

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 jewel mounted impeller
- Replaceable impeller
- Fast response temperature sensor
- Long life lithium battery
- Low cost
- Includes protective cover, lanyard and battery
- Two 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 Wind speed	kt, m/s, km/h, mph, ft/min, B	±3% of reading or ±0.1 m/s	0.3 to 40 m/s
Temperature, Wind Chill	°C, °F	±1°C	-29 to 70°C

DESCRIPTION

The original Kestrel Weather Meters have been redesigned to provide even better quality, performance and functionality. Three buttons on the front of the instrument mean operation is extremely simple and allow the selection of current, maximum and average wind speed, temperature and wind chill displays and also data hold.

The Kestrel 2000 Thermo Anemometer is a small, pocket-sized electronic rotating vane type of anemometer with a built-in temperature sensor. It uses high precision jewel bearings and a light weight 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 type cell, which will typically give up to 400 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 is provided 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, out door 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

Performance

Speed range: 0.3m/s to 40m/s (0.7 to 89mph)
 On axis accuracy: $\pm 3\%$ of reading or \pm least significant digit
 Off -axis response: -1% @ 5° , -2% @ 10° , -3% at 15°
 Calibration drift: $<2\%$ after 100hrs operation at 7m/s

Some loss of accuracy from bearing wear may occur with sustained operation at or near maximum speed

Temperature accuracy: $\pm 1^\circ\text{C}$
 Temperature Resolution: 0.1°

Display

Operating Modes: Current speed (3 second average)
 Average speed since power on (AVG)
 Maximum 3 second gust since power on (MAX)
 Temperature
 Wind Chill
 Data hold (HOLD)
 Display update: 1 second
 Speed units: kt, m/s, km/h, mph, ft/min, Beaufort Force (B)
 Temperature units: $^\circ\text{C}$, $^\circ\text{F}$
 Type: Reflective LCD
 Digit height: 9mm

Physical

Dimensions: 122mm x 42mm x 20mm
 Cover Dimensions: 122mm x 46mm x 26mm
 Weight: 65g
 Cover weight: 37g

Environmental

Sealing: Electronics enclosure IP67
 Water resistant to 1m of water, floats
 Shock: Drop tested to 2m
 Temperature: Operating range -15°C to 50°C (LCD readability lost)
 Storage range -20°C to 80°C
 EMC: CE marked

Miscellaneous

Battery: Lithium coin cell CR2032, user replaceable.
 Battery Life: 400 hours operation, typical
 Auto switch off: 45 minutes after last key press
 Impeller: Diameter 25mm
 High precision jewel bearings
 User replaceable impeller assembly
 Temperature sensor: Hermetically sealed precision thermister
 Case colour: Green
 Cover: Snap on hard cover for protection
 Lanyard: 0.5m
 Windchill equivalent temperature calculation: Calculated as specified by the US and Canadian weather services
 Guarantee: 12 months, parts and labour. Second year of warranty after registration
 Certification: Wind speed and temperature measurements are tested during manufacture. Factory Certification is available for an additional fee

The manufactures reserve the right to amend the specification and therefore the information in this document may be subject to change.

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