primary Power

120 - 220VAC ± 10%, 50 Hz, 2.5Amps.

## Standby Power

24v D.C (2 Nos of 12v, 12Ah Sealed Lead acid battery).  
Quiescent current : 120 mA.

## Operating Condition

Operating Temperature 0 - 49° C / 32-120° F.  
Relative Humidity 93 ± 2% RH (non-condensing) at 32 ±2° C / 90 ± 3° F.

## Charging Circuit

Charging Voltage : 28.0V, ± 0.2V  
Charging current : 800mA (Max).

## D.C. Output Power

Supervised 24VDC regulated, 300mA.

## Common Relays

Type : Form C  
No of Relays : 3  
Relay Contact Rating: 2 Amps @ 30 VDC,

## Programmable Input circuits

No. of Inputs: 4  
Normal Operating Voltage: 8 - 12 VDC.  
Short Circuit Current: 5mA Maximum.  
Loop resistance: 100 ohms Maximum.  
End-Of-Line Resistor: 3K9, 1/2watt  
Standby Current: 2.5mA  
Maximum Manual Release Switch: 3 No's.

## Initiating Device Circuits

All Zones are Class B Style B/C operation (Programmable).  
Normal Operating Voltage : 14 - 21 VDC.  
Alarm Current : 15 - 30mA.  
Short Circuit Current : 45mA Maximum.  
Loop resistance : 100 ohms Maximum.  
End-Of-Line Resistor : 3K9, 1/2watt  
Standby Current : 7mA (2mA for Detectors)

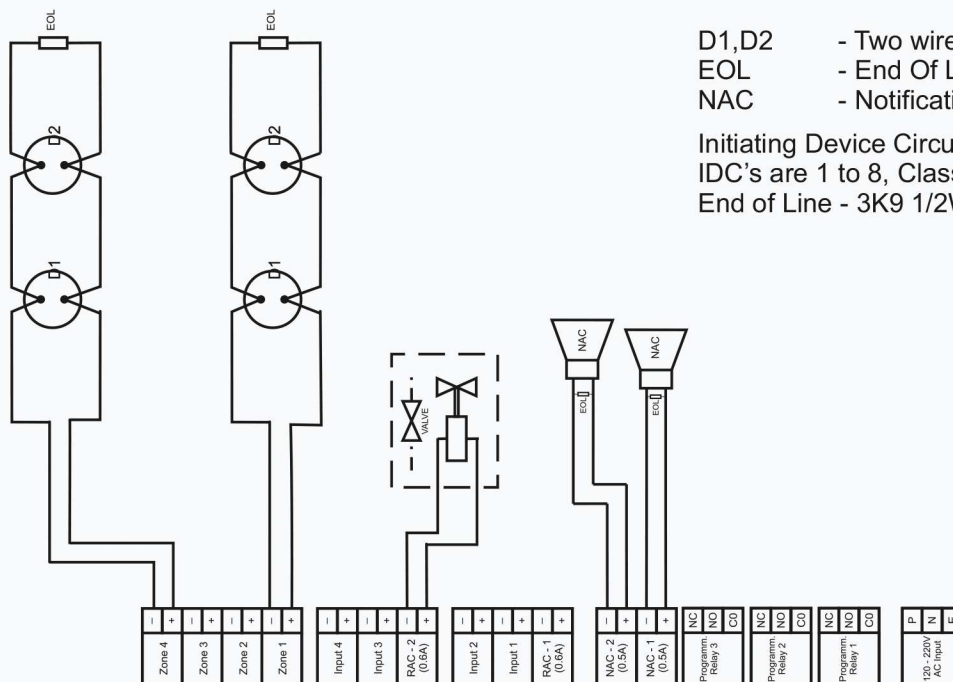
## Notification Appliance Circuits

Class B, Style - Y wiring  
No of circuits : 2  
Operating Voltage : 24VDC Nominal  
Current : 0.6A per circuit  
Line Drop : 1.8V  
End-Of-Line Resistor: 3K9, 1/2watt

## Releasing Agent Circuits

Class B, Style - Y wiring  
No of circuits : 2  
Operating Voltage : 24VDC Nominal  
Current : 0.6A per circuit  
Line Drop : 1.8V  
End-Of-Line Resistor: 3K9, 1/2watt

## Wiring Diagram:



## Note:

- D1,D2 - Two wire detectors
- EOL - End Of Line Resistor
- NAC - Notification Alarm Circuit

Initiating Device Circuit  
IDC's are 1 to 8, Class B Style B/C  
End of Line - 3K9 1/2W

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