

P8004

4-Channel Ultra Portable 24-bit Data Acquisition System



The Prosig P8004 is an ultra portable, high quality, 24-bit data acquisition system. It is compact, rugged and has 4 analog inputs plus a dedicated tacho input. Input is via industry standard BNC connectors. The size, tough packaging and low power consumption makes it ideal for mobile use. Internally there is comprehensive signal conditioning for voltage or ICP with programmable amplifiers, anti-alias filters and transducer power, all controlled by the Prosig DATS or ESP software.

Maximum sampling rate is 100k samples/sec/channel at 24-bits or 400k samples/sec/channel at 16-bits. Data integrity is assured with a dynamic range of 105dB and a -120dB noise floor. High data transfer rates are achievable, since the P8004 uses USB 2.0 communications, which operates at 480Mbits/s.

Don't need many channels? Want to start small and upgrade later? Under tight budget constraints? Then the P8004 is an obvious choice!

P8004

Specification

System

Analog inputs	4 channels plus tacho input
Maximum sampling rate	100k samples/sec per channel (24 bit) 400k samples/sec per channel (16 bit)
Tacho input and external trigger	Programmable $\pm 28V$
Programmability	All features under software control
Resolution	24 bit
Overall accuracy	$\pm 0.10\%$ full scale
Non-linearity	Less than 1LSB
Input voltage range	$\pm 10mV$ to $\pm 10V$
Input impedance	1Mohm
Analog over voltage protection	$\pm 24V$
Communications	USB 2.0

Signal Conditioning

Signal inputs	Direct voltage IEPE with TEDS
Anti-alias protection	>100dB
Autozero	Signal autozero and amplifier autozero
DC offset control	$\pm 50\%$ full scale range in 32768 steps
Dynamic range	105dB
Noise floor	-120dB

Environmental

Shock and vibration	Suitable for mobile use (10g rms)
Operating temperature	0°C to +40°C (32°F to +104°F)
Humidity	80% RH, non-condensing
Weight	1 kg (2.2 lbs)

General

Power usage	<6W
Supply voltage	Choice of 10-17V DC (e.g. vehicle battery) or AC mains (adapter supplied)
Connectors	BNC
Dimensions† (H x W x D)	50mm x 120mm x 240mm 2" x 4.7" x 9.4"



Find out more about the P8004 at prosig.com/p8000/p8004.html

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