Kestrel®
Pocket Weather® Meters
PRODUCT CATALOG

WWW.KESTRELWEATHER.COM

The Kestrel 4500, tripod and Vane Mount set up in the scenic Rockies of Alberta, Canada.

4 people

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The Most Reliable
Pocket Weather Meters in the World

For more than thirty years now, we've been improving and adding to the Nielsen-Kellerman family of products. Unlike some companies, environmental instruments aren't a sideline for us- they are our core business. We can't afford to let our customers down. Every Kestrel Weather Meter is developed, built and supported by NK in Boothwyn, Pennsylvania. Controlling every detail, every day, is the only way we know how to personally ensure our products work right every single time you hit the "on" button. Founders Paul Nielsen and Richard Kellerman are still at NK every day, helping to devise new technology to make our products tougher, more accurate, better performing and more able to meet the specialized needs of our current and future customers.

1979 NK GETS ITS START WITH WATERPROOF AMPLIFIER SYSTEMS FOR ROWING

NK MOVES OUT OF THE BASEMENT **1985** AND INTO ITS OWN BUILDING

1996 NK DEBUTS KESTREL POCKET WEATHER METERS WITH THE KESTREL 1000

NK INTRODUCES THE REVOLUTIONARY **2001** KESTREL 4000 POCKET WEATHER TRACKER

2009 NK CELEBRATES 30 YEARS OF INNOVATION AND EXCELLENCE

NK DEBUTS THE REVOLUTIONARY **2011** KESTREL POCKET WEATHER TRACKER WITH HORUS ATRAG BALLISTICS

realpeople rely on Kestrel Pocket Weather Meters

Firefighters rely on the Kestrel meter at Operation Front Range in Colorado.

Kestrel Pocket Weather Meters

help families pack the right clothes for their Saturday hike, and mountaineering teams monitor frigid temps on an Everest expedition. They monitor conditions relating to animal activity, drag race engine performance, fire behavior and paint drying. In literally hundreds of industries and activities where environmental conditions play a major role, Kestrel Weather Meters have become an essential tool.

Standard Kestrel Meters measure every common environmental parameter, meeting the needs of most users. Our specialty Kestrel meters address specific markets, incorporating job-specific measurements that professionals have requested. Kestrel reliability, combined with our ability to respond to our customers' requests, mean professionals rely on Kestrel to not only get the job done, but to get the job done safely and more easily.

Fire Sudbury 55 on a prescribed burn in Killarney Provincial Park, Canada.

Photo courtesy of Scott Vandermeer

FIREFIGHTING AND HAZMAT

courageous. protectors. strong.

Firefighters and Hazmat professionals understand the importance of reliability and urgency. Lives depend on these crucial elements. Kestrel has earned the trust of First Responders around the world because Kestrel Meters are ready to take critical, accurate measurements FAST.

WILDLAND FIREFIGHTING

Wildland firefighters can replace their entire belt weather kit with a Kestrel Pocket Weather Meter smaller than their radio. Thousands of Kestrel meters are on the job around the world every fire season providing measurements crucial to fire behavior prediction.

STRUCTURAL FIREFIGHTING

Safety demands accurate situational wind speed measurements BEFORE deploying ladders and aerial equipment, and a Kestrel in the glove box is just the answer. 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 & RESCUE

The portability of a Kestrel meter makes it ideal for measuring environmental conditions relevant to planning safe search and rescue operations and tracking parameters relevant to the safety and effectiveness of working dogs. Equipped with a Kestrel, rescue personnel on the ground can also provide important density altitude and wind readings to rescue aircraft, facilitating safe operations.

FIRE & RESCUE TRAINING

First Responders must train for the conditions they will encounter. A Kestrel meter offers an affordable way to ensure every squad can monitor and log the heat stress index, wet bulb temperature and other key parameters to avoid heat injury or death of personnel during hot weather training.

HAZARDOUS MATERIALS RESPONSE

First responders can gather the weather data they need within seconds of arriving at the scene with no tedious setup. A Kestrel 4500 with Bluetooth data transfer and Portable Vane Mount make up a complete Hazmat weather kit capable of measuring all parameters required for CAMEO®/ALOHA® plume modeling. Combining affordability with ease of use, it's possible to 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.

EMT

With the accurate environmental information provided by a small, waterproof and tough Kestrel meter, emergency medical personnel can measure and track conditions relating to heat stress and exposure, and issue guidelines and warnings for field personnel no matter what the conditions. Data logging capabilities document all historical data in the field, making incident report preparation a snap.

preferred kestrel models

3000
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3500
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4000
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4500
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THE KESTREL 4000 SERIES IS ALSO AVAILABLE IN BLUETOOTH.

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Firefighters get instant RH readings with the Kestrel meter.

****Photo courtesy of Timothy Tonge***

AGRICULTURE

knowledgeable. nurturing. providers.

In a regulation heavy industry, the Kestrel helps you ensure compliance. Relative humidity, wind speed and wind direction are all critical measurements for ensuring safety and effectiveness in farming. Minimize waste and maximize your productivity with a Kestrel.

SPRAYING

The Kestrel's accurate wind speed readings ensure safe and effective spraying during appropriate weather conditions. Many locales have regulations specifying maximum permitted wind speed when spraying to minimize spray drift. In hot, dry conditions, evaporation can send your expensive chemicals uselessly into the air rather than onto your crops. Selecting an appropriate nozzle and increasing the spray droplet size can minimize costly evaporation.

BARN VENTILATION

Proper ventilation, temperature and humidity control of livestock facilities can reduce disease and prevent stock loss, as well as improve your rate of gain and feed-conversion efficiency. Measure the conditions that matter most – right where your stock are experiencing them.

IRRIGATION AUDITS

Inefficient irrigation systems are costly: they waste water, wash off fertilizers and lawn chemicals, and degrade sidewalks and roads prematurely. The ultimate tool for irrigation audit monitoring is the Kestrel 4500 together with a tripod and Kestrel Vane Mount. The data log is ideal for use in the field, and wireless Bluetooth® data transfer capabilities makes log entries and report development a snap back in the office.

Bob Austino also uses his Kestrel at an Agricultural airstrip in Pineland, NJ.

VITICULTURE

Vineyard managers can monitor the weather – right at the individual vine. In the Spring and Fall, knowing the temperature trends and dew point is critical to determining the need for frost protection. Tracking conditions at potential vine locations can help you develop an accurate understanding of your property's microclimates and select the varietals and growing sites that will ensure success.

