

Data Acquisition System

Key Benefits

- **Accurate, repeatable measurements**
- **Operate standalone without a PC**
- **Portable & battery powered**
- **Rugged (MIL-STD tested)**
- **Simple capture & application software**
- **Stack Tetrads for higher channel counts**
- **Optional GPS**



The DATS-tetrad is a rugged, portable data acquisition system that supports up to 32 high speed analog inputs and can be stacked for higher channel counts. Many sensor input options are available including microphones, accelerometers, strain gauges, thermocouples, load/pressure/force sensors, tachometers, rotary encoders, digital I/O and CAN-bus. Analog output and digital output are available with options for open and closed loop control. The system has an optional internal GPS receiver.

The unit has hassle free, zero configuration Ethernet, WiFi & USB communication interfaces. It can be powered from mains, vehicle or its internal battery power. A built-in processor and solid state storage provide standalone capability. The system can also be connected to a laptop or PC for real time monitoring and data capture via any of the communication interfaces.

Built for flexibility - A standalone, classical front end or distributed setup from 4 to over 1000 channels.

SYSTEM

Inputs	Up to 32 channels (plus tachos)
Maximum sampling rate	Up to 400k samples/sec/channel
Resolution	24 bit
Communications	Ethernet (Gigabit) USB
Multi Rate Sampling	Multiple sampling rates can run concurrently on separate cards
GPS (Optional)	Built-in with external aerial socket
I/O Options	See below
Battery (Optional)	up to 4 hours (dependent on configuration)

TYPE OF SENSORS

Measurement	Vibration Acoustics Displacement Strain Tachometers Force Load Proximity Load	Shock Impact Torque Position Rotary Encoder Temperature Pressure Photoelectric CAN-Bus
Other	Any suitable IEPE, charge, temperature, bridge, or powered sensor	

ENVIRONMENT & GENERAL

Operating temperature	-10°C to 45°C (14°F to 113°F) (Cold start) -20°C to 45°C (-4°F to 113°F) (Warm start)
Humidity	95% RH, non-condensing
Power usage	< 80W (worst case)
Shock and vibration	MIL-STD-810G
IP Rating	IP31
Supply voltage	Internal battery External 10-36V DC (e.g. vehicle battery) AC mains (adapter supplied)
Expansion	Stackable/Interconnectable Distributed by Ethernet and USB
Dimensions (H x W x D)	115mm x 360mm x 225mm 4.5" x 14.2" x 8.9"
Weight	~5kg/11lbs (dependent on configuration)

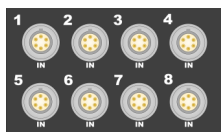
www.prosig.com

Tel UK: +44 (0) 1329 239925

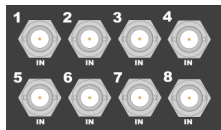
sales@prosig.com

Tel USA: +1 847-228-0985

prosigusa@prosig.com



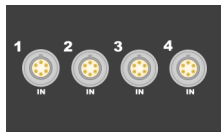
8612
8 channel ADC (IEPE & Direct) + Tacho



8614
8 channel ADC (IEPE, Direct & Bridge) + Tacho



8602
4 channel ADC (IEPE, Direct & TEDS) + Tacho



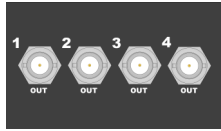
8604
4 channel ADC (IEPE, Direct, TEDS & Bridge) + Tacho



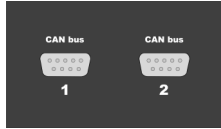
8608
8 channel Thermocouple



8620
4 channel Advanced Tacho



8624
2 or 4 channel DAC & Digital I/O



8640
Dual channel CAN-Bus

DATS-tetrad can be configured with up to four modules from the measurement card range

Powerful, yet simple data capture

