



MODEL 485B36

## ICP<sup>®</sup> SENSOR SIGNAL CONDITIONER

- Achieves low noise performance of battery-powered signal conditioners without the hassle of replacing batteries
- Utilizes power supplied through PC USB port
- Supports all existing ICP (IEPE) sensors
- Compact package is ideal for “road warriors” who need quick data samples without transporting an FFT analyzer

## USB POWERED – DUAL CHANNEL

Widen your data acquisition options by connecting your ICP<sup>®</sup> sensors to your PC sound card. Model 485B36 is a pocket-sized, dual-channel, ICP sensor signal conditioner that requires no batteries for operation. The 485B36 is powered by solely USB! Now your PC sound card or other data acquisition device can record signals from a wide range of ICP accelerometers, microphones, force sensors, tachometers (using LaserTach<sup>™</sup> or PulseDriver<sup>™</sup>), and dynamic strain gauges.

Connect ICP sensors to the 485B36 using standard BNC jacks. The 485B36 conditions the input signals and outputs the low impedance voltage signals on an 1/8" (3.5 mm) stereo jack. The 485B36 includes the 009M130 cable for direct connection to a PC sound card and the 009M131 cable to adapt the 485B36 for input to BNC connectors on other data acquisition devices.

SPECIFICATIONS	
<b>Performance</b>	
Signal Gain ( $\pm 0.5\%$ )	x1
Frequency Response ( $\pm 2\%$ Amplitude)	2 to 50 000 Hz
Frequency Response ( $\pm 5\%$ Amplitude)	1 to 50 000 Hz
Frequency Response ( $\pm 5^\circ$ Phase)	5 to 50 000 Hz
Frequency Response ( $\pm 10^\circ$ Phase)	1 to 50 000 Hz
Broadband Noise (1 to 10 kHz)	12 mVrms
Typical Spectral Noise	
1 Hz	150 nVrms/Hz
10 Hz	50 nVrms/Hz
100 Hz	35 nVrms/Hz
100 Hz	270 nVrms/Hz
10 kHz	210 nVrms/Hz
Linearity	$\pm 1\%$
THD at 100 Hz (FS Input Signal)	0.75 %
Sensor Excitation Voltage	18.5 to 20.5 VDC
Constant Current Sensor Excitation	3.8 to 5.8 mA
Crosstalk	<-92 dB
<b>Physical</b>	
Operating Temperature Range	32 to 122 °F (0 to 50 °C)
Maximum DC Offset at Output	80 VDC
Output Impedance	
Parallel	1.1 Mohms
Series	2.2 mF
Power Consumption (at 5VDC)	69 mA
Input Connectors	BNC Jack
Output Connector	$\frac{1}{8}$ in (3.5mm) Stereo Jack
Dimensions (H x W x D)	1.18 x 3.67 x 1.33 in (29.8 x 93.2 x 33.8 mm)
Weight	2.5 oz (70 g)
Power Cable Connector	Type A USB Plug
Power Cable Length	76 in (1.93 m)

Supplied Accessories	
009M130	$\frac{1}{8}$ in (3.5 mm) stereo plug to $\frac{1}{8}$ in (3.5 mm) stereo plug, 1 ft (30.5 cm) length
009M131	$\frac{1}{8}$ in (3.5 mm) stereo plug to (2x) RCA / BNC plugs, 3 ft (91.4 cm) length (includes (2x) RCA phono to BNC adaptors)
Optional Products	
LT2	Eliminate special signal conditioning – the LaserTach™ powers from ICP just like an accelerometer
400B76	The PulseDriver™ allows a traditional magnetic rotational speed pickup to be used with an ICP data acquisition channel The 400B76 offers single mouse click read and write of TEDS data using your Windows PC. Model 400B76 supports more TEDS templates than any other available TEDS sensor interface kit.
PulseDriver	