

MSA-6 MINIAMP

Strain Gage Amplifier

DESCRIPTION

The AMTI MSA-6 instrument is a 6-channel strain gage amplifier designed for use with AMTI biomechanics force platforms, multi-component force/ torque transducers or other strain gage devices. It is a low cost, compact instrument capable of high resolution measurements. The micro-processor based MSA-6 features easy bridge balancing with a single push button auto zero, low-pass fixed filters, and jumper-selectable precision bridge excitation voltages and gains for each channel.

The amplifier inputs and outputs are conveniently provided through separate connectors. The analog output signal range is $\pm 10V$ and is generally connected to an A/D converter in a computer aided data acquisition system.



An RS-232 serial output is also provided which allows the MSA-6 to be used without an external A/D converter. The analog and serial outputs are provided simultaneously.

The MSA-6 is generally used as a desktop unit but rack mount hardware is included.

TECHNICAL SPECIFICATIONS FOR MSA-6 SERIES AMPLIFIER

- **GAIN** - Jumper-selectable gains of 1000, 2000, or 4000 on each channel.
- **BRIDGE EXCITATION** - Jumper selectable excitation of 2.50, 5.00, or 10.00 VDC on each channel (350 Ω bridge min).
- **AUTO ZERO** - Single push button for simultaneously balancing all channels. Balancing through the serial port also provided.
- **FILTER** - Each channel has a 2 pole low-pass filter with a 1000 Hz cutoff.
- **ANALOG OUTPUTS** - $\pm 10VDC$ into a minimum 10K ohm load.
- **SERIAL PORT** - RS232 communication for data rates up to 200 data sets/second.
- **OPERATING TEMPERATURE** - 0°F to 125°F (-18°C to 52°C)
- **POWER SUPPLY REQUIREMENTS** - 15 VDC @ 200 mA. AC line voltage powered DC supply included.
- **WEIGHT** - 5 lb (2.3 kg)
- **SYNC** - 5V digital logic level input for marking the serial data stream.

ISO 9001 CERTIFIED

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RACK MOUNT OPTIONS

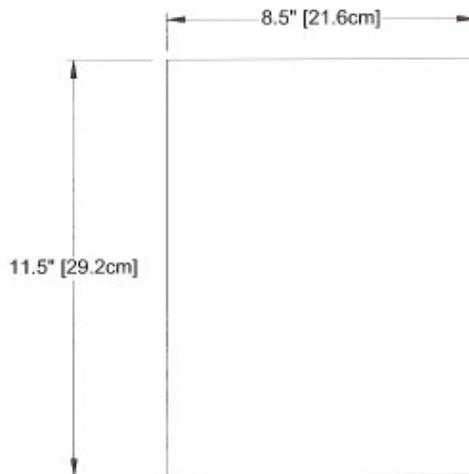
SINGLE MOUNT



DOUBLE MOUNT



REAR VIEW



FRONT VIEW



MSA-6 ENCLOSURE

Desktop instrument case: 8.5"W x 1.72"H x 11.5"D.

Rack mount 1 MSA-6 alone or 2 MSA-6's side by side with included hardware.

Input/output, DC power, SYNC, and RS232 connectors located on rear panel.

Power switch, auto zero push button, and indicator light located on front panel.

Gain and bridge excitation jumper selections are accessible under the screw-top cover.

I/O CONNECTOR SPECIFICATIONS

Amplifier input connector: Souriau
851-02E16-26S50-44

Analog output connector: DB25S

RS-232 connector: DB9S

Power connector: 2.1 mm power jack

SYNC (external trigger) connector: RCA phone jack

Contents of this publication are subject to change without notice.

AMTI

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