CROP HARVESTING

Keeping an eye on the current and developing environmental conditions can help farmers determine the best time to harvest. Whatever your crop, a Kestrel Pocket Weather Meter makes it easy to monitor field conditions real-time to ensure selection of the ideal conditions for maximizing your harvest and crop quality.

LIVESTOCK TEMPERATURE MONITORING

Heat stress can reduce productivity and even cause death in livestock. By using a Kestrel to monitor temperature and humidity, and referring to the heat index appropriate for their livestock, farmers can take appropriate cooling measures in time to prevent sickness and loss.

GOLF COURSE MANAGEMENT & LANDSCAPING

The Kestrel is the perfect tool to get an accurate assessment of air movement, which is vital for healthy turf in areas where surface cooling is needed. Proper air movement reduces leaf wetness and decreases the likelihood of fungal diseases. A constant air movement of just 3 mph coupled with adequate soil moisture can reduce the need for pesticide use and keep turfs up to par.

preferred kestrel models

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Mike Boss uses his Kestrel 4300 while modernizing the Army Corps of Engineers training center in Yakima, Washington.

CONSTRUCTION & HVAC

scientific. tough. hardworking.

Construction and building trades require skill, knowledge and experience to deliver solid results. Weather can negatively affect even the best laid efforts. Kestrel Pocket Weather Meters allow you to account for environmental conditions that cost you time, money and labor.

CRANE OPERATIONS

Strong winds impose additional loads on mobile cranes and affect stability. Exceeding the manufacturers' stated wind speed limits can result in damage to the crane, or worse, surrounding structures and workers. In cold conditions, the Kestrel Pocket Weather Meter gives the vital temperature and wind chill data needed to assess shock loading, crane hydraulics, and derating of the crane, as well as the safety of the personnel working in the cold conditions.

CONCRETE PLACEMENT

Plastic shrinkage cracks occur when the surface of the concrete dries rapidly and shrinks before it can gain sufficient tensile strength. When ambient conditions and concrete temperatures combine to produce conditions that create a high evaporation rate, the chances of the surface drying prematurely and shrinkage cracks forming increases. Use a Kestrel 3000 to measure the relative humidity, ambient temperature and wind velocity right where the concrete is being placed, then calculate the evaporation rate using reference charts. Even better, use a Kestrel 4300 and get a direct readout of evaporation rate. Either way, taking the steps needed to prevent plastic shrinkage cracking can save you thousands of dollars, and your reputation.

STEEL BRIDGE COATING & LINING

Bridges and other large steel structures are painted with coatings that protect the integrity of the steel and prevent corrosion. It is critical to monitor ambient temperature, relative humidity and dewpoint, as well as the surface temperature of the steel to ensure good adhesion and proper curing. A Kestrel Pocket Weather Meter does the job.

HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION

HVAC/R system commissioning and verification can determine that a system is working correctly, or can identify a problem area in a faulty system. Volume air flow is a calculation based on the air velocity and the dimensions of the flow opening, and it's one of the most important measurements HVAC/R professionals require. The Kestrel 4200 Pocket Air Flow Tracker automatically calculates air flow in CFM, making the technician's job easier and faster. Because it also measures the moisture content of the air, it is quickly becoming an essential piece of equipment for the dehumidification and mold inspection and remediation professional as well.

HOME INSPECTIONS

A large portion of any home inspection will be dedicated to examining the heating and air conditioning systems. Quickly checking the consistency of warm and/or cool air in each room is as easy as entering the duct size and holding a Kestrel 4200 in the air flow. The 4200 also logs data with the press of a button, allowing home inspectors to save data and review it back at the office when writing up their report.

INDUSTRIAL HYGIENE

Industrial Hygiene professionals aim to monitor and protect the health of workers and the community. Kestrel Pocket Weather Meters enable Industrial Hygienists to do just that by providing accurate, reliable information on field conditions. Kestrels are used to evaluate ventilation in hazardous materials remediation (e.g. asbestos abatement and mold remediation) where contractors must set up negative pressure containments using HEPA filtered fan units.

SCAFFOLDING

Monitoring the wind speed and wind direction at the job site is required by industry standards including OSHA & ANSI. Excessive wind speeds can cause equipment and property damage, injury, and even fatality. With a Kestrel meter, you can easily monitor and record all relevant job site environmental conditions. For a small price, you can avoid the high cost of a scaffolding accident on your watch. Monitoring the wind is not just your responsibility – it's your liability.

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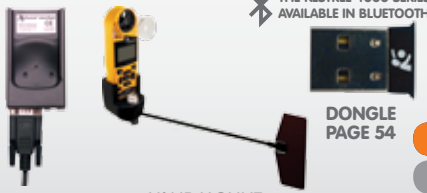
THE KESTREL 4000 SERIES IS ALSO AVAILABLE IN BLUETOOTH.



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Director of Sales and Marketing Katie Godfrey takes aim at the range.

COMPETITIVE SHOOTING

focused. precise. on target.

Knowing your environmental conditions can mean the difference between a hit or a miss. The Kestrel instantly gives you crosswind, air pressure, temperature and humidity readings – all the critical conditions that affect the trajectory of a bullet. The Kestrel keeps you on target for your most accurate shot.

LONG RANGE & BENCHREST SHOOTING

Use a Kestrel 4500 to measure every environmental factor that impacts the accuracy of your shot. With its integrated digital compass and patented impeller, the 4500 measures wind speed and wind direction, and calculates crosswind and headwind with respect to the target. Serious shooters don't estimate - they use Kestrel.

ARCHERY

Reading and compensating for the wind is critically important in competitive archery. The wind presses on the bow itself, and dramatically influences the flight direction and fall rate of the arrow. Accurate measurement of the wind during range practice is the best way for a competitive archer to develop their ability to compensate for wind in competition.

RELOADING & BALLISTICS

Whether using a full-blown ballistics software application, or simply recording results of your own ballistics observations, accurate recording of wind speed, temperature, pressure, altitude and relative humidity is vitally important. Armed with a Kestrel 4500 with Bluetooth® data transfer, you can measure and store the environmental conditions for each shot you take, then upload the data to a computer or smartphone for use with ballistics program for detailed trajectory calculations.

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THE KESTREL 4000 SERIES IS ALSO AVAILABLE IN BLUETOOTH.

Kestrel Sales and Marketing team Monica Devlin, Katie Godfrey and Christine Lasser shoot at 1330 yards with the Kestrel 4500 Horus® ATrag™ Ballistics helping them make the shot.

