





# 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



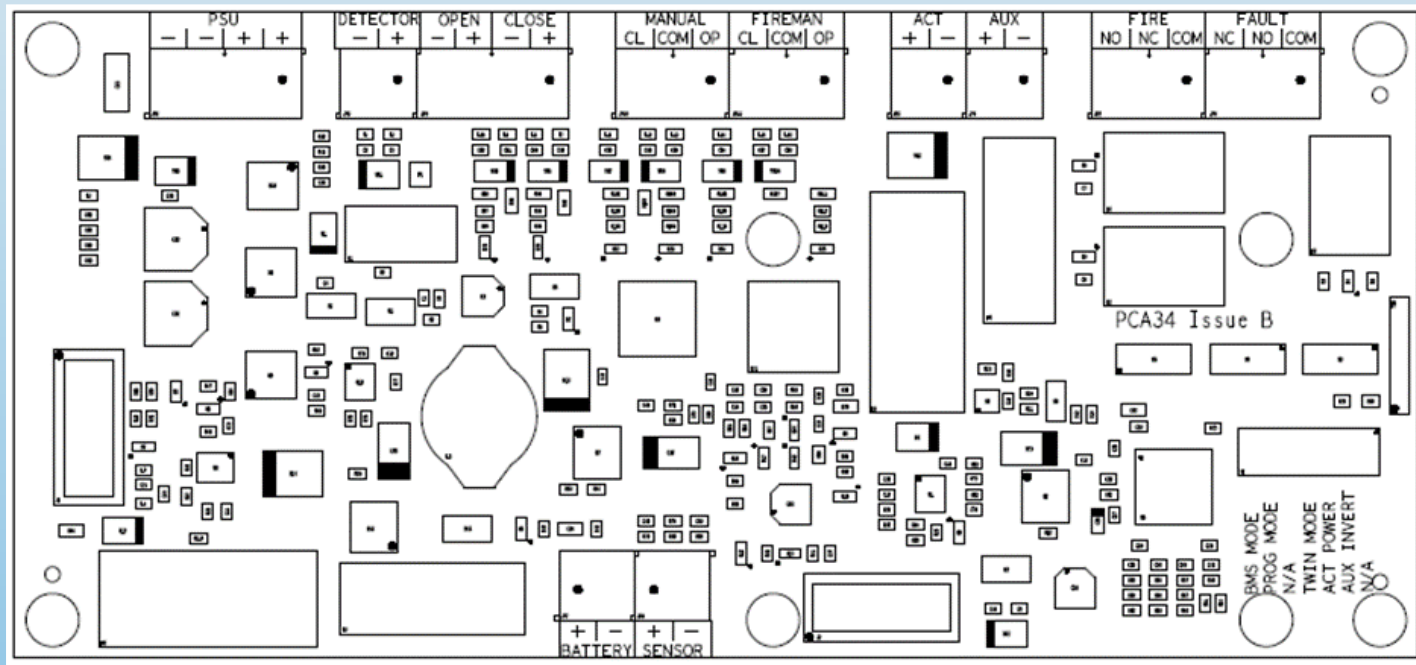
310mm high



# Connectivity Detail



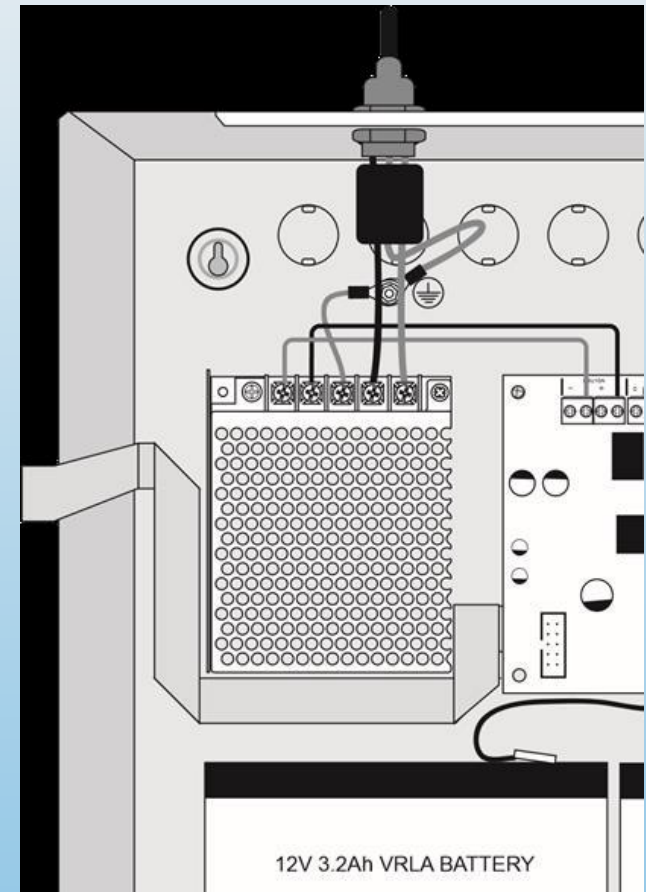
# PCA034 Master PCB connections





## 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

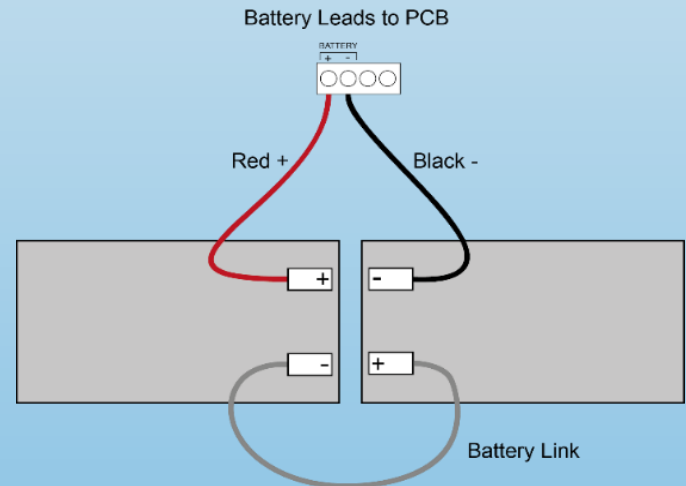
