Single zone AOV Panel

Content

- Product Overview
- Connectivity Detail
- Control & indications.
- Programming Features

SZAOV - Product Overview

- Single zone
- 3 Amp integral PSU
- Zone can be conventional or twin wire
- False alarm management (type A)
- Vent status indications & controls
- Fireman's control switch
- PIR & Rain sensor inputs (additional pcb)
- BMS / vent control input (additional pcb)
- 2 aux relays, 1x fire, 1x fault
- 1A 28V maintained aux output
- 2 x 7 Ah battery capacity
- Disable & test modes

Enclosure Layout

SZAOV - Dimensions
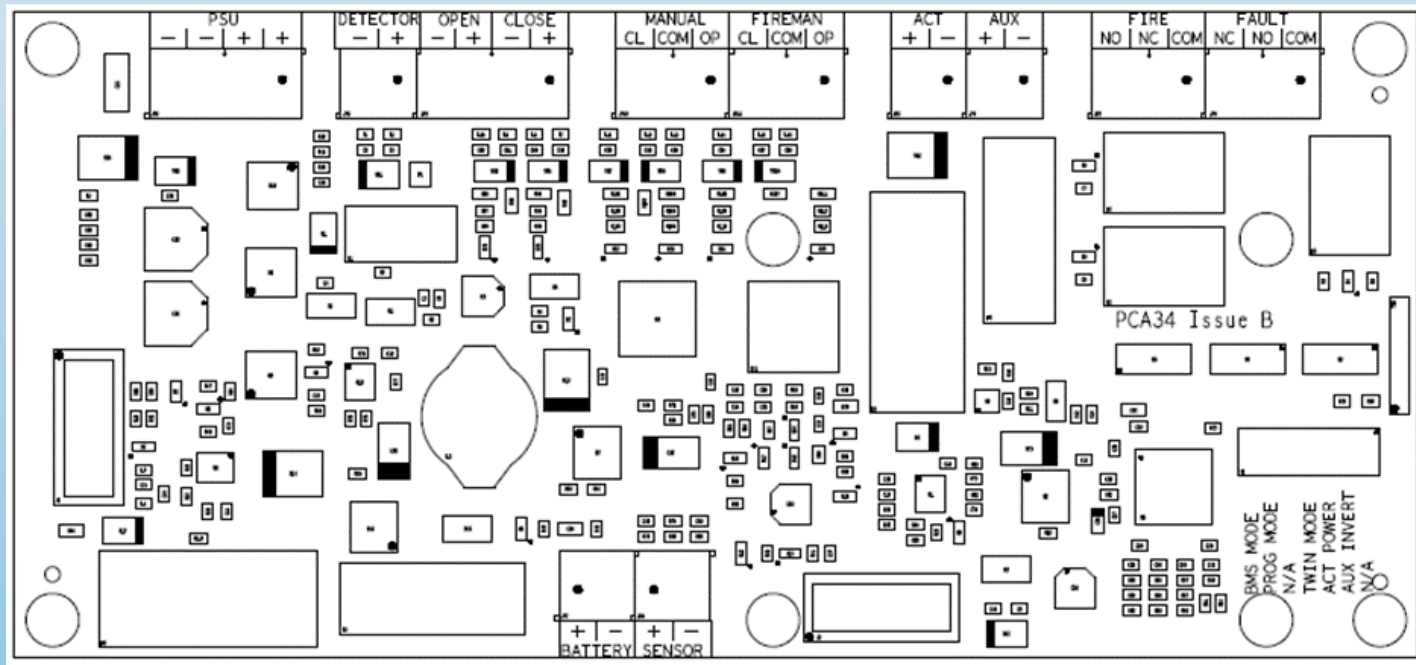
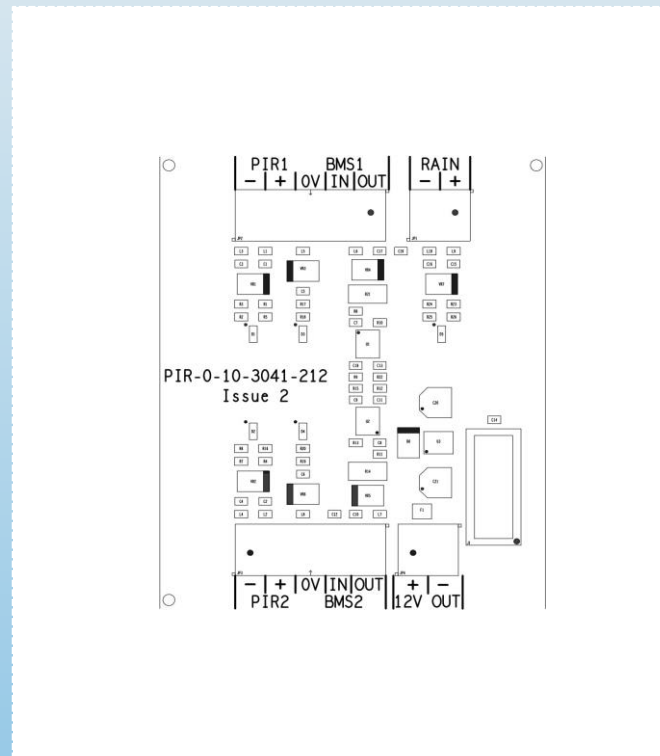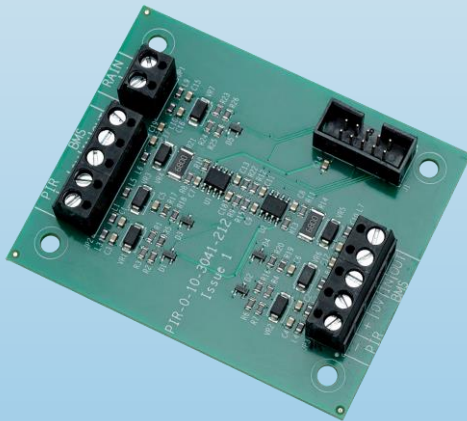317mm wide

