

## FEATURES

- UL listed, File #S405, Standard #864 under the MPC-2000 System Control Unit (UOJZ)
- Dual zone circuits
- Each initiating circuit independently programmable
- Individual zone normal, off and test switch per zone
- Individual red alarm and yellow trouble LED indicators per zone
- Class "A" (Style "D") or Class "B" (Style "B") wiring/operation compatible
- Programmable for zone alarm verification operations
- Power limited with built-in transient protection
- Wire loop resistance capacity up to 100 Ohms
- Normally open manual and automatic alarm and supervisory/waterflow device compatible.
- Software compatible with all other MPC-2000 modules to provide system auxiliary functions
- Capacity for up to 30 UL. listed compatible "2-wire" smoke detectors
- EOL resistors supplied with module
- Custom labeling areas provided on the module
- IBEW/USA Quality Crafted



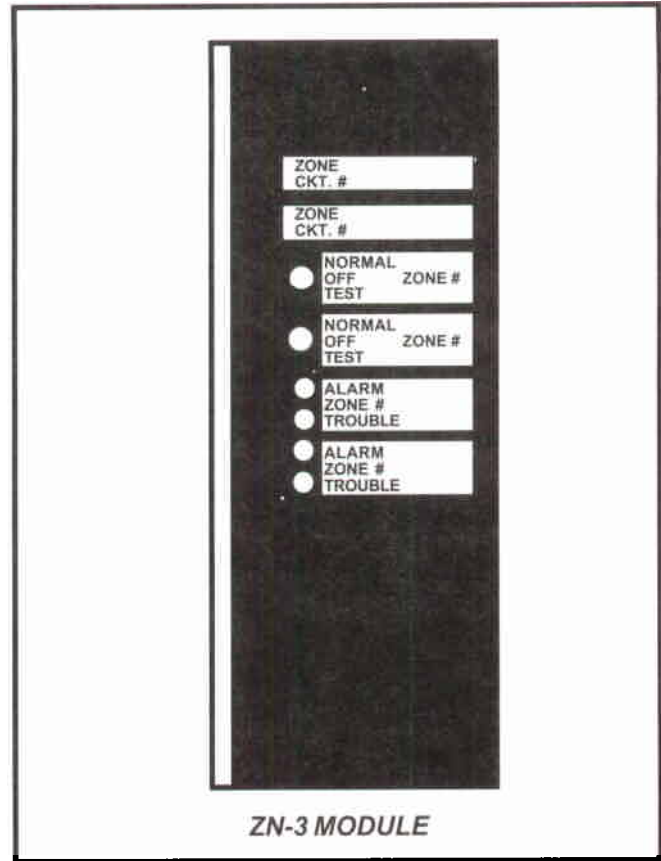
## GENERAL

The ZN-3 module consists of two electrically and programmability independent conventional initiating (zone) circuits each capable of operating in either 2-wire / Class "B" (Style "B") or 4-wire/Class "A" (Style "D") configurations.

The module is capable of operating a "2-wire" (zone powered) or "4-wire" (separate powered) compatible listed smoke detectors and other normally open manual and automatic contact devices. The ZN-3 module may also be programmed to operate with normally open waterflow and tamper (supervisory) switch devices. Each zone may be software conditioned for alarm verification operations and manual and automatic type devices may be intermixed on the verified zone.

Each zone circuit also provides a front panel mounted 3 position toggle switch for normal, cutoff and test functions.

The module also provides individual visible red alarm and amber trouble/by-passed LEDs, custom zone labeling areas and full software access to the MPC-2000 control unit. All initiating circuit wiring is power limited thus eliminating the necessity of external fusing and allowing for the use of power limited cabling. Field wiring connections are made via pressure type screw terminals to insure positive connections. The ZN-3 module includes a supervisory network to detect open circuit or grounded wiring faults on the associated conventional alarm initiating circuit. Detection of a fault condition will light the appropriate



yellow zone trouble LED as well as activate the MPC-2000's system trouble circuitry and system status display(s). In addition, if the initiation circuit is wired in the 4-wire / Class "A" (Style "D") mode, the circuit will automatically be "healed" to allow all devices electrically before or past the single open or ground to activate an alarm condition. (See Class "A" (Style "D") note)

In a verified alarm condition (circuit shorted thru verification or a second alarm) the appropriate red zone alarm LED will light and an alarm output signal will be sent to the MPC-2000's CU-2 central control module. The CU-2 module will in turn distribute the alarm information to all other MPC-2000 modules to accomplish alarm tasks such as signaling, auxiliary contact control, annunciation, etc. In addition, the CU-2 module will display all pertinent standard and custom zone data on the system status display(s).

## ORDERING INFORMATION

Model #	Part #	Description
ZN-3	401312	Dual conventional zone module with control

## APPLICATION

1) Class "A" (Style "D") operation requires a 4-wire configuration in which a pair of wires is returned from the last initiating device to the associated zone module circuit. When the field wiring is simply terminated at the last initiating device with an end of line resistor the module will only function in the 2-wire / Class "B" (Style "B") mode. Class "A" (Style "D") operation cannot assure complete circuit alarm operations if two or more faults are present simultaneously on either side of the conventional initiating circuit.

