

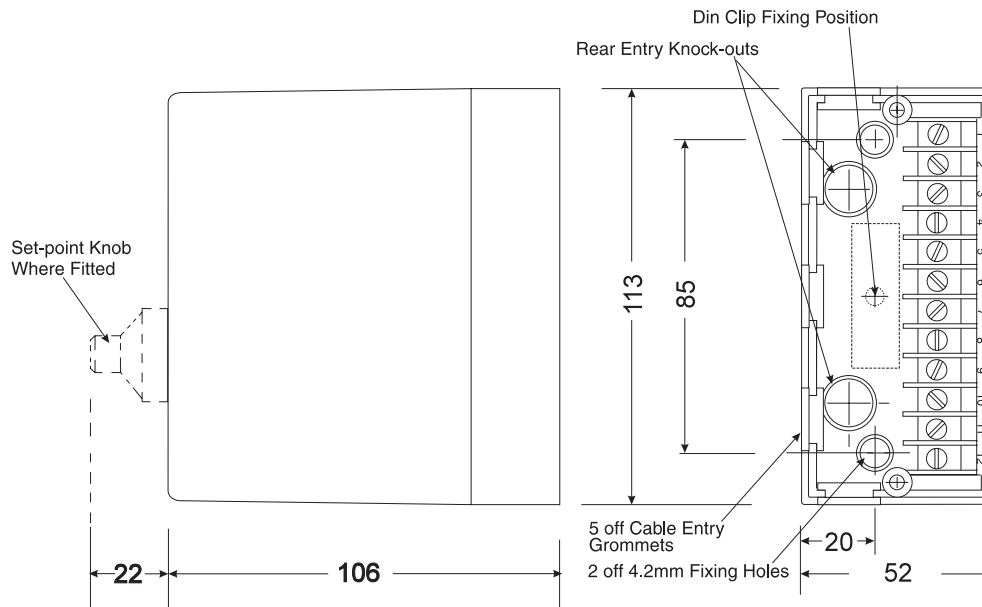
### Introduction

This brochure provides information on details common to the B12 Series range of products. The range includes:-

- \* **Low Cost Single Trip Amplifiers**
- \* **Low Cost Dual Point Trip Amplifiers**
- \* **Dual Output Isolator**
- \* **Single Output Isolator**

Extensions to this range will occur as new products are developed. Details specific to a particular type may be found by referring to the relevant data sheet.

Dimensions in mm



### Description

Units in this series are housed in a two part modular case - a plug in module containing the electronics and a mating base section with terminals for external wiring.

#### **No-Break Signal Loop Facility**

Input signal current loops are maintained when the plug in module is removed. This enables maintenance or replacement to be carried out without disturbing the signal loop.

### Installation

#### **Mounting**

B12 Series modules are designed to be fitted to any flat dry surface using two 4mm screws. Alternatively, by fitting an optional DIN clip, they may be clipped to a rail conforming to BS5584:1978, EN50 022, DIN46277-3. Mounting the unit requires the removal of the top section - see 'Removing The Plug In Module'.

#### **Wiring**

Five cable entry grommets are provided on three sides of the base section and there are two rear entry knock outs in the bottom. **NOTE:** Signal wiring must be suitably screened and segregated from the mains supply wiring.

## Power Supply

<b>Fuse size</b>	20 x 5 mm
<b>AC Types</b>	
Fuse rating:	100 mA Quick blow type
<b>Trip Amplifiers</b>	
110, 200, 220 or 240V	±10% 50/60Hz 5VA
<b>Isolators</b>	
110, 220, 230	+5 -10% 50/60Hz 5VA
<b>AC Option</b>	
24V AC	±10% 50/60Hz 5VA
Fuse rating:	1 Amp Quick blow type
<b>DC Options</b>	
<b>Trip Amplifier</b>	
12V, 24V or 48V DC	-10% to +20% @ 3.5 W
<b>Isolator only</b>	
11V to 30V DC	
Fuse rating (both types):	250mA Anti-surge

## Changing Supply Voltage

Units can be adapted for various mains supply voltages by changing soldered wire links on the printed circuit board. Procedures for changing ac supply links are available on request.

DC powered (Trip Amplifier) and 24V AC versions are an option specified at the time of ordering and there are no facilities for changing the operating voltage.

## Mains Fuse Replacement

**Isolate all supplies to the unit.** To gain access to the printed circuit board - refer to 'Access to Terminals and Internal Options'. The fuse is located between the mains transformer or dc power unit and the edge of the printed circuit board.

## Temperature Range

Operating:	-10°C to + 60°C
Storage:	-20°C to + 70°C

## Module Enclosure Details

### Material

<b>Base</b> -	ABS (glass fibre reinforced) Colour: black
<b>Cover</b> -	Polystyrene Colour: light grey

### Protection

The module offers protection to IP 40.

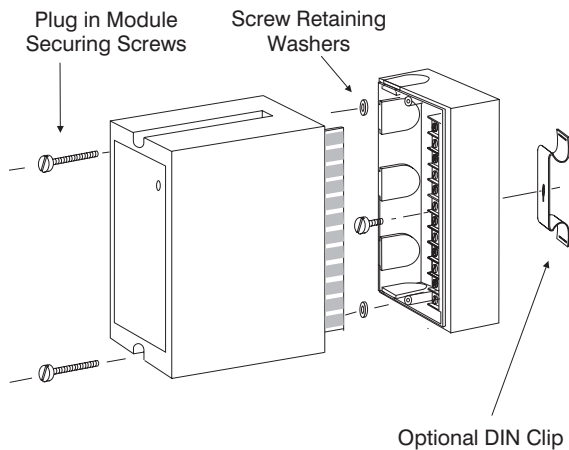
## Access to Terminals and Internal Options

### Removing the Plug in Module

**Isolate all supplies to the unit.** Loosen the two module securing screws. (*NB these screws are retained in the top section by captive washers*). Gently pull away the top section of the module from its base to expose the fixing points and wiring terminals.

### Removing the Module Cover

Remove the plug in module. The plastic plate with the connections label is removed by easing apart the longer sides of the cover to release the interlocking tongue and groove fastenings. Slide out the printed circuit board(s).



### Replacing the Module Cover

Replace the printed circuit board(s) ensuring correct location in the module cover slots. Replace the plastic plate by locating the side with the two tongues around the protruding printed circuit board and engaging into the mating grooves. Press the plate home to engage the single tongue.

**WARNING** THESE UNITS CAN BE MAINS POWERED. ALL INPUTS MUST BE ISOLATED FROM DANGEROUS VOLTAGES BEFORE THE FRONT COVER IS REMOVED. LIVE TERMINALS WILL BE EXPOSED.



Continuous development may necessitate changes in these details without notice

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