



# Agilent M9185A PXI 8/16-Channel Isolated D/A Converter

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## Industries and Applications

- Automotive
- Electronic test

## Product Description

The M9185A is a fully independent, isolated digital/analog converter (D/A converter) that is capable of supplying high voltage levels in parallel of up to eight or 16 channels. Each channel is able to output up to 16 V as stimulus signals to device under tests (DUTs). The M9185A comes with two options of eight or 16 channels where the eight channel option is a two-slot PXI module while the 16-channel option is a three-slot PXI module.

The M9185A D/A converter also comes with a built-in SENSE mechanism, which is able to detect the output voltage levels and feedback the information to the circuitry of the converter to compensate for the voltage drop at the receiving end of a DUT. This feature is ideal to ensure the accuracy of the stimulus signals being provided to the DUT for better test performance.

The M9185A D/A converter is capable of supplying high voltage levels of up to  $\pm 16$  V, which is essential for the automotive industry since automotive applications require operating voltages between 12 V to 14 V. Together with the SENSE mechanism, the M9185A is an ideal module for automotive applications where signal accuracy is of high importance.

### Model

M9185A 8/16-channel D/A converter

## Main Features and Benefits

Product features	Your benefit
High output voltage levels	Provides higher voltage levels as stimulus without the need for a pull up circuit
Built-in SENSE mechanism	Enables an auto feedback feature to the DAC compensation circuitry for voltage output adjustments to guarantee better accuracy

Chassis slot compatibility: cPCI (J1, J2), PXI-1, PXIe Hybrid



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## Specifications

Hardware	
Size	2-slot for 8-channel, 3-slot for 16-channel, 3 U
DC Voltage	Range: $\pm 16$ V up to 10 mA Resolution: 16-bit = 500 $\mu$ V Accuracy: $\pm (0.05\% + 3.0$ mV)
DC Current	Range: $\pm 20$ mA Resolution: 16-bit = 630 nA Accuracy: $\pm (0.09\% + 5.0$ $\mu$ A)
Temperature range	Operating: 0° C to 55° C Storage: -40° C to 70° C
Relative humidity	80%, 0° C to 40° C (non condensing)
Physical characteristics	Dimensions: 8-channel, 2-slot: 40.30 mm x 128.40 mm x 215.00 mm (1.59 in x 5.06 in x 8.46 in) 16-channel, 3-slot: 60.50 mm x 128.40 mm x 215.00 mm (2.38 in x 5.06 in x 8.46 in) Weight: 8-channel: 0.47 kg (1.04 lb) 16-channel: 0.6 kg (1.32 lb) Output connector: Stacked VHDCI receptacle



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## 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

## Software Applications

The M9185A isolated D/A converter 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 M9185A 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 M9185A PXI module.



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## Ordering Information

### Typical Product Configuration

Model	Description
M9185A	M9185A PXI D/A converter, 8/16-channel, 16-bit, $\pm 16$ V

Options	Description
M9185A-001	8-channel configuration for M9185A
M9185A-002	16-channel configuration for M9185A

### 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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