82mm deep

310mm high
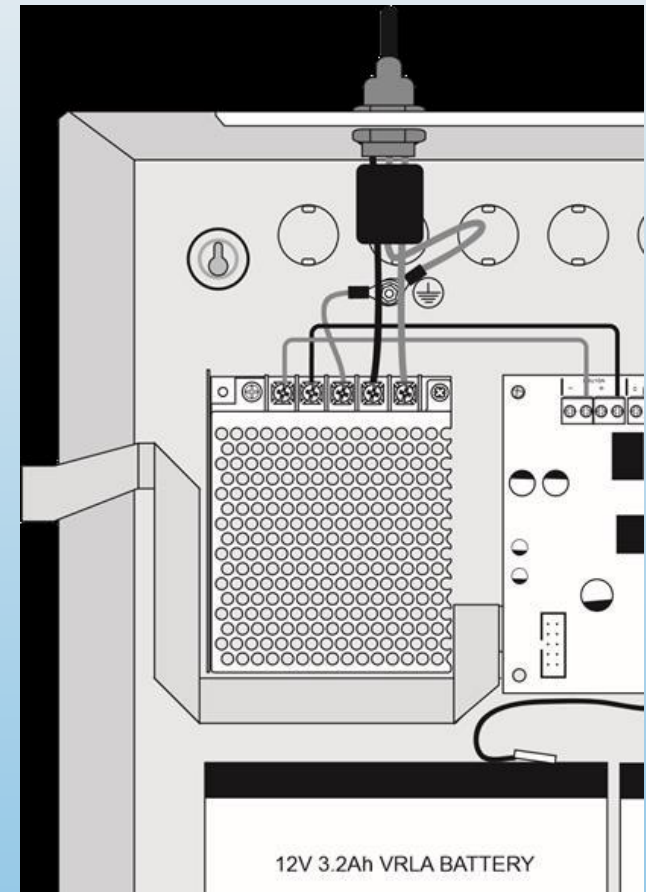
Connectivity Detail

PCA034 Master PCB connections

PIR & Rain Sensor & BMS input Card connections

Mains Input Connectivity

- AC mains wiring should be routed to upper left hand side of enclosure
- 4 Amp internal fuse
- 230 V (+10%, -15% tolerance) 50 Hz
- 3 Amp Switch Mode power supply units
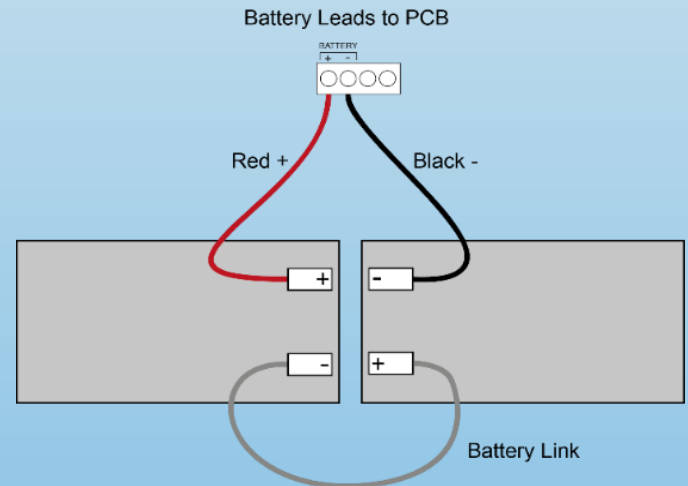

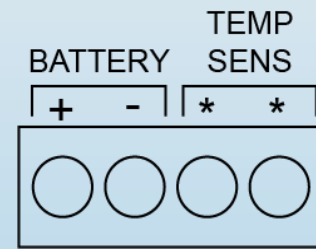12V 3.2Ah VRLA BATTERY

