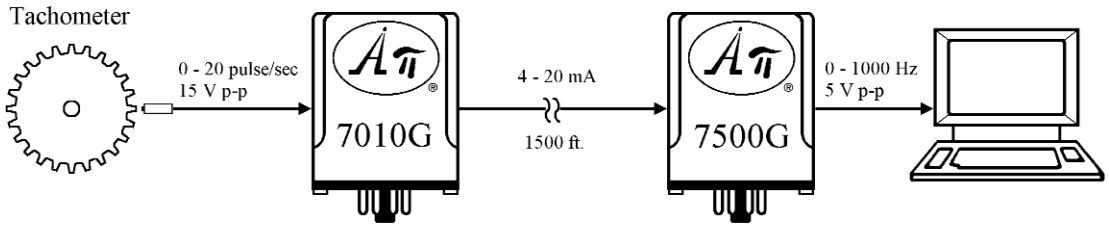
# Monitoring Mixer Speed at a Remote Computer

**PROBLEM**

The speed of a mixing machine must be monitored by a computer located 1500 feet away, across an electrically noisy area. The tachometer on the mixer produces 24 pulses per revolution at 15 V peak-to-peak and the mixer runs at speeds up to 50 RPM. The computer input accepts a frequency of 0-1000 Hz at 5 V peak-to-peak.

**SOLUTION**

Api signal conditioning is applied at the tachometer output and at the computer input to provide noise immunity and signal compatibility.




The tachometer output (24 pulse/rev x 50 rev/min x 1 min/60 sec = 20 pulse/sec) is converted to a 4-20 mADC signal by the **API 7010 G** Isolated Frequency to DC Transmitter module. At the computer, the 4-20 mADC signal is converted by the **API 7500 G** Field Selectable Isolated DC to Frequency Transmitter module to a frequency of 0-1000 Hz.

**Did You Know...?**

Api isolated transmitters have 2000 volt input, output and power isolation.