



# M393 8 Channel Differential ADC M Module

The M393 differential mode ADC is very well suited for use in applications where autonomous signal conversion is required. A local DSP provides processing capabilities to scan all channels at maximum rate, perform gain/offset compensation and store results in dual-ported memory. The current input version of this module range is 0 to 20mA and the voltage version's range is software programmable. Channels may be enabled or disabled individually.

## Specifications:

### General Characteristics:

- Input Types: Voltage or Current
- Resolution: 12 bit or 16 bit
- Accuracy: 0.1% for V, 0.5% for I
- Conversion Rate: to 50 Ksps (Software programmable)
- Input Filters: 2 pole LP, 1 KHz
- Programmable Moving Avg Filter
- Dual Ported Results Memory
- Optically Isolated Analog Section
- Calibration Data Stored Onboard

**Connector:** 25 pin DSUB (Female)

### Temperature:

- Operating: 0°C to 60°C
- Storage: -20°C to 70°C

**Power:** +5V @ 0.85 A with DC/DC  
+5V @ 0.25 A w/o DC/DC

### Software Programmable Voltage Input Ranges:

- Unipolar: 0 to 5 V  
0 to 10 V
- Bipolar: +/-5 V  
+/-10 V

**Fixed Current Range:** 0 to 20 mA

**All enabled channels are converted continuously and conversion data is read from shared memory by host**

### Configuration Options

- 12 bit V w/o DC/DC n=1
- 12 bit V with DC/DC n=2
- 12 bit I w/o DC/DC n=3
- 12 bit I with DC/DC n=4
- 16 bit V w/o DC/DC n=5
- 16 bit V with DC/DC n=6
- 16 bit I w/o DC/DC n=7
- 16 bit I with DC/DC n=8

## M Module Compliance

Complies with ANSI/VITA Std 12-1996 for single-wide M Modules.

- Data Transfers 16 bit
- Interrupts INTA
- IDENT supported

Compatible with VXI, VME, PCI, PXI, CPCI & Ethernet Carriers

## Applications

- Autonomous Signal Conversion
- Mid-range data acquisition

## Ordering Information

**Part Number** 11029660-000n  
where n is defined in the table at left

## Additional Information

User Manuals for C&H carriers and this module can be found on our website at [www.chtech.com](http://www.chtech.com).