Battery & Auxiliary Supply

- 2 x 7Ah Batteries (Yuasa NP range)

- 28v, 1A Aux maintained output

TEMP
BATTERY   SENS

| + | - | * | * |

Battery Leads to PCB

Red +   Black -

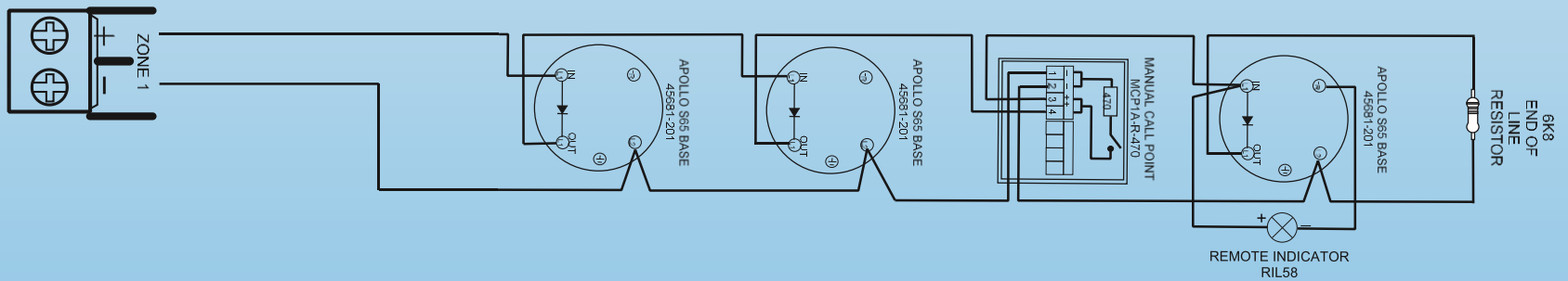+   -

-          +

Battery Link

Relay Connection

- Two Aux Relay Outputs

- 30 V DC 3 Amp rated VFCO

- Relay 1 - Common Fault

- Relay 2 – Common Fire
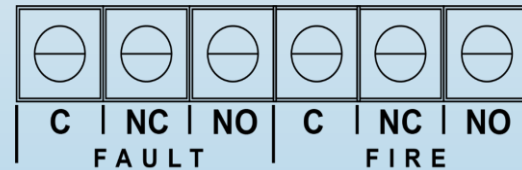
Detector Circuit (conventional)