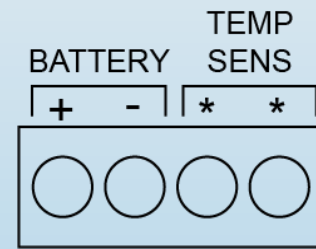






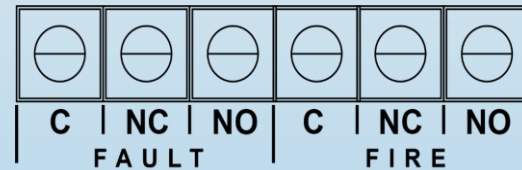
# Battery & Auxiliary Supply

- 2 x 7Ah Batteries (Yuasa NP range)
- 28v, 1A Aux maintained output



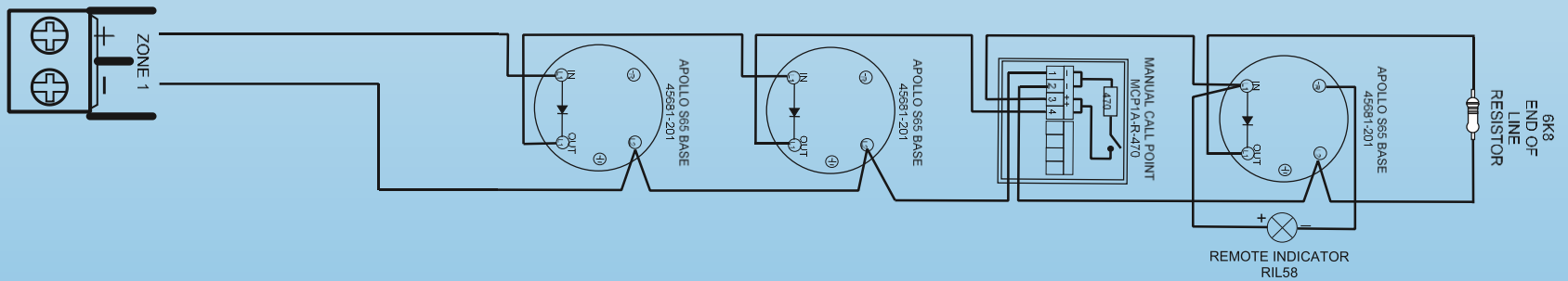
# Relay Connection

- Two Aux Relay Outputs
- 30 V DC 3 Amp rated VFCO
- Relay 1 - Common Fault
- Relay 2 – Common Fire



