

Miniature Amplifier Type 2818



Type 2818



Type 2818H

Specification

| | |
|----------------------|--|
| Power Supply Voltage | 9-15 VDC |
| Power Supply Current | < 50 mA + Strain Gauge Current @ 6V Excitation |
| Input Range | +/- 0.5 – 1.5 mV/V |
| Output | 0-5V WRT PSU –ve connection (2.5V centre) |
| Offset Trim Range | +/-0.3mV/V |
| Temperature Range | 0-70 deg C |
| Accuracy | < 1% FSD |
| Linearity | <1% FSD |
| Gain range | 200-700 (set by surface mount resistors) |

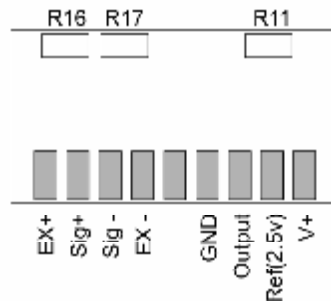
Dimensions

Type 2818 - Board:- 28 x 18 x 7 mm

Type 2818H Housing:- 50 x 35 x 18 mm Cable length 1m

Connections

All connections to board are via tinned solder terminals



Order Information

Type 2818 - XXX - XV - XM

Type 2818 – gain – Zero point offset - Cable length, if required

Type 2818H - XXX - XV - XM

Type 2818 housed – gain – Zero point offset - Cable length (1M standard)

Leave gain and zero as X(XX) if customer setting up gain and zero offset.

Set-up & Calibration Instructions

Connect Strain Gauge

Connect Power Supply & output monitoring equipment

Apply Zero Strain

Power Up

Note offset Polarity

If offset +ve connect Resistance decade box to R17 Terminals (remove power during connection)

If offset -ve connect Resistance decade box to R16 Terminals (remove power during connection)

Adjust resistance to remove offset (output =2.50V), remove decade box & fit 0805 SMT resistor of correct value to R16 or R17 as determined

Connect Resistance decade box to R11 Terminals (remove power during connection)

Apply full scale strain (positive direction)

Adjust resistance to give output of 5.00 V

Check output = 0V with full scale strain (-ve direction)

Remove decade box & fit 0805 SMT resistor of correct value to R11

Resistor Value Guide

The following lists the offset & gain ranges expected from the resistor values shown

| R11 (K) | Input for FSD mV/V | R16 or R17 (K) | Input Offset mV/V |
|---------|-----------------------|-------------------|----------------------|
| 1000 | 0.52 | 1000 | 0.002 |
| 470 | 0.54 | 470 | 0.004 |
| 220 | 0.58 | 220 | 0.009 |
| 100 | 0.66 | 100 | 0.019 |
| 47 | 0.79 | 47 | 0.038 |
| 22 | 0.98 | 22 | 0.074 |
| 10 | 1.18 | 10 | 0.132 |
| 4.7 | 1.34 | 4.7 | 0.205 |
| 2.2 | 1.44 | 2.2 | 0.276 |
| 1 | 1.50 | 1 | 0.331 |

If desired offset cannot be achieved with a single available resistor value, it is possible to over compensate with the nearest (lower) value & then re-trim the opposing resistor with a higher value.

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Reg no GB11422

2818 Issue 1 070702