2) When using smoke detectors for fan shutdown, elevator control or other auxiliary functions it is recommended that "4-wire" (separately powered) type detectors be used rather than "2-wire" (zone powered) type detectors. This situation assures subsequent device operations even if a contact device or another detector on the circuit has been already activated.

3) The maximum number of initiating devices on a given circuit should not exceed 30.

4) Shielded wire is not required or recommended on conventional zone circuits. Faraday ZN-3 modules are designed with built-in transient suppression networks thus negating the need for special cabling or external filtering devices.

5) Never run low voltage zone wiring in the same conduit with high voltage power wiring.

6) ZN-3 modules allow access to alarm verification software. If alarm verification is programmed on a given initiating circuit, self-contained alarm verifying detectors should not be used on that circuit. Compatible manual and automatic initiating devices may be used and intermixed on alarm verified conventional zone initiating circuits.

## TECHNICAL DATA

### Power Provisions Each Circuit:

.003 Amp. @ 24VDC, filtered, regulated, power limited and resettable for up to 30 compatible listed "2-wire" smoke detectors

### Power Consumptions Each Circuit:

Alarm: .100 Amp. @ 24 VDC

Standby: .020 Amp. @ 24 VDC

### Space & Channel Provision:

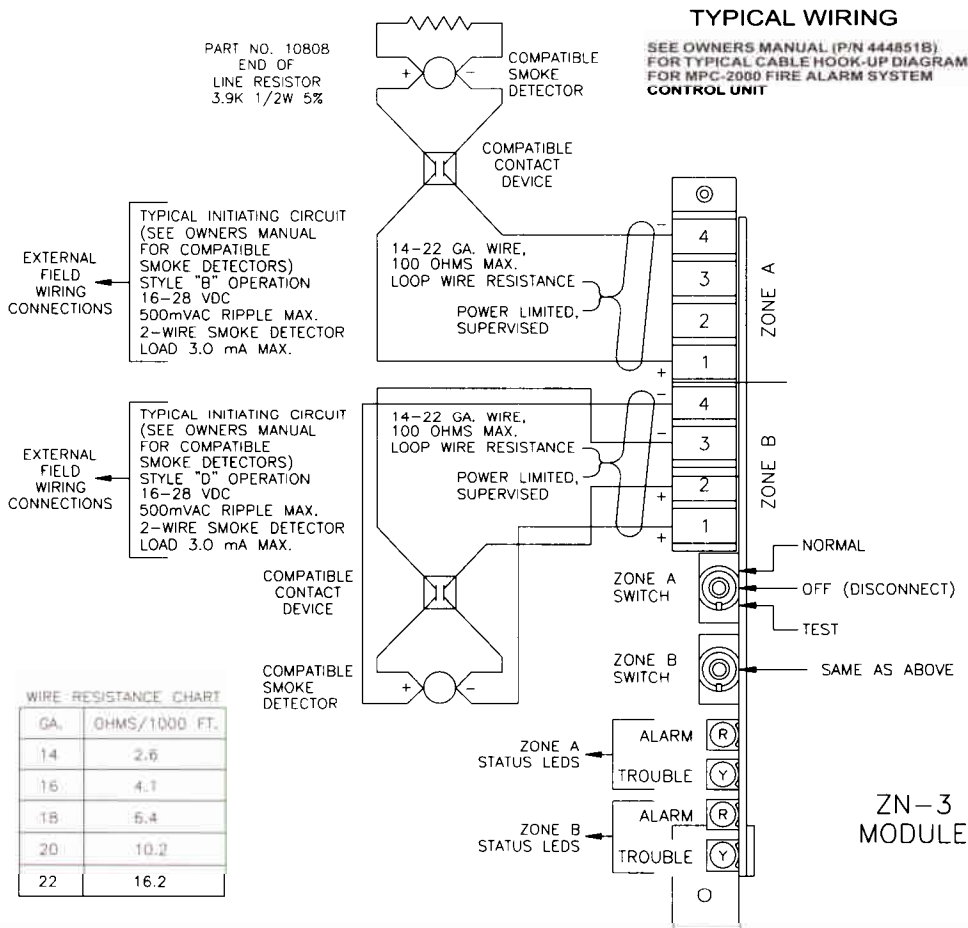
None

### Space Consumption:

(1) Module space

### Channel Consumption:

(2) Circuits on the conventional initiating channel



**WARNING** - The information contained in this document is intended only as a summary and is subject to change without notice. The devices described in this document have specific instruction sheets which cover various technical, limitation and liability information. Copies of these instruction sheets and the General Product Warning and Limitations Document, which also contains important information, are provided with the product and are available from the Manufacturer. Information contained in these documents should be consulted before specifying or using the product. For further information or assistance concerning particular problems contact the Manufacturer.