

D P I 1 4 5 A e r o n a u t i c a l

Multifunction Pressure Indicator - Aeronautical Option (D)

- Direct measurement of altitude
- Direct measurement of airspeed
- Direct measurement of Rate of Climb and Mach
- Simultaneous split screen display
- RS 232 and IEEE 488 communications
- Datalogging and storage functions



Multifunction Pressure Indicator - Aeronautical Option (D)



Dual channel aeronautical display

ALT: 17198 feet	CAS: 453.2 knots
Ps: 522.96 mbar	Pt: 896.77 mbar
ROC: 1223 ft/min	Qc: 373.81 mbar
A T: 18 feet	M: 0.914

Full 8 channel aeronautical display

The DPI 145 precision pressure Indicator is available with an aeronautical option. This enables direct calibration of aircraft instruments for pitot-static parameters e.g. altitude and airspeed. The accuracy for altitude is RVSM compliant. In addition, all of the standard DPI 145 functions are available.

SPECIFICATION

Aeronautical Scale Units

In addition to the standard pressure scale units, this option enables direct aeronautical measurements in the following scales:

Altitude	feet or metres
Rate of Climb	feet or metres/minute, timed rate of climb
Airspeed	knots or km/hour
Mach	Mach number

Ranges

The two basic parameters of altitude and airspeed are derived from suitable sensors chosen for pitot-static and pitot total (QC) pressure.

For the pitot-static channel, a Piezo resistive sensor (absolute pressures only) or Resonant pressure sensor (RPT) can be specified. For the pitot total (QC) channel, a differential piezo resistive sensor is supplied. Suggested ranges for the sensors are:-

Altitude (Pitot-static):	35-1300mbar absolute
Airspeed (Pitot total or Qc):	0-500mbar differential (civil) 0-2500mbar differential (military).

Using these sensors, DPI 145 software enables the following ranges:-

Altitude	-2000 to 80000 feet
Airspeed	0 to 500 kts (0 to 500mbar) 0 to 1000 kts (0 to 2500mbar)
Mach	0 to 1 (0 to 500mbar) 0 to 6.5 (0 to 2500mbar).

Precision - Airspeed (Pt/Qc)

Over the range 0 to 500 knots (500 mbar differential):
50 kts = ± 0.5 kts
150 kts = ± 0.1 kts
500 kts = ± 0.1 kts

Precision - Altitude (Ps)

Over the range -2000 to +80,000 feet (35 to 1310 mbar abs):
Sea Level = ± 8.5 ft
30000 ft = ± 13 ft
50000 ft = ± 32 ft

Note: Precision is related to DPI 145 pressure measuring specification. Values include linearity, hysteresis, repeatability and temperature effects over 10° to 30°C. Resolution 1ft or 0.1m, 0.1 kts or 0.1 km/hr.

Measurement Stability

Piezo resistive sensor (Pt/Qc/Ps): 0.06% sensor Rdg (mbar) over 12 mths
Resonant pressure sensor (Ps): 0.01% sensor FS (mbar) over 12 mths

General

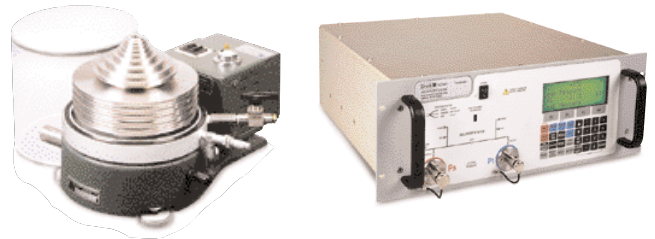
For other/general product specification details please refer to the standard DPI 145 Pressure Indicator datasheet.

CALIBRATION STANDARDS

Instruments manufactured by Druck are calibrated against precision calibration equipment traceable to International Standards.

RELATED PRODUCTS

Druck manufacture a wide range of flight approved pressure sensors and ground test instrumentation for the aeronautical industry. Some examples are shown below.



ORDERING INFORMATION

Please state the following:

1. DPI 145 Indicator.
2. Pressure range(s) required.
3. Aeronautical option.
4. Any other option(s) required. Please specify from DPI 145 datasheet.

Continuing development sometimes necessitates specification changes without notice.

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