

# SPECIFICATIONS

## 892 Speed Amp

### FEATURES

- Provides high level frequency signal from NRG #40 anemometer
- Can provide TTL and CMOS logic compatible signal
- Very low power consumption



The 892 Speed Amp interface converts the AC sine wave signal produced by the NRG #40 anemometer (or any sensor with a compatible output, such as the IceFree heated anemometer) to a high level square wave signal at the same frequency. The high level signal is compatible with many data acquisition systems with frequency input capabilities.

The 892 Speed Amp's very low power consumption makes it ideal for use with battery powered data acquisition systems.

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Description	Sensor type	<ul style="list-style-type: none"><li>• anemometer interface, signal amplifier</li><li>• converts the low level AC sine-wave signal from the sensor to a high level square wave signal at the same frequency.</li></ul>
	Applications	<ul style="list-style-type: none"><li>• wind turbine control</li><li>• process control</li><li>• environmental monitoring</li><li>• meteorological studies</li></ul>
	Sensor compatibility	<ul style="list-style-type: none"><li>• NRG #40 anemometer</li><li>• IceFree heated anemometers</li></ul>
Input signal	Signal type (sensor output)	low level AC sine wave
	Signal range (sensor output)	0 Hz to 200 Hz
Output signal	Signal type	<ul style="list-style-type: none"><li>• high level square wave</li><li>• push-pull (no external pull up resistor required)</li><li>• TTL / CMOS compatible (depending on supply voltage)</li></ul>
	Transfer function	output signal follows input frequency



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	Recommended load resistance	1 k $\Omega$ minimum (5 mA load current maximum)
	Output signal range	equal to supply voltage
Power requirements	Supply voltage	<ul style="list-style-type: none"> <li>• 3 V DC to 15 V DC</li> <li>• internal power storage capacitor gives approx. 13 seconds run time with power off, when operating from a 5 V pulsed supply and with no load on the output</li> </ul>
	Supply current	15 $\mu$ A
Response characteristics	Threshold	80 mV peak-to-peak minimum input signal
Installation	Mounting	mating socket mounts to 35mm (type O) DIN rail or with screws to any flat surface
	Tools required	#1 Phillips (+) or flat blade (-) screwdriver for terminals
	Other accessories	NRG #40 anemometer, Item No. 1899
	Wiring	<ul style="list-style-type: none"> <li>• Pin 1 - anemometer input</li> <li>• Pin 2 - anemometer input (supply common)</li> <li>• Pin 3 - +5 VDC power @ approx. 15 <math>\mu</math>A input</li> <li>• Pin 4 - supply common</li> <li>• Pin 5 - output common (supply common)</li> <li>• Pin 7 - frequency output signal (TTL/CMOS compatible)</li> </ul>
Environmental	Operating temperature range	-40 $^{\circ}$ C to 70 $^{\circ}$ C (-40 $^{\circ}$ F to 150 $^{\circ}$ F)
	Operating humidity range	0 % to 95 % RH (non condensing)
Physical	Connections	octal plug, mating socket with screw terminals included
	Weight	75 g (0.17 pound)
	Dimensions	<ul style="list-style-type: none"> <li>• module: 50 mm x 50 mm x 69 mm (1.4 inches x 1.4 inches x 2.7 inches), including plug</li> <li>• in socket: 41 mm x 56 mm x 77 mm (1.6 inches x 2.2 inches x 3.0 inches)</li> </ul>
Materials	Enclosure	plastic housing with octal plug base
	Terminals	octal plug, mating socket with screw terminals included
Shipping	Shipping weight (pounds)	0.26
	Shipping volume (cubic feet)	0.022

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