TestVonics™ Precision Air Data Calibrators

ADC-2550 Air Data Calibrator

Perform enhanced
Calibrations on a Variety of Equipment

Brilliant, High Resolution LED Backlit
10.4" LCD Touchscreen

Easy to use, intuitive and upgradable
Graphical User Interface

TestVonics Part Number
NSN: 6695-01-590-1161
P/N: ADC-2550

ADC-2550 Air Data Calibrator

TestVonics ADC-2550 Air Data Calibrator is a high accuracy air data management system. The calibrator is capable of controlling and measuring Altitude and Airspeed pressures to the highest degree of accuracy. The control and measurement range of the test system meets or exceeds most requirements for commercial and military test applications. In addition, accuracy of ADC-2550 complies with requirements for RVSM.

Features

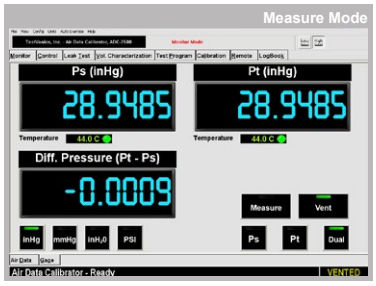
The ADC-2550 features a brilliant 10.4-inch LED backlit LCD display. A 5-wire resistive touchscreen allows the calibrator to be controlled directly from the front panel. An on-screen keyboard appears automatically when operator input is needed. Additionally a USB keyboard and mouse is included with the calibrator for redundant data input if desired. The calibrator uses 2 digiquartz transducers which provide unmatched performance. Corrections are done through software requiring no mechanical adjustments and are capable of holding accuracy for a period of one (1) year.

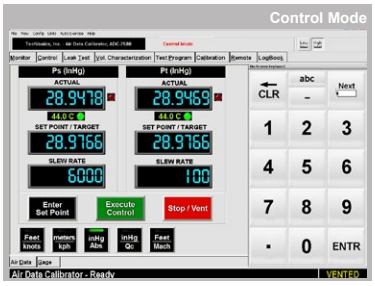
Simple and Intuitive Interface

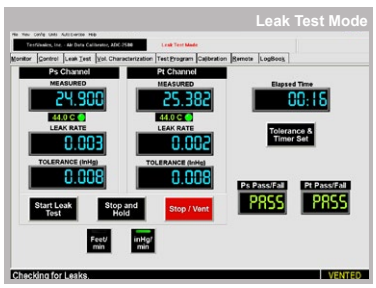
The ADC-2550 software provides a familiar and intuitive graphical user interface. Modes of Operation are easily selected through tabs located along the top of the screen. The operator can easily switch between modes while testing without affecting operation. The calibrator measures and records readings, while displaying data as a table or graphically. All information is stored directly on the calibrator and reports can be printed. The ADC-2550 can be operated remotely using the RS-232 (serial) port on the rear panel. The operating platform allows the system to be upgraded for future test applications through software upgrades, standalone installer packages or customized software applications.

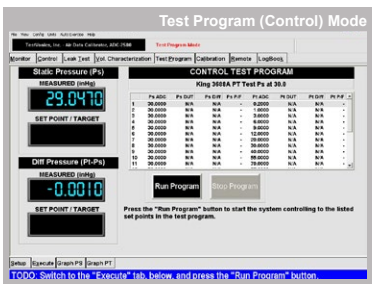
Protection and Safety Features

The ADC-2550 is designed with hardware and software features for maximum protection to the operator and unit under test (UUT). The calibrator features input pressure regulation, over-range, over-limit and over-pressurization protection. Micro-porous filters and screening prevent debris from contaminating the system. The calibrator is equipped with pressure relief valves to protect the pneumatic system components and the UUT from damage. In the event that the calibrator loses power, the manual vent can be used to safely vent both the test set and the UUT to ambient. The Test Program function allows the operator to create virtually unlimited test number of test routines for automated testing. These test routines save time and provide improved test consistency.









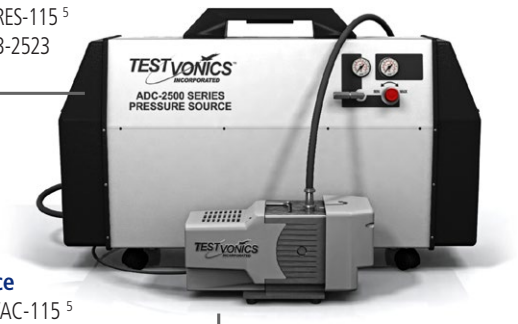
TestVonics™ ADC-2550 Air Data Calibrator

