

# SOUNDER CONTROL UNIT WITH ISOLATOR



Part Number 55000-852IMC

## MECHANICAL CONSTRUCTION

The Sounder Control Unit with Isolator is normally supplied with a backbox for surface mounting. It is also available without the backbox for flush mounting. The mouldings are made from polycarbonate material. Both versions are for indoor use only.

Three LEDs, one red, two yellow, are visible through the front cover of the enclosure. The red one pulses or is illuminated continuously to indicate that the sounders are, respectively, pulsed or switched on continuously.

One yellow LED is illuminated whenever a fault has been detected. The other LED is illuminated whenever the built-in isolator has sensed a short-circuit loop fault.

## FAULT MONITORING

In addition to the monitoring of open and short circuit faults on the sounder wiring, the Unit has a facility to monitor the presence and polarity of the external PSU. This is achieved by a fault monitoring circuit which also includes an input to monitor a volt-free contact (such as a fault relay in the external PSU). A three-way terminal block is provided for connection of normally-open or normally-closed fault contacts to this fault input. Note that a wire link must be fitted between the 'COM' and 'N/C' terminals if the fault input is not used or if a normally-open contact is monitored.

The Context Plus XP95 Sounder Control Unit with Isolator is used to control the operation of a zone of externally powered sounders and to report their status to Context Plus-compatible control equipment.

## FEATURES

The Sounder Control Unit with Isolator allows sounders to be operated continuously or pulsed, 1 second on, 1 second off. Sounders may be operated individually or in groups and, whichever address mode has been applied, may be synchronised when in pulsed operation.

An opto-coupled input is provided to monitor the state of the external power supply.

In normal operation the Sounder Control Unit with Isolator returns a pre-set analogue value of 16, but in the event of an open or short-circuit fault or of a fault in the external power supply, the unit returns a pre-set analogue value of 4.

The Sounder Control Unit with Isolator is fitted with a bi-directional short-circuit isolator and will be unaffected by loop short-circuits on either loop input or output.

## ELECTRICAL CONSIDERATIONS

The Sounder Control Unit with Isolator is line powered and operates at 17–28V DC. It requires a local power supply of 9–32V DC to power the external load, which may be up to 1.25A. A polarising diode is required with each alarm device, as sounders are operated by voltage reversal, provided by a double-pole change-over relay. The sounder circuit is protected by a miniature (TR5) fuse rated at 1A.

## ADDRESSING

The Sounder Control Unit with Isolator responds to its own individual address set with a 7-segment DIL switch. It also responds both to a group address, set by means of a 4-segment DIL switch, and to a pulsed-mode synchronisation address which is embedded in the unit.

Addresses 1 to 111 are used exclusively for individual addresses (if "0" is selected on the DIL switch, the Sounder Control Unit with Isolator will return a pre-set analogue value of 4 to signal a fault); addresses 112 to 126 are used for group addressing, while the synchronisation address, to which all units respond, is "0". Any Sounder Control Unit on a loop may be freely assigned to a group. The address for any group must be chosen from the range 112–126.

Addresses 112 to 126 may be used as individual addresses but only if the 4-segment DIL switch is set to 127 – group addressing is then disabled. If the 4-segment DIL switch were set to any number other than 127, a pre-set analogue value of 4 would be transmitted to indicate a fault.

## Technical Data

Minimum loop operating voltage in normal conditions : 17V DC

Maximum loop operating voltage: 28V DC

### Sounder Control Data

Current consumption, loop, at 24V:

Switch-on surge, max 100ms: 2.6mA

Quiescent, 10k $\Omega$  EOL fitted : 1.95mA

Sounders operated: 1.7mA

Fault (yellow LED on): 3.6mA

Sounder line short circuit: 2.8mA

Current consumption, external supply:

Relay off: 1mA at 9V; 3mA at 32V

Sounders and red LED on: 44mA at 9V (+ sounder load); 47mA at 32V (+ sounder load)

Sounder output monitoring voltage (open-circuit condition): 9–11V DC

Maximum sounder circuit voltage: 32V DC

Maximum sounder circuit current (inductive or resistive): 1A at 30V DC

On resistance: 0.2 $\Omega$

Maximum continuous current: 1A

Maximum switching current: 3A

Maximum load: 20 Context Plus detectors

Operating temperature: –20°C to +70°C

Humidity (no condensation) : 0–95%RH

Shock, vibration and impact: to GEI 1– 052

IP rating: 54

Radiated and conducted RF emissions to: BS EN 50081–1 & 2

Radiated and conducted RF immunity to: BS EN 50130–4

Dimensions of Sounder Control Unit with Isolator (surface mount): 150 x 90 x 48mm

Weight: 240g