Non-profit organization, Camp Patriot, takes disabled vets on an elk hunting trip.

HUNTING

patient. quick-witted. proud.

When the weather changes, so does your game. As a hunter, you're used to waiting – a Kestrel can help you be sure you're waiting in the right place at the right time. Barometric pressure and wind direction readings give you the ultimate advantage on your hunt.

ANIMAL BEHAVIOR

The wind speed affects how well animals can hear and smell, causing them to be less active as wind speeds increase. Temperature influences the animals' comfort, restricting their activity if it's too cold or warm. For most game, activity levels will rise or fall along with the barometric pressure. A Kestrel Pocket Weather Tracker can track weather trends and give you current conditions to plan when and where to hunt.

BOW HUNTING

The large side surface area of an arrow makes it far more subject to wind drift than other hunting projectiles. Even 5-10 MPH of crosswind requires wind compensation or arrow selection adjustment. The Kestrel calculates the exact crosswind with respect to a target direction - invaluable when practicing and learning how to read the wind.

VARMINT HUNTING

Varmint activity is heavily influenced by wind, barometric pressure change, and precipitation. As just one example, coyote activity can be counted on to increase with rising barometric pressure after a storm front has passed. Varmint hunting also demands long range accuracy, requiring educated ballistics choices and skillful reading of the wind.

BUSH PILOTING

Especially when flying in and out of remote locations, it's critical to know the weather. Safe operation of a small plane or helicopter requires accurate and up-to-the-minute local readings on air density and weather conditions. The Kestrel 4500 features a crosswind and headwind/tailwind calculator, too, making it the perfect companion for pilots landing in extreme conditions.

FISHING

Figuring out when the fish will bite is easier when you know the weather. When pressure is rising or falling, fish activity will increase. Use your Kestrel to measure water temperature – simply submerge the waterproof unit and hit "hold" to save the temperature. Plus it's durable enough to toss into your tackle box at the end of the day.

BRAGGING RIGHTS & SAFETY

While a Kestrel can't measure the points on your buck or record the one that got away, it can help you keep score on who has endured the coldest day sitting in the stand. More importantly, knowing the real weather conditions helps you choose the right clothing, plan your hydration needs, and adequately prepare for your day in the field. Hunters succumb to frostbite, exposure and heat exhaustion every year – a Kestrel can keep you from joining them.

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Chief Mine Planner & competitive long range shooter, Pete Millan uses the crosswind function on the Kestrel 4500 NV for the most accurate shots.

NATO team in Afghanistan with sniper system and Kestrel NV.

MILITARY & POLICE WORK

selfless. dedicated. disciplined.

You fearlessly serve and protect our communities. You consider this line of work more than a job – it's a duty. Kestrel weather meters are on duty with our soldiers, sailors and police – enduring and performing right alongside them.

SNIPER TRAINING & OPERATIONS

Crosswind strongly influences the accuracy of sharpshooting, becoming the largest error component at long ranges. Even medium crosswind velocities (~5 m/sec) along the flight path of a bullet can cause 1 meter deviations at 500 meters. Temperature, humidity and density altitude also play a part in ballistics performance, and are incorporated into most advanced portable targeting computer applications. The Kestrel 4500 with Horus ATrag Ballistics, with its ability to accurately measure all of these parameters plus offer integrated aiming solutions in one four-ounce, pocket-size package, is on the military sniper's "most-wanted" list of desired equipment.

DROP ZONE SAFETY

Every drop zone requires close monitoring of wind speeds by the DZSO. Featuring icon-based navigation to avoid language confusion, personnel can be taking accurate readings as soon as they reach the hilltop. The Kestrel 4500 adds the option to log readings with date and time stamp for later report preparation, as well as the ability to provide detailed ground weather reports to launch aircraft.

COMBAT WEATHER

Weather personnel in all forces have come to rely on the Kestrel 4000 or 4500 as a primary or backup meteorological instrument. Combat weathermen, in particular, find the Kestrel a critical tool in forward ground combat scenarios due to its extreme portability and virtually instant use.

MEDIC SUPPORT, PERSONNEL HEAT STRESS & EXPOSURE MONITORING IN TRAINING & OPERATIONS

Extreme conditions of heat and cold are a fact of military life. Kestrel Pocket Weather Meters accurately measure temperature, humidity, heat stress, wet bulb temperature and wind chill, enabling good decision making about work/rest periods, clothing, and hydration in both training and operations. For medics, automatic logging creates a reliable record of conditions for future report preparation.

K9 OPERATIONS – SEARCH & RESCUE, MINE REMOVAL

Effective and safe K9 operations require close monitoring of the wind speed, temperature and humidity conditions in the area where the dogs are working. Military K9 handlers carry a Kestrel in their pocket to enable them to know their conditions, wherever they are working with their dogs.

EXPEDITIONARY FLIGHT OPERATIONS

The Kestrel 4000 and 4500 are complete weather systems ideal for forward basing or lake bed flight operations. Even where CWX personnel are not available, personnel on the ground equipped with a Kestrel Pocket Weather Tracker can provide critical landing zone weather data.

NBC & HAZMAT RESPONSE

Wind speed and direction, together with temperature, humidity and air density, all impact the behavior and spread of a nuclear, biological, chemical or hazardous material release. The Kestrel 4500, together with a lightweight Tripod and Vane Mount, measures every parameter required for plume prediction plus allows instant wireless data transfer to plume modeling software.

THERMAL IMAGING (FLIR) SYSTEMS

Relative humidity and ambient temperature affect the transmissivity of the air and impact the effectiveness of forward looking infrared cameras or thermal imaging systems. Kestrel meters offer a lightweight, on-the-spot solution for measuring these and other relevant conditions instantly and accurately.

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OUTDOOR

adventurous. active. daring.

Exploring the boundaries of nature can be exhilarating - and unpredictable. You push yourself to the limits and need equipment that can keep up with you - a rugged Kestrel Pocket Weather Meter is your perfect companion.

SNOW SPORTS

Snow conditions can change by the minute. All Kestrel Meters feature an external temperature sensor making snow temperature measurement as simple as sticking the unit right into the snow pack. Set up a Kestrel 4500 to track conditions relating to snow making right where the equipment is operating. Equip ski patrol with a Kestrel to provide condition reports from all areas of the mountain.

