Model 101 DC Signal Conditioner

3-Channel DC Signal Conditioner
Programmable Excitation Voltage
0.00 to 999.9 Gain Range
DC to 200kHz Bandwidth

The Model 101 is a new, 3-Channel DC Signal Conditioner Amplifier designed to be used with bridge type or differential output accelerometers and pressure transducers. The Model 101 incorporates variable gain adjustment, shunt calibration capability, and multiple excitation level settings. For various applications where specific frequency roll-off is required, the signal conditioner offers a variety of optional filter modules.

Input signals with magnitudes of ±10Vdc can be zeroed with the Model 101 signal conditioner and a unique output DAC trimming routine, allows trimming the output zero to within ±1mVdc. Each channel amplifier also offers a 150kHz full power and a 200kHz small signal bandwidth.

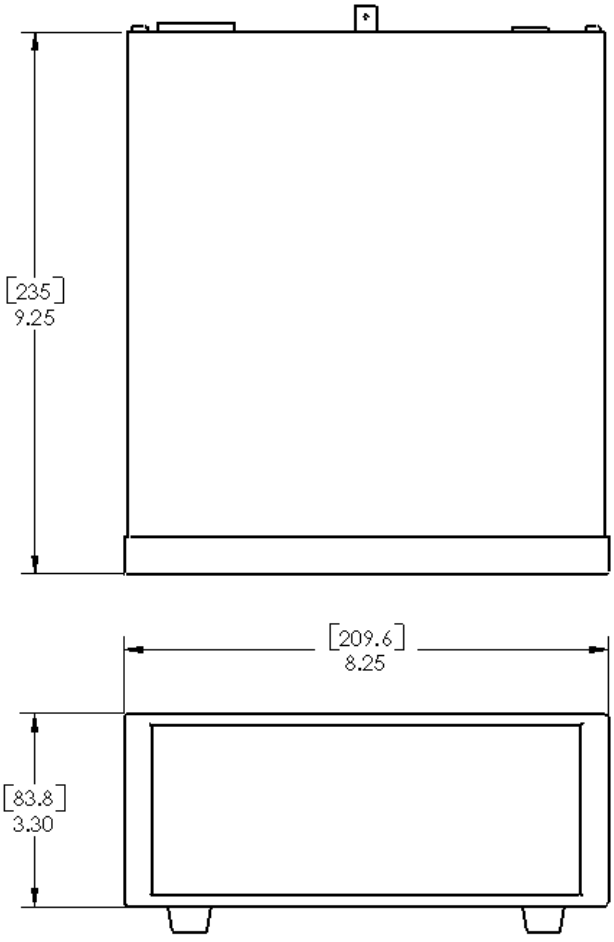
FEATURES

- Micro-processor Controlled
- 0 to 12Vdc Excitation Voltage
- 10V Peak Linear Output
- ±1mV Output Trimming Option
- ±0.5% FS Output Accuracy

APPLICATIONS

- Instrumentation Labs
- Test Stands
- Process Monitoring
- Vibration & Shock Testing

dimensions



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Model 101 DC Signal Conditioner

performance specifications

Parameters	
INPUT SPECIFICATIONS	
Input Range	Differential 0 to ±10Vdc or peak Vac, 9-pin D-sub connector for each bridge sensor
Input Impedance	>1 Megohm minimum
Common Mode Input Range	±10Vdc or peak Vac, inclusive of signal 50V peak without damage
Common Mode Rejection	70db minimum, 200 ohms or less imbalance, DC to 60kHz, gain >100 20db typ, 200 ohms or less imbalance, DC to 60kHz, gain =1
Autozero Adjustment Range	±10mVdc for gain<1000 ±100mVdc for gain≤100 ±1Vdc for gain ≤10 ±10Vdc for gain ≤1
Autozero Accuracy	Within ±50mV (typ)
OUTPUT SPECIFICATIONS	
AC/DC Voltage	Single ended, short circuit protected, isolated from power ground
Output Impedance	0.2 ohms max
Linear Output	10Vpeak
Current Output	10mA min
Output DC Bias Temp Stability	±5uV/degC RTI or ±0.1mV/degC RTO whichever is greater
Output DC Bias Time Stability	±20uV RTI or 5mV RTO, whichever is greater for 24hrs, after 1hr warmup
Excitation Voltage	0 to 12Vdc, front panel selectable for each channel
Excitation Voltage Accuracy	±1% (0 to 10Vdc), ±5% (12Vdc)
Excitation Current	30mA maximum per channel, short circuit protected
Noise & Ripple	1mVrms maximum, 10Hz to 50kHz, with 1 kOhm load
TRANSFER CHARACTERISTICS	
Gain Range	0.00 to 999.9
Resolution	For 0 ≤ gain <10, 0.00 to 9.99 For 10 < gain <100, 10.00 to 99.99 For 100 < gain <1000, 100.0 to 999.9
Accuracy	±0.5% of full scale (max), DC to 1kHz, filters disabled
Linearity	±0.1% of full scale, best fit straight line at 1kHz reference
Noise	20uVrms RTI plus 1mVrms RTO, whichever is greater DC to 50 kHz, with a 1kohm source resistance unit (with 10 kHz internal low pass filter enabled)
Frequency Response	DC to 150 kHz (full power bandwidth), -3db referenced to 1kHz
Filter	Plug in module (optional)
Crosstalk Between Channels	80 db RTI
POWER REQUIREMENTS	
Voltage	100/115/230V~, 50/60 Hz, rear panel switch selectable
Current Rating	0.1/0.1/0.05 A
PHYSICAL CHARACTERISTICS	
Weight (w/o power cord)	3.4lbs (1.5kg)
Case Material	Iridited aluminum

ordering info

DESCRIPTION	PART NUMBER
DC Signal Conditioner	101
Optional Accessories	
Filter Module, 100Hz, 2-Pole Low Pass	AC-A02888-01
Filter Module, 1kHz, 2-Pole Low Pass	AC-A02888-02
Filter Module, 10kHz, 2-Pole Low Pass	AC-A02888-03
Filter Module, 20kHz, 2-Pole Low Pass	AC-A02888-04
DB9 Connector	AC-G03253
Rack Mount Kit	AC-A03250

联系方式

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