

# Omni Amp TV1

- Inline signal amplifier
- Extends sensor cable and boost signal output to 0-5vDC
- Programmable ranges
- mV and voltage inputs
- PT100 inputs.
- K Type thermocouple inputs
- IP 67 housing



The OmniAmp-TV1 is an inline programmable signal amplifier, suitable for DC mV, voltage, PT100 and thermocouple inputs. It is simply programmed using hyperterminal text commands to select fixed input ranges, for voltage or temperature inputs, and has a 0-5v output. Current consumption is 4mA @12v DC and the unit can be powered from 8-28vDC making it ideal for low power applications.

The inline configuration with the weatherproof housing make it ideal for carrying out the dual purpose of extending cable length of sensors and amplifying the signal output to 0-5v DC.

## Specification - OmniAmp-TV1

Voltage Inputs	0-50mV, 0-250mV, 0-1V, 0-2V
PT100 Inputs	-40 to +60, -20 to +80, 0-150, 0-350 deg C
TC Inputs	-50 to +250, 0 to +200, 0-400, 0-600, 0-1100 deg C
Output	0-5v DC
Resolution	50/250mV - 7 $\mu$ V, 1 - 32 $\mu$ V, 2V - 63 $\mu$ V
Update Rate	Programmable - 100 mS to 10 seconds
Accuracy	Voltage inputs 0.05%, PT100 0.25 deg C, K type TC 0.5 deg C
Operating temperature	-20 to +60 degrees C
Power Supply	External 8-28v DC
Serial Communications	RS232, 38400 baud, data bits 8, parity none, stop bits 1, no flow control



[www.omniinstruments.co.uk](http://www.omniinstruments.co.uk)

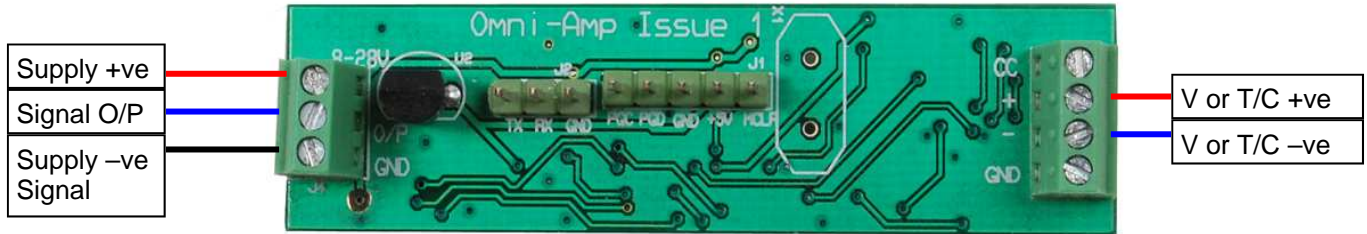
UK / Europe / Office  
Tel: +44 (0)845 9000 601  
Fax: +44 (0)845 9000 602  
info@omniinstruments.co.uk  
East Kingsway Business Centre,  
Mid Craigie RD, Dundee, Scotland UK.

USA / Canada Office  
Tel +1-866-849-3441  
Fax +1-866-628-8055  
info@omniinstruments.net  
PO Box 84  
Arroyo Grande California, 93420

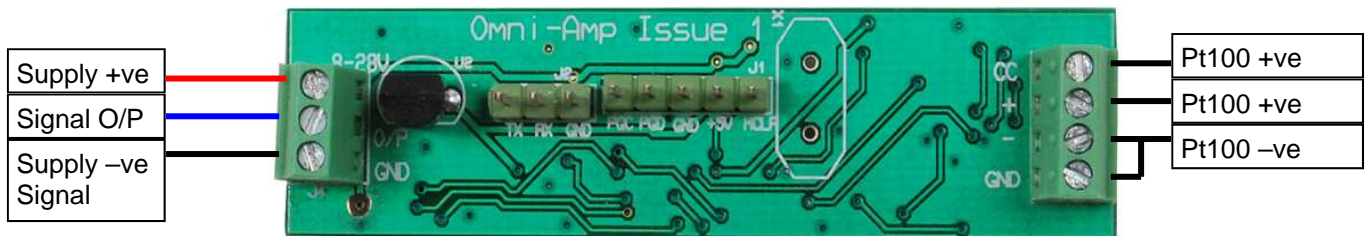
Australia / Asia Pacific Office  
Tel +61 (0)282 442 363  
Fax +61 (0)294 751 278  
info@omniinstruments.com.au  
18 Welcome Street  
Parkes NSW 2870

# Omni Amp TV1

Wiring connections for mV, voltage and thermocouple inputs:



Wiring connections for PT100 inputs:



## Programming Commands

Input Command	Setting	Input Command	Setting
T0	Input range 0-50mV	T9	PT100 -40 to + 60 deg C
T1	Input range 0-250mV	T10	PT100 -20 to + 80 deg C
T2	Input range 0-1V	T11	PT100 0 to + 150 deg C
T3	Input range 0-2V	T12	PT100 0 to + 350 deg C
T4	K type T/C -50 to + 250 deg C	T?	Query the input range
T5	K type T/C 0 to + 100 deg C	I10	Sets the update rate to 100mS
T6	K type T/C 0 to + 200 deg C	I100	Sets the update rate to 1S
T7	K type T/C 0 to + 600 deg C	I1000	Sets the update rate to 10S
T8	K type T/C 0 to + 1100 deg C	I?	Query the update rate
D1/0	Enable/disable debug mode	D?	Query debug mode