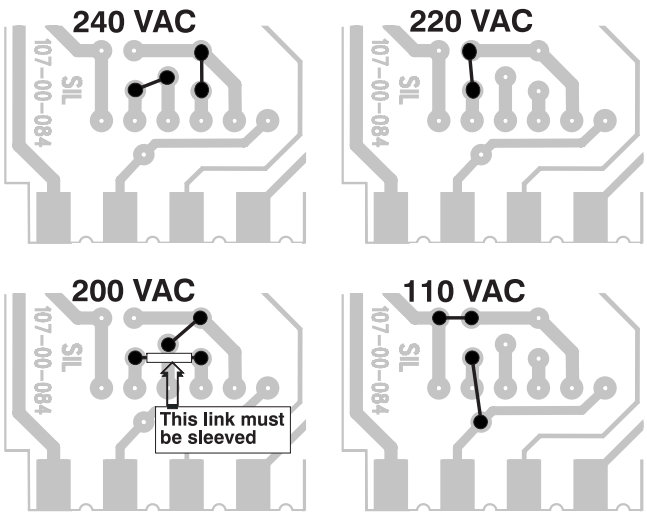
Fuse replacement

The fuse holder is located at the edge of the circuit board and above the mains transformer or DC power unit.
Fuse size: 20mm x 5mm dia.
Fuse ratings:
AC Supply - 100mA Quick Blow
12V/24V DC - 250mA Anti-surge
48V DC -100mA Anti-surge

Changing AC supply voltage

Details of the linking arrangements are shown below. The links are located on the back of the circuit board.
The required tappings are made by soldering tinned copper wire links.
IMPORTANT - Links for 200V operation must be insulated with silicon rubber sleeving.



DC Powered Versions

Please Note
There are no facilities for changing the operating voltage of DC powered versions

Re-assembly

(i) Slide the main board into the slots in the cover.
(iii) Replace the plastic plate/ assembly, PCB edge first, and press into place engaging the locking tongues into their slots.
(iv) Insert the plug-in module into the base section and secure with the retaining screws. *NB do not over tighten.*

SIGNAL CONVERTER
Type 107-1

Installation & Set-up

Specification

INPUTS
Resistance
Minimum change 50 ohms, Maximum 10k ohms
Resistance Thermometers
PT100 or PT130 (100 or 130 ohms at 0°C)
Minimum Span 40°C, Maximum Span 500°C
(NB no compensation for RTD non-linearity)
OUTPUTS

mA Ranges	*Max. Load (ohms)*
0-10mA	2000
0-20mA	1000
4-20mA	1000
Voltage Ranges	*Min. Load (ohms)*
0-5V / 1-5V	500
0-10V / 2-10V	1000

CALIBRATED ACCURACY
Output set at 100% to be within ± 0.1% FSD
LINEARITY ERROR
≤ ± 0.1% FSD
LOAD RESISTANCE EFFECT
≤ 0.001% of span/100 ohm change.
TEMPERATURE RANGE
Operating: -10°C to + 60°C
Storage: -20°C to + 70°C
POWER SUPPLY
A LED indicates when the power supply is connected.
Standard AC:
110, 220 or 240V ±10% 50/60Hz; 5VA
Fuse (internal) 100mA quick-blow (20 x 5mm)
Optional DC:
12, 24 or 48V -10% to + 20%; 3.5W
Fuse (internal) 250mA anti-surge (20 x 5mm)
TRANSDUCER EXCITATION SUPPLY
NB only available on resistance type inputs.
Constant current, typically 5mA, set during manufacture to suit input resistance change.