SAILING AND BOATING

The Kestrel is ideal as an on-board weather station for both large and small craft. Use a Kestrel 1000 to assess wind speeds and sail setup, or step all the way up to the Kestrel 4500 to monitor all weather conditions. Automatic data storage and on-screen barometric pressure trend graphs make it easy to track developing storms. Plus every Kestrel is completely waterproof and floats, so you don't have to worry about dropping it overboard.

HANG GLIDING, PARA-SPORTS AND BALLOONING

Hang gliding, paragliding, parachuting, and ballooning all are influenced heavily by one thing - the wind. The large replaceable impeller ensures accurate readings, and the waterproof case and slip-on cover ensure your investment will last for years of flights.

Snowboarders in the icy terrain of Les Arcs France with the Kestrel 4000.

BACKPACKING, CAMPING, CLIMBING AND MOUNTAINEERING

Any time you are enjoying the outdoors away from civilization, it's important to monitor the weather to ensure that you aren't caught unprepared. Kestrel Pocket Weather Meters are ideal for just that – slip one in your pack and you have a weatherman on your trip with you. Barometric pressure and dew point help to predict weather trends; wind chill and heat stress index warn of dangerous conditions for long-term exposure.

SEARCH & RESCUE AND AVALANCHE CONTROL

Avalanche and search and rescue teams need to quickly and accurately assess the conditions wherever they're working. A Kestrel Pocket Weather Tracker allows ground crews to report the density altitude and ground conditions to the rescue helicopters for safe evacuations. Working dog handlers can make use of Kestrel meters to monitor the wind speed, temperature and humidity conditions and keep their dogs working safely and effectively.

WIND SURFING AND KITE BOARDING

You need to know the wind speed right where you are wind surfing or kite boarding. Plus, the Kestrel 2000 and higher let you measure air and water temperature. The Kestrel plays as hard as you do – it's completely waterproof and floats, and has a sturdy slip-on cover.

PADDLING

Avid paddlers like to know the wind speed and water temperature, and the Kestrel is the perfect tool. Paddle guides love to be able to answer their clients' questions about just how strong that wind is they're paddling into. Tie a 3 ounce Kestrel onto your life vest and know the facts wherever you paddle. Every Kestrel is compact, light and waterproof – there's no need to be a weather guesser.

AVIATION

Whether you fly a private plane, small helicopter, ultralight or glider, it's critical to know the weather when taking off and landing. Pilots who fly into remote locations will particularly appreciate the Kestrel 4500 with crosswind, headwind, wind speed, wind direction, altitude, barometric pressure and density altitude readings.

preferred kestrel models

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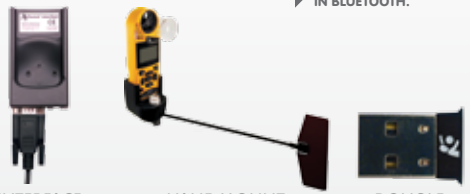
THE KESTREL 4000 SERIES IS ALSO AVAILABLE IN BLUETOOTH.



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RACING

competitive. passionate. driven.

You're a weekend road warrior. All you need is your engine, a track, the wind in your hair...and a Kestrel 4250 in your hand. Now that's a winning combo. You don't race at your trailer, why measure weather there? Even slight fluctuations in weather conditions can affect your car's performance. Let a Kestrel Pocket Weather Meter help you with those last minute dial-in or tuning decisions.

Minor changes in air density, water grains, and density altitude can have a major effect on an engine's performance. The Kestrel 4250 Racing Weather Tracker arms racers with the ability to easily measure and track these and other critical factors, such as absolute pressure, temperature, humidity, wind speed and barometric pressure. The Kestrel also provides racers and pit crews with the most accurate and up-to-date data available where you need it most – at the track. It allows tuners to determine what last minute changes need to be made based on the current local conditions, even minutes before the first lap around the track or pass down the drag strip. Bluetooth® data transfer capabilities allow you to easily and wirelessly send track data right to a laptop for an instant log of all race day conditions. Get that competitive edge at a fraction of the cost of other systems on the market.

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THE KESTREL 4000 SERIES IS ALSO AVAILABLE IN BLUETOOTH.

Racers at NJ Motorsports Park use the Kestrel 4250 before hitting the track.

The International Rhino Foundation team uses the Kestrel 4300 to monitor conditions and evaluate effective animal cooling procedures as part of their Rhinoceros Conservation Field Study in Namibia, Africa.

RESEARCH & EDUCATION

inquisitive. observant. aware.

Gathering information, exploring ideas and cultivating knowledge is the essence of learning. Kestrel Pocket Weather Meters are an accurate, reliable tool to aid in studying the world around us.

CLASSROOM USE AND EDUCATION

Kestrel Meters have been in the classroom for years - they provide valuable data in life science classrooms, and are so durable that a one-time investment provides years of use. With global warming and increased storm activity in the media spotlight in recent years, schools are looking for ways to educate kids about the weather. Lesson plan possibilities with a Kestrel are limitless; observe meteorological changes, monitor microecosystems and manipulate and graph imported data. Accurate enough that teachers know kids are seeing real-world numbers that make sense, and tough enough to stand up to years of 3rd graders; Kestrel is the perfect classroom companion.

WINDMILL AND WIND POWER GENERATION

The utilization of alternate energy sources, including residential and commercial wind turbines, requires measuring wind data prior to installation. A Kestrel Meter is the ideal tool for affordable and easy, on-site measurements. Average wind speed is critical in determining the proper size and placement of the turbine. Particularly in hilly or mountainous regions where state sponsored wind statistics aren't reliable, the Kestrel gives accurate measurements from right where you are.

ACADEMIC RESEARCH

Whether in a classroom, laboratory, or in the field, the most important component of research is accuracy. Researchers worldwide trust Kestrel Pocket Weather Meters to give them reliable measurements for a diverse range of studies. From environmental conservation, marine and ocean research to cave research and scientific expeditions, the Kestrel Meter makes gathering real-time data simple. The Kestrel 4000 series with Bluetooth ® data transfer makes documenting conditions and in-depth analysis simple with instant wireless capabilities in the field or in the lab.

HORTICULTURE

Horticulturists study the delicate details of plant life and therefore require a precise, accurate tool for monitoring such complex life systems. Kestrel Pocket Weather Meters can be used for research in plant cultivation and breeding, crop production, genetic engineering, plant biochemistry, and plant physiology. Environmental stresses affect the health and behavior of plant life. Effectively monitor significant conditions that contribute to plant quality, crop yield, and insect and disease resistance such as humidity, wind, dewpoint, altitude and more.

