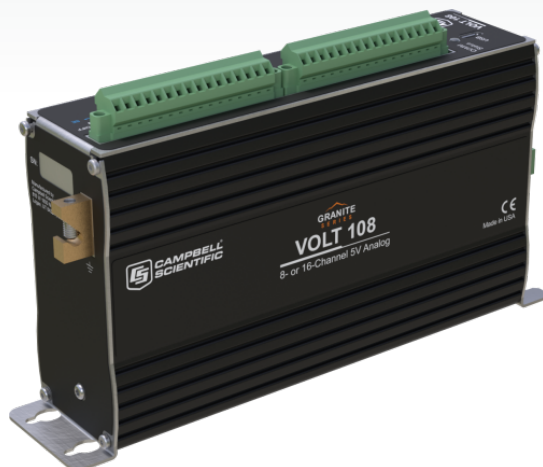




VOLT108

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 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
- › USB 2.0 interface for direct-to-PC-based operation

Specifications

Power Requirements	9.6 to 32 Vdc voltage
Mounting	Standard 1-in. grid (DIN rail mounting available)
Estimated Accuracy	<ul style="list-style-type: none"> › ±(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
Number of Channels	8 differential or 16 single-ended

Operating Temperature	<ul style="list-style-type: none"> › -40° to +70°C (standard) › -55° to +85°C (extended)
Maximum Multiplexed Sample Rate	3.0 kHz (using fast [100 μs] input setting)
Maximum Burst Sample Rate	30 kHz
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

Active 20 Hz Scan 20 mA
Assumes one single-ended measurement with the first notch frequency (f_{N1}) at 30 kHz

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 

