

# High-Voltage, Speed Probe Signal Conditioning Board

## Features

- 8 channels current design; could be 16 with less voltage
- Used in conjunction with sine wave board
- Simulate high-voltage speed sensor
- Transformer coupled outputs
- Supports up to 50V peak outputs

## Description

The Speed Probe board is a signal conditioning device which amplifies an input signal, typically a sine wave with 10V peak amplitude, by a factor of 5, up to 50V peak amplitude depending on external power supply. The outputs from the Speed Probe board are transformer coupled.

The Speed Probe board is a standard DIOS board size, 6U by 280 mm, but occupies 2 slots due to heatsinks on the high voltage amplifiers. Each of the 8 circuits amplifies the input by a factor of 5. The output is transformer coupled.

Input signals connect to the board at the rear panel connectors provided by the DIOS chassis. Standard connectors are 0.050 series 96-pin D-shell connectors, but other connectors can be accommodated with a custom cable interface board. Output signals connect to the board at the front panel, using a 16-way pluggable header.

## Specifications

- Input Voltage Range: 0 to  $\pm 10V$
- Output Voltage Range: 0 to  $\pm 50V$
- External Power Supply: Bipolar, 10V greater than maximum output, 0.5A minimum
- Gain accuracy: 10%, 25Hz to 10kHz
- Transformer primary current limited to 50mA