#### M392

# 12-/16-bit ADC M-module with 16x Common-Mode Inputs



The M392 16-Channel Common-Mode Input ADC m-module is very well suited to be used in applications in which autonomous signal conversion is an issue, as well as in standard mid-range applications. A local TMS320C203 DSP provides processing capabilities to scan all enabled channels at a programmable rate, perform gain/offset compensation and store conversion results in dual ported memory.

The M392 has common-mode voltage inputs. The input range is software programmable which gives great flexibility for applications in data acquisition systems that need to be able to convert a wide variety of analog signals.

#### Features:

- > 100kSPS ADC with 16- or 12-bit resolution
- > Software programmable input ranges
- > No potentiometers
- > 16 common-mode input channels
- > Onboard filtering with 1kHz cut-off frequency
- > Analog front-end optically isolated
- > DC/DC converter for isolated power supply
- > Features local TMS320C203 DSP
- > Calibration data stored in local EEPROM
- > Conversion results continuously updated in dual-ported SRAM
- > Up to 50kHz output update rate

#### M-module Compliancy

- \* A08/D16 (8-bit address and 16-bit data)
- \* INTA (software-end-of-interrupt)
- \* IDENT (identification EEPROM)

#### Input Characteristics

- \* 16 common-mode inputs
- \* Optical isolation
- \* Uni-polar input range: 0V .. +5V / 0V .. +10V
- \* Bi-polar input range: -5V .. +5V / -10V .. +10V
- \* Input ranges are software programmable
   \* 2nd order input filter with 1kHz cut-off frequency

#### Measurement

- \* M392 can be fitted to perform either 12- or 16-bit conversion (see ordering information)
- \* All enabled channels are converted at a programmablerate.
- \* Conversions results are stored in dual-ported memory

#### Analog Inputs

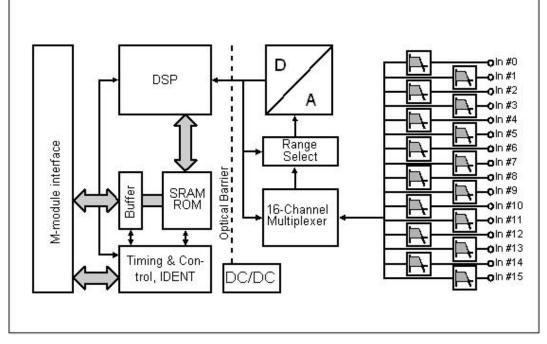
- \* 16 common-mode input channels available
  \* Inputs are optically isolated from the
- system
- \* 2-pole filter with 1kHz cut-off frequency per channel

#### Input Range

- \* Input range is software programmable per channel
- \* Uni-polar input range: 0V..+5V/0V..+10V
- \* Bi-polar input range: -5V..+5V/-10V..+10V

#### Ordering Information

- \* **M392/T03** M-module, 12-bit resolution, without DCDC
- \* **M392/T01** M-module, 12-bit resolution, with DCDC
- \* M392/T04 M-module, 16-bit resolution, without DCDC
- \* **M392/T02** M-module, 16-bit resolution, with DCDC
- \* M392/SW APIS based software
- \* M392/MAN manual on paper



## AcQ International

AcQ International BV Alanenweg 6 5342 PV OSS The Netherlands

Phone +31 (0)412 64 19 22 Internet www.acq.nl E-mail info@acq.nl

m392\_v4\_ds

### >>> people inventing technology creating systems serving people >>>