PACE 6000-ADC

Rackmount high accuracy air data calibrator

A cost-effective solution for your calibration needs.

The PACE6000-ADC is a twin-channel Ps and Pt pressure control system used for the precision calibration/verification of aircraft pitot-statics, compliant with reduced vertical separation minima (RVSM) requirements.

A separate pressure/vacuum supply unit type PV 103 provides suitable pneumatic supplies.

Fully programmable for a wide range of fixed or rotary wing aircraft, the PACE6000-ADC enables vital flight instrumentation, such as altimeters, airspeed indicators, rate of climb indicators, Mach meters and air data computers to be quickly and accurately tested.

The PACE6000-ADC has been designed for 483 mm (19 in) rack mounting and being only 132 mm (5.2in) (3U) high with a range of IEEE 488 interfaces available it is ideal for use with existing automatic test equipment (ATE) systems.

The new PACE pneumatic modular pressure controller brings together the latest control and measurement technology from Druck to offer an elegant, fast, flexible and economical solution to pressure control for automated production or test and calibration applications.

PACE6000 chassis

- Easy to use color touch screen display
- Can be used with any interchangeable PACE CM control module as a bench top or rack mounted pressure controller
- Intuitive task driven menu
- Leak test,
- Test program,
- Multi language – any additional language to suit specific requirements can easily be translated and downloaded
- RS232, IEEE connectivity, ethernet and USB as standard

PACE CM – high speed pressure control module

- Interchangeable robust control module that is easily installed into a PACE chassis
- Calibration data stored in the control module (only the CM needs to be sent away for recalibration)
- High speed pressure control

Aeronautical control

- Simultaneous control of calibrated airspeed and altitude with a “go to ground” function.
- Indication and control available in pure aeronautical units:
- Altitude – feet or meters
- Air Speed – knots or km/hour, mph
- Mach – mach number
- Rate of climb – feet or meters/minute, second

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PACE6000-ADC specifications

Display	
PACE6000	7" TFT colour VGA resolution wide format display with integral touchscreen
Comms update rate	8 times per second
Display update rate	2 times per second
Readout	±9999999
Performance	
Option 1 - Standard accuracy 1x PACE CM2-A (Pt) 1x PACE CM2 (Ps)	Altitude range: -3,000 to +55,000 ft Altitude precision: @ Sea level ±2 ft, @ 8,500 ft ±3 ft, @ 35,000 ft ±9 ft Altitude RVSM accuracy: @ Sea level ±5 ft, @ 29,000 ft ±25 ft, @ 41,000 ft ±46 ft, @ 35,000 ft ±33 ft Airspeed range: to 650 knots Airspeed precision: @ 50 knots ±1.00 kts, @ 250 knots ±0.21 kts, @500 knots ±0.11 kts Pressure range –1 to +1bar g, pressure precision 0.005% Rdg + 0.005% FS includes linearity, hysteresis, repeatability and temperature effects for gauge pressures and assumes steady state temperature and regular zeroing. 1300 mbar reference precision 0.005% FS, Includes non-linearity, hysteresis, repeatability and temperature effects over calibrated temperature range.
Option 2 - Enhanced accuracy 1x PACE CM2-A (Pt) 1x PACE CM3 (Ps)	Altitude range: -3,000 to +60,000 ft Altitude precision: @ Sea level ±0.55 ft, @ 8,500 ft ±0.71 ft, @ 35,000 ft ± 1.76 ft Altitude RVSM accuracy: @ Sea level ±2 ft, @ 29,000 ft ±4 ft, @ 41,000 ft ±6.5 ft Airspeed range: to 650 knots Airspeed precision: @ 50 knots ±1.00 kts, @ 250 knots ±0.21 kts, @500 knots ±0.11 kts Pressure range –1 to +1bar g, pressure precision 0.005% Rdg + 0.005% FS includes linearity, hysteresis, repeatability and temperature effects for gauge pressures and assumes steady state temperature and regular zeroing. 1300 mbar reference precision 0.005% FS, Includes non-linearity, hysteresis, repeatability and temperature effects over calibrated temperature range. CM3 Precision: 0.001% FS for 2, 3.5 bar a includes non-linearity, hysteresis, repeatabilty and temperature effects over calibrated temperaturerange. CM3 Accuracy: Absolute ranges 2, 3.5 bar accuracy (2 Sigma) over calibrated temperature range 0.0004%Rdg + 0.0027% FS. Includes measurement precision, measurement long term stability (see below) and calibration equipment expanded uncertainty.
PACE - Controller stability	0.001% FS
Electrical	
Power supply	90 V AC to 130 V AC @ 47 to 63 Hz & 180 V AC to 260 V AC @ 47 to 63 Hz. universal input via IEC320 C14 Connector.
VFC contact rating	30V d.c. 1 amp resistive/200 mA inductive
Communications	
Communication	RS232, USB and IEEE-488, SCPI, emulation (DPI520, DPI500, DPI510 & DPI515 depending on model) ethernet (VXI-II and Sockets using SCPI)
Environmetal	
Temperature	Operating 10°C to 50°C (50°F to 122°F) Calibrated 15°C to 45°C (59°F to 113°F) Storage -20°C to 70°C (-4°F to 158°F)
Humidity	5% RH to 95% RH non-condensing
Sealing	IP20 (EN60529), In door use only
Vibration	Compliant with Def. Stan. 66-31 8.4 Cat 3 and MIL-T-28800E Cat 2
Shock	Mechanical shock conforms to EN61010
Conformity	LVD EN61010, EMC EN61326, PED, ROHS & WEEE – CE marked
Physical	
PACE chassis – weight	PACE5000 5 Kg or 11 lbs, PACE6000 6.7 Kg or 17.7 lbs
PACE CM – weight	5 Kg or 11 lbs
PACE CM – pressure connection	G 1/8 Female (1/8 NPT Female by adaptor for North America)
PACE 6000 – dimensions	440 mm X 132 mm (3U) X 320 mm (17.3" X 5.2" X 12.6")

Ordering information

Option 1, standard accuracy:

- PACE 6000 with aero option
- CM2 1 Barg
- CM2-A 1 Barg

Option 2, high accuracy:

- PACE 6000 with aero option
- CM3 – 2 Bara
- CM2-A 1 Barg

Physical accessories

Part number	Description
IO-ADAPT-AN4	Adaptor G 1/8 male to AN4 37 deg male
IO-ADAPT-AN6	Adaptor G 1/8 male to AN6 37 deg male
IO-RMK-P6000	**Rack mount kit PACE6000** 19" rack mount kit
IO-IML-2	**Mains lead-Japan plug**
IO-IML-3	**Mains lead-EU plug**
IO-IML-4	**Mains lead-USA plug**
IO-IML-5	**Mains lead-South Africa/India plug**
IO-IML-6	**Mains lead-China plug**
IO-IML-7	**Mains lead-AUS/NZ plug**

Related products

Pressure/vacuum supply unit

For use with the PACE 6000-ADC, the PV103R is a 19" rack mounting module for ATE systems and features low maintenance dry pumps.

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