

IEPE Multichannel Signal Conditioner

**MODEL
5103**

- 16 Channel Current Source Amplifier
- IEPE Transducer Input
- Selectable Gain 1 or 10
- Operational Status LED Display
- Wide Frequency Range: to 100 KHz
- Standard 19-inch Enclosure

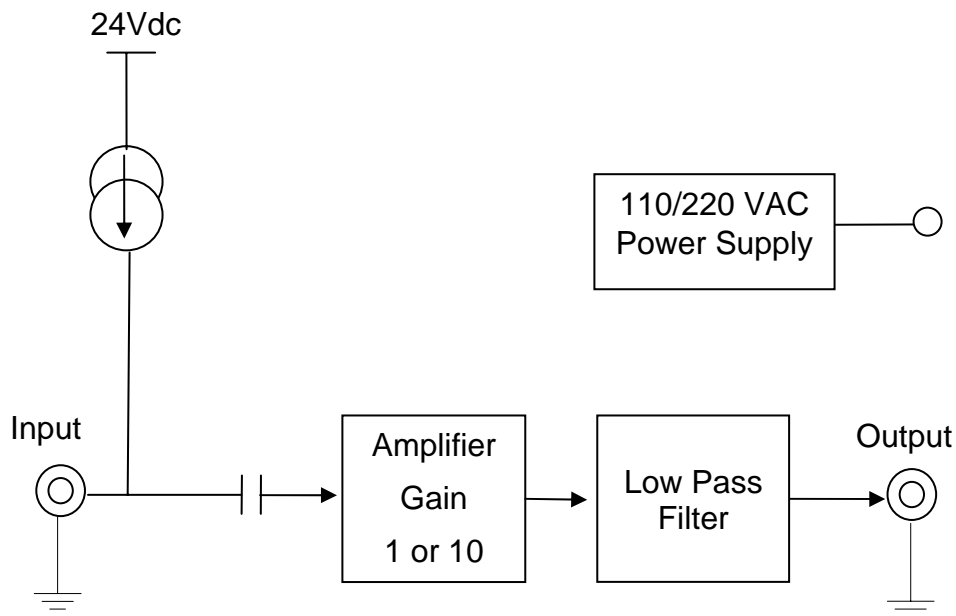


Description

The 16-channel Current Source Amplifier, VIP Sensors Model 5103, supplies a constant current source to integral electronic piezoelectric transducer (IEPE) types, decouples the DC bias voltage input, and amplifies and filters the transducer signal. The conditioned output signals are provided through a BNC connector located on the unit's back panel

An operation status light above each channel indicates if the corresponding transducer is not connected or open (red), if it is operating normally (green), or if it is shorted (orange). A gain of 1 or 10 is selectable for each channel using the front panel switches.

VIP Sensors Model 5103 is packaged in a 19" enclosure and operates from an AC power source.



VIP Sensors Model 5103 Functional Diagram

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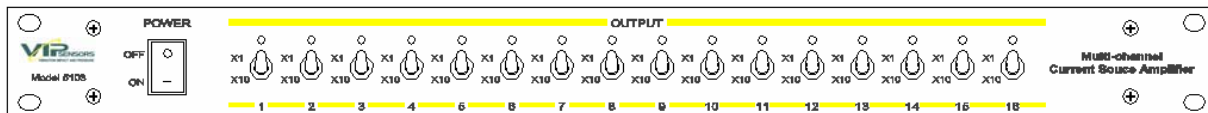
MODEL 5103

SPECIFICATIONS

The following performance specifications are at +75°F (+24°C), unless otherwise noted.

	UNITS	
INPUT		
Input Channels		16 channels, Single-ended
Constant Current Supply to Transducer	mA	4
Constant Current Compliance Voltage	Vdc	+24
OUTPUT		
Output Voltage	Vp	± 10 maximum, 5 mA
TRANSFER CHARACTERISTICS		
Transducer Output Voltage	Vp	± 5 maximum
Coupling Capacitance	μF	10
Gain		1 or 10 switch selectable, front panel
Accuracy	%	± 1 maximum
Noise	mV rms	≤ 1 rto
FREQUENCY CHARACTERISTICS		
Maximum Frequency	Hz	100,000 (-3 dB) -12 dB/Oct Roll off
Minimum Frequency	Hz	0.05 (-3 dB) -6 dB/Oct Roll off
ENVIRONMENTAL CHARACTERISTICS		
Temperature	°F (°C)	Operating: +32 to +104 (0 to +40) Storage: -67 to +185 (-55 to 85)
Humidity	%	80 maximum relative humidity
POWER SUPPLY		
Power Source		AC 50-60 Hz 110V ±10%, 0.4A or 220V ±10%, 0.2A (switch selectable on back panel)
PHYSICAL CHARACTERISTICS		
Dimensions	in (mm)	1.7H × 16.9W × 9.5D (44 × 430 × 240)
Weight	lb (kg)	5.8 (2.6)
Connectors		Input: BNC Output: BNC
ACCESSORIES		
		Power Cable, 110-240 Vac 16 - 9009L6 Coaxial Cables, BNC/BNC Plugs, 6 feet

Front View



Rear View

