



107 Series Modules

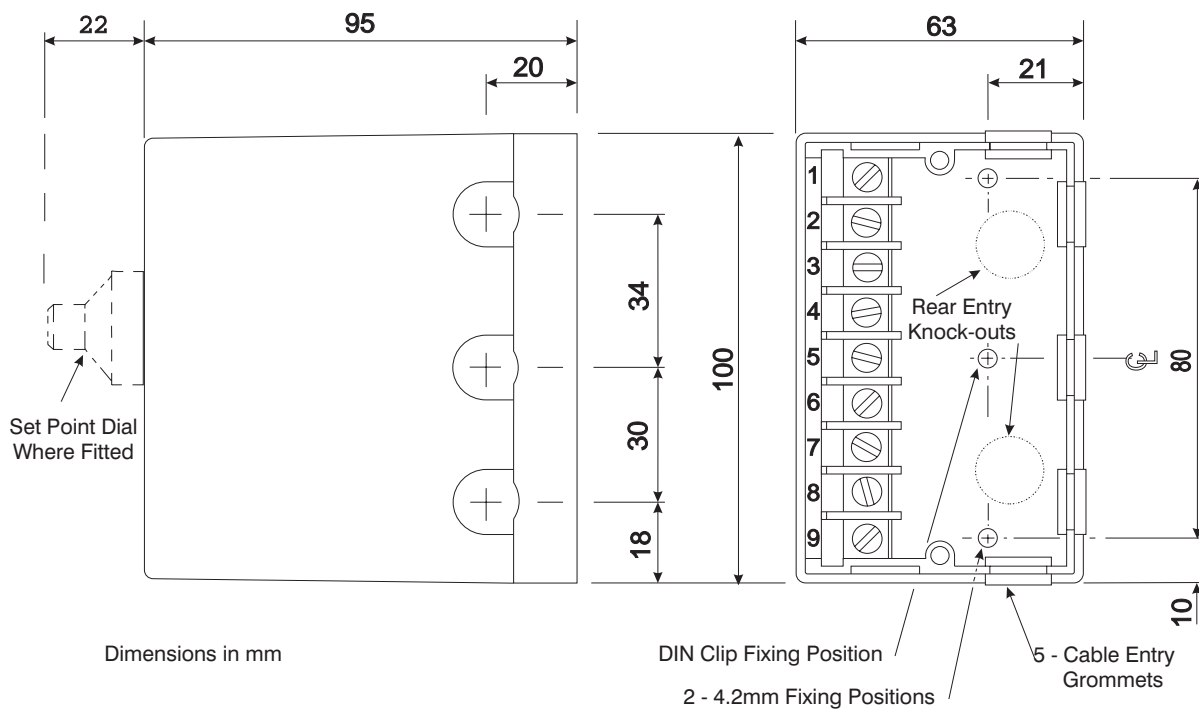
General Information

Introduction

This brochure provides information on details common to the 107 Series range of products. The range includes:-

- * **Signal Converters**
- * **Signal Isolator**
- * **Set Point Generators**
- * **Trip Amplifiers**
- * **Function Generator**
- * **Current to Frequency Converter**
- * **Summator**
- * **Square Root Extractor**
- * **Power Supplies**
- * **Frequency to Current Converter**
- * **Multiplier**
- * **Divider**

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



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 terminations for external wiring.

No-Break Signal Loop Facility

Input signal current loops are maintained when the plug in module is removed. This is achieved by a signal conditioning input resistor installed between terminals in the base section for each current input. Each current input channel is matched to its input resistor for optimum accuracy.

Installation

Mounting

107 Series modules are designed to be fitted to a suitable dry, flat surface either with a two screw fixing or an optional mounting clip which enables the unit to be fitted to a mounting rail to BS5584:1978, EN50 022, DIN46277-3.

For screw fixing, two 4mm positions are provided.

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.

Signal wiring must be suitably screened and segregated from the mains supply wiring.

Power Supply

Standard

AC 110, 220 or 240V $\pm 10\%$ 50/60Hz 5VA
Fuse size 20 x 5 mm
Fuse rating: 100 mA Quick blow type

DC Option

DC 12V, 24V or 48v -10% to $+20\%$ @ 3.5 W
Fuse rating: 250mA Anti-surge type

Changing Supply Voltage

Units can be adapted for 110v, 220v or 240v mains operation by changing soldered wire links on the printed circuit board. Procedures for changing mains power supply links are available on request.

DC powered 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.

Gain access to the printed circuit board as described under 'Access to Terminations and Internal Options'.

The mains fuse, identified 'F1', is located adjacent to the mains transformer / dc power unit.

Temperature Range

Operating: -10°C to $+60^{\circ}\text{C}$
Storage: -20°C to $+70^{\circ}\text{C}$

Module Enclosure Details

Material

Base - Phenol Cover - Polystyrol
 Colour Black Colour light grey

Protection

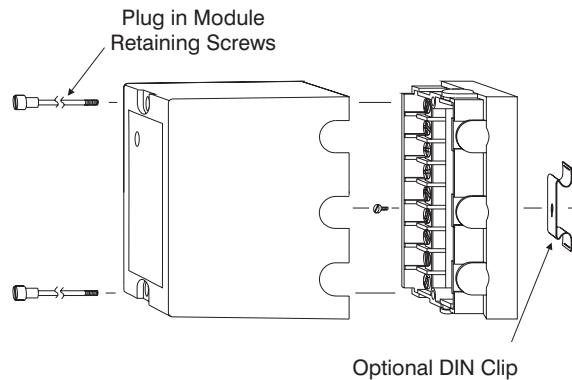
The module offers protection to IP 40.

Access to Terminations and Internal Options

Removing the Plug in Module

Isolate all supplies to the unit.

Unscrew the two module securing screws. 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, **using only the hands**, the shorter sides of the cover to release the interlocking tongue and groove fastenings. A downwards motion of the hands will then shake the plate loose. Slide out the printed circuit board.

Note: the power supply on some models is mounted on the plastic plate. Care must be taken to prevent damage to the interconnecting wires.

Replacing the Module Cover

Replace the printed circuit board ensuring that the printed circuit board is correctly located in the module cover slots. Insert the plastic plate into the end of the cover locating the recessed side around the printed circuit board. Press the plate home to engage the locking tongues into their slots.

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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