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# 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<br>0 to 10 V |
| Bipolar: | +/-5 V<br>+/-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.