# **RONICS INTERNATIONAL INSTRUMEN**



## TR-1-ITT **EMPERATURE GAUGE**

The TR-1-ITT (Inter Turbine Temperature) instrument is configured to interface with a Type-K thermocouple probe. The TR-1-ITT incorporates a map which is used to compensate for nonlinearities in the voltage vs temperature curves of the probe. This instrument has exceptional performance, reliability and features; a design driven by the 38+ years of experience.
The TR-1-ITT Instrument was designed

as a replacement for existing 2" ITT instruments. Depending on your current installation you may need to wire in aircraft power and ground. The instrument features a 210° analog arc, backlight and a dimmable, digital display. The instrument's faceplate will be custom built to match your aircraft's limits (red/yellow markings). The TR-1-ITT fits into a 2" standard round hole.

Standard Package ......P/N 10-06612 Premium Package ......P/N 10-06613



#### TR-1-NG RPM GAUGE

The TR-1-Ng gas generator instrument was designed as a replacement for existing 2" gas generator RPM instruments. Depending on your current installation you may need to wire in aircraft power and ground. The instrument features a 210° analog arc, backlight with auto dimming and a digital display. The instrument's faceplate will be custom built to match your aircraft's limits (red/yellow markings). The TR-1-Ng fits into a 2" standard round hole (MS28041-1A mount) and is

4.23" long (one of the shortest cases on the market). It is FAA Certified to TSO: -C43c, -C44c, -C45b, -C47a, -49b, -C55a and comes with an FAA 8130-3 Airworthiness Approval Tag.

Standard Package .......P/N 10-06614 



## TR-1-NP RPM INSTRUMENT

The TR-1-Np is a 2" Prop RPM instrument for use with turboprop engines. This instrument has exceptional performance, reliability and features a design driven by 38+ years of experience. If you need to replace or overhaul an old failing gas generator instrument, buy the TSO approved TR-1-Np Prop RPM instrument which was designed with the latest digital technology.

The TR-1-Np Prop RPM instrument was designed as a replacement for existing 2" instruments. Depending on your current installation you may need to wire in aircraft

power and ground. The instrument features a 210° analog arc, backlight with auto dimming and a digital display. The instrument's faceplate will be custom built to match your aircraft's limits (red/yellow markings).

Standard Package P/N 10-06616
Premium Package P/N 10-06617



# TR-1-TQ ENGINE **TORQUE GAUGE**

The TR-1-TQ is a 2" engine torque instrument for use with turboprop or jet engines. This instrument has excep-tional performance, reliability and features; a design driven by 38+ years of experience. If you need to replace or overhaul an old failing torque instrument, buy the FAA approved TR-1-TQ torque instrument which was designed with the latest digital technology.

The TR-1-TQ Toque Instrument was designed as a replacement for existing 2" engine torque instruments. Depending on your current installation you may need to wire in aircraft power and ground. The instrument features a 210° analog arc, backlight and a dimmable, digital display. The instrument's faceplate will be custom built to match your 

Premium without Transducer.....P/N 10-06610



## M-1 TURBINE OUTLET TEMPERATURE GAUGE

The M-1-TOT provides pilots with Turbine Outlet Temperature readings in Degrees C on this 2-1/4" gauge. The large LCD display is viewable in direct sunlight and is backlit for night operations. A 270 degree analog arc features bright Red, Yellow and Green LEDs to mark each operating zone for quick reference.

Specifications: • Power Requirements:



### OPT-1-FV VOLT/ FREQUENCY GAUGE

AC BUS VOLTAGE & FREQUENCY, TSOd/PMAd (no STCs). The "-60" instrument is for a 60 Hz. bus and the "-400" instrument is for a 400 Hz. bus. Accurate Digital Display can be switched between Voltage and Frequency, displays in Volts and Hz. 2 1/4" Mount, 3.65" Depth, 10 Oz. Instrument.

P/N 10-03268



#### SC-5 SUPER CLOCK

May be set to display in a 12 or 24-hour format. Displays Zulu Time. A 10-year lithium battery keeps the clock running even if the aircraft battery is removed. Displays an Up Timer. This Timer will start running when the engine is started. In this manner the Timer acts as an automatic Flight Timer. The Up Timer may be started, stopped or reset. A Recurring Alarm may be set to alert you at appropriate time intervals. Example: If the alarm is set for

30 minutes, you will get an alarm at 30 minutes, 60 minutes, 90 minutes, etc. This alarm can be used to remind you to check your fuel level or switch tanks at set time intervals. Displays a Down Timer. This Timer counts down from a programmed start time. The Down Timer may be started, stopped or reset. Warning lights above the LCD display will blink if the Up or the Down Timer times out. Displays an Engine Timer. This Timer acts as a Hobbs Meter. When the engine starts, the Engine Timer will run. The Engine Timer displays total engine time in hours, tenths and hundredths of an hour..... P/N 10-01612



# **EDC-33T SMART ENGINE** DATA CONVERTER

The EDC-33T (Engine Data Converter) is sometimes referred to as a Data Acquisition Unit (DAU) and has a broad range of applications. Its main purpose is to monitor the probes, transducers and sensors mounted on the engine and airframe. It then processes this data and

outputs it on a serial bus. This allows a Display Unit or MFD to display the data without having to perform the intense processing required in a set timeframe. Also, annunciators and status switches can be monitored. The EDC-33 can be used on piston, turboprop or jet aircraft as well as helicopters. If an EEC or FADC system needs to be monitored, check out our BC-5 (Bus Converter).

Model EDC 33T XX: 1-Volt Channel, 1-Amp Channel, 1-Fuel Flow Channel, 9-Pressure Channels, 13-Temp Channels, 4-Resistive Fuel Level Channels or 4-Capacitive Fuel Level Channels and 2-RPM Channels.

Note: Temp, Fuel Level and Pressure channels can be used instead to monitor other functions or annunciators......P/N 10-03185