



# BaroVUE10

## DIGITAL BAROMETER

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### Product Description

The BaroVUE10 is a highly accurate barometer that can measure pressures over a range of 500 to 1100 hPa and can be used in a range of applications that includes meteorology and hydrology. This sensor includes our zero downtime recalibration. Other sensors on the market need to be taken offline and sent back to the manufacturer to be recalibrated, often for weeks at a time, causing a loss in valuable

data and time, as well as an additional expense. The sensor card for the BaroVUE10 is pre-calibrated. Replacement sensor cards are also pre-calibrated, requiring only one trip to the field station and no downtime. The design of the BaroVUE10 allows you to remove and replace your sensor card quickly and easily without either having to disassemble the equipment in the enclosure or having to send the equipment back to the manufacturer.

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### Detailed Description:

The BaroVUE10 is a low-power, digital barometer (-40 to +60°C) that provides best-in-class accuracy and stability ( $\pm 0.1$  hPa/yr) over the entire pressure and temperature range. It can run continuously & does not require power cycling unlike other products in this category. The digital output is both SDI-12 and RS-232, which reduces noise and measurement uncertainty compared with analog sensors, and makes the BaroVUE10 compatible with all MUNRO SDI-12 devices. Moreover, this barometric pressure sensor can be installed and integrated into many new and existing weather stations. The transducers used in the BaroVUE10 are direct-to-digital sensors, and no re-conversion takes place inside the barometer.

### Benefits and Features:

- Highly reliable measurements (multiple cells)
- Direct-to-digital measurements
- Very low noise
- Integrated identification and diagnostics
- Zero downtime/recalibration
- Easy firmware updates
- Cost effective
- SDI-12 device.

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## Technical Specifications

<b>Note</b>	These specifications assume the recommended desiccation is used
<b>Pressure Range</b>	500 to 1100 hPa
<b>Temperature Range</b>	-40° to +60°C
<b>Supply Voltage</b>	9 to 28 Vdc
<b>Elevation</b>	~609.6 m (2,000 ft) below sea level (as in a mine) to 4,572 m (15,000 ft) above sea level
<b>Current Consumption</b>	200 $\mu$ A (sleep mode) < 5 mA (active)
<b>Digital Output</b>	SDI-12, RS-232 serial
<b>Pressure Fitting</b>	Barbed fitting for 0.318 cm
<b>Dimensions</b>	2.2 x 9.0 x 10.2 cm
<b>Weight</b>	226.8 g
<b>ACCURACY</b>	
<b>Calibration Uncertainty</b>	$\pm 0.15$ hPa
<b>Uncertainty</b>	$\pm 0.3$ hPa (at 20°C)
<b>Total Uncertainty</b>	$\pm 0.5$ hPa (at -40° to +60°C)
<b>Long-Term Stability</b>	$\pm 0.1$ hPa/yr
<b>Power Supply Rejection</b>	Negligible
<b>Measurement Noise</b>	0.05 hPa (RMS)
<b>Resolution</b>	0.1 hPa