

SPECIFICATIONS

BP20 Barometric Pressure Sensor

FEATURES

- High level linear voltage output
- 0 to 5 V span output



The NRG #BP20 barometric pressure sensor is a micro-machined absolute pressure sensor which provides a high level voltage output signal that is proportional to absolute pressure. It includes built-in temperature compensation, linearization, and an output amplifier.

Its low cost and rugged ABS enclosure make the BP-20 ideal for collecting absolute pressure data at remote sites.

SPECIFICATIONS

Description	Sensor type	micromachined integrated circuit absolute pressure sensor
	Applications	<ul style="list-style-type: none">• wind resource assessment• meteorological studies• environmental monitoring
	Sensor range	15 kPa to 115 kPa (4.43 inches to 34.0 inches Hg)
	Instrument compatibility	<ul style="list-style-type: none">• NRG Symphonie equipped with a BP SCM + any iPack
Output signal	Signal type	linear analog voltage
	Transfer function	Absolute Pressure in kPa = (Voltage x 21.79) + 10.55 typical
	Accuracy	+/- 1.5 kPa (15 mb) max. uncorrected offset (+/- 0.443 inches Hg)
	Calibration	calibration sheet included with each sensor specifies offset correction
	Turn on time	15 ms
Power requirements	Supply voltage	7 V to 35 V DC
	Supply current	15 mA max. (8 mA typical)
Installation	Mounting	mounts directly to tower or inside steel shelter box with hose clamps (included)
	Tools required	8mm (5/16 inch) nut driver or flat blade screwdriver
Environmental	Operating temperature range	<ul style="list-style-type: none">• 10 C to 50 C at full accuracy• At cold temperatures, offset increases by 3 kPa (30 mb) worst case at -30 C.



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Physical	Connections	wire leads, 3 conductor shielded cable: <ul style="list-style-type: none">• Red: sensor power• White: output signal• Black: sensor ground• Shield wire: to earth ground
	Cable length	<ul style="list-style-type: none">• 1.5 m (5 feet)• cable diameter 4.8 mm (3/16 inches)
	Weight	0.1 kg (0.2 pounds)
	Dimensions	<ul style="list-style-type: none">• 57 mm (2.25 inches) diameter• 112 mm (4.4 inches) length (including cable bushing)
Materials	Cable	3 conductor 22 AWG, with overall foil shield and drain wire, chrome PVC jacket
	Enclosure	weatherproof black ABS

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