

MICRO PCM ENCODER SERIES

MODEL MI_ST12

12 CHANNEL SIGNAL CONDITIONING MODULE WITH VOLTAGE EXCITATION, BRIDGE COMPLETION, PROGRAMMABLE GAIN, FILTERING AND OFFSET

The 12-channel module, MI_ST12 is intended to condition bridge transducer signals that require voltage excitation with significant signal conditioning flexibility with industry leading channel density, weight and low power. The unit provides for each of the 12 channels, bridge completion, bridge voltage excitation, programmable analog anti-aliasing six-pole filtering, programmable gain, programmable offset and analog to digital conversion. Each channel has its own programmable FIR filter that can be turned on or off.

Features per Channel

- Bridge Conditioner with 12 Channels per Card
- Quarter, Half and Full Bridge completion supported
- Four Bridge Voltage Excitation Sources: 10 volts, 200 milliamp each, all isolated from system power, with 1 and 2 wire remote sense supported
- One A/D per channel, 0 to 1 mega samples per second sample rate, 16 bits resolution, 12 A/D's total
- 6-pole Low Pass Analog Butterworth Filter with 16384 Programmable 3 db frequency cutoffs from 5 Hz to 20 KHz
- Programmable FIR Filter from 16 taps to 1024 taps, per channel
- Software Programmable Gain with 65536 gains from 0.25 to 2500

- Software Programmable Offset with 4096 offsets
- Active Offset and Gain Temperature error Correction
- Zero and Voltage Substitution Calibration
- >1 Giga ohms Input Impedance
- +/- 40 volt over voltage protection

Fir Filters:

Each channel has its own independent programmable FIR filter with programmable tap length from 16 to 1024. These filters can be turned on or off on an individual channel basis. Independent oversampling rates are programmable for each channel. Canned FIR filters are provided or the user can design FIR filters and download with PC design SW included.

Environmental:

Operating Temperature:	-40°C to +85°C
Storage Temperature:	-55°C to +125°C
Humidity:	Relative humidity of 85% for two hours at 65°C
Altitude:	Unlimited
Vibration:	20g's RMS from 5 to 2000Hz in each major axis
Acceleration:	Constant acceleration of 100g's in each axis
Shock:	100g's for 10m second in each major axis

Mechanical:

Size:		
	inches	mm
Length	3.50	88.9
Width	1.25	31.75
Height	1.016	25.81

Weight: 75 g

Engraving: MI_ST12

J1 CONNECTOR : Nanonics # STMO51M6HN; TYCO # 4-1589487-5

J2 CONNECTOR : AIRBORN, NK-2E2-037-325-TH00