SCIENTIFIC EXPEDITIONS

Scientific expeditions often lead researchers to extreme environments. Kestrel Weather Meters perform in the toughest of conditions at high accuracy. Our meters have traveled with researchers on mountaintops, to remote jungles, and across glaciers. Barometric pressure and dew point help to predict weather trends; wind chill and heat stress index warn of dangerous conditions for long-term exposure. The The Kestrel 4000's extensive memory and Bluetooth® data transfer capabilities are ideal for keeping logs or sending information back to camp. Stay prepared, stay safe and stay on course with a Kestrel Pocket Weather Meter.

PARANORMAL INVESTIGATIONS

When investigating activities unseen to the naked eye, only a Kestrel Pocket Weather Meter can accurately detect the slightest fluctuations in the immediate environment. Paranormal investigators are concerned with monitoring sudden changes in conditions such as wind, barometric pressure and temperature. Waterproof and extremely rugged, Kestrel Meters are as fearless to harsh environments as the ghost hunters who use them.

preferred kestrel models

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Ph.D students at the Roma Tre University use Kestrel meters to study environment's impact on the behavior of rare beetles in Italy.

products tools for success

The Kestrel 4500 reads wind direction on a ranch in Candadian, Texas.

Kestrel Pocket Weather Meters

Know Your Conditions

Whether you just need wind speed or a whole range of environmental measurements, there's a Kestrel model built to fit your needs and your budget. Kestrel Pocket Weather Meters are relied upon by professionals who cannot afford to compromise accuracy or reliability. Know your conditions whenever and wherever you are – from the convenience of a simple, instantaneous wind reading to the efficiency of advanced calculations such as cross wind and relative air density. Charting, data-logging and wireless Bluetooth® data transfer capabilities allow for in-depth analysis and solid record keeping. The ultimate in rugged portability, Kestrel Pocket Weather Meters are made tough in the USA and backed by a 5-year warranty.

What Makes a Kestrel

- Mil-STD-810G Drop-tested
- IP67 Waterproof
- 5-Year Warranty
- Made in the USA*

Replaceable impeller snaps in without tools (patented)

Individual wind tunnel calibration of each impeller for +/- 3% accuracy

Temperature corrected fast response humidity chamber (patented)

Large clear display

Icons and multiple languages built in

Backlight for night time viewing

Intuitive keypad navigation

*Includes non- US components

Weather Meter Unique?

Large surface area turns impeller on precision axel and bearings (patented)

External thermally isolated thermistor for fast, accurate readings (patented)

Certificate of Conformity provided FREE with every individually calibrated unit

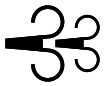
LIGHT – just 3 ounces
SMALL – shown 95% actual

Wide-range, pressure sensor

Optional Bluetooth® data transfer capabilities for instant wireless transfer to laptop.

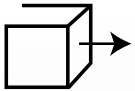
Provides hundreds of hours of use on 2 standard AAA batteries

What can you measure



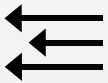
Wind Speed: The rate of the motion of the air on a unit of time.

Beaufort Wind Scale: A system of estimating and reporting wind speeds based on the Beaufort Force or Number, which is composed of the wind speed, a descriptive term, and the visible effects upon land objects and/or sea surfaces.



Volume Air Flow (CFM): The volume of air moving through a given space over a unit of time. Calculated by multiplying the surface area of the opening times the air velocity.

Wind Direction: The direction from which the wind is blowing, expressed as a compass point or degrees.



Cross Wind: The component of the wind blowing at right angles to a given direction of travel, such as an aircraft or bullet's line of flight, calculated by multiplying the wind speed times the sine of the angle between the wind and the direction of travel.

Head/Tail Wind: The component of the wind blowing against (head wind) or with (tail wind) a given direction of travel, such as an aircraft or bullet's line of flight, calculated by multiplying the wind speed times the cosine of the angle between the wind and the direction of travel.

Temperature (Air/Water/Snow): Air temperature is the ambient temperature of the air and water vapor as measured by a thermometer or other measuring device in which the thermal element is dry and shielded from radiation. Water and snow temperature are measured with a measuring device in direct contact with the environment. Available units are Fahrenheit – a temperature scale where water at sea level has a freezing point of +32° F (Fahrenheit) and a boiling point of +212° F and Celsius - a temperature scale where water at sea level has a freezing point of 0° C and a boiling point of +100° C.

Delta-T: The spread between the wet bulb temperature and the dry bulb temperature (in degrees C). Delta-T offers a quick guide to determining acceptable spraying conditions or ideal spray nozzle.

Wind Chill: The temperature of windless air that would have the same effect on exposed human skin as a given combination of wind speed and air temperature. (NWS 2001 Wind Chill formula with adjusted wind speed.)

Heat Stress Index: A measurement of the air temperature in relation to the relative humidity, used as an indicator of the perceived temperature.

with a Kestrel?

Relative Humidity: The ratio of the amount of water vapor in the air at a specific temperature to the maximum amount that the air could hold at that temperature, expressed as a percentage. Relative humidity is a function of temperature and therefore changes as the temperature changes, even if the amount of moisture in the air remains constant.

Dewpoint: The temperature at which the water vapor in the atmosphere begins to condense. Any further cooling causes condensation (fog and dew). This is also the temperature of saturation at which the dry-bulb, wet-bulb, and dew-point temperatures are all the same.

Wet Bulb: The lowest temperature in the ambient atmosphere yielded by evaporating water from a wet muslin-covered bulb of a thermometer.

Humidity Ratio: The amount of water vapor mixed with one unit mass of dry air, usually expressed as grams of water vapor per kilogram of air. Also called mixing ratio.

Evaporation Rate: The rate at which moisture is lost from a surface for a given humidity, temperature and wind speed. Evaporation rate is a critical environmental indicator that concrete contractors use to ensure they avoid plastic shrinkage cracks in concrete installations especially concrete flatwork.

Barometric Pressure: The atmospheric pressure of the weight of the air above the measurements point, reduced to sea level. Also known as mean sea level pressure.

Absolute Pressure: The actual measured pressure of the weight of air above the measurement point. Also called station pressure.

Altitude: The height of an object above mean sea level.

Air Density (Grains): The actual weight of a given volume of air.

Density Altitude: The equivalent altitude in the ICAO standard reference atmosphere for the measured temperature, relative humidity and air pressure. A measure used primarily by pilots, high-performance engine mechanics and long-range shooters.

Relative Air Density: The ratio of the calculated air density to the air density at sea level using the ICAO standard reference conditions.