- Single zone circuit
- Programmable features
- End of Line monitored – 6k8

Detector Circuit (twin wire)

Typical Twin Wire Circuit Wiring
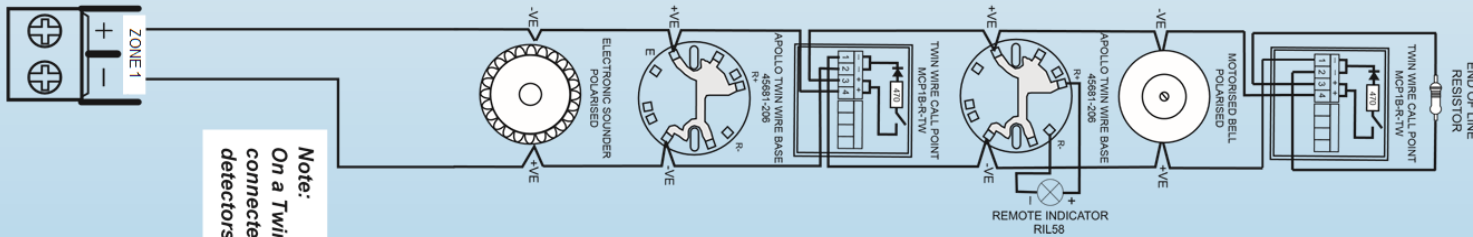
Note:
On a Twin Wire circuit, the sounders are connected in reverse polarity to the detectors and call points

- Single zone circuit
- Programmable features
- Electronic over current circuit protection
- End of Line monitored – 6k8

Open & Close Inputs

- Separate Open & Close inputs
- 2k7 trigger value
- End of Line monitored – 6k8
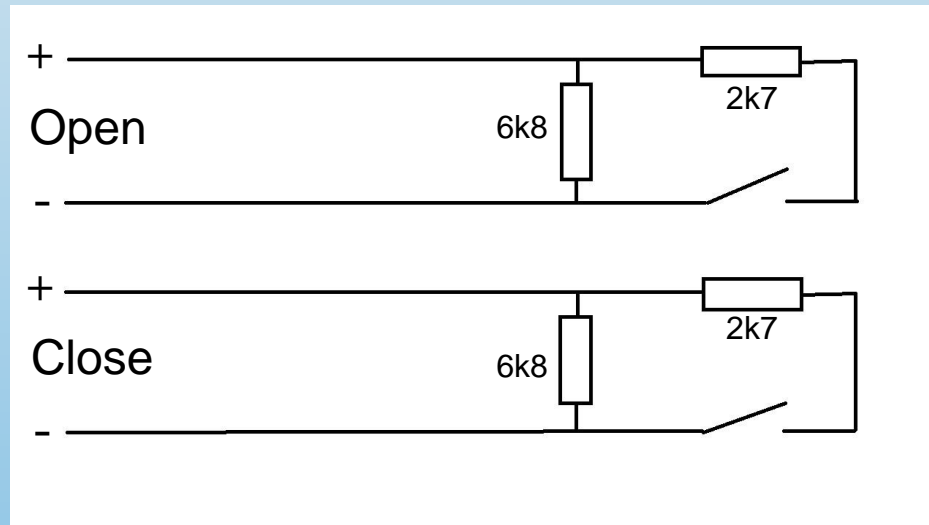
Fireman's Switch

- Manual vent control switch
- 2k7 trigger value
- End of Line monitored – 6k8
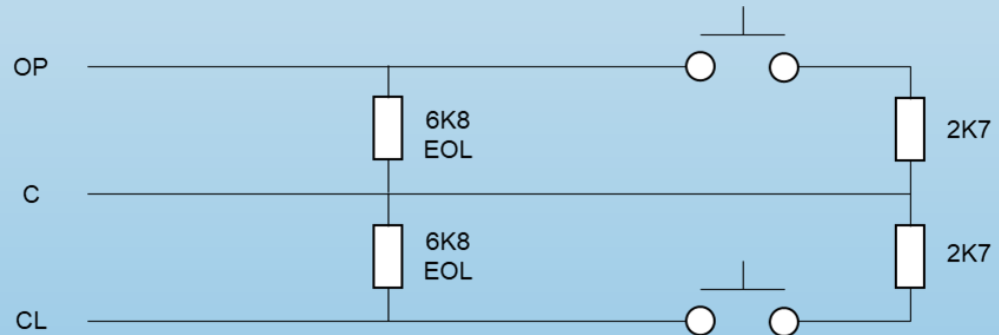
Manual Input

