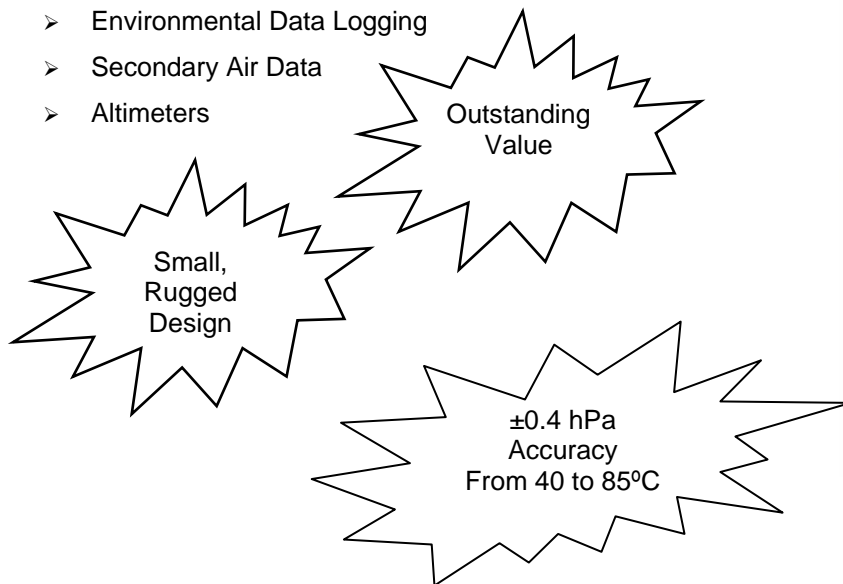


Honeywell Precision Barometer HPB

The Honeywell Precision Barometer (HPB) offers outstanding value to instrument builders requiring accurate and stable barometric measurements in real-world conditions. The HPB uses proven silicon sensor technology with microprocessor-based signal compensation, eliminating the need to insulate or temperature-regulate the barometer. The HPB has a pressure range of 500 to 1200 hPa. The HPA, intended for altimeter applications, provides a pressure range of 0 to 17.6 psia.

APPLICATIONS:

- AWOS Weather Systems
- Remote Meteorological Stations
- Ocean Data Buoys
- Environmental Data Logging
- Secondary Air Data
- Altimeters



CE Qualified
ISO-9001
ISO-14001

FEATURES AND BENEFITS

- ▶ **High Accuracy**
±0.4 hPa max from -40 to 85°C
±0.03% FS max from -40 to 85°C
- ▶ **Two-tiered accuracy including temperature errors over -40 to 85°C**
– HPB, ±0.4 hPa or ±0.8 hPa; HPA, ±0.03% or ±0.06% FS Max.
Simplifies System Design – there is no need to insulate, temperature-regulate or provide additional signal compensation.
- ▶ **Multiple Interface Options**
- ▶ **Easy Interface, Plug-and-Play for your system requirements.**
TTL – for lowest power consumption (33 milliwatts)
RS-232 – receives commands and sends data to a single serial port of a computer.
RS-485 – up to 89 units can be connected to a two-wire multidrop bus.
- ▶ **Proven Honeywell Technology**
- ▶ **Stable and Reliable** – Honeywell has been building the world's highest performance silicon pressure sensors for over thirty years.

HPB

SPECIFICATIONS

Performance Specifications⁽¹⁾

Accuracy: (from -40 to 85°C)
 HPB200: ±0.4 hPa maximum
 HPB100: ±0.8 hPa maximum
 HPA200: ±0.03% FS maximum
 HPA100: ±0.06% FS maximum
 Temperature: ±1°C (at sensing element)
Temperature Range:
 Operating -40 to 85°C (-40 to 185°F)
 Storage: -55 to 90°C (-67 to 194°F)
Sample Rate⁽³⁾: 8.33ms to 51.2 min
Resolution:
 0.0011% FS⁽⁴⁾
Response Delay:
 (1000/update rate) +1ms, minimum 17ms
Long Term Stability:
 HPB: 0.25 hPa max per year
 HPA: 0.02% FS max per year

Mechanical Specifications

Pressure Ranges:
 HPB: 500 to 1200 hPa (1 hPa = 1 mbar)
 HPA: 0 to 17.6 psia
Pressure Units⁽⁵⁾: atm, bar, cmwc, ftwc, hPa, inHg, inwc, kg/cm², KPa, mBar, mmHg, MPa, mwc, psi, user, lcom, pfs
Media Compatibility: Suitable for non-condensing, non-corrosive, and non-combustible gases.
Weight: 5 oz. (142 gm) without fittings

Electrical Specifications

Output: TTL, RS-232, RS-485
Power Requirements:
 TTL Supply Voltage: 6 to 26 VDC
 RS-232, RS-485 Supply Voltage: 5.5 to 30 VDC
Operating Current:
 Standard: 17-30mA; CE: 13-25mA, TTL: 6-9 mA
Baud Rate⁽⁶⁾: 1200, 2400, 4800, 9600, 14400, 19200, 28800
Bus Addressing⁽³⁾: Address up to 89 units.

