## **PORTABLE ENGINE TEST SETS & TRIMMERS**





# H337N Series Engine Test Set

The H337N Series Engine Test Set is an advanced data collection and analysis system. It provides test cell equivalent analysis of engine performance while keeping the engine on-wing and the aircraft in service.

The H337N Series Test Set:

- Monitors engine temperature during engine operation
- Tests engine temperature indicator system
- Monitors engine RPM during engine operation
- Verifies accuracy of engine RPM system during engine operation
- Monitors exhaust pressure during engine operation
- Computes Engine Pressure Ratio (EPR)
- Measures fuel flow
- Measures vane angle
- Measures engine torque

#### **Input Parameter Flexibility**

Basic engine test parameters – temperature, speed and pressure – can all be scaled to the exact requirements of the engine being tested:

- Temperature can be displayed in °C or °F
- Engine speed can be scaled in %RPM, direct RPM, or in frequency (Hz)
- Externally measured pressure can be displayed inHg, ft-lbs or %Torque. Internally measured pressure can be displayed inHg or psi

A complete set of scale factors can be easily entered in to memory for up to ten different engine types. An alphanumeric display provides instructional prompts to the operator throughout the scaling procedure, and scaling information is retained permanently in memory unless changed by the operator. The Engine Select Switch allows the operator to select the specific calibration and scale factors appropriate for the engine under test.

#### Howell Instruments, Inc.

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### H337N Series Engine Test Set

#### **Cables and Accessories**

Cables and other accessories are available for most airframe and engine applications. Dual engine test accessories are also available. Most cables supplied with earlier versions of the H337 can be used with the H337N.

| Specifications                                   |  |   |                    |
|--|--|---|--------------------|
| Parameter  | Range  | Programmable<br>Display Range                 | Accuracy           |
| Engine Temperature<br>(type K cr-al®' t/c)       | 0 to 1350 °C<br>0 to 2462 °F                     | 0 to 1350 °C<br>0 to 2462 °F                  | ±2 ℃<br>±4 ℉       |
| Engine Temperature<br>(TF30 cr-al® curve)        | 0 to 1360 °C<br>0 to 2480 °F                     | 0 to 1360 °C<br>0 to 2480 °F                  | ±2 ℃<br>±4 ℉       |
| Standard Day Temp                                | –60 to 100 °C Ambient                            | N/A   | ±4 °C @ 600 °C     |
| Ambient Temperature                              | –60 to 100 °C<br>(–76 to 212 °F)                 | –60 to 100 °C<br>(–76 to 212 °F)              | ±0.3 °C<br>±0.5 °F |
| Frequency  | 10 to 30 KHz                                     | 30K counts max<br>(%RPM, RPM, PPH, Hz)        | ±0.1 %             |
| Internal Pressure Transducer                     | 0 to 5 VDC                                       | 0 to 101.8 inHga                              | ±0.25 inHga        |
| Internal Pressure Transducer<br>(cont'd)         | 0 to 5 VDC                                       | 0 to 50.00 psia                               | ±0.12 psia         |
| External Pressure Transducer<br>(BH21717 Series) | 0 to 6.200 VDC                                   | 9,999 counts max<br>(inHg, psi, PCNT., ft-lb) | ±0.2 %             |
| Engine Pressure Ratio                            | 0.800 to 3.500                                   | N/A   | ±0.05              |
| Resistance                                       | 0 to 40 ohms                                     | N/A   | ±0.04 ohms         |
| Insulation Resistance                            | 0 to 200 Kohms                                   | N/A   | ±2 Kohms           |
| Temperature Indicator<br>Calibration Signal      | 50 to 1000 °C                                    | N/A   | ±2 °C              |
| Power Requirements                               | 115 VAC, 50 to 400 Hz, 230 VAC, 50 Hz, or 28 VDC |   |                    |
| Dimensions                                       | 7 inches H x 14 inches W x 14 inches D           |   |                    |
| Weight   | 26.5 lbs (includes printer, excludes cables)     |   |                    |

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