- Manual vent control input

- 2k7 trigger value

- End of Line monitored – 6k8

- Quick press will open or close vents by 10% increments, long press will open fully.

- Can be configured for ventilation mode by replacing the 2k7 with 10K resistors, operated from a thermostat to open to a pre-programed position.

Replace with 10k
For ventilation mode

OP

6K8
EOL

2K7

C

6K8
EOL

2K7

CL
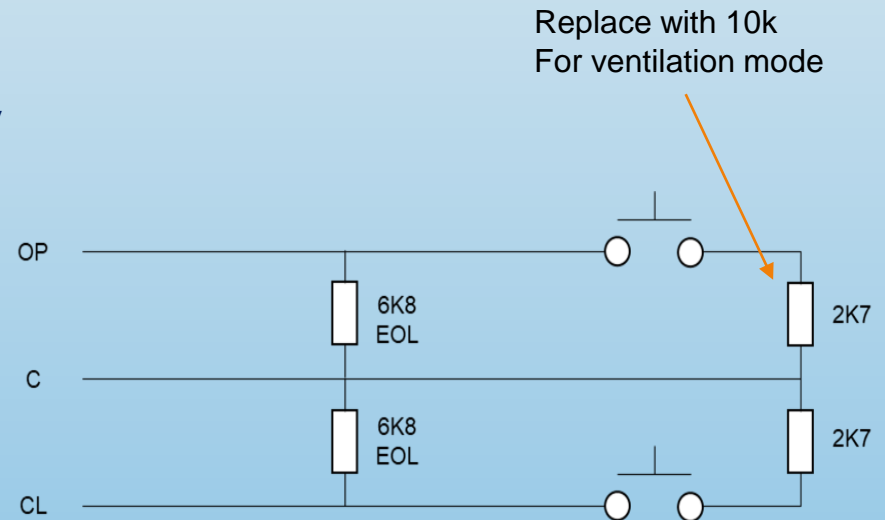
Actuator +/- Connections

- Max 2.5A output
- Polarity reversal 28v dc
- Max inrush = 20A for 2 seconds
- Open circuit > 10K
- Short circuit < 10 Ohm
- End of Line monitored – 6k8

PIR Detectors

- Trap risk detection
- 12v supply from expander card pcb
- End of Line monitored – 6k8

