

DPI 740

Portable Precision Barometer

- Accuracy: ± 0.004 inHg absolute
- Ranges to 103 inHg absolute
- 6 Digit resolution LCD display
- Multiple pressure scales and aeronautical units
- Alkaline or rechargeable batteries
- Lightweight hand-held rugged design
- RS232 output



Portable Precision Barometer



The DPI 740 is a portable battery powered precision barometer, providing outstanding capabilities in a hand held package. The fundamental sensor technology employed within this instrument is the Druck Resonant Pressure Transducer (RPT). This vibrating element sensor not only provides accuracies of ± 0.005 inHg but equally important has a calibration stability of better than 100 ppm per year. The DPI 740 is widely used in laboratory and remote field applications for precision pressure reference.

STANDARD SPECIFICATIONS

Pressure Measurement

Operating Ranges

22-34 inHg absolute
 Alternate Pressure Ranges Available
 1-38 inHgA
 1-77 inHgA
 1-103 inHgA

Maximum Safe Working Pressure

118 inHgA

Pressure Media

Compatible with non-corrosive gases.
 Insensitive to media density.

Readout and Display

999999 capability LCD digits 0.54 inch high with additional 16 text characters.

Display Overload

Instrument capable of nominal 110% FS for each range. Above this, error code will flash.

Resolution

0.0003 inHg absolute

Response

2 readings per second nominal on digital display.

Operating Modes

- a) Local pressure (QFE)
- b) Sea level pressure (QFF) from user set
- c) Altitude above user set datum

Process Features

Max/min, reading store, tare and programmable filter available in all operating modes.

Pressure Units

24 units plus altitude in feet (ft) or meters (m).

Performance

Accuracy

$\pm 0.02\%$ FS
 For all pressure ranges include:
 Combined non-linearity, hysteresis, repeatability, and temperature effects over 15° to 120°F.
 Optional enhanced barometric accuracy available (see Option A).

Stability

Better than 100 ppm per annum.

Temperature Range

Operating 15° to +120°F
 Storage -40° to +160°F

Safety

Electrical and mechanical safety	EN61010
EMC emissions	EN50081-1
EMC immunity	EN50082-1
Certification	CE Marked

Position Effect

Negligible

Electrical

Power Supply

3 each 1.5 V Alkaline AA batteries for 20 hours nominal continuous operation. Programmable power down prolongs battery life. Battery low indicated by display symbol. Optional rechargeable NiCad batteries and external power adapter/charger unit available (see Option B).

Communication Interface

RS 232 via 6-way LEMO socket
 Reference option (C)

Physical Specifications

Pressure connection

Accepts 1/4 in. OD / 5/32 in. ID tubing

Weight

1.1 lbs nominal

Dimensions

7.5 x 3.5 x 1.4 in. nominal

OPTIONS

(A) Enhanced Barometric Accuracy Version: An improved accuracy to $\pm 0.013\%$ FS (0.004 inHg can be provided with this option over 50° to 86°F).

(B) Rechargeable Batteries: NiCad batteries and external universal recharger unit can be supplied to replace the standard alkaline batteries.

(C) Adapter Lead: For RS 232 output, an adapter lead connecting 6-pin LEMO to standard 9-way D type socket is available.

(D) Transit Case: For storage of instrument, accessories and options.

SUPPLIED AS STANDARD

Handbook, calibration certificate and carrying case supplied.

CALIBRATION STANDARDS

Instruments manufactured by Druck are calibrated against precision pressure calibration equipment which is traceable to National Institute of Standards and Technology (NIST).

RELATED PRODUCTS

Druck manufactures a comprehensive range of pressure indicators, controllers, dead weight testers, calibrators, transducers and transmitters. The range of portable calibrators also covers temperature and electrical parameters.

Please refer to Druck for further information and data sheets.

ORDERING INFORMATION

Please state the following:

- 1) Type number DPI 740
- 2) Pressure range
- 3) Options

For non-standard requirements, please refer to Druck.

Continuing development sometimes necessitates specification changes without notice.

Druck is an ISO 9001 registered company.

