

KESTREL-1000

POCKET ANEMOMETER

FEATURES

- **Small robust design**
- **High precision jewel mounted impeller**
- **Large clear liquid crystal display**
- **Functions**
 - Air speed**
 - Maximum air speed**
 - Average air speed**
- **Choice of units**
 - Knots**
 - Metres per second**
 - Kilometres per hour**
 - Miles per hour**
 - Feet per minute**
 - Beaufort Force**
- **Waterproof (IP67), floats**
- **Replaceable impeller**
- **Long life lithium battery**
- **Low cost**



DESCRIPTION

The Kestrel Pocket Anemometer is a small electronic rotating vane type of anemometer that can be easily carried in a pocket. It uses high precision jewel bearings and a light weight impeller to provide accurate wind or air flow measurements even at low speeds. The impeller assembly is replaceable by the user in the case of damage.

Low power microprocessor technology is used to provide speed, maximum speed, average speed and units selection; functions normally only found on more expensive instruments. The liquid crystal display has large 10mm high digits for a clear readout

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 30 minutes.

The Kestrel Pocket Anemometer 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.

OPERATION

Two buttons on the front of the instrument mean operation is extremely simple. One button (ON) is used to switch on/off and the other (MODE) is used to select the display of current, maximum or average air speed. Holding the ON button down and pressing the MODE button selects the required units.

APPLICATIONS

The small robust design and high accuracy of the Kestrel Pocket Anemometer makes it an extremely versatile air flow measuring instrument, ideal for numerous applications:-

Agriculture - checking conditions for crop spraying or burning

Aviation - ballooning, gliders, hang gliders, micro-lights, parachutists, paragliders sky diving.

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Civil engineering - site safety, working conditions, safe operation of cranes, wind stress measurements.

Coast guard - assessing conditions for survival or safety.

Education - air flow measurements and experiments, assessing outdoor conditions for school sports, environmental studies.

Fire fighters - indication of fire spreading hazard.

Heating and ventilating - air flow measurements, checking the condition of filters.

Hobbyists - model aircraft, model boats, kite flying.

Industry - air flow measurements, pollution control.

Police - measurement of cross-winds on roads

Outdoor activities - archery, cycling, shooting, fishing, golf, sailing, track and field sports, camping, walking, mountaineering.

Outdoor workers - assessing conditions.

Science - aerodynamics, environmental science, meteorology.

SPECIFICATION

Performance

Speed range: 0.3m/s to 40m/s
 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.

Display

Operating Modes: Current speed (3 second average)
 Average speed since power on (AV)
 Maximum 3 second gust since power on (MAX)
 Display update: 1 second

Speed display: 0.0 - 19.9, 20 - 199 (kt, m/s, kmh, mph)
 0 - 199 (x10 FPM), 0 - 12 (Beaufort Force)
 Units: kt, m/s, kmh, mph, FPM, Beaufort Force
 Type: Reflective LCD
 Digit height: 10mm

Physical

Dimensions 122mm x 42mm x 14.5mm
 Cover Dimensions 117mm x 46mm x 19mm
 Weight: 43g
 Cover weight: 23g

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
 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: 30 minutes after last key press.
 Impeller: Diameter 25mm
 High precision jewel bearings.
 User replaceable impeller assembly
 Case colour: Blue
 Cover: Snap on hard cover for protection
 Lanyard: 0.5m
 Country of manufacture: USA
 Guarantee: 12 months, parts and labour

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

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