Data BRICK II SPECIFICATIONS

GENERAL

Sample Rate (scan rate for all active channels)

High Speed	850 - 12,800 Hz
Low Speed	2.5 hr/sample - 1000 Hz

* When using low speed, up to three different sample rates may be used simultaneously.

Sample Rate Time Base Accuracy	± 100 ppm
Drift	± 5 ppm/year
Data Memory	524,218 data points
Analog Input Channels	8 (Differential input)
Counter Input Channels	4
Trigger Input Channels	1

ANALOG CHANNELS

- High or low speed data acquisition
- Self-calibrating for ratiometric transducers
- 8th order, linear phase, anti-aliasing filter
- Programmable transducer excitation of 5 or 10 Vdc
- Indefinite short circuit protection
- Independent input range (Gain) for each channel
- Independent zero-offset voltage for each channel

Input Ranges:	Gain = 1000	± 2.500 mV
	Gain = 100	± 25.00 mV
	Gain = 10	± 250.0 mV
	Gain = 1	± 2.500 V

Post-Gain Channel Offset Range:	± 2.50 V
Data Resolution	0.024% of full scale
Data Accuracy (min) (Includes all internal noise & temperature drift)	0.195% of full scale
Lowpass Filter Range (F_c) (The programmed F_c is common to all 8 channels)	0.45 - 14,750 Hz
Input Impedance (typical)	1.0 M½
Protected Input Range (max)	± 25.0 V

Transducer Excitation Drive (per 4 channel group)
125 mA @ 10 Vdc
65 mA @ 5 Vdc

COUNTER CHANNELS

- Low speed data acquisition only
- Counters are sampled without affecting the count
- 14 bits of resolution
- Internal 2 bit prescaler for extended count range
- 5 Vdc digital transducer excitation
- Extended input range protection

Positive Going Threshold (min)	3.0 Vdc
Negative Going Threshold (min)	0.7 Vdc
Hysteresis (min)	1.0 Vdc
Digital Excitation Drive (max)	90 mA
Protected Input Range (max)	± 25.0 V

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*Specifications subject to change without notice

TRIGGER CHANNEL

- Three Trigger Options:
  - One shot data acquisition with pre-trigger samples
  - Multi-trigger data acquisition with a fixed number of samples taken for each trigger event
  - Level sensitive trigger - data taken as long as the trigger input level is high
- Programmable trigger state (NO or NC)

Positive Going Threshold (min)	3.0 Vdc
Negative Going Threshold (min)	0.7 Vdc
Hysteresis (min)	1.0 Vdc
Protected Input Range (max)	± 25.0 V

REAL TIME CLOCK

- Year, month, day, hours, minutes, and seconds
- ± 5 minutes/month accuracy
- Date and time stamp for each triggered data acquisition cycle

COMMUNICATIONS

- High speed RS-232-C serial port
- Baud rates: 9600, 19.2K, 38.4K, 57.6K, 115.2K

POWER SUPPLY

- Protected against voltage surges common to automotive alternator systems
- Wide input voltage range
- Indefinite reverse polarity protection

Supply Voltage Range	10.0 - 17.0 Vdc
Protected Supply Voltage Range	± 25.0 Vdc
Data BRICK Power Requirements (@ 25 _C) plus (1.5 x transducer excitation load [amps])W	4.8 W

HOST COMPUTER SOFTWARE

- Available for PC compatible DOS computers
- VGA graphics support
- Graphical, Menu Driven Features Include:
  - Data BRICK setup screens
  - Real time data acquisition screens
  - Auto calibration functions
  - Data reduction and display screens
  - Single, overlay and cross plots
  - ASCII data file support
- High speed serial communications

PHYSICAL

- 6061 T6 Machined aluminum enclosure
- 6" x 4" x 2.3" (15.2 cm x 10.2 cm x 5.8 cm) (excluding the mounting flange)
- 2.86 lb. (1.3 Kg), w/o battery
- Rugged, latching connectors
- Splash resistant enclosure and connectors

ENVIRONMENTAL

Operating Temperature Range	32 to 140_F (0 to 60_C)
Operating Humidity Range	0 to 95 % RH

Operating Shock Loading 100 g, 30 msec
(half-sine equivalent, any orientation)

The Data BRICK II meets or exceeds all of S.A.E. J211 specifications.