



112 Series Modules

General Information

Introduction

This brochure provides information on details common to the 112 Series range of products. The range includes:-

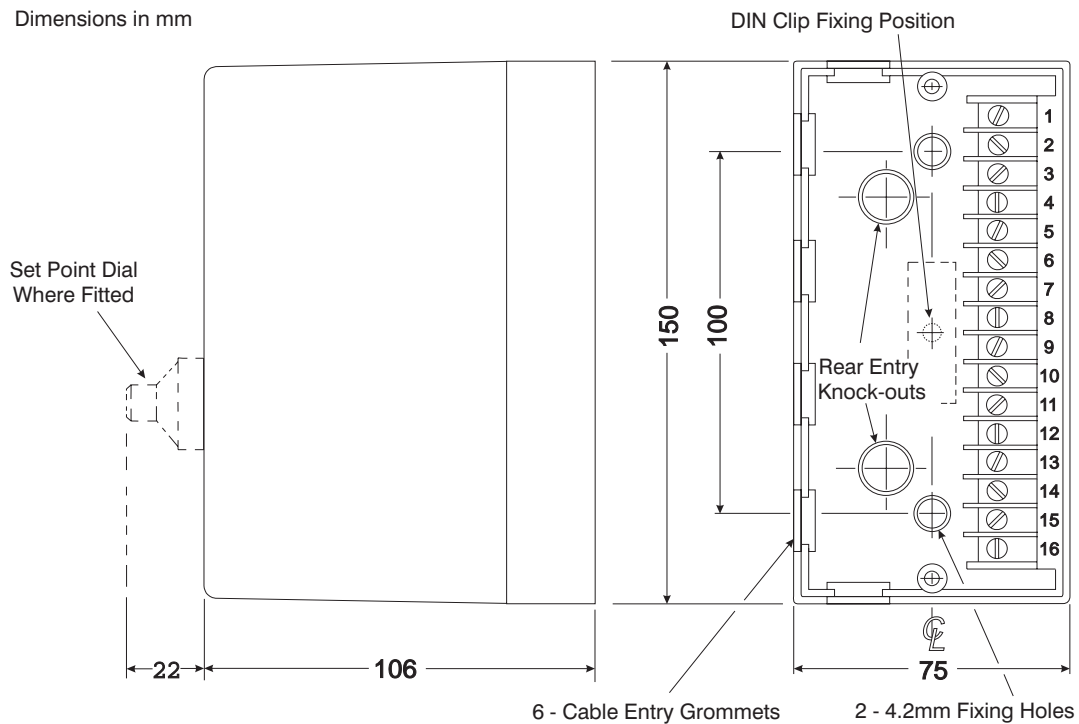
- * **Single and Dual Point Trip Amplifiers**
- * **Integrators**
- * **Analogue and Pulse Summators**

- * **Low Frequency to Analogue Converter**
- * **Milli-volt Converter**
- * **Thermocouple Transmitter**
- * **Ramp Generator**
- * **High and Low Selectors**
- * **Analogue Comparator**
- * **Digital Dividers**

- * **Frequency Scalers**
- * **Digital Lineariser**
- * **Pulse Isolator**
- * **Digital Raise Lower Unit**

Extensions to this range will occur as new products are developed. Details specific to a particular model 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 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

112 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 shrouded positions are provided.

Mounting the unit requires the removal of the top section - see 'Removing The Plug In Module'.

Wiring

Six 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

Standard

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

DC Option

DC 12, 24 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. **Isolate all supplies to the unit.** Gain access to the printed circuit board - refer to 'Access to Terminations and Internal Options'. The linking positions are numbered one through six and are located between the mains transformer or dc power unit and the edge of the printed circuit board.

IMPORTANT - Links for 110v operation must be insulated with silicon rubber sleeving.

Links are as follows:-

240v link 2 - 3 and 4 - 5

220v link 2 - 5

110v link 2 - 6 and 1 - 5

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 - refer to 'Access to Terminations 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

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

Module Enclosure Details

Material

Base - Polyamide 6.6 **Cover** - Polystyrene
Colour Black Colour light grey

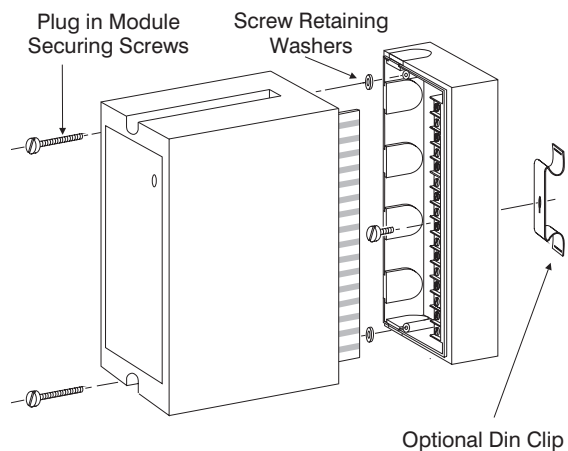
Protection

The module offers protection to IP 40.

Access to Terminations and Internal Options

Removing the Plug in Module

Isolate all supplies to the unit. 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 engaging the side with the two tongues into the mating grooves and then press the plate home to engage the single tongue.

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