Rain Sensor

- Rain sensor override (non alarm condition only)
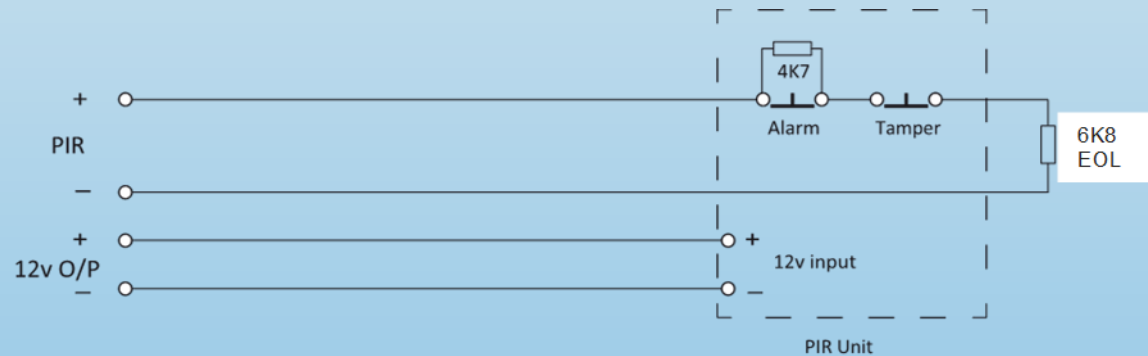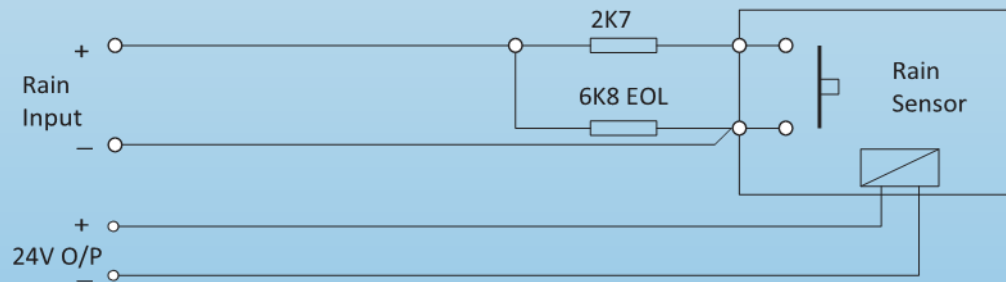- 2k7 trigger value
- End of Line monitored – 6k8

Controls & indications

Controls

The panel controls can be enable by key switch or by entering a 4 digit code. Default = 1234.

'**Open Vent**' (red) – used to open vent outputs.
'**Close Vent**' (blue) – used to close vent outputs.
'**Reset**' (green) – resets panel back to standby mode.
'**Button 1**' : (disable mode) - used to disable circuits or vent outputs.
'**Button 2**' : (test mode) – used to put circuits into test mode.
'**Button 3**' : (mute buzzer) – mutes the panels internal fault & alarm buzzer.
'**Button 4**' : (test lamps & buzzer) – used to illuminate all led's and buzzer.
'**Enter**' – used to confirm code entries.

Note – some buttons have other functions within the engineering Options.

Indications

'**Vent open**' – (led on) = vent in open position, (led pulse) = vent opening.

'**Vent closed**' – (led on) = vent in closed position, (led pulse) = vent closing.

'**Vent open/closed + PIR**' - (led pulse) = vent stopped from closing by PIR.

'**Input**' – (led pulse) = input circuit faulty or disabled.

'**Detector**' – (led on) = detector circuit open cct, (led pulse) = detector removed.

'**Supply healthy**' – (led on) = power on, mains or battery supply.

'**General alarm**' – (led pulse) = input circuit or detector circuit is active.

Cont……

'**General fault**' – (led pulse) = indicates one or more faults present.

'**General disablement**' – (led on) = disablement set, (led pulse) = selection mode.

'**Test mode**' – (led on) = test mode active.

'**Rain status**' – (led on) = rain input active, (led pulse) = rain i/p faulty / disabled.

'**PIR' status**' – (led on) = PIR input active, (led pulse) = PIR i/p faulty / disabled.

'**Power supply fault**' – (led pulse) = mains or battery failure.

'**System fault**' – (led on) = panel not functional, (led pulse) = system recovered.

'**Access level**' – (led on) = controls active, (led pulse) = engineering mode.

Programming Features

Dil switch settings

Switch 1 - Act invert – when (on) the act output logic is inverted

Switch 2 - Aux invert – (off) = aux voltage present (on) = aux voltage off

Switch 3 - Act power - (off) = normal operation (on) outputs are maintained

Switch 4 - Twin mode – sets zone as twin wire operation

Switch 5 - not used

Switch 6 - Program mode enable

Switch 7 - BMS mode 0-10v

Programming Features

- Motor opening & closing times

- Disable actuator short circuit monitoring

- Disable battery monitoring

- Disable mute tone beeps

- Change access code

- Zone & input programming (latching, short = fire & disable det rem)

- False alarm management options

Programming Features

- Thermostat input mode

- Dependency A mode (false alarm management)

- Disable functions for vents, open input, close input, det zone, rain & pir.

- Test functions

End of session