

FAQ's

How does the Kestrel measure humidity so accurately?

The Kestrel features a patented dual temperature sensor configuration for rapid response and accurate measurement. Every Kestrel is calibrated against NIST-traceable standards, and can be recalibrated in the field with the Kestrel RH kit.

Why are the RH readings on my Kestrel sometimes different than my sling?

It is not uncommon for the humidity measurements to differ when comparing the Kestrel Meter to a sling psychrometer (or belt kit). Typically, you might see that the sling gives a reading 5-10% higher than the Kestrel Meter.

Slings are susceptible to the following errors:

- If the sock on the wet bulb thermometer is not clean, the humidity measured from a sling will err on the high side.
- If the water used for the wet bulb thermometer is not clean, the humidity will err on the high side.
- If the sling is not swung around long enough, the humidity measured from a sling will err on the high side.
- If the thermometer measurements are not read quickly enough after swinging the sling, the humidity measured from a sling will err on the high side.

Unfortunately, all of the common errors with a sling psychrometer will yield humidities that err on the high side. With a properly calibrated Kestrel Meter and sling, and with proper use, the humidity measurements are likely to both be within the manufacturer's specification.

How can I ensure that my Kestrel's RH readings are as accurate as possible?

It is also important to use the Kestrel Meter correctly in order to measure an accurate humidity. Ideally, the instrument should be left in the environment for at least 15 minutes. This allows the entire unit to equilibrate to the surrounding conditions. If this is not possible, especially if the Kestrel Meter is being moved to significantly different conditions, then it is best to hold the instrument into an air flow of at least 3mph for 15-30 seconds. If there is no wind, the unit can be waved back and forth to create air flow past the sensors for the same amount of time.

What's so great about the Kestrel impeller?

The Kestrel impeller measures 1 inch across, and turns on a Swiss precision pivot mounted on sapphire bearings. Its large size ensures accurate readings even if pointed off-angle from the wind, and its very low start-up speed allows measurement of the lightest puffs of wind. If damaged, a new calibrated impeller can be purchased for \$19 and popped in without tools, restoring like-new performance.

What's that curly looking thing?

That's the patented Kestrel temperature sensor. Unlike most watches and other products with a temperature measurement, the Kestrel sensor is outside the case to ensure it measures the air, not your hand or pocket. The "curls" serve to further isolate the temperature sensor from the effects of the case temperature.

Does the Kestrel have a GPS in it?

No, not yet. We may add basic GPS location to a future Kestrel model, but we'll leave the full-blown mapping and navigation to the companies that specialize in GPS as much as we specialize in weather.

How does the altimeter work? Is the reference pressure the same as an altimeter setting?

The Kestrel models with altimeter calculate altitude from barometric pressure in exactly the same manner and according to the same rules as an aircraft altimeter. The "reference pressure" on the Altitude screen is the same as the altimeter setting obtained from a local airfield.

Can the Kestrel 4000 communicate directly with a PDA or computer?

No. Due to the rapidly changing standards for product communication, data upload is presently limited to a USB or serial interface to communicate with a PC. Additional communication options may be developed in the future as a predominant standard emerges among Kestrel users.

Does the Kestrel 4000 provide location?

At present, there are no Kestrel meters offering built-in GPS. This product may be developed in the future.

Do you really mean MADE in the USA?

Yes. The entire Kestrel line is designed and built in the USA. Some electronic components have to be sourced overseas these days, but we buy American wherever we can.

Who do I call if I have a problem?

You call us! From our Customer Service Representatives to the President of the company, we all answer the phone and know these products inside and out. If you have a problem, we'll fix it. Kestrels hardly ever break, but if they do, they're covered by a five-year warranty.



Kestrel[®]

Pocket Weather[®] Meters



Kestrel[®] Pocket Weather[®] Meters
toll-free: 800.784.4221, fax: 610.447.1577
info@kestrelweather.com
www.kestrelweather.com





Wildland Fire Fighting

Wildland firefighters can replace their entire belt weather kit with a cell-phone sized Kestrel Pocket Weather Meter. Measure wind speed, temperature, relative humidity, dew point and wet bulb temperature with ONE instrument in seconds (available measurements depend on model). Certified to be extremely accurate over the wide range of conditions required in the field. With the Kestrel 4000, log data with time and date for later review and confirmation. Trusted, proven performance-thousands of Kestrel Meters are on the job around the world every fire season.

Structural Fire Fighting

Know the instantaneous, maximum and average wind speeds BEFORE deploying ladders and aerial equipment. Particularly in urban locations, only measurements taken in the exact location accurately portray wind load. The pocket-sized Kestrel 1000 can be used to rapidly monitor conditions aloft at a very low price - just \$89 MSRP. Where a wildland fire has the potential to threaten an urban interface, a Kestrel Weather Meter can assist in assessing the Fire Weather and predicting fire behavior.



Search and Rescue

Kestrel's portability makes it ideal for measuring environmental conditions relevant to planning safe search and rescue operations, and also keeping track of parameters relevant to the safety and effectiveness of the search dogs. With the Kestrel 4000's density altitude and wind readings, critical landing conditions can be quickly communicated to rescue aircraft.

Kestrel® Weather Meters are portable, accurate, affordable and GUARANTEED for five years.

Kestrel® has been trusted for over 10 years by Firefighters and First Responders around the world.

Fire and Rescue Training

Avoid unnecessary injury or death of personnel during hot weather training events by monitoring and adjusting for heat stress conditions. Measure temperature, relative humidity, wet bulb temperature and heat stress index (available measurements depend on model). So affordable, easy-to-use and accurate, all personnel can be equipped to monitor, log and respond to dangerous conditions.



Hazardous Materials Response

First responders can gather the weather data they need within seconds of arriving at the scene with no tedious setup. Combine a Kestrel 4000, carry case and compass for a complete Hazmat weather kit capable of measuring all parameters required for CAMEO®/ALOHA® plume modeling (temperature, wind speed and direction, humidity, barometric pressure). Equip every department vehicle with a Kestrel response kit to enable all personnel to measure and record life-saving data whenever and wherever they deploy- all for less than \$375 MSRP.



EMT

With the accurate environmental information obtained by one small, affordable Kestrel, emergency medical personnel can measure and track conditions relating to heat stress and exposure, and issue guidelines and warning for field personnel. The data logging capabilities of the Kestrel 4000 document all historical data in the field, making incident report preparation a snap. Provide medical evacuation aircraft the information they need to plan safe operations with the Kestrel 4000-density altitude and wind speed.