# Detector Circuit (conventional)

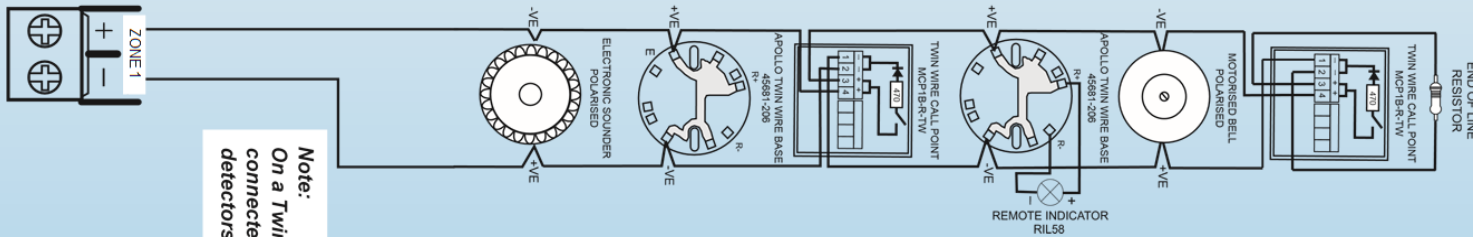
- Single zone circuit
- Programmable features
- End of Line monitored – 6k8





# Detector Circuit (twin wire)

Typical Twin Wire  
Circuit Wiring



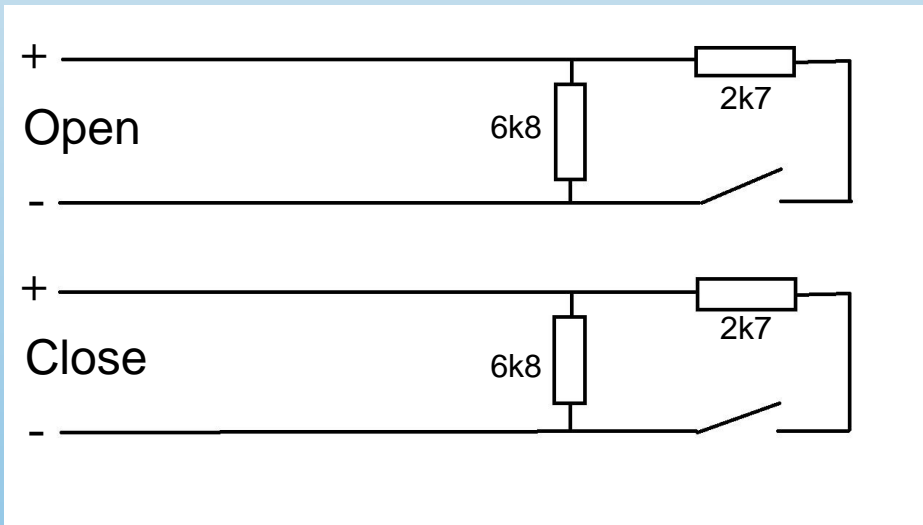
**Note:**  
On a Twin Wire circuit, the sounders are connected in reverse polarity to the detectors and call points

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



# Open & Close Inputs

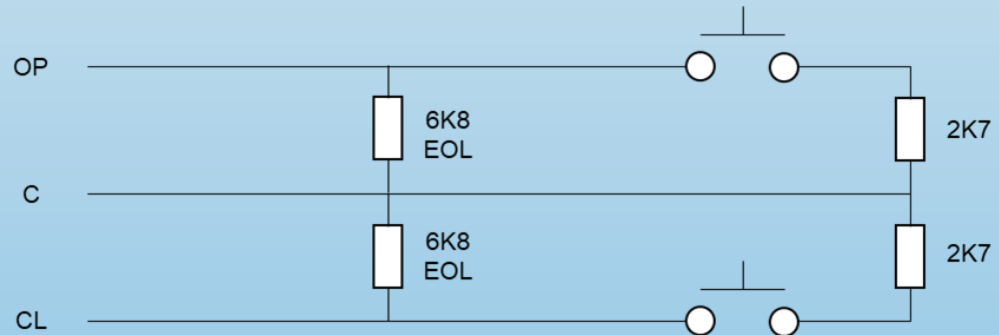
- Separate Open & Close inputs
- 2k7 trigger value
- End of Line monitored – 6k8





