CA1800 Charge Amplifier System

The CA1800 Charge Amplifier System conditions and amplifies charge-mode accelerometer signals. It is a rugged, rack-mountable instrument designed to be used engine test cell control rooms and other environments where charge-mode accelerometers are used to measure machinery vibration.

The CA1800 Charge Amplifier System provides up to eight (8) channels of charge amplification. Each charge amplifier provides a buffered acceleration output signal as well as an integrated (velocity) signal output. Outputs may be configured for either differential or singled ended configurations, and each channel may be configured (at the MTI Instruments factory) for one of three different gain settings to match accelerometer sensitivities.

INPUTS

Differential Input	Static discharge protected
Input Connection	Differential with shield connected to case, MS3101E-10SL-3P
Input Impedance	10Ω maximum
Maximum Input Charge	16,000 pC pk, maximum

OUTPUTS - Outputs are normally differential, factory option single ended

Velocity Output	Rear Panel BNC female connector
Acceleration Output (buffered)	Front Panel BNC female connector
Output Impedance	10Ω maximum
Capacitance Load	0.1µF maximum
DC Output Bias	0 Vdc
Linear Output Voltage	17Vpk-pk max
Output Current	25 mA maximum
Linearity	2%
Residual Noise (RTD)	1.0 mV RMS maximum at gain =1, 4.0 mV RMS max at gain = 10.

CONFIGURATION OPTIONS

Number of Channels:	4, 6, 8
Channel gain settings:	1, 4, 10 mV/pC
Highpass filer options:	10, 15, 20, 25 Hz
Outputs (ACC & VEL):	Differential or Single Ended

POWER REQUIREMENTS

AC Power Requirements	110/240 VAC ±15%, 50 - 400 Hz
Warm up Time	5 minutes

PHYSICAL CHARACTERISTICS

Dimensions	3.5” h X 19” w X 13” d
Weight	11.7 lbs
Case Material	Aluminum

MTI Instruments Inc.

325 Washington Avenue Extension
Albany, NY 12205 USA