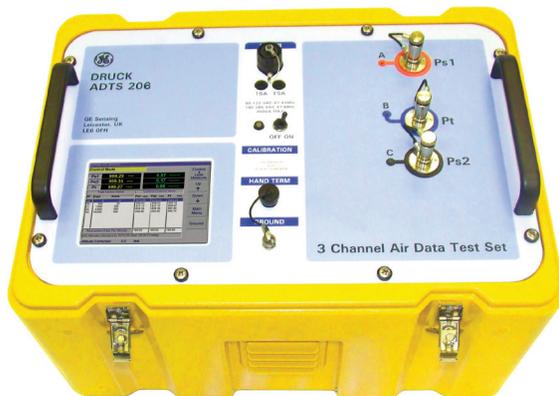


GE

Measurement & Control

# ADTS 206

## Druck three channel Air Data Test System



### Features

- Three independent pressure control channels for altitude, airspeed and angle of attack
- High accuracy resonant silicon sensors on all channels, RVSM compliant
- Rugged, rainproof construction
- Compact and light weight for flightline mobility
- Internal pressure and vacuum generation, high pump reliability
- Simple user interface, high visibility colour display, touch screen input
- Manual or stored test sequence operation
- Limits protection for aircraft instruments
- Wide ranging aircraft compatibility
- Universal/Aircraft AC power input
- RS232 port for PC control or test data transfer

### Applications

The ADTS206 has been developed from the highly acclaimed Druck ADTS range. The best performance and protection features have been incorporated into a rugged, lightweight 3-channel air data test set. This unit provides all the accuracy and versatility required for fast and efficient flightline ground support, catering for 3 port 'smart probes' as well as 2 port Pitot Statics on all civil aircraft.

The applications include full support for faultfinding and validation on all aircraft air data system maintenance tasks. Special support for the testing of 3 port 'smart probe' systems providing angle of attack. Automation of standard tests through user defined scripts.

Our unique position as original equipment manufacturer enables us to best support your ADTS globally. We offer extended warranty and multi-year service agreements alongside calibration, maintenance and rental of units.



# ADTS 206 Specifications

The ADTS 206 is a rugged, light weight 3 channel air data test set, providing all the accuracy and versatility required for fast and efficient flightline ground support of both 2 port Pitot Static and 3 port 'smart probe' air data systems on all civil aircraft.

## Aircraft Safety

The safety of aircraft systems during testing is paramount at all times and the design of the ADTS 206 makes no concessions against quality, reliability and accuracy. It incorporates all the best performance and protection features that are so valued by users of Druck air data test sets throughout the aviation industry. User Interface

Use of the latest robust display and touch screen technologies provides unparalleled clarity and simplicity of use for both first time and experienced air data test set operators. Information screens are task based, providing clear choices for the operations being performed.

## Routine Testing Using Stored Aim Sequences

The ADTS 206 can make even complex or extended test procedures a simple error free operation requiring no numeric data entry from the operator. Checked and protected scripts may be prepared and named by engineering supervisors using basic office spreadsheet programs.

Once stored within the ADTS 206 these may be safely used again and again requiring only one key press to step on to the next test. Test scripts may embed simple displayed messages to clarify expected responses or actions at any test point.

**ALTITUDE AND AIRSPEED**

**Control Mode**

Ps1	999.29 mbar	0.97 mbar/min
Ps2	999.35 mbar	0.17 mbar/min
Pt	999.27 mbar	0.88 mbar/min

**Test Advice Notes**

ITP	Feet	Knots	Ps1 mbar	Ps2 mbar	Pt mbar
(a)	0	0	1013.25	1013.25	1013.25
(b)	500	50	995.07	995.07	999.13
(c)	1,000	100	977.17	977.17	993.47
(d)	4,000	200	875.10	875.10	941.44
(e)	10,000	400	696.82	696.82	980.76

**Control Channel Aims**

Requested Rate Per Minute	169.32	169.32	169.32
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Set Altimeter reference to 1013.25 mbar (29.9212 inHg)

Altitude Correction: 0.0 feet

## Full Manual Control Testing

For non-routine or diagnostic testing the operator may choose manual control of the individual air data parameters. Simply touch and highlight the required field then type in the new aim. Data may be entered in a full range of either aeronautical or pressure units for which quick access defaults may be assigned.