# Fireman's Switch

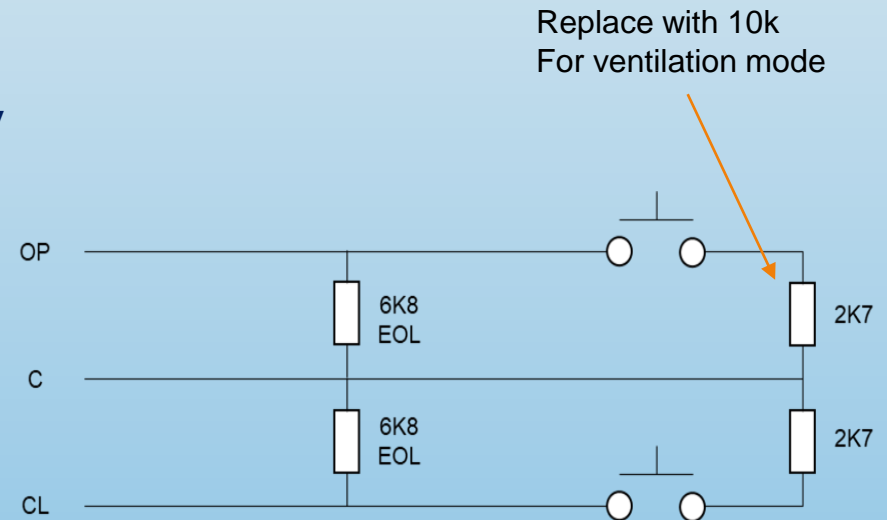
- Manual vent control switch
- 2k7 trigger value
- End of Line monitored – 6k8





# 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-programmed position.





## Actuator +/- Connections

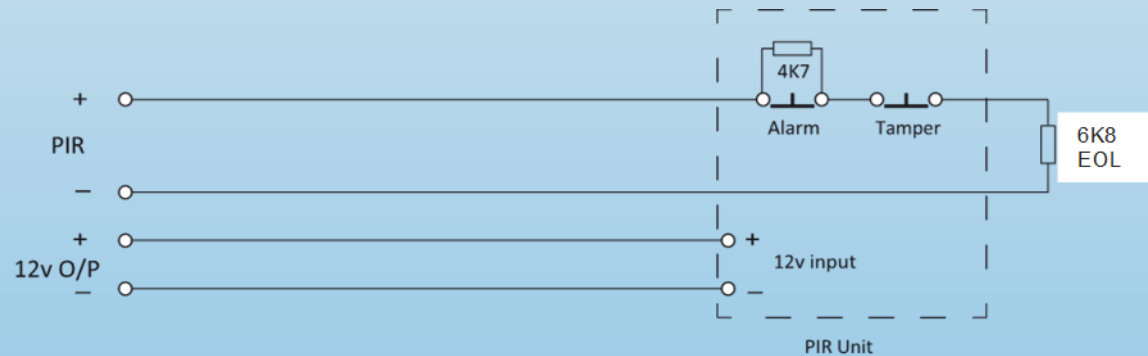
- Max 2.5A output
- Polarity reversal 28v dc
- Max inrush = 20A for 2 seconds
- Open circuit > 10K
- Short circuit < 10 Ohm
- End of Line monitored – 6k8





# PIR Detectors

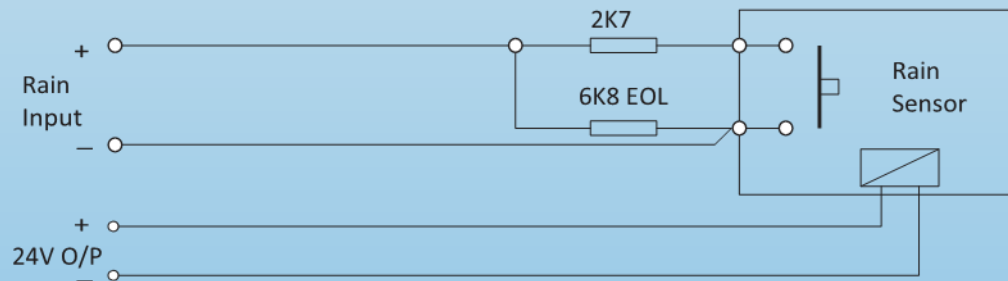
- Trap risk detection
- 12v supply from expander card pcb
- End of Line monitored – 6k8





# 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**