

PC6-AV

PRESSURE CALIBRATION FOR AEROSPACE USE

The PC6-AV pressure calibrator is designed as a 2bar/30psi absolute unit (+60 in Hg) that can be used as a barometer. It calibrates air speed indicators, altimeters and performs leak tests on the pitot system. It can be used with all types of aircraft, and represents the most recent development in aerospace calibration.

The system is supplied with a TP1 scissor action pump or the LTP1 low-pressure pump with fine control. Both pumps incorporate adjustable over pressure protection, to avoid over pressuring units under test.

The clear LCD display has a back light for easy use in poor light situations and is small and portable. The PC6-AV has an accuracy (FS) better than 0.025% and resolution (FS) better than 0.01%.

Pressure units can be recorded on the PC6-AV in mbar, inHg, knots, kPA, psi, atm, inH₂O, mH₂O, mmH₂O, bar or mmHg. There are also two programmable units for custom applications. Altitudes are measured in feet or meters with a range of -3,000 ft. to 105,000 ft. Non-corrosive gases are the preferred pressure media (contact TTI for other media), and the pressure connections are 1/4" NPT male. Temperature effects are 0.001% of reading/°C between 10-40°C, and data capacity is 175 records into a maximum of 20 files, 8K memory with an option to increase that capacity by an additional 8K.

RS232 communication is included in the design and the optional SI-CAL software will present downloaded data in various graphic forms such as gauges or a scrolling bar and remotely control the PC6-AV via the RS232 cable linked to a PC. Data storage is compatible with most analysis, database and word processing programs.



KEY FEATURES

- **Small and Portable**
- **Pitot Static Air Speed Measurement in Knots**
- **Barometric Pressure Measurement**
- **Altitude Measurement (meters/feet)**
- **Airfield Barometric Pressure Measurement at Sea Level (QFF)**
- **Pitot Static Leak Test**
- **Leak Period 1 Second to 99 Days**
- **Maximum and Minimum Pressure Measurement**
- **Tare Pressure Offset Values**
- **Temperature Display**
- **Data Logging**
- **Accuracy $\pm 0.025\%$**

Supplied with your choice of pumps.



TP1 Scissor-Action Pump
360 psi



LTP1 Pump
30 psi

PC6-AV, CONTINUED

SPECIFICATIONS

PRESSURE RANGE (FS)	0 to 2bar/30psi (+60 inHg) absolute. 0 to 600 knots*
OVERLOAD PRESSURE	10% FS
ACCURACY	< 0.025% FS
RESOLUTION	< 0.01% FS
PRESSURE UNITS	mbar, inHg, knots, kPa, PSI, atm, inH ₂ O, mH ₂ O, mmH ₂ O, bar, mmHg, unit1, unit2
ALTITUDE*	Measured in feet or meters with a range of -3,000 ft. to 105,000 ft.
OVERLOAD WARNING	Flashing display and audible tone at 110% of FS
TEMPERATURE DISPLAY	Temperature of pressure sensor module
OPERATING TEMPERATURE	-4 to 158°F (-20 to 70°C)
CALIBRATION TEMPERATURE	20°C ±2°C
STORAGE TEMPERATURE	-40 to 158°F (-40 to 70°C)
TEMPERATURE EFFECTS	0.001% of reading/°C between 10-40°C
RS232 PARAMETERS	Baud rate 110, 300, 1200, 2400, 4800, 9600, stop bits 1 or 2, status ON/OFF
ZERO RESET	Manual keyboard operation
DATA CAPACITY	175 records into a maximum of 20 files, 8k memory (additional 204 records, 8k memory option available)
DISPLAY	Backlit LCD, 16 character x 2 line alpha numeric
HUMIDITY	5 to 95% Relative Humidity non-condensing
RESOLUTION SELECT	Increase or decrease by a factor of 10
POWER SUPPLY	6V rechargeable battery pack / mains operation via charger (supplied)
BATTERY LIFE	10 hours (fully charged)
RECHARGE TIME	14-16 hours for full charge
LOW BATTERY	Continuous check, audio and visual warning
DIMENSIONS	13" x 4.3" x 2.3" (330 x 110 x 59 mm)
WEIGHT	3.3 lbs (1.5 kg)
MICROPROCESSOR	H8/3257
RECOMMENDED RECAL PERIOD	1 year
ELECTRICAL CONNECTIONS	
BATTERY	2 pole miniature round connector
RS232	8 pole miniature round connector
PRESSURE MEDIA	Non-corrosive gases (for other media, contact SI)
PRESSURE CONNECTIONS	3/8" BSP male 'Quick-fit' / 1/4" BSP or 1/4" NPT male. 8mm O/D hose connector
SOFTWARE (OPTIONAL)	The "SiCal" software will present downloaded data in various graphical forms such as gauges or a scrolling bar & remotely control the PC6-AV via the RS232 cable linked to a PC. The downloaded data can be stored in a variety of file types compatible with most analysis, database and word processing programs.
SYSTEM REQUIREMENTS	486 with maths coprocessor. Windows 3.1 or higher is required

* Knots, Altitude: Pressure to airspeed and altitude conversion using 'British Standard 2G 199:1984'

ORDERING INFORMATION

PC6-AV-0002-3	Avionics Calibrator Head, -30"Hg to 30 psi absolute
PC6-AV-0002-3-TP	Avionics Calibrator Kit, -30"Hg to 30 psi absolute with TP1 pump
PC6-AV-0002-3-LP	Avionics Calibrator Kit, -30"Hg to 30 psi absolute with LTP1 pump