Kestrel® Pocket Weather® Meters

Which Kestrel is best for you?

Available Functions	**1000** Part #0810 **Page 39**	**2000** Part #0820 **Page 38**	**2500** Part #0825 **Page 37**	**2500 NV** Part #0825NV **Page 46**	**3000** Part #0830 **Page 36**	**3500** Part #0835 **Page 35**	**3500 NV** Part #0835NV **Page 48**	**4000** Part #0840 **Page 34**	**4000 NV** Part #0840NV TAN/OLV **Page 48**
								4000 BT Part #0840B **Page 49**	**4000 NV BT** Part #0840BNV TAN/OLV **Page 49**
Wind Speed	•	•	•	•	•	•	•	•	•
Volume Air Flow									
Temperature		•	•	•	•	•	•	•	•
Wind Chill		•	•	•	•	•	•	•	•
Relative Humidity					•	•	•	•	•
Heat Stress Index					•	•	•	•	•
Dewpoint Temp					•	•	•	•	•
Wet Bulb Temp						•	•	•	•
Humidity Ratio									
Evaporation Rate									
Delta T									
Barometric Pressure			•	•		•	•	•	•
Absolute Pressure									
Altitude			•	•		•	•	•	•
Air Density									
Density Altitude								•	•
Digital Compass									
Wind Direction									
Crosswind									
Headwind/Tailwind									
Backlit Display		•	•	tactical, night-vision preserving	•	•	tactical, night-vision preserving	•	tactical, night-vision preserving
Pressure Trend			•	•		•	•	•	•
Data Storage & Charting								•	•
Data Upload								•	•
Clock			•	•		•	•	•	•
Ballistics Software									
Case Color	Blue	Green	Orange	Olive Drab	Brick Red	Yellow	Olive Drab	Charcoal Safety Orange Olive Drab	Olive Drab Desert Tan

Specialty Kestrel Meters

4500 Part #0845 **Page 33**	**4500 NV** Part #0845NV TAN/OLV **Page 48**	**3500 Delta T** Part #0835DT **Page 45**	**4200** Part #0842 **Page 44**	**4250** Part #08425 **Page 43**	**4300** Part #0843 **Page 42**	**4500 NV Horus** Part #0845HOLV Part #0845HTAN **Page 47**
4500 BT Part #0845B **Page 49**	**4500 NV BT** Part #0845BNV TAN/OLV **Page 49**		**4200 BT** Part #0842B **Page 49**	**4250 BT** Part #08425B **Page 49**	**4300 BT** Part #0843B **Page 49**	**4500 NV BT Horus** Part #0845HBOLV Part #0845HBTAN **Page 47**
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Yellow	Olive Drab Desert Tan	Yellow	Safety Orange	Safety Orange		Olive Drab Desert Tan

* Hidden Function - This feature turned off by default.

Dan Smith holds his Kestrel while standing on an Icelandic steam vent.

Ecology researcher Michaela Ciaglia and the Kestrel 4500 surrounded by penguins in Anarctica.

0845YEL

AVAILABLE IN BLUETOOTH.
0845BYEL

When wind direction matters, the Kestrel 4500 delivers. Direction, speed and crosswind equals **ready, aim, fire.**

This Kestrel does it all. Measure every environmental condition plus wind direction and automatic crosswind calculation. Add in a Vane Mount and Tripod and you have a compact, complete, portable weather station.

INCLUDES

- Soft Carry Pouch
- Neck Lanyard
- Batteries – 2 AAA C (average life 400 hours)
- Kestrel Certificate of Conformity

ACCESSORIES

- Kestrel Portable Vane Mount
- Tripod for Stationary Use
- Carrying Case
- Kestrel Computer Interface and Communicator Software
- Replacement Impeller
- RH Calibration Kit
- Dongle

features

- Flip-Open Impeller Cover
- Large Three-Line Graphical Display
- Backlight
- Wide Operating Range
- High Accuracy
- Patented Impeller and Sensor Technology
- No-Tools User-Replaceable Impeller
- Quick Response External Temperature Sensor
- Temperature Corrected Humidity Sensor
- Minimum and Maximum Values
- Wind Speed Average Function
- Clock & Calendar
- Customizable Automatic and Manual Data logger (2900 Points)
- On-Screen Data Charting
- Data Upload
- 5 Languages (English, French, Spanish, German, Italian)
- Waterproof & Floats
- Rugged, Drop-Tested
- Made in the USA
- 5-Year Warranty

measures

WIND SPEED | AIR/WATER/SNOW TEMPERATURE | WIND CHILL | RELATIVE HUMIDITY | HEAT STRESS INDEX
DEWPOINT TEMP | WET BULB TEMP | BAROMETRIC PRESSURE | ALTITUDE | DENSITY ALTITUDE | DIGITAL COMPASS
WIND DIRECTION | CROSSWIND | HEADWIND/TAILWIND

Kestrel® 4000
Pocket Weather Meter

Knowing environmental conditions can be the difference between mission success or failure. There's a reason military and police professionals trust the Kestrel to keep them **on target.**

Wind speed, humidity, barometric pressure and density altitude plus logging capabilities make the Kestrel 4000 the indispensable tool for portable weather monitoring. Customizable screens allow multiple conditions to be monitored at the same time without searching.

0840GRY
0840ORG
0840OLV

features

- Flip-Open Impeller Cover
- Large Three-Line Graphical Display
- Backlight
- Wide Operating Range
- High Accuracy
- Patented Impeller and Sensor Technology
- No-Tools User-Replaceable Impeller
- Quick Response External Temperature Sensor
- Temperature Corrected Humidity Sensor
- Minimum and Maximum Values
- Wind Speed Average Function
- Clock & Calendar
- Customizable Automatic and Manual Data logger (4000 Points)
- On-Screen Data Charting
- Data Upload
- 5 Languages (English, French, Spanish, German, Italian)
- Waterproof & Floats
- Rugged, Drop-Tested
- Made in the USA
- 5-Year Warranty

INCLUDES

Soft Carry Pouch

Neck Lanyard

Batteries - 2AAA (average life 400 hours)

Kestrel Certificate of Conformity

AVAILABLE IN BLUETOOTH.
0840BGRY
0840BORG
0840BOLV

ACCESSORIES

Kestrel Portable Vane Mount

Tripod for Stationary Use

Carrying Case

Kestrel Computer Interface and Communicator Software

Replacement Impeller

RH Calibration Kit

Dongle

measures

WIND SPEED | AIR/WATER/SNOW TEMPERATURE | WIND CHILL | RELATIVE HUMIDITY | HEAT STRESS INDEX
DEWPOINT TEMP | WET BULB TEMP | BAROMETRIC PRESSURE | ALTITUDE | DENSITY ALTITUDE

Marketing Coordinator Monica Devlin checks the conditions with the Kestrel 4500 in the Ronda Mountains, Spain.