**MANUAL CONTROL**

**Control Mode**

Ps1	1006.90 mbar AIM = 900.00	0.00 mbar/min AIM = 100.00
Ps2	1006.87 mbar AIM = 1006.87	0.00 mbar/min AIM = 100.00
Qc	50.23 mbar AIM = 50.25	0.00 mbar/min AIM = 100.00

**7** differential Ps outside limit - use hold

**4** OK

**1**

Altitude Correction: Off

When manually testing sensitive systems such as angle of attack probes, new pressure aims and measurements are always checked against a set of safe limits, which may be controlled as required, under PIN protection. Any potentially hazardous actions are always advised to the equipment operator.

## Automated Leak Rate Testing

An automated leak test may be simply configured with programmable timed average period including a preliminary wait period for thermal settling. The test may be performed at any time during either routine or manual diagnostic tests.

**RATE TIMER**

**CHANGE TIMES OR SELECT START**

Ps1	0.12 mbar/Min	WAIT	01:00 Secs
Ps2	0.27 mbar/Min	PERIOD	01:00 Secs
Qc	0.32 mbar/Min		

7 8 9 0 .

4 5 6 : CLR

1 2 3 ENTER

Start

Cancel

Save Settings

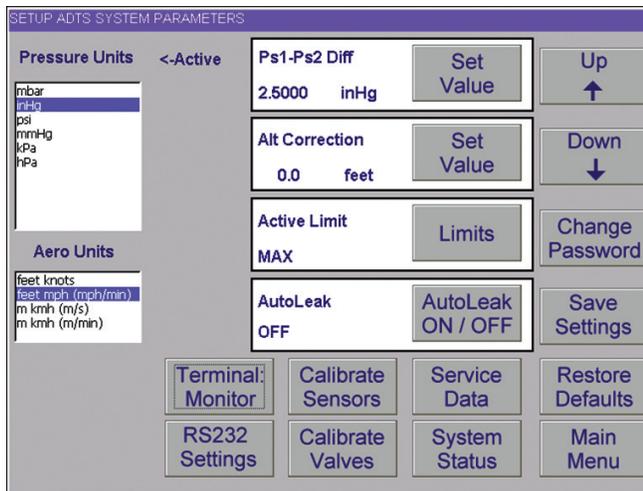
Back

## Return Aircraft to Safe Ground Pressures

On command, the ADTS will automatically return the connected aircraft systems to the correct safe pressures that match the current ambient so that pipes may safely be removed.

## Configuration of Preferred Units

A simple set up screen allows choice from a large array of common pressure and aeronautical units. Preferences can be saved as defaults for each type. Values already entered or displayed will automatically be updated to the chosen units. In manual control, a single key will change the displayed data values between aeronautical or pressure formats in the chosen units.



## Altitude Correction

Differences in height between the pressure sensors of the aircraft and the air data set may be simply configured to avoid barometric offsets when performing altimeter checks.

## Internal Pressure and Vacuum Source

The internal pressure and vacuum generation system uses GE's own robust technology components, quiet, high efficiency and with proven reliability after many years continuous service in both commercial and military applications. The standard service interval for seal changes is 3000 pump operating hours. A record of operational hours is retained within the equipment to assist with planning service schedules.

## Detailed Air Data Specifications Capability

### Ps 1 Port

#### Pressure Mode

Control Range: 35<sup>(1)</sup> to 1355 mbar a  
 Measure Range: 27.6 to 1355 mbar a  
 Display Resolution: 0.01mbar  
 Accuracy: ±0.1 mbar  
 Rate Range: 0 to 1000 mbar/min  
 Rate Accuracy: ±1% of aim (average.)

