



2 - 4 zone AlarmSense two-wire fire alarm control panels

Haes AlarmSense is a 2 or 4 zone Apollo Fire Detectors AlarmSense protocol two-wire conventional control panel with integral power supply & space for standby batteries.

Two or four AlarmSense fire zone circuits are provided plus two additional conventional monitored sounder circuits. Fire & Fault VFCO relays, Fire & Fault switched negative outputs, class change and an alert input are also included.

AlarmSense panels support the full range of Apollo Fire Detectors AlarmSense devices.

The panels are supplied with a 1.25 amp internal power supply module. This module complies with the requirements of EN54-4 : 1988 and provides temperature compensated battery management charging.

AlarmSense panels are fully approved to European standards EN54-2 & 4, Fire Detection and Alarm Systems – Control & Indicating Equipment.



Features

Main Features

- 2 or 4 AlarmSense zones
- Activate controls via key switch or code entry
- Integral detector removal monitoring
- 1.25 Amp switch mode power supply Nom 27V DC
- 2 conventional monitored sounder outputs
- 2 Aux C/O relays (1 x Fire) (1 x Fault), voltage free
- Class change I/P
- Alert I/P
- Fire & fault switched -ve outputs
- Test mode, with or without sounders
- Disable zones, sounder O/Ps & aux O/Ps
- Conventional sounder circuits are fused @ 500mA with resettable fuses.

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: 300mm W x 250mm H x 80mm D Lid: 308mm W x 260mm H x 23mm D |
| Mains Supply | 1.25A internal switch mode power supply, Nom 27v DC |
| Battery Capacity | 2 x 3.2Ah 12v VRSLA |
| Detection Zones | 2 or 4, AlarmSense protocol. EOL = 3K3R |
| Sounder Circuits | 2 x monitored, fused @500mA. EOL = 3K3R |
| On Board Relays | 1 x Fire, 1 x Fault, 3A, 30v volt free changeover |
| Outputs | 1 x Fire, 1 x Fault 40mA switch -ve outputs |
| Switch Inputs | Class change & alert (pulsing) |
| Non priority alarm | Selectable per zone |
| Coincidence alarm | Selectable per zone |

Models

| | |
|-------|---------------------|
| ALS-2 | 2 zones, AlarmSense |
| ALS-4 | 4 zones, AlarmSense |



Cert No. 810a

Specifications

| Electrical Specification Inputs & Outputs - MAIN PCB | | |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| PSU @ output | Power supply voltage control line. | For temperature compensation control. |
| PSU Input + - | 28vdc supply input. Diode protected for reversal and independent short circuit. Max current 3 amps. | Max input current 3 amps. Input voltage 22vdc to 32vdc. |
| 28v+, 0v- power output | 28vdc supply output for fire alarm accessory relays etc. Max continuous use = 400mA. | Fused @ 500mA. Fuse = 500mA resettable fuse. |
| Common fire relay | Fire relay contact. Clean C/O. Max 3A @ 30vdc. | Unfused |
| Common fault relay | Maintained fault relay contact. Clean C/O Max 3A @ 30vdc. | Unfused |
| Outputs; FR, FLT | Switched -ve voltage outputs for relay control. | Overload voltage protected to 52vdc. Current limited 680R. Max load = 40mA |
| Inputs; CC, PUL | Switched -ve inputs, connect to 0v to trigger. Max input voltage = 28vdc. Non latching, max resistance 100R. | Protected via 10K Ohm impedance, 3v6 zener diode. |
| SNDR 1 - 2 | 28vdc polarity reversal monitored sounder outputs to fire alarm devices. 3K3 Ohm 5% 0.25W EOL resistor. | Monitoring current limit 28mA, fused @ 500mA. Typical max load 22 devices @ 18mA each per circuit. Ensure 0.9A is not exceeded. |
| Zone 1 - 4 | AlarmSense fire alarm zone circuits. 3K3 Ohm 5% 0.25W EOL resistor. | Monitoring current limit 50mA, fused @ 200mA. Typical max load 20 alarm devices @ 18mA each per circuit. Ensure 0.2A is not exceeded. |

| Power Supply Specification | | |
|-----------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Mains supply | 230vac +10% / -15% 50Hz max current 1A | |
| Mains supply fuse | 2 Amp (T2A 250V) | Not accessible for servicing. Internal to switch mode power unit |
| Internal power supply rating | 1.5 Amps total including battery charging | Maximum load shared between outputs = 0.9A |
| Power supply output voltage | 19.92 - 30.09vdc | Tolerance +/- 0.1% |
| Maximum continuous load for battery standby (ImaxA) | ImaxA = 575mA | ImaxB not specified |
| Minimum current drawn by panel (example) | 4 Zone I min = 85mA | 2 Zone I min = 75mA |
| Maximum ripple | 120 mV p-p | Supply and charger fault monitored |
| Min/max battery size and type | 2 x 3.2Ahr 12volt VRLA Use Yuasa NP range batteries | Other equivalent batteries may be used but have not been tested for the purposes of EN54 approval. |
| Battery charging voltage | 27.3 vdc nominal at 20 deg C | Temperature compensated |
| Battery charging output current | 1.5A PSU 630mA Current limited 10 Ohms | |
| Battery high impedance fault (Batt Hi Z) | Resistance > 1 Ohm | 1 hour reporting time |
| Max current drawn from batteries | 1.5 Amps with main power source disconnected. Battery fuse 3A LBC 20mm. | |

| Quiescent and Alarm Current Details for Standby Battery Calculations | | |
|----------------------------------------------------------------------|-----------------|---------------|
| Model | Standby Current | Alarm Current |
| ALS-2 | 75mA | 116mA |
| ALS-4 | 85mA | 133mA |