

### 64 channel PSI HD conventional and DTC pressure scanner interface Module



#### Features

- Interfaces To “ESP Series”, and “ESP Series with DTC option” Pressure Scanners
- Up to 64 Pressure Channels available at 16-bit data resolution
- Compatible with mEDAU-20xx, mCDAU-20xx or mWDAU-20xx series Systems
- Fourth Order Polynomial Gain and Offset Correction
- Compensated over temperature range
- Programmable digital moving average filters provide a choice of channel filtering options
  - Choices are 1 sample (no MAV filter), to 256 samples programmable in 1 sample steps.
- Sampling rates up to 50KSPS when using DTC scanner option.
- Automatic Pressure Correction Coefficient table loading with DTC Option selected.
- Programmed with TTCWARE

#### Applications

- Flight Test Instrumentation
- Pressure Measurement
- Engine and Fuel System Testing
- Pressure Control Systems

#### Description

The MPSS-101D-1 is a single channel, DSP based, PSI HD conventional and DTC pressure scanner interface module designed for use in TTC’s miniature series of Distributed Data Acquisition products (Miniature Programmable Data Acquisition Unit – MPDAU-2000). The module provides power and address to a pressure scanner and encodes back analog pressure and temperature data from the scanner. The DTC scanner holds the pressure calibration coefficients that will be read by the MPSS-101D-1 module and used to correct the pressure data over temperature. The pressure data will be available to be read from the module at 16-bit data resolution by the system overhead.

Each pressure sensor input can have 4th order polynomial gain and offset correction. This 4th order correction can be applied over the operating temperature range when the ESP scanner is equipped with the Temperature Sense Output. When using the ESP scanner with DTC compensation option, Pressure Systems Inc. pressure correction algorithms are utilized to provide higher target pressure accuracies, with the option to load these tables automatically from a given pressure scanner. For both scanner types the temperature of the scanner can also be read back at 16-bit resolution in the output data stream.

Programmable digital moving average filters provide a choice of noise reducing channel filtering options.

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#### MPSS-101D-1 Datasheet

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CAIS  
Compatible



Management  
System  
AS9100C  
ISO 9001:2008

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