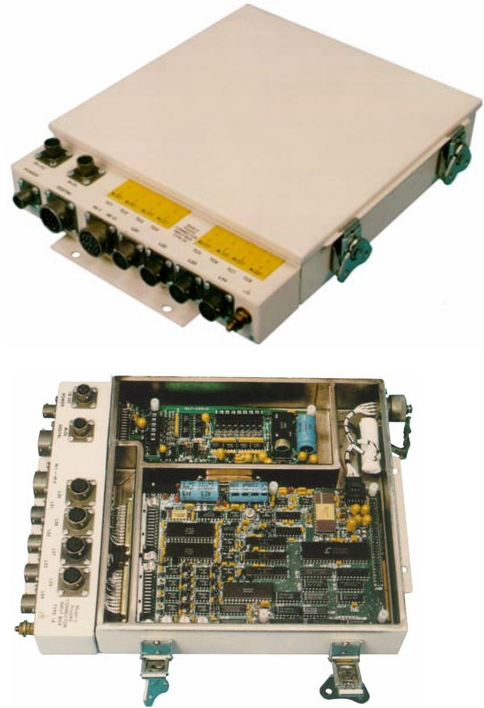


Programmable Data Acquisition System

ProDAS™

- User programmable software
- High sample rate
- Compact Flash data memory (up to 1 GB)
- Battery backed-up memory
- Windows 2000 / NT/ XP menu setup
- Standard RS-232 and USB communications
- ALDL / Class II / CAN vehicle bus data logging
- Internal signal conditioning
- Unattended data collection
- Strip chart/graphic features
- GPS / vehicle tracking capable
- Anti-Aliasing filters



Description

The *Programmable Data Acquisition System (ProDAS)* is a versatile, accurate, and rugged vehicle test data gathering instrument that can be quickly configured by the user to meet specific application requirements. *ProDAS* was designed to be used in harsh environment test applications and can operate within a wide temperature range.

The *ProDAS* can record and reduce data at high sample rates from a strain gage bridge, low-level analog, high-level analog, thermocouple, isolated frequency, digital, and ALDL / Class II / CAN inputs. The *ProDAS* features automatic zero and automatic gain calibration enabling “hands-off” setup of the analog section. This “hands-off” setup is accomplished by using a menu-manager software program compatible with Windows 2000 / NT / XP. Test data is stored on a removable, industrial spec. compact flash card and can be directed to an analog output. An interchangeable input interface box facilitates easy changes in connector types and configurations to accommodate various analog inputs. *ProDAS* instruments can be cascaded to perform synchronized data acquisition on a large number of input channels.

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Tel: 231-547-5511
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Rev: 6/30/04

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corporation

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Programmable Data Acquisition System

Specifications

| <u>INPUTS</u> | | <u>OUTPUTS</u> | |
|--|--|---|--------------------|
| ANALOG | | ANALOG | |
| 8 Differential inputs, FS Range | ±1 mV to ±6V | All analog outputs have 350Ω output impedance with 2200Hz filtering | |
| Bridge Excitation | 5V, +0V, -.0125V | 4 Analog 12 Bit D/A outputs | ±4.096V |
| Internal 1/2 Bridge Completion | 350Ω | 1 Analog 12 Bit D/A Output | ±5.00V |
| Thermocouple (K-Type) | -40°F to +1832°F (-40°C to +1000°C) | 1 Analog 12 Bit D/A output | 0-5V |
| Input Impedance | 400kΩ | DIGITAL | |
| 8 Single-End Inputs, FS Range | ±.1 mV to ±50V | 1 Pulse Width Modulated Output | 23.44kHz |
| Input Impedance | 300kΩ | Filtering Analog Output | 0-5V |
| 3 Differential Inputs, FS Range | ±.1 mV to ±6V | Output Impedance | 680Ω |
| Common Mode Range | ± 200V | Filtered at | 1000Hz |
| Input Impedance | 400kΩ | 1 Synchronization Output | (isolated) |
| DIGITAL | | SYSTEM PERFORMANCE | |
| All digital inputs are optically isolated; require 3mA to activate; feature a user-selectable logic threshold for compatibility with both 12V and 5V signals | | ENVIRONMENTAL | |
| 4 Frequency Inputs | (sig. cond. optional) | Temperature | |
| 3 Standard Inputs | 20kHz | Operating: | -40°C to +85°C |
| 1 High Speed Input | 1 MHz | Storage: | -55°C to +125°C |
| 1 Data Collection Enable | 2kHz | Size with Interface Box (H x W x L) | 5.4 x 31 x 25cm |
| COMMUNICATION | | Weight | 3kg |
| Communication Circuits are optically isolated | | ANALOG DATA COLLECTION | |
| 1 RS-232 Interface | 300 - 57.6K Baud | A/D Converter | 12 Bit |
| 1ALDL/Class II Interface (Baud) | 160, 8192, 9600/10.4K | Range | -4.096V to +4.096V |
| 1 ALDL Diagnostic Control | ∞, 0, 3.9K, 10kΩ | Real-Time-Clock Resolution | 1 second |
| POWER REQUIREMENTS | | Max # of selected channels | 16 |
| Isolated wide input range power supply | | Channel to Channel Skew | 85µs |
| Input Power | 6 watts typ. | Max Sample Rate {1/(#ch * 8µ5s +155s)Hz} | |
| Input Voltage | 6-18V | 1 Channel | 4kHz |
| Input Current | 500 mA typ. | 4 Channels | 2kHz |
| | | 8 Channels | 1KHz |

STANDARD APPLICATION SOFTWARE*

- Peak / Valley Matrix (1-16 Channels)
- Rainflow Histogram (1-8 Channels)
- Time/Event History (1-16 Channels)
- Level Detection Time Histograms
- Temperature History Recorder
- Event History Data Recorder

* Other custom software available

Ordering Options

Contact Michigan Scientific for further information on the ProDAS.

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