

# SOUNDER CONTROL UNIT WITH ISOLATOR

#### **FUNCTION**

The 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 Apollo compatible control equipment.

#### **FEATURES**

The Sounder Control Unit with Isolator allows sounders to be operated continuously or be 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.

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 unit 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.



Part no 55000-852

### **ADDRESSING**

The XP95 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.

It may be desirable, in alarm conditions, to switch more than one Sounder Control Unit simultaneously. To enable this, units may be drawn together to form a group and given a group address which is common







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to all Units in the group. When a device recognises its group address, it will process the forward command bits but it will not return any data to the control panel on that address. If it is required to confirm the status of the output bits of devices under group address control, it is necessary to poll all devices in the group by their individual addresses.

## PROTOCOL COMPATIBILITY

The unit will operate only with control equipment using the Apollo XP95 or Discovery protocol. The features of the XP95 Sounder Control Unit are available only when the unit is connected to a panel with the appropriate software.

#### **FAULT MONITORING**

In addition to the monitoring of open and short-circuit faults on the sounder wiring, the Sounder Control Unit with Isolator has a facility to monitor the presence and polarity of the external power supply. 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 power supply).

**Technical Data** 

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Loop operating voltage	17V DC
Maximum loop operating voltage	28V DC
Sounder Control Data	
Currrent consumption, loop, at 24V	
switch-on surge, max 100r	ms 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	9-11V DC
(open-circuit condition)	
Maximum sounder circuit voltage	32V DC
Maximum sounder circuit current	1A at 30V DC
(induc	ctive or resistive)

#### 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 designed 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.

Dimensions and weight of Sounder Control Unit with Isolator (surface mount):

150 x 90 x 48mm 240g

$0.2\Omega$	
1A	
3A	
5/Discovery detectors	
-20°C to +70°C	
0-95%	
to GEI 1- 052	
54	
Radiated and conducted RF emissions to BS EN 50081–1 & 2	
Radiated and conducted RF immunity	
to BS EN 50130-4	
<b>C E</b> marked	

# **EMC DIRECTIVE 89/336/EEC**

The XP95 Sounder Control Unit with Isolator complies with the essential requirements of the EMC directive 89/336/EEC, provided that it is used as described in this PIN sheet.

A copy of the Declaration of Conformity is available from Apollo on request.

Conformity of the XP95 Sounder Control Unit with Isolator with the EMC directive does not confer compliance with the directive on any apparatus or systems connected to it.

# Schematic Diagram and Wiring Connections

