NEW SYNCHRONOUS VIM

VIM & SVIM
VERSATILE INPUT MODULES

MoTeC VIMs and SVIMs (Synchronous VIMs) are compact, CAN-based expanders that work in conjunction with ACL and ADL3 Data Loggers to facilitate the logging of high speed, high resolution inputs. The new SVIM samples all 15 bit inputs simultaneously, which is particularly useful in applications such as seven post rig testing where data synchronisation is critical.

VIMs and SVIMs are connected to the Data Loggers via a two wire CAN bus. Eight modules (in any combination of VIMs and SVIMs) can be connected to the ACL, allowing for more than 200 sensor inputs, while the ADL3 can connect to two modules, providing an additional 50 sensor inputs. If required, the modules can connect to separate ACL/ADL3 CAN buses and still provide synchronous measurements.

Many different types of sensors are supported, including unamplified thermocouples and strain gauges. Both modules are versatile in nature and can be located close to sensors, reducing the weight and complexity of wiring. VIMs and SVIMs are configured and controlled using MoTeC Data Logger Manager software.

VIM
VERSATILE INPUT MODULE

The VIM input expander module has 24 analogue inputs of various types including eight differential inputs with programmable gain which are suitable for strain gauges and isolated thermocouples.

It also has two digital inputs with programmable trigger levels which are generally used for wheel speed measurement.

When using multiple VIMs, identical 15 bit inputs in each are sampled by all VIMs at the same instant in time.

Feature Summary:

- 2 x 15 bit single ended inputs (2000 Hz)
- 8 x 15 bit single ended inputs (500 Hz)
- 8 x 15 bit differential inputs with programmable gain (1000 Hz)
- 6 x 12 bit high speed inputs (5000 Hz)
- 2 x digital inputs - programmable trigger levels
- Dimensions: 90 x 38 x 26 mm / 3.5 x 1.5 x 1.0 inches

SVIM
SYNCHRONOUS VERSATILE INPUT MODULE

The new SVIM shares similar features with the VIM but is precisely synchronised, acquiring data of the highest integrity for use in advanced chassis and suspension analysis. It samples its eighteen 15 bit inputs at the same instant using 18 separate converters with fifth order anti-aliasing filters. The filters ensure that signals can be properly reconstructed to use in calculations such as FFT (Fast Fourier Transform).

Multiple SVIMs can be synchronised so they all sample their 15 bit inputs at the same instant in time. This is important when looking at the relationships of signals collected from different sensors around the vehicle and is useful for test rigs and real time simulations.

Feature Summary:

- 10 x 15 bit single ended inputs (1000 Hz)
- 8 x 15 bit differential inputs with programmable gain (1000 Hz)
- 6 x 12 bit high speed inputs (5000 Hz)
- 2 x digital inputs - programmable trigger levels
- Dimensions: 90 x 48 x 26mm / 3.5 x 1.9 x 1.0 inches

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