

TSC-4100R

Tachometer Signal Conditioning Unit

The **Model TSC-4100R** is a self-contained unit that can be used in engine test cells, or for on-wing applications where a 1/revolution tachometer signal is required for engine balancing purposes. The tachometer signal conditioner does not require that the user specify how many teeth are on the speed sensor wheel. The Model TSC-4100R automatically calculates the number of teeth and produces an output pulse only when it finds a significant difference in the tach signal.



TACHOMETER SIGNAL INPUT - The Model TSC-4100R has a provision on the rear panel for one tachometer input signal. As illustrated in Figure 1, the input connection is a standard BNC connector. This connector accepts voltage-mode tachometer input signals that can range from 50mV to 200Vpk using internal autoranging circuitry.

Tachometer signals ranging from 2Hz to 20KHz can be conditioned. Tachometer signals may be pulse, sine, or square-wave. The Tachometer Signal Input is single-ended, and AC-coupled. The input may be configured for differential input – consult factory.

TACHOMETER SIGNAL OUTPUT - The Model TSC-4100R has a provision on the rear panel for one tachometer output signal. As illustrated in Figure 1, the output connection is a standard BNC connector.

The output signal provided is a 0 to 5 volt signal.

The tachometer signal conditioner may be ordered with an tachometer output that has been designed to drive high impedance input circuits in the order of 50K ohms (MTI part number 8000-4160) or with an output circuit to drive TTL inputs (MTI part number 8000-4161).

TYPICAL INSTALLATION – The Model TSC-4100R is generally used in jet engine test cells where it is necessary to condition multi-tooth and altered-tooth tachometer signals into a reliable 1/revolution signal as illustrated below.