### Aeronautical Mode

Control Range: -2000 to 60,000 ft.  
 Measure Range: -3000 to 100,000 ft.  
 Display Resolution: 1 ft.  
 Accuracy: ±3 ft. (@sea level)  
 ±7 ft. (@30,000 ft)  
 ±23 ft. (@55,000 ft)  
 Rate Range: 0 to 40,000 ft/min  
 Rate Accuracy: ±1% of aim (average.)

### Ps 2 Port

#### Pressure Mode

Control Range: 35<sup>(1)</sup> to 1355 mbar a  
 Measure Range: 27.6 to 1355 mbar a  
 Display Resolution: 0.01mbar  
 Accuracy: ±0.1 mbar  
 Rate Range: 0 to 1000 mbar/min  
 Rate Accuracy: ±1% of aim (average.)

### Aeronautical Mode

Control Range: -2000 to 60,000 ft.  
 Measure Range: -3000 to 100,000 ft.  
 Display Resolution: 1 ft.  
 Accuracy: ±3 ft. (@sea level)  
 ±7 ft. (@30,000 ft)  
 ±23 ft. (@55,000 ft)  
 Rate Range: 0 to 40,000 ft/min  
 Rate Accuracy: ±1% of aim (average.)

### Pt Port

#### Pressure Mode

Control Range: 35<sup>(1)</sup> to 2767 mbar a  
 Measure Range: 27.6 to 3500 mbar a  
 Display Resolution: 0.01 mbar  
 Accuracy: ±0.35 mbar

### Aeronautical Mode

Control Range: 20 to 650 knots.  
 0 to 2.8 Mach  
 Measure Range: 0 to 1000 knots.  
 0 to 10.0 Mach  
 Display Resolution: 0.1 knots.  
 Accuracy: ±0.5 knots.

<sup>(1)</sup> Limited only by vacuum pump/system leaks

## General Specification

### Electrical Connection

90 to 260 VAC, 47 to 400 Hz, 240VA  
 waterproof cable connector supplied

### Pneumatic Connection

Ps1 and Ps2 AN6 flare, Pt AN4 flare.  
 Retained protection caps on all ports.

## Temperature Range

Calibrated: +5°C to +35°C (41°F to 95°F)  
Operating: 0°C to +50°C (32°F to 122°F)  
Storage: -20°C to +70°C (-4°F to 158°F)

## Humidity

0 to 95% non-condensing

## Shock and Vibration

BS EN61010 MIL-T-28800 Class 2

## EMC

BS EN61326-1

## Safety

Electrical BS EN61010,  
Pressure Equipment Directive (PED),  
Class SEP. CE marked

## Display

640 x 480 pixel high contrast backlit colour LCD, resistive touch screen user interface.

## Data Communications

CANbus (hand terminal), RS232 (ext. P.C.)  
Terminated on rugged 13-way MS38999 connector

## ADTS Unit Size (L x W x H) and Weight

550 mm x 400 mm x 391 mm, 22 kg  
Handle extends to 530mm beyond case

## Included with Each Unit

Set of 5 m international power cables,  
18 m hand terminal cable,  
PC data communications cable and utilities CD,  
3 x 10 m ADTS to aircraft hoses, open at aircraft end.  
3 x 1 m colour coded hoses for lid distribution panel,  
(Ps1 Red – AN6, Ps2 Black - AN6, Pt Blue – AN4)  
Plus two extra loose hose fittings for use with each  
of these channels, connector 'O' ring and spare fuse  
kit, operating handbook, quick user guide, calibration  
handbook and certificate.

# Accessories

## Remote Terminal

Remote hand terminal, 640 x 480 colour, touch screen



## Port Distribution Panel

Lid mounted multi-port break out panel for hose distribution (standard shown)



# Ordering Information

Please state the model number ADTS 206-1 (listed accessories are standard items on the ADTS 206-1) and supporting services as separate items.

# Supporting Services

Our highly trained staff can support you, no matter where you are in the world. We can provide training, nationally accredited calibration - both initially and at periodic intervals, extended warranty terms, multi-year service agreements, maintenance and rental of alternative Air Data Test Sets. Further details can be found in [www.gesensing.com/productservices/service.htm](http://www.gesensing.com/productservices/service.htm)



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