

FEATURES

- Ideal for Embedded Applications directly on your own boards
- No multiplexing, 8 Independent channels
- Input Range ± 80 mV
- 3 KVrms Isolation Input, Power and SPI Link
- 2 KVrms Channel-to-Channel Isolation
- 250 Vrms Signal Overrange Protection
- Highly stable Apix technology A/D Conversion
- 160 db Common Mode Rejection
- 90 db Normal Mode Rejection 50/60 Hz
- 5-1000 Conversions/Sec for all 8 channels converting synchronously
- +5 Volt Supply, 250 mA DC
- -40 to 85 °C Operating Temperature Range

DESCRIPTION

The Daqpak SPI Series millivolt Input Modules feature 8 independent channels and an SPI interface. They are fully isolated with 3 KVrms between Input, Power, SPI serial link and 2 KVrms Channel-to-Channel.

These are extremely compact and are ideal for embedded applications directly on your own boards. They combine Signal Conditioning, robust Isolation, and highly stable A/D conversion technologies per channel.

All 8 channels convert synchronously. The sampling rate of 60 Hz per 8 channel set is the default rate in order to take advantage of the rejection notches in the frequency response, coinciding with the power line frequency and its harmonics.

SPECIFICATIONS

MAXIMUM RATINGS

Power Supply Voltage (Vdd)	-0.5 to 6 VDC
Analog Input	250 Vrms
Storage Temperature	-55 to 125 Deg C

PERFORMANCE

Initial Accuracy	± 0.01 % of SPAN
Zero Drift	± 10 ppm of Span per °C
Span Drift	± 20 ppm of Span per °C

ANALOG INPUT

Voltage Range	± 80 mV
Bandwidth	10 Hz (-3db)
Input Resistance	1 Mohm
Normal Mode Rejection	90 db at 50/60 Hz

POWER REQUIREMENTS

Supply Voltage Range	5 VDC ± 5 %
Supply Current	250 mA Max
Power Consumption	1250 mW Max

COMMON MODE

Maximum CMV Rejection	3 KVrms
Leakage Current	160 db at 50/60 Hz
Capacitance	2 μ A rms at 1000 Vrms 50/60 Hz per channel 4 pF Total per channel

ENVIRONMENTAL & MECHANICAL

Operating Temperature	-40 to 85 °C
Relative Humidity	< 95 % Non Condensing
Overall Dimensions	1.8 x 2 x 0.5 (inches) 46 x 51 x 13 (mm)

DIGITAL OUTPUT

Resolution	16 Bits Serial SPI
Conversion Rate	50-1000 Hz