

# TA-100 Transducer Amplifier

## Signal conditioning for all bridge-type transducers



The TA-100 is a compact, stand-alone amplifier for use with all DC-bridge type transducers. Compatible transducers include blood or air pressure, strain gages, force transducer, and accelerometers. A built-in LCD display shows the current measurement as well as a fast-response bar-graph for easy visualization of a changing signal. A standard serial port allows remote data collection using any simple terminal software.

Input connection is via a standard Cannon WK-6-32S six-pin connector (compatible with Grass™ transducers). A wide gain range is provided, consisting of ten calibrated steps and an adjustable vernier attenuator for fine control. This feature allows the unit to be calibrated in real-world physical units (e.g. mmHg).

The TA-100 has a six-position, sharp rolloff, low-pass filter including a mean function. The analog output signal is via a BNC jack. This output voltage is the same as reported on the front panel display. Power to the instrument comes from the included miniature, 120/230V universal 5V power supply.

A number of transducers are available for use with the TA-100 amplifier. The TXRR series are blood-pressure type transducers for use with blood or other liquids. The PS-1000 series transducers are for use with air or non-corrosive gasses. The PS-1000/A-004 is a sensitive differential transducer suitable for use with a pneumotach for measuring airflow. Unwired connectors are also available for custom transducer connections.

### SPECIFICATIONS

Input impedance	>10 <sup>9</sup> ohms
Common Mode Rejection Ratio	> 85dB
Input offset voltage drift with temperature	±0.5uV/°C
Gain settings	.20, 50, 100, 200, 500, 1000, 2000, 5000, 10,000, 20,000X, with 0-1X attenuator
Transducer excitation voltage	+5V, 3 - 10VDC internally adjustable
Input connector	.Cannon WK-6-32S six pin
Low-pass filter type	Butterworth, -12dB/octave rolloff
Low-pass filter settings	0.1Hz (mean), 10, 50, 100, 500Hz, 5KHz
Output voltage range	±8.1V@±7mA
Serial data output settings	9600,N,8,1
Power requirements	+5VDC@100mA
Dimensions	6.4W x 2.5H x 5D inches (16 x 6.4 x 13 cm)

### ORDERING INFORMATION

<u>Part No.</u>	<u>Model</u>	<u>Description</u>	<u>Applications</u>
08-14000	TA-100	Transducer amplifier w/ power supply	Signal conditioning for bridge-type transducers
10-04100	DTX-1	Blood-pressure transducer	Blood-pressure or other liquids
10-04210	Cable	Required adapter cable for TXRR	
10-04010	PS-1000/A-1	Differential transducer, ±70cmH <sub>2</sub> O	For air or non-corrosive gasses
10-04011	PS-1000/A-004	Differential transducer, ±10cmH <sub>2</sub> O	Sensitive type for pneumotach
10-04031	HR-8431B	Pneumotach, rodent size, non-heated	Airflow measurement
10-04033	HR-8411B	Pneumotach, rabbit size, non-heated	Airflow measurement

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