Graphic Designer Stephanie Dusik and her Kestrel 2500 on a tour of the Mayan ruins in Mexico.

0835

Split second decisions in the field leave no time for guesswork. Get every environmental condition in seconds.

Quickly changing weather conditions require constant, immediate updates. Measure wind speed, temperature, relative humidity, dew point and wet bulb temperature with ONE instrument. You don't need to log it, you just need to know it. At the press of a button, get all the relevant conditions you need to enable yourself to shift strategies, reduce risk and ensure safety.

INCLUDES

Neck Lanyard

Slide on Cover

CR2032 Coin Cell Battery
(average life 300 hours)

Kestrel Certificate of Conformity

ACCESSORIES

Kestrel Portable Vane Mount

Tripod for Stationary Use

Carrying Case

Replacement Impeller

RH Calibration Kit

features

- Sure-Grip Protective Cover
- Backlight
- Wide Operating Range
- High Accuracy
- Patented Impeller and Sensor Technology
- No-Tools User-Replaceable Impeller
- Quick Response External Temperature Sensor
- Temperature Corrected Humidity Sensor
- Minimum and Maximum Values
- Wind Speed Average Function
- Hold Function
- Clock
- Waterproof & Floats
- Rugged, Drop-Tested
- Made in the USA
- 5-Year Warranty

measures

WIND SPEED | MAX WIND GUST | AVERAGE WIND SPEED | AIR/WATER/SNOW TEMPERATURE
WIND CHILL | RELATIVE HUMIDITY | HEAT STRESS INDEX | DEWPOINT TEMP | WET BULB TEMP
BAROMETRIC PRESSURE | ALTITUDE

Kestrel® 3000
Pocket Weather Meter

When health and safety are on the line, perception is not reality. The Kestrel 3000 gives you real conditions **in real time.**

Professional and collegiate athletic trainers, storm chasers and wild-land firefighters alike understand the importance of monitoring field conditions. You know you're working hard – make sure you're staying safe. The Kestrel 3000 keeps you from working past your limits.

0830

features

- Sure-Grip Protective Cover
- Large Three-Line Graphical Display
- Backlight
- Wide Operating Range
- High Accuracy
- Patented Impeller and Sensor Technology
- No-Tools User-Replaceable Impeller
- Quick Response External Temperature Sensor
- Temperature Corrected Humidity Sensor
- Maximum Gust Capture
- Wind Speed Average Function
- Hold Function
- Clock
- Waterproof & Floats
- Rugged, Drop-Tested
- Made in the USA
- 5-Year Warranty

INCLUDES

Neck Lanyard

Slide on Cover

CR2032 Coin Cell Battery (average life 300 hours)

Kestrel Certificate of Conformity

ACCESSORIES

Kestrel Portable Vane Mount

Tripod for Stationary Use

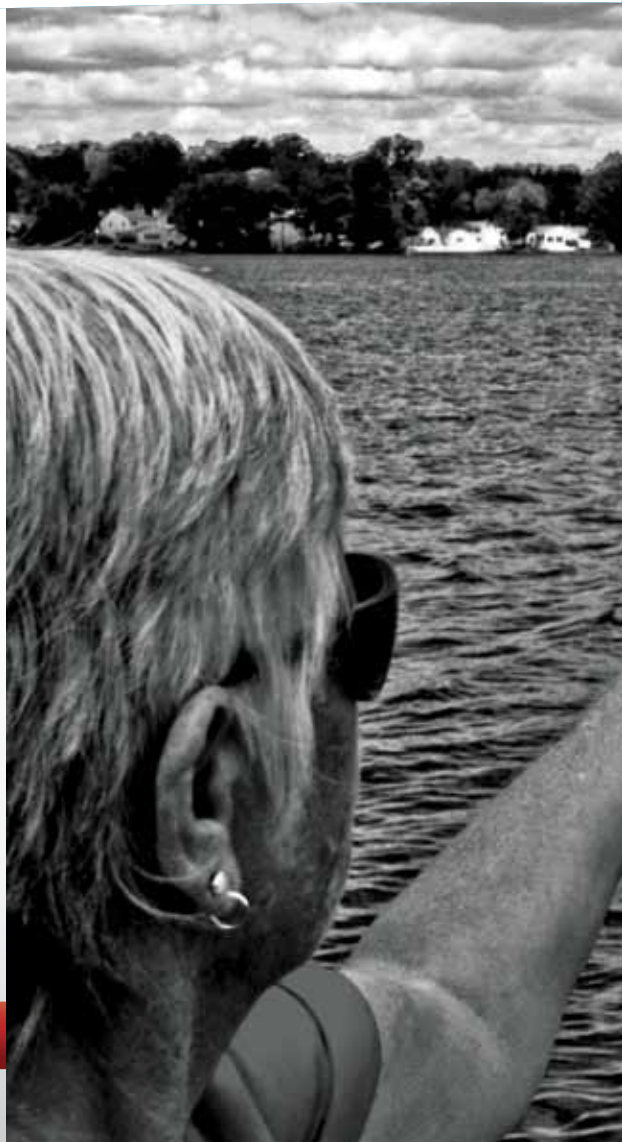
Carrying Case

Replacement Impeller

RH Calibration Kit

measures

WIND SPEED | MAX WIND GUST | AVERAGE WIND SPEED | AIR/WATER/SNOW TEMPERATURE
WIND CHILL | RELATIVE HUMIDITY | HEAT STRESS INDEX | DEWPOINT TEMPERATURE



Lake Parsippany Sailing Club members of New Jersey rely on the Kestrel meter.

0825

Nature can turn on you at a moment's notice.

Look her in the eye and know her next move.

Predict when bad weather is headed your way with the three-hour pressure trend indicator. The perfect instrument for any outdoor activity – get conditions in seconds right in the palm of your hand.