Specifications

Static (Ps) Altitude Control Range [1]	-10,000 to 109,985 ft 42.4375 to 0.2046 inHg
Altitude Accuracy	± 0.003 inHg or 0.008% FS
Altitude Rate [2]	0 to 50,000 ft/min
Altitude Resolution	1 ft / 0.01 mbar / 0.0001 inHg (Ps) / 0.01 mmHg
Altitude Units [3]	feet (ft) / meters (m) / millibar (mBar) / inches mercury (inHg) millimeters mercury (mmHg) / inches water (inH20) / PSIA
Pitot (Pt) Airspeed Control Range [1]	0.00 to 950.0 kts 0.6449 to 95.0810 inHg
Airspeed Accuracy	± 0.004 inHg or 0.008% FS
Airspeed Rate [2]	0 to 800 kt/min
Altitude Resolution	0.1 kt / 0.01 mbar / 0.0001 inHg (Pt) / 0.01 mmHg
Airspeed Units [3]	knots (Vc) / Qc (Differential) / inches mercury (inHg) millimeters of mercury (mmHg) / millibar (mBar) / PSID / PSIA Total Pressure (Pt) / inches water (inH20) / kilometers (km) / MACH
Control Stability	0.001% FS (Absolute or Differential)
Operating Medium	Clean Dry Air or Nitrogen
Display	10.4-inch LED backlit Touchscreen LCD
Interfaces	RS-232 / USB (x2) / RJ-45 Ethernet / IEEE-488 (optional)
Altitude (Static) Port	37° Flare AN6 bulkhead (rear panel)
Airspeed (Pitot) Port	37° Flare AN4 bulkhead (rear panel)
Calibration Cycle	One (1) year
Power Requirements	90-260 VAC, 45 - 440 Hz, 1 PH
Dimension / Weight	19 x 10.5 x 20 in (19-inch rackmount) / 38 lbs (17.24 kg)

Optional Pressure & Vacuum Sources

Pressure Source
P/N: ADC-2500-PRES-115 [5]
NSN: 6830-01-653-2523



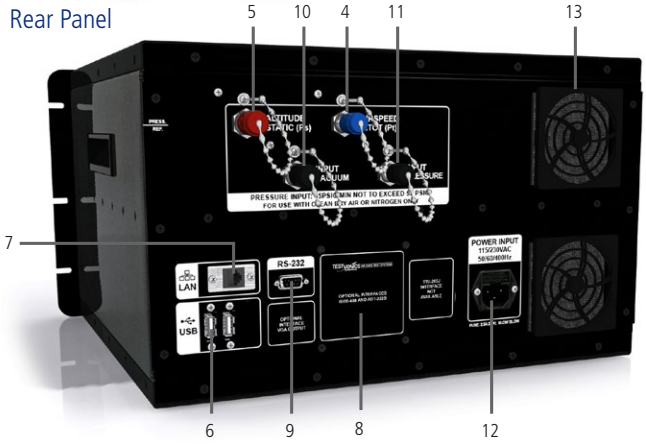
Vacuum Source
P/N: ADC-2500-VAC-115 [5]
NSN: 4310-01-653-2521

High performance oil-free vacuum and pressure sources are available for the ADC-2550. These sources provide ample pressure and vacuum to the calibrator and are suitable for use with a wide variety of other equipment.

Calibrator Features

Front Panel

Rear Panel



1. 10.4" LED Touchscreen LCD
2. Manual Vent switch
3. Power switch
4. Airspeed Pitot (Pt) port
5. Altitude Static (Ps) port
6. Universal Serial Bus ports (x2)
7. Ethernet port (optional)
8. IEEE-488 port (optional)
9. RS-232 port
10. Input Vacuum port
11. Input Pressure port
12. AC Power Input
13. Intake/Exhaust fans

ADC-2550 Standard Options

ADC-2550 Option 1
ADC-2550 with additional equipment, including: Protective Rackmount Enclosure, Vacuum Source, Pressure Regulator Assy., Vacuum Source Hose Assy., Regulator Hose Assy., Pressure Source Hose Assy., Vacuum Source Transit Case Assy., Pitot Test Hose Assy. and Static Test Hose Assy.

ADC-2550 Option 2
ADC-2550 with additional equipment, including Rackmount Enclosure, Vacuum Source, Pressure Source, Vacuum Source Hose Assy., Pressure Source Hose Assy., Pitot Test Hose Assy. and Static Test Hose Assy.

ADC-2550 Option 3
ADC-2550 with additional equipment, including Vacuum Source, Pressure Source, Vacuum Source Hose Assy., Pressure Source Hose Assy., Pitot Test Hose Assy. and Static Test Hose Assy.

ADC-2550 Option 4
ADC-2550 with additional equipment, including Vacuum Source, Vacuum Source Hose Assy., Pitot Test Hose Assy. and Static Test Hose Assy.

1) Standard ranges listed. Ranges can be configured to comply with customer specific requirements. 2) The Altitude and Airspeed Slew Rates are load dependent. Slew rates and load test requirements may vary based on volume of the DUT and the performance of the pressure and vacuum source connected to the calibrator. 3) Standard units of measurement listed at time of print, additional units may be available. 5) The 115 VAC part numbers shown, 230VAC are available 6) ADC-2500-VAC-230 NSN: 4310-01-670-3652.

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