



Photo Courtesy of Department of Defense

H395

NSN 6685-01-569-7682
Rolls-Royce P/N 23076502

High Current and Resistance Thermocouple Tester T56-7 Series and T56-15 Series

Howell's portable, lightweight H395 High Current and Resistance Thermocouple tester provides fast, accurate test results. The user-friendly unit provides multi-voltage capabilities and tests insulation resistance and high current resistance of T56 series thermocouples.

The H395:

- Statically tests thermocouples on-bench with test receptacle or on-wing with available remote cable
- Offers manual or automatic test options
- Injects current across both T/C junctions and provides results on a digital display
- Automatically exercises TC 1 to GND, TC 2 to GND, and TC 1 to TC 2 for shorts/opens
- Contains microprocessor for program storage
- Features toggle switches for quick and easy test setup
- Provides ruggedized, deployable housing with snap locks and carrying handle
- Contains storage compartment for power and adapter cables
- Has an environmentally sealed deck to help prolong the life of the unit

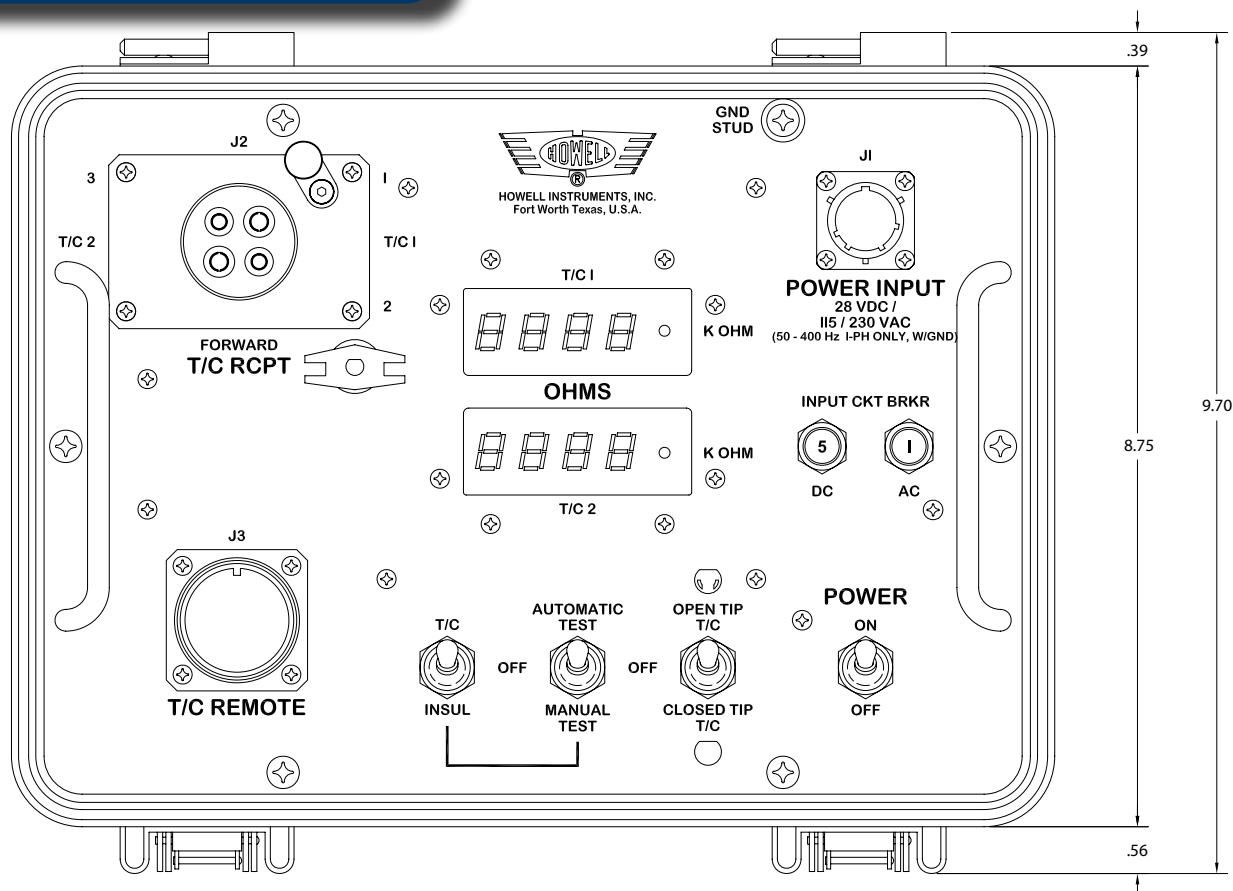


| Specifications | |
|----------------|--|
| Weight | 15 lbs |
| Dimensions | 32 in. H x 12 in. W x 8.75 in. D |
| Inputs | 115 VAC, 50 to 400 Hz, 230 VAC, 50 to 60 Hz, or 28 VDC nominal |
| Output | 10A Maximum, 5 VDC |
| Accuracy | Off-aircraft testing: $\pm 0.0045 \Omega$ |
| | On-aircraft testing: $\pm 0.0068 \Omega$ |

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PORTABLE ENGINE TEST SETS & TRIMMERS

H395



H395 T56 TYPE II & III THERMOCOUPLE (T/C) TESTER OPERATING INSTRUCTIONS

ALWAYS REFER TO TECHNICAL DATA FOR TEST LIMITS, COMPLETE OPERATING INSTRUCTIONS, AND NOTES, WARNINGS AND CAUTIONS BEFORE USE

BENCH TESTING THERMOCOUPLES

1. Ensure all control switches are in the OFF position.
2. Connect power cable to J1 connector at tester.
3. Insert and secure thermocouple (T/C) in test receptacle.
4. Place POWER switch to ON and wait for successful completion of Built-In-Test.
5. Set OPEN TIP T/C-OFF-CLOSED TIP T/C to appropriate setting for T/C under test.
6. Set T/C-OFF-INSUL switch to OFF.
7. Select AUTOMATIC TEST or MANUAL TEST as desired.

A. Automatic Testing

Tester will complete test routine:

| | | |
|-------------------|-------------------|---------------------|
| 1) INSUL | a. T/C 1 to GND | ≥ 20 Kohms |
| | b. T/C 2 to GND | |
| | c. T/C 1 to T/C 2 | |
| 2) T/C OPEN TIP | a. T/C 1 | 0,045 to 0,085 ohms |
| | b. T/C 2 | |
| 3) T/C CLOSED TIP | a. T/C 1 | 0,500 to 0,900 ohms |
| | b. T/C 2 | |

B. Manual Testing

For manual testing, select T/C or INSUL as desired and observe results as above.

ON-ENGINE TESTING OF THERMOCOUPLES

CAUTION: Disconnect aircraft T/C harness from aircraft wiring to prevent current flow to amplifier and indicator while testing T/Cs.

CAUTION: Disconnect T/Cs from harness while checking individual T/Cs to ensure accurate continuity and resistance readings.

1. Ensure all control switches are in the OFF position.
2. Connect power cable to J1 connector at tester.
3. Connect remote testing adaptor cable (if supplied) to J3 connector at tester.
4. Place POWER switch to ON and wait for successful completion of Built-In-Test (BIT).
5. Set OPEN TIP T/C-OFF-INSUL switch to OFF.
6. Set T/C-OFF-INSUL switch to OFF.
7. Select AUTOMATIC TEST or MANUAL TEST as desired.
8. Initiate remote testing by using ON-OFF switch on Adaptor cable.
9. AUTOMATIC or MANUAL testing will be accomplished as selected. (See #7 of Bench Testing Thermocouples.)

8H3249 REV C



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