INCLUDES

- Neck Lanyard
- Slide on Cover
- CR2032 Coin Cell Battery (average life 300 hours)
- Kestrel Certificate of Conformity

ACCESSORIES

- Kestrel Portable Vane Mount
- Tripod for Stationary Use
- Carrying Case
- Replacement Impeller
- RH Calibration Kit

features

- Sure-Grip Protective Cover
- Backlight
- Wide Operating Range
- High Accuracy
- Patented Impeller and Sensor Technology
- No-Tools User-Replaceable Impeller
- Quick Response External Temperature Sensor
- Maximum Gust Capture
- Wind Speed Average Function
- Hold Function
- Clock
- Waterproof & Floats
- Rugged, Drop-Tested
- Made in the USA
- 5-Year Warranty

measures

WIND SPEED | MAX WIND GUST | AVERAGE WIND SPEED | AIR/WATER/SNOW TEMPERATURE | WIND CHILL | BAROMETRIC PRESSURE | ALTITUDE

You're out in extreme temperatures.

Guessing the conditions isn't good enough.

The Kestrel thermistor is located outside the case to ensure accurate measurement of temperature. Forget speculating, know exactly what the conditions are with the Kestrel 2000.

0820

features

- Sure-Grip Protective Cover
- Backlight
- Wide Operating Range
- High Accuracy
- Patented Impeller and Sensor Technology
- No-Tools User-Replaceable Impeller
- Quick Response External Temperature Sensor
- Maximum Gust Capture
- Wind Speed Average Function
- Hold Function
- Clock
- Waterproof & Floats
- Rugged, Drop-Tested
- Made in the USA
- 5-Year Warranty

INCLUDES

Neck Lanyard

Slide on Cover

CR2032 Coin Cell Battery (average life 300 hours)

Kestrel Certificate of Conformity

ACCESSORIES

Kestrel Portable Vane Mount

Tripod for Stationary Use

Carrying Case

Replacement Impeller

RH Calibration Kit

measures

WIND SPEED | MAX WIND GUST | AVERAGE WIND SPEED
AIR/WATER/SNOW TEMPERATURE | WIND CHILL

Roger Fluhr uses his Kestrel while hiking in high altitudes.

0810

You want wind measurement.
You need accuracy.

Measuring wind is a breeze with the Kestrel 1000. Get wind information you can count on with a simple, reliable and accurate pocket wind meter.

INCLUDES

- Neck Lanyard
- Slide on Cover
- CR2032 Coin Cell Battery (average life 300 hours)
- Kestrel Certificate of Conformity

ACCESSORIES

- Kestrel Portable Vane Mount
- Tripod for Stationary Use
- Carrying Case
- Replacement Impeller
- RH Calibration Kit

features

- Sure-Grip Protective Cover
- Wide Operating Range
- High Accuracy
- Patented Impeller and Sensor Technology
- No-Tools User-Replaceable Impeller
- Quick Response External Temperature Sensor
- Maximum Gust Capture
- Wind Speed Average Function
- Hold Function
- Waterproof & Floats
- Rugged, Drop-Tested
- Made in the USA
- 5-Year Warranty

measures

WIND SPEED | MAX WIND GUST | AVERAGE WIND SPEED

Specialty Kestrel Pocket Weather Meters

Our line of Specialty Kestrel models were each specifically designed to match the needs of a particular industry. Specialty Kestrels generate automatic calculations that were previously unavailable or cumbersome to obtain. We listened to exactly what you needed and delivered on your requests while maintaining the exceptional quality you count on.

NK Facilities Manager, Tim Godfrey, uses the Kestrel 4200 to check the ventilation system on the manufacturing floor.

Kestrel® 4300
Construction Weather Tracker

Concrete cracking costs you money and reputation. **Stop it before it starts.**

Using the Kestrel 4300 alerts you to conditions in real-time, using the actual environmental conditions on your job site during your pour. No more guessing or using inaccurate weather data from miles away PLUS no more struggling through ACI's complex evaporation rate calculations by hand!

0843

features

- Flip-Open Impeller Cover
- Large Three-Line Graphical Display
- Backlight
- Wide Operating Range
- High Accuracy
- Patented Impeller and Sensor Technology
- No-Tools User-Replaceable Impeller
- Quick Response External Temperature Sensor
- Temperature Corrected Humidity Sensor
- Minimum and Maximum Values
- Wind Speed Average Function
- Clock & Calendar
- Customizable Automatic and Manual Data logger (3200 Points)
- On-Screen Data Charting
- Data Upload
- 5 Languages (English, French, Spanish, German, Italian)
- Waterproof & Floats
- Rugged, Drop-Tested
- Made in the USA
- 5-Year Warranty

INCLUDES

Soft Carry Pouch

Neck Lanyard

Batteries – 2AAA (average life 400 hours)

Kestrel Certificate of Conformity

ACCESSORIES

Kestrel Portable Vane Mount

Tripod for Stationary Use

Carrying Case

Kestrel Computer Interface and Communicator Software

Replacement Impeller

RH Calibration Kit

Dongle

AVAILABLE IN BLUETOOTH.
0843B

The Kestrel 4300 as featured in Concrete Construction Magazine.

measures

EVAPORATION RATE | WIND SPEED | TEMPERATURE | WIND CHILL | RELATIVE HUMIDITY | HEAT STRESS INDEX
DEWPOINT TEMP | WET BULB TEMP | BAROMETRIC PRESSURE | ALTITUDE | DENSITY ALTITUDE

Kary Jones uses the Kestrel 4250 at the Western Conference Finals in Denver, CO.

08425

You don't race at your trailer...
why measure weather there?

Make those last minute dial-in or tuning decisions count with the Kestrel 4250. Measure weather where it really matters - at the track. Get relative air density, absolute pressure, water grains and true density altitude at a fraction of the cost, size and complexity of other weather stations.

INCLUDES

- Soft Carry Pouch
- Neck Lanyard
- Batteries - 2AAA (average life 400 hours)
- Kestrel Certificate of Conformity

ACCESSORIES

- Kestrel Portable Vane Mount
- Tripod for Stationary Use
- Carrying Case
- Kestrel Computer Interface and Communicator Software
- Replacement Impeller
- RH Calibration Kit
- Dongle

AVAILABLE IN BLUETOOTH.
08425B

features

- Flip-Open Impeller Cover
- Large Three-Line Graphical Display
- Backlight
- Wide Operating Range
- High Accuracy
- Patented Impeller and Sensor Technology
- No-Tools User-Replaceable Impeller
- Quick Response External Temperature Sensor
- Temperature Corrected Humidity Sensor
- Minimum and Maximum Values
- Wind Speed Average Function
- Clock & Calendar
- Customizable Automatic and Manual Data logger (3600 Points)
- On-Screen Data Charting
- Data Upload
- 5 Languages (