Installation

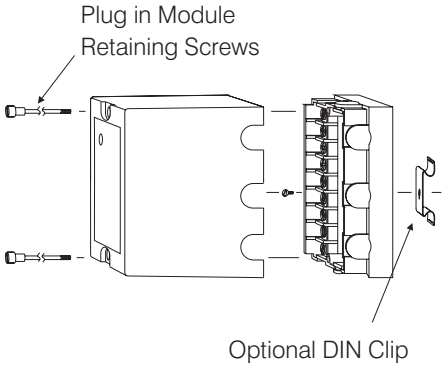
This unit can be fitted either to a suitable dry, flat surface with a two screw fixing or to a mounting rail (to BS5584:1978, EN50 022, DIN46277-3) with an optional mounting clip.

WARNING! This unit can be mains powered. All inputs must be isolated from dangerous voltages before the plug in module is removed from the base section for maintenance or adjustment. Live terminals will be exposed.

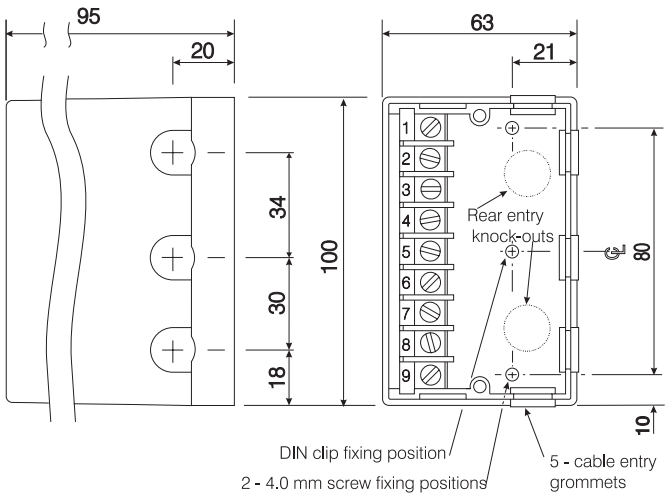
Access to Terminals

Isolate all supplies to the unit. Loosen 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. To refit the module, align the module edge connectors with the socket in the base and carefully press home.

NB do not overtighten the module securing screws.



Dimensions and fixing positions



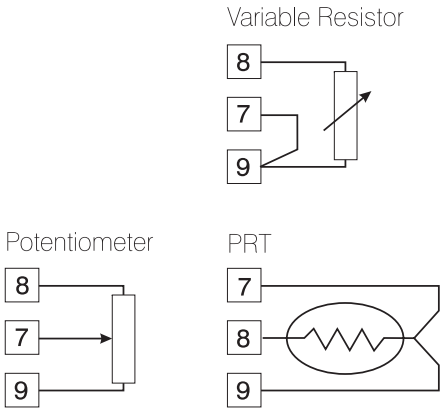
Wiring

Good instrumentation practice must be observed when wiring to the unit to ensure segregation of supply and signal wiring, and the use of suitably screened signal cabling.

Terminal connections

Supply	AC	Optional DC
1	Line	Positive (+)
2	Neutral	Negative (–)
3	Earth	Earth
Outputs		
4	Output Signal (–)	
5	Output Signal (+)	
6	*reserved*	
Inputs		
7	Input Signal (+)	
8	Input Signal (–)	
9	Transducer supply constant current (+)	

Resistance Input connections



Output span and zero adjustments

Where access to span and zero settings are provided by holes in the instrument's front panel, adjustments may be made to the multi-turn potentionmeter controls as follows:

(i) *Set output Zero:* with the input at its zero setting, monitor the output signal with a suitable instrument and adjust the zero control (via lower hole).

(ii) *Set output Span:* with the input at full scale adjust the span control (upper hole).

(iii) Repeat steps (i) and (ii) readjusting if necessary.

Gaining access to the fuse and power supply

(i) Isolate all supplies to the unit.

(ii) Unscrew two module retaining screws and separate the plug-in module from the base section.

(iii) With the fingers, ease apart the shorter sides of the cover releasing the interlocking tongue and groove fastenings to remove the plastic plate (i.e. the plate with the connections label).

(iv) Slide out the printed circuit board.