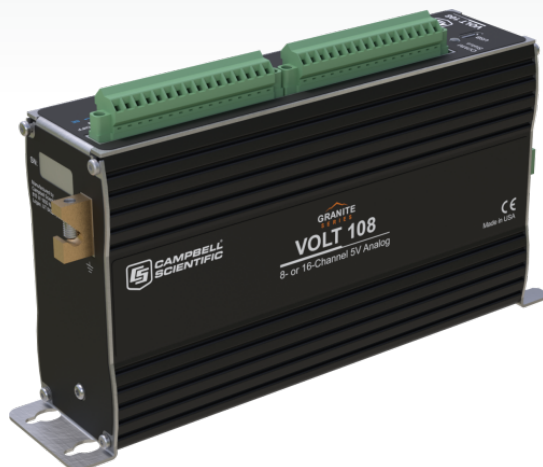




GRANITE VOLT 108

8- or 16-Channel 5V Analog Input Module



Ideal for Expansion of Analog Measurements

Interfaces directly to a PC for quick setup and data acquisition

Overview

The GRANITE™ VOLT 108 is a general-purpose, multiplexed analog measurement module. Designed specifically for static measurement applications, it can also be used for dynamic measurements up to 10 to 100 Hz depending on the application. The VOLT 108 supports all standard analog sensor

measurements and easily expands the GRANITE™ data-acquisition system. The VOLT 108 has eight differential or 16 single-ended input channels and two excitation channels. It provides a 12 V and a switched 12 V port and two switched 5 V ports for peripheral control.

Benefits and Features

- › 24-bit ADC and low-noise inputs
- › Channel count expansion via the CPI bus
- › Scales up the number of channels without adding measurement time
- › Easy to configure
- › Selectable noise rejection
- › CANbus 2.0 A/B output available with the Extended Duty (-XD) version
- › USB 2.0 interface for direct-to-PC-based operation

Specifications

| | | | |
|--------------------|---|---------------------------------|--|
| Power Requirements | 9.6 to 32 Vdc voltage | Operating Temperature Range | › -55° to +85°C (extended) › -40° to +70°C (standard) |
| Mounting | Standard 1-in. grid (DIN rail mounting available) | Maximum Multiplexed Sample Rate | 3.0 kHz (using fast [100 μs] input setting) |
| Accuracy | › ±(0.04% of reading + offset) 0° to 40°C › ±(0.06% of reading + offset) -40° to +70°C › ±(0.08% of reading + offset) -55° to +85°C | Maximum Burst Sample Rate | 30 kHz |
| Number of Channels | 8 differential or 16 single-ended | Input Range | ±5000 mV, ±1000 mV, and ±200 mV |

| | |
|------------------|--|
| Period Averaging | Traditional period averaging on analog input channels |
| CPI | For data logger connection. Baud rate selectable from 50 kbps to 1 Mbps. (Allowable cable length varies depending on baud rate, number of nodes, cable quality, and noise environment, but can be as long as 700 m under proper conditions.) |
| USB | USB 2.0 full speed connection available for attaching to a PC. (Port is used to configure the module and download updates via our Device Configuration Utility.) |
| Warranty | One year against defects in materials and workmanship |
| Dimensions | 20.3 x 12.7 x 5.1 cm (8 x 5 x 2 in.) |
| Weight | 0.8 kg (1.75 lb) |

Typical Current Drain

| | |
|-------------------|---|
| Sleep | <1 mA |
| Active 1 Hz Scan | 2 mA (estimated) Assumes one single-ended measurement with the first notch frequency (f_{N1}) at 30 kHz Note: Any sensor excitation or switched power loads will be additive to this value. |
| Active 20 Hz Scan | 20 mA Assumes one single-ended |

measurement with the first notch frequency (f_{N1}) at 30 kHz

Note: Any sensor excitation or switched power loads will be additive to this value.

| | |
|-------------------|--|
| Active 1 kHz Scan | 67 mA Note: Any sensor excitation or switched power loads will be additive to this value. |
|-------------------|--|

Voltage/Current Excitation Outputs

| | |
|--------------------|--|
| Voltage Excitation | ± 5 V (@ 50 mA) |
| Current Excitation | ± 2.5 mA (± 5 V compliance voltage) |

Number of Voltage/Current 2 Excitation Outputs

General Purpose Outputs

| | |
|--------------------------------|-------------|
| Number of SW5V Outputs | 2 |
| SW5V Output Resistance | 30 Ω |
| Number of SW12V Outputs | 1 |
| Typical Limit of SW12V Outputs | 200 mA |
| Minimum Limit of SW12V Outputs | 180 mA |
| Number of 12V Outputs | 1 |
| Typical Limit of 12V Outputs | 200 mA |
| Minimum Limit of 12V Outputs | 180 mA |

For comprehensive details, visit: www.campbellsci.com/volt108 



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