Agilent M9216A
PXI 32-Channel High Voltage Data Acquisition Module

DISCOVER the Alternatives …

Industries and Applications

- Automotive
- Electronic test

Product Description

The M9216A is a high voltage data acquisition module that allows simultaneous measurement of eight channels of positive voltages ranging from 1 mV to 100 V. Each channel in the module comes with concurrent 5 V and 100 V measurement ranges, with every channel capable of acquiring digital signals that fluctuate between very low and very high voltage levels without the need for switching ranges and doing separate measurements.

The M9216A module also comes with a built-in 32 to eight multiplexer enabling 32 measurement ports to be connected to the eight acquisition channels expanding it to a full 32-channel acquisition module. Alternatively, these channels can also be routed via an auxiliary output connector for additional measurements without requiring extra multiplexers or pin matrix cards.

The M9216A is capable of doing fast parallel voltage level measurements with guaranteed accuracy, which is ideal for the automotive industry since most automotive applications do not require negative voltage measurements. The M9216A's 16-bit ADC is fully used for positive voltages, giving it better resolution, hence better accuracy.

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Model	
M9216A	32-channel high voltage data acquisition module

Main Features and Benefits

Product features	Your benefit
Large input range with dual concurrent measurement range for each channel	Enables voltage level acquisition to be done for very low and very high voltages without the need for switching ranges
Built-in 32 to 8 multiplexer	Expanding to 32-channel high speed voltage acquisition capability
Auxiliary outputs from the acquisition channels	Enables additional measurements to be done without requiring external multiplexers and pin matrix cards

Specifications

Hardware	
Size	2 slots, 3 U
Resolution	16 bit
Accuracy	Zero offset: 5 V range – 200 uV, 100 V range – 1 mV Gain (% of reading): 5 V range – 0.05%, 100 V range – 0.05% Noise @ 3 sigma: 5 V range – 200 uV, 100 V range – 2 mV

Software	
Supported operating systems	Windows® XP (32-bit) Windows Vista®(32-bit/64-bit) Windows 7 (32-bit/64-bit)
Included device drivers	IVI-COM, IVI-C, LabVIEW G
Included GUI	Soft front panel
Chassis slot compatibility: cPCI(J1, J2), PXI-1, PXIe Hybrid	

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Software Applications

The M9216A high voltage data acquisition module is supplied with a comprehensive portfolio of module drivers, documentation, examples, and software tools to help you quickly develop test systems with your software platform of choice. Support includes Microsoft development environments like C/C++, C#,. or VB.NET, LabVIEW and LabWindows/CVI software platforms from National Instruments as well as MATLAB from The MathWorks.

To help you get started and complete complex tasks quickly, the module software support provides context-sensitive help, complete documentation and code examples that allow a quick module set up and basic acquisition functionalities. These code examples can be easily modified, so that the card can be quickly integrated into a measurement system. In addition, the M9216A includes a soft front panel graphical interface. This simple software application can be used to control, verify the functionality and explore the capabilities of the Agilent data acquisition module.

Ordering Information

Typical Product Configuration	
Model	Description
M9216A	M9216A PXI high voltage data acquisition module, 32-channel, 250KS/S, 16-BIT, 100 V input

Advantage Services: Calibration and Warranty	
Agilent Advantage Services is committed to your success throughout your equipment's lifetime.	
R-9MB-001-3C	1-year, return-to-Agilent warranty extended to 3 years
R-9MB-001-5C	1-year, return-to-Agilent warranty extended to 5 years

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