



Product Specifications

Product #: 2046

<http://www.nrgsystems.com/sitecore/content/Products/2046.aspx>

# NRG #BP20

## Barometric Pressure Sensor

Absolute pressure sensor which provides a high level voltage output signal that is proportional to absolute pressure.

### SPECIFICATIONS

<b>Sensor type</b>	<b>Description</b> micromachined integrated circuit absolute pressure sensor
<b>Applications</b>	<ul style="list-style-type: none"> <li>• wind resource assessment</li> <li>• meteorological studies</li> <li>• environmental monitoring</li> </ul>
<b>Sensor range</b>	15 kPa to 115 kPa (4.43 inches to 34.0 inches Hg)
<b>Instrument compatibility</b>	<ul style="list-style-type: none"> <li>• NRG Symphonie equipped with a BP SCM + any iPack</li> </ul>
<b>Signal type</b>	<b>Output signal</b> linear analog voltage
<b>Transfer function</b>	Absolute Pressure in kPa = (Voltage x 21.79) + 10.55 typical
<b>Accuracy</b>	+/- 1.5 kPa (15 mb) max. uncorrected offset (+/- 0.443 inches Hg)
<b>Calibration</b>	calibration sheet included with each sensor specifies offset correction
<b>Turn on time</b>	15 ms
<b>Supply voltage</b>	<b>Power requirements</b> 7 V to 35 V DC
<b>Supply current</b>	15 mA max. (8 mA typical)
<b>Mounting</b>	<b>Installation</b> mounts directly to tower or inside steel shelter box with hose clamps (included)
<b>Tools required</b>	8mm (5/16 inch) nut driver or flat blade screwdriver
<b>Operating temperature range</b>	<b>Environmental</b> <ul style="list-style-type: none"> <li>• 10 C to 50 C at full accuracy</li> <li>• At cold temperatures, offset increases by 3 kPa (30 mb) worst case at -30 C.</li> </ul>
<b>Connections</b>	<b>Physical</b> wire leads, 3 conductor shielded cable: <ul style="list-style-type: none"> <li>• Red: sensor power</li> <li>• White: output signal</li> <li>• Black: sensor ground</li> <li>• Shield wire: to earth ground</li> </ul>
<b>Cable length</b>	<ul style="list-style-type: none"> <li>• 1.5 m (5 feet)</li> <li>• cable diameter 4.8 mm (3/16 inches)</li> </ul>
<b>Weight</b>	0.1 kg (0.2 pounds)
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>• 57 mm (2.25 inches) diameter</li> <li>• 112 mm (4.4 inches) length (including cable bushing)</li> </ul>
<b>Cable</b>	<b>Materials</b> 3 conductor 22 AWG, with overall foil shield and drain wire, chrome PVC jacket
<b>Enclosure</b>	weatherproof black ABS

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