



**rl2000** wireless

## Radiologgers

W I N D S P E E D A N D D I R E C T I O N

### Typical Applications

- Emission tracking
- Wind direction
- Wind speed
- Weather surveys
- Legislation compliance

### Options & Accessories

- Temperature sensor
- Humidity sensor
- Offshore / marine version
- Alarm input
- Solar power
- Mains power
- High capacity battery

The Wind Monitor is a high performance, rugged wind sensor. Its simplicity and corrosion resistant construction make it ideal for a wide range of wind measuring applications. The wind speed sensor is a four blade helicoid propeller. Propeller rotation produces an AC sine wave voltage signal with frequency directly proportional to wind speed. Slip rings and brushes are eliminated for increased reliability.

The wind direction sensor is a rugged yet lightweight vane with a sufficiently low aspect ratio to assure good fidelity in fluctuating wind conditions. Vane angle is sensed by a precision potentiometer housed in a sealed chamber. With a known excitation voltage applied to the potentiometer, the output voltage is directly proportional to vane angle. A mounting orientation ring assures correct realignment of the wind direction reference when the instrument is removed for maintenance. The instrument is made of UV stabilised plastic with stainless steel and anodised aluminum fittings. Precision grade, stainless steel ball bearings are used. Transient protection and cable terminations are in a convenient junction box. The instrument mounts on standard 25

mm pipe. For offshore and marine use, Model 05106, Wind Monitor-MA features special waterproof bearing lubricant and a sealed, heavy duty cable pigtail in place of the standard junction box. Separate signal conditioning for voltage or current outputs is available. The Wind Monitor is available with two additional output signal options.

Model 05103V offers calibrated 0-1 VDC outputs (0-5 VDC optional), convenient for use with many dataloggers.

Model 05103L provides a calibrated 4-20 mA current signal for each channel, useful in high noise areas or for long cables (up to several kilometres). Signal conditioning electronics are integrated into the sensor junction box.

*The radio transmitter illustrated is the rl2000, a 2-channel unit fitted with a wind speed and direction sensor, part number RL2000-20-00-FF-P2. This unit is ideally suited to general purpose environmental monitoring tasks.*

### Specification

(Accuracy quoted is combined instrument and sensor)

ISO9001:2000 certified

#### Dimensions

<b>Transmitter</b>	100mm x 100mm x 57mm	<b>Wind speed</b>	0-60 m/s (134 mph)
<b>Weight</b>	320 grams	<b>Gust survival</b>	100 m/s (220 mph)
<b>Power supply</b>	2 x 3.6 volt lithium batteries		
<b>Dimensions</b>			
<b>Wind sensor</b>	370mm high x 550mm long		
<b>Propeller</b>	180mm diameter	<b>Accuracy</b>	Wind speed +/- 0.3 m/s (0.6 mph)
<b>Weight</b>	1.0 kg		Wind direction +/- 3 degrees
<b>Channels</b>	2 analogue 1 digital		
<b>Radio frequency</b>	434.075 MHz (standard)	<b>Life expectancy</b>	50 million revolutions
<b>Power</b>	10 mW		
<b>Range</b>	2 miles over open ground		
<b>Transmit rate</b>	4 seconds to 3 minutes (standard)		