



TestVonics™ Precision Air Data Calibrators

ADC-2575 Air Data Calibrator

Perform calibrations on a variety of
Air Data Instruments

Industry leading, expansive
10.4" LED Display

Easy to use, intuitive
Graphical User Interface

TestVonics Part Number
P/N: ADC-2575



ADC-2575 Air Data Calibrator

The ADC-2575 calibrator is designed as an RVSM compliant Air Data Controller Monitor. The calibrator can be used to test instrumentation as a bench top unit or remotely with Automated Test Equipment (ATE). As a controller, the ADC requires external pressure and vacuum sources. The extended operational ranges can support testing of both commercial and military air data instrumentation, pressure transducers and pressure test gauges. Common instrumentation includes Altimeters, Airspeed indicators, Air Data computers, Rate of Climb indicators, Cabin Pressure instrumentation, Mach meters, pressure transducers, absolute and digital pressure gauges, air data monitors and air data computers.

Simple and Intuitive Interface

The ADC software provides a familiar and intuitive graphical user interface. The ADC can be operated manually through local controls, automatically through RS-232 or IEEE-488.2 GPIB, or semi-automated using test program function. Semi-automated testing reduces touch labor during test by running pre-programmed routines with defined set points, eliminating the manual set point entry. This allows the operator to quickly run the unit under test through the procedure without any deviation from the routine. When operating with ATE Systems, the ADC-2575 can be rack mounted and connected remotely using RS-232 or IEEE-488 GPIB.

Features

The ADC features a brilliant 10.4-inch display with a PCAP touchscreen which allows the calibrator to be controlled directly from the front panel. An on-screen keyboard appears automatically when operator input is required. Additionally, a USB keyboard and mouse are included

with the calibrator for auxiliary data input. The digi-quartz transducers provide excellent reliability, stability and performance. Corrections are performed through software requiring no mechanical adjustments and are capable of holding their accuracy for a period of one (1) year.

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Protection and Safety Features

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

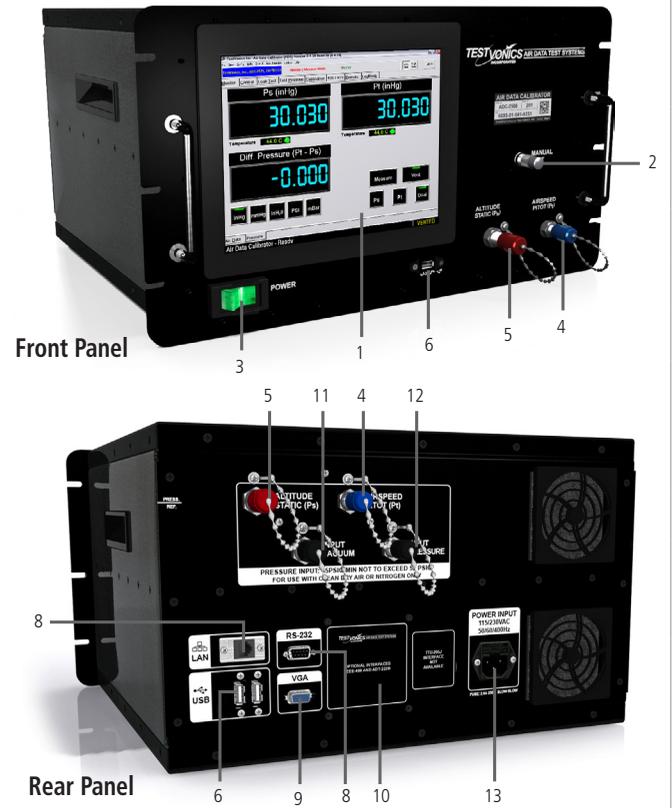
Automated Calibration

The ADC-2575 can be calibrated automatically using primary pressure standard, including Fluke / DHI ADCS 601 and ADCS-601AF.