Environmental Features⁽²⁾

Humidity Sensitivity: Negligible
Acceleration Sensitivity: Negligible
Mechanical Shock: 1500g, 0.5ms half sine
Temp Shock: 24 1-hour cycles, -40 to 85°C
Vibration: 0.5in or 20G's, 20Hz – 2K Hz

(1) Accuracy is the sum of worst case linearity, repeatability, hysteresis, thermal effects and calibration errors from -40 to 85°C. Calibration is traceable to NIST. (2) Mechanical Shock tested per MIL-STD-883D, M2002.3, Cond. B. Vibration tested per MIL-STD-883D, M2007.2, Cond. A. (3) User Configurable. (4) Best resolution obtained with PFS (percent full scale) pressure units. (5) CE-Mark per IED 61326. See www.ssec.honeywell.com/pressure/datasheets for information on test levels and results. Connector MIL-C-26482, shell size #10, 6-pin #20 size. (6) Demonstration kit includes unit, power supply/data cable (120V), demonstration software, TTL-to-RS-232 converter (TTL only), and user manual.

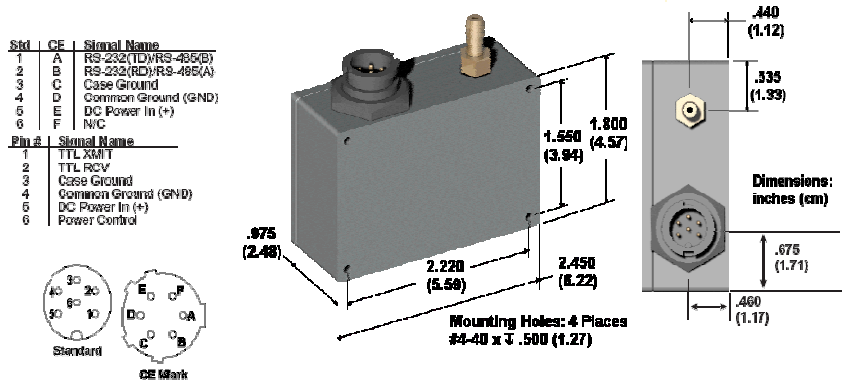
Find out more

For more information on Honeywell's Precision Pressure Transducers visit us online at www.pressuresensing.com or contact us at 800-323-8295 or 763-954-2474. Customer Service Email: ssec.customer.service@honeywell.com

Honeywell reserves the right to make changes to improve reliability, function or design. Honeywell does not assume any liability arising out of the application or use of any product or circuit described herein; neither does it convey any license under its patent rights nor the rights of others. Covered by one or more of the following US Patents: 4,918,992 and 4,788,521.

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 Tel: 800-323-8295
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CASE OUTLINE



ORDERING INFORMATION

Honeywell Precision Barometer

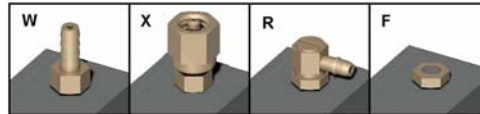
APPLICATION TYPE

HPB Barometer Application, 500 to 1200 hPa (1 hPa = 1 mbar)
HPA Altimeter Application, 0 to 17.6 psia

ACCURACY	BAROMETER	ALTIMETER
200	±0.4 hPa max	±0.03% FS max
100	±0.8 hPa max	±0.06% FS max

PRESSURE CONNECTION

W Brass barbed (1/8 inch ID tubing)
X Brass Swagelok™ (1/8 inch female)
R Brass barbed, right angle (1/8 inch ID tubing)
F Filter (blocks debris)



OUTPUTS

2D RS-232
5D RS-485
TTL TTL

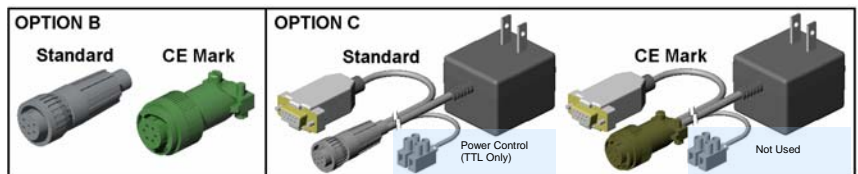
ELECTRICAL CONFIGURATION AND CONNECTION

A Standard, 6-pin plastic connector
B CE Mark⁽⁶⁾ 6-pin metal connector (RS-232, RS-485 only)

OPTIONS

A Demonstration Kit⁽⁶⁾ (RS-232, TTL only)
B Mating Connector (See Below)
C Power Supply/Data Cable (RS-232, TTL with Option G only, See Below)
G TTL to RS-232 Converter (TTL only)

HPB 200 W 2D A -B



Honeywell

Form #900245
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