

WIND SPEED • TEMPERATURE • WIND CHILL

Know your conditions

Measure environmental conditions quickly and accurately

Wide range of wind speeds and a low start-up speed

Reliable, portable and easy to use



- Small, robust design
- Data hold function
- Large easy to read display with backlight
- Waterproof and floats
- High precision Zytel® mounted impeller
- Replaceable impeller assembly
- Fast response temperature sensor
- Long life lithium battery
- Includes protective cover, lanyard and battery
- 5 year warranty
- Choice of measurement units: Knots, Metres per second, Kilometres per hour, Miles per hour, Feet per minute and Beaufort Force. Centigrade and Fahrenheit



Measurement	Units of Measure	Accuracy	Range
Current, Max and Average	knots, m/s, km/h, mph,	±3% of reading	0.6 to 40 m/s
Wind speed	ft/min, Beaufort (B)	or ±0.1 m/s	
Temperature, Wind Chill	°C, °F	±1°C	-29 to +70°C

DESCRIPTION

The Kestrel 2000 thermo anemometer provides high quality, performance and functionality. It has three buttons below the display, making operation simple and allowing the user to view data in current, maximum and average wind speed displays, temperature and wind chill displays and also the data hold function.

The Kestrel 2000 is a small, electronic rotating vane type anemometer with a built-in temperature sensor. It uses high precision Zytel® bearings and a lightweight impeller to provide accurate air flow measurements even at low speeds. The impeller assembly is replaceable by the user in the case of damage. In order to quickly determine a steady temperature reading, the precision thermistor temperature sensor is mounted externally.

The liquid crystal display has large 9mm high digits and is backlit for a clear readout in low light conditions. Power is from an easily replaceable standard lithium coin cell battery, which will typically give up to 300 hours of operation. The instrument

automatically switches off if no keys are pressed for 45 minutes.

The Kestrel 2000 is made from high impact injection moulded plastic and corrosion resistant materials with the electronics fully sealed. It will float if accidentally dropped into water. There is a hard cover for protection when not in use and a lanyard for added security.

APPLICATIONS

Agriculture – checking conditions prior to crop spraying or burning

Aviation – gliders, para-gliders, micro-lights, parachutists and ballooning

Construction – site safety, working conditions, working at height in cranes or access vehicles

Education – air flow experiments, environmental studies, outdoor sports

Heating and ventilation – air flow through fans, checking condition of filters

Industry – air flow measurements, pollution control

Science – aerodynamics, environmental science and meteorology

Fire fighters – checking fire spreading hazard

ALL - sailors, walkers, model boats/air craft, kite flyers, archery, shooting, fishing, golf & athletics

SPECIFICATION

Physical	Dimensions	122mm x 42mm x 20mm	
	Cover dimensions	122mm x 46mm x 26mm	
	Weight	65g	
	Cover weight	37g	
	Lanyard	0.5m	
	Case colour	Green	
Display	Display type	Reflective 3½ digit LCD	
	Digit height	9mm	
	Display update	1 second	
	Functions	Current wind speed (3 second average)	
		Average speed since power on (AVG)	
		Maximum 3 second gust since power on (MAX)	
		Temperature	
Wind chill			
Data hold (HOLD)			
Speed units	kt, m/s, km/h, mph, ft/min, Beaufort Force (B)		
Temperature units	°C, °F		
Performance	Speed (1 sec response)	Operational range	0.6m/s to 60m/s (1.3 to 135.0mph)
		Specification range	0.6m/s to 40m/s (1.3 to 89.0mph) Start-up speed stated as lower limit, readings may be taken down to 0.4 m/s 79 ft/min 1.5 km/h .9 mph .8 kt after impeller start-up.
		On axis accuracy	Larger of ± 3% of reading or least significant digit. (Some loss of accuracy from bearing wear may occur with sustained operation at or near maximum speed)
		Off-axis response	-1% @ 5°, -2% @ 10°, -3% at 15°
		Calibration drift	<1% after 100hrs operation at 7m/s
		Resolution	0.1 kt, m/s, km/h, mph. 1 FPM below 1999 FPM, 10 FPM above 2000 FPM. 1 Beaufort (0 to 12)
	Temperature (1 sec response)	Operational range	-45.0°C to +125.0°C
		Specification range	-29.0°C to +70.0°C
		Accuracy	±1°C
		Resolution	0.1°
Wind chill accuracy	±1.0°C (from wind speed and temperature)		
Sensors	Impeller	Diameter 25mm. High precision axle and low-friction Zytel® bearings. Replacement impeller field installs without tools.	
	Temperature	Air, water or snow temperature. Hermetically-sealed, precision thermistor mounted externally and thermally isolated (US Patent 5,939,645) for rapid response. Airflow of 2.2 mph 1 m/s or greater provides fastest response and reduction of insulation effect. Calibration drift negligible.	
Environmental	Sealing	Electronics enclosure IP67 [Water resistant] and NEMA-6	
	Shock	Drop tested (MIL.STD.810F - unit only)	
	Temperature	Operating range: -10°C to +55°C (for LCD readability and batteries) Storage range: -30°C to +60°C	
	EMC	CE marked	
Miscellaneous	Battery	Lithium coin cell CR2032, included, user replaceable	
	Battery Life	300 hours of use, typical ± depending on backlight use	
	Auto switch off	45 minutes after last key press	
	Cover	Snap on hard cover for protection	
	Wind chill equivalent temperature calculation	Perceived temperature resulting from combined effect of wind speed and temperature. Utilises the (US) NWS Wind Chill Temperature (WCT) Index, revised 2001, with wind speed adjusted by a factor of 1.5 to yield equivalent results for wind speed measured at 10m above ground	
	Certification	Wind speed and temperature measurements are tested during manufacture. A certificate of conformity (C of C) is included with each Kestrel. Calibration certificates are available for an additional fee.	
Guarantee	5 years		

The manufacturer reserves the right to amend the specification and therefore the information in this document may be subject to change. Please check our website www.r-p-r.co.uk for details

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