TestVonics™ ADC-2575 Air Data Calibrator

Specifications	
Altitude (Ps) Range ^{1†}	-10,000 to 109,985 ft 42.4375 to 0.2046 inHg
Static (Ps) Sensor	0.250 to 46.000 inHg
Altitude Accuracy	± 0.003 inHg or 0.008% FS
Altitude Rate ²	0 to 50,000 ft/min
Altitude Rate Accuracy	±2% of setting
Altitude Resolution	1 ft, 0.01 mbar, 0.0001 inHg (Ps), 0.01 mmHg
Altitude Units ³	feet, meters, mBar, inHg, mmHg, inH ₂ O, PSIA, hPa
Airspeed (Pt) Range ¹	0.00 to 1,000 knots 0.6449 to 103.4667 inHg
Pitot (Pt) Sensor	0.250 to 112.000 inHg
Airspeed Accuracy	± 0.004 inHg or 0.008% FS
Airspeed Rate ²	0 to 800 kts/min
Airspeed Rate Accuracy	±2% of setting
Airspeed Resolution	0.1 kt, 0.01 mbar, 0.0001 inHg (Pt), 0.01 mmHg
Airspeed Units ³	knots, Qc, inHg, mmHg, mBar, PSID, PSIA, Pt, inH ₂ O, km, hPa, MACH, EPR (optional)
Control Stability	0.001% FS (Absolute or Differential)
Display	10.4-inch LED backlit PCAP Touchscreen LCD
Interfaces	RS-232, USB, Ethernet, VGA, IEEE-488.2
Altitude (Static) Port	37° Flare AN6 bulkhead - (1) front panel / (1) rear panel
Airspeed (Pitot) Port	37° Flare AN4 bulkhead - (1) front panel / (1) rear panel
Calibration Cycle	One (1) year
Operating Medium	Clean Dry Air or Nitrogen
Power Requirements	90-260 VAC, 45 - 440 Hz, 1 Phase
Dimension / Weight	19 x 10.5 x 20 in (19-inch rackmount) / 39 lbs (17.24 kg)

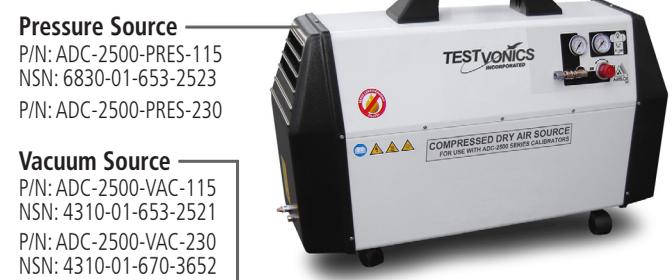
ADC-2575 Calibrator Features



- 10.4-inch touchscreen display
- Manual Vent valve
- Power switch
- Airspeed Pitot (Pt) input
- Altitude Static (Ps) input
- Universal Serial Bus (USB)
- Ethernet (RJ-45) (optional)
- RS-232 (DB9)
- VGA (HD15)
- IEEE-488.2
- Input Vacuum input
- Input Pressure input
- AC Power Input

Optional Pressure and Vacuum Sources

TestVonics oil-less compressor offers outstanding performance and is equipped with a pressure regulator, moisture trap, pressure gauge, safety valve, air intake filter, motor cooling fan and a built in desiccant dryer, providing clean, dry and particle free air. Connection mates with a 7/16-20" Male JIC AN-4 hose fitting.



- Pressure Source**
 P/N: ADC-2500-PRES-115
 NSN: 6830-01-653-2523
 P/N: ADC-2500-PRES-230
- Vacuum Source**
 P/N: ADC-2500-VAC-115
 NSN: 4310-01-653-2521
 P/N: ADC-2500-VAC-230
 NSN: 4310-01-670-3652

TestVonics compact, high performance oil-free vacuum source. The innovative hermetic design provides a robust pumping speed of 60 Lpm and a low base pressure. Connection mates with a 9/16-18" Male JIC AN-6 hose fitting.

Remote Touchscreen Displays Standard and Custom Hose Assemblies

Remote Touchscreen displays can be used to command and control the ADC from 10 feet (3 meters). Displays available in 10, 15, 17 and 19-inch models.



10-inch touchscreen display shown

TestVonics offers Pitot, Static, Vacuum and Pressure hose assemblies in standard and custom lengths. Hose assemblies are built with MIL-DTL-5593 hosing with female JIC 37° AN-flared end connections. Custom quick disconnects or connections available



1) Standard ranges listed. Ranges may be configured to comply with customer specific requirements - contact TestVonics for more information † -10,000 to 99,000 ft Altitude Range is also available per customer requirement. 2) The Altitude and Airspeed Slew Rates are load dependent. Slew rates and load test requirements may vary based on volume of the DUT. 3) Standard units of measurement listed, additional units may be available upon user request. 4) Internal USB ports can be removed or disabled at customers request.