

MZAOV[®]

10 Amp multi-zone automatic opening vent control panel

MZAOV-1003 is a two-detection zone, (extendable to 8), smoke vent control panel with integral 10 Amp power supply, designed to control 24vdc actuators or magnets.

The panel has battery backup capability and assures that actuators can be powered in the event of a mains failure.

Vent controls and indications are provided on the front of the control panel with a large graphical LCD display and integral control inputs to accept signals from remote contacts, smoke detectors and manual controls.

Optional support for Rain Sensor and PIR inputs for environmental control and trap injury protection, plus 0/10v inputs and outputs to allow control interfacing with BMS systems and positional control Act output.

The MZAOV control panel range has been developed to provide a comprehensive solution to smoke vent control scenarios.



Features

Main Features

- 10 amp integral PSU
- Large graphical display
- Easy to program
- Up to 8 detection zones, Conventional and Twin-wire
- Up to 8 external inputs from other detection systems, to activate
- Up to 8 monitored Actuator outputs for controlling smoke vents
- Switch inputs to control wide combination of vents
- Fireman switch input to override all other inputs
- All inputs and actuator outputs monitored for Short and Open Circuit
- User switch inputs configurable as local fireman switches
- Thermostat input - Ventilation mode. Vents openable in 10% steps
- Actuators configurable for independent operation or linked together as per required by 12101-9
- Optional support for Rain sensor, PIR and BMS control
- Staggered start of actuators to avoid the combined start-up currents from simultaneous actuator activations
- Monitoring of unused inputs and outputs can be disabled

Technical specifications

Enclosure	1.2mm Mild Steel IP30. Colour ref: MW334E Interpon powder coat
Cable Entry	Via 20mm knockouts located in the top and rear of the cabinet
Dimensions	Back box: 460mm W x 490mm H x 110mm D Lid: 470mm W x 500mm H x 25mm D
Mains Supply	10A internal switch mode power supply, Nom 27v DC
Battery Capacity	2 x 18Ah 12v VRLA
Detection Zones	1 to 8 monitored detection zones. EOL = 6K8
Twin Wire	Selectable in panel (enables AV devices to be connected to det cct)
On Board Relays	1 x Alarm, 1 x Fault, volt free changeover, Max 3A
Fireman's Switch Input	Fireman's control switch input for Open/Close/Auto
Vent Control Input	1 to 8 vent control switch inputs, Open/Close (rocker switch)
Actuator Output	1 to 8 reversal actuator control output (8A total max) can be configured as a maintained output for a magnetic door
Inrush Current	20A for an interval of 2 seconds
Aux Output	1 to 8 voltage free normally open relay contact, closing when the associated zone is activated, Max 3A
BMS Connection	0/10v positional control input 10% steps, 0/10v positional data output. (Available on separate PCB)
False Alarm Management	Type A, B and C dependency mode

Models

MZAOV-1003	10 Amp, 2 zone extendable AOV control panel
MZAOV-3001	2 zone extension card
MZAOV-3002	PIR, rain sensor and BMS add on card

Specifications

Electrical Specification Inputs & Outputs PSU Card

SWITCH OP C CL	3-way fireman's switch input	
FIRE C NC NO (Common Fire relay)	Alarm relay contact. Clean C/O. Max 3A at 30VDC	
28V +, 0V -	28VDC supply output for fire alarm accessory relays, etc. Max. continuous use 400mA, fused at 500mA	
SNDR 1/SNDR 2 + -	28VDC polarity reversal monitored sounder outputs to fire alarm devices. 6K8 Ohm 5% 0.25W EOL resistor	
FAULT C NC NO (Common Fault relay)	Maintained fault relay contact. Clean C/O Max 3A at 30VDC	

Electrical Specification Inputs & Outputs AOV Card

ZONE 1/ZONE 2 + -	Fire alarm zone circuit. Conventionally wired detection circuit or Twin wire combined detection/sounder circuit, monitored via a 6K8 Ohm 5% 0.25W end-of-line resistor	Monitoring current limit is 50mA, fused at 500mA. Typical max load 22 devices, at 18mA each, in each zone circuit
INPUT 1/INPUT 2 + -	Alarm activating input, 2K7 alarm. 6K8 Ohm 5% 0.25W EOL resistor	Monitoring current limit of 14mA, unfused
ACT1/ACT 2 + -	Dual polarity reversal actuator drives outputs, 28VDC. Max 7 amps	
SWITCH 1/SWITCH 2 + -	Local vent control switch inputs	

Electrical Specification Inputs & Outputs Optional Add On Card

BMS 1/BMS 2 0 IN OUT	Building Management System positional voltage input, 10% steps of motor time	Max 10VDC, 75KΩ impedance
Rain +/-	Rain sensor signal input. 2K7 alarm. 6K8 Ohm 5% 0.25W EOL resistor	Monitoring current limit 14mA, unfused
12V +/-	12VDC supply output for PIR power	12VDC, fused at 100mA resettable fuse

General Specification

Temperature range	-5 deg C to +40 deg C
Number of conventional/Twin Wire detection circuits	1 - 8
Conventional/Twin Wire detector compatibility	Apollo: S65, Orbis. / Hochiki CDX. / Nittan EV etc
Mains supply	230VAC +10% / -15%, 50Hz max current 1.2 Amp
Power supply rating	10 Amps total including battery charging
Min/max battery size and type	2 x 18 Ah 12volt VRLA Yuasa NP range

Quiescent and Alarm Current Details for Standby Battery Calculations

Models		Standby Current	Alarm Current
MZAOV-1001	3 amp, 2 zone extendable AOV control panel	120mA	180mA
MZAOV-3001	2 zone extension card	32mA	180mA

