

PTB210 Series of Digital Barometers

Measuring for Extreme Environments



Ideal for outdoor installations, Vaisala's new PTB210 series of digital barometers can monitor a wide range of pressure and temperature. Due to their compact structure, the barometers can be integrated with weather stations and other data monitoring systems. The rugged corrosion-resistant housing, combined with the PTB210's compact size, facilitates easy installation and ensures a long service lifetime.

Vaisala's selection of digital barometers has been expanded by the new PTB210 series. The configurable PTB210 digital barometer family gained great market success after its introduction in 1995. The PTB210 provides several options, including a local display, and two or three pressure sensors, incorporated for double or triple redundancy, for the most demanding users.

Accurate measurements

The PTB210 series of basic digital barometers with different measuring ranges and output options is the newest member of Vaisala's barometer product family. All the barometers are characterized and adjusted at several temperature and pressure levels. The numerical compensations enable high accuracy over the full operating temperature range.

The barometers are available in two basic configurations – with serial or analog output. The standard serial output is



The PTB210 series of digital barometers can be integrated with a weather station.

RS232C (also available as TTL level bidirectional output). The optional RS 485 output also allows longer distances between the barometer and the host system.

Wide pressure range

Serial output models offer two different measuring accuracy classes for the range 500...1100 hPa. The higher accuracy class, the class A barometer, is fine-adjusted and calibrated against a dead weight tester, while the class B barometer is calibrated against electronic working standards. A wider measuring range 50...1300 hPa is also available with a serial output. Analog output models can be supplied with different pressure output scalings between 500...1300 hPa for either 0...5 V or 0...2.5 V.

The housing of the PTB210 provides an IP65 (NEMA 4) protection for the barometer electronics against dust and water. The ruggedness and corrosion resistivity of the housing enables the PTB210 to be installed outdoors. Direct integration with Vaisala's static pressure head facilitates accurate and reliable measurements in all wind conditions.

BAROCAP® sensor technology

The PTB210 barometer incorporates the BAROCAP® silicon capacitive absolute pressure sensor developed by Vaisala for professional meteorological instruments. The sensor is known for its excellent hysteresis and repeatability characteristics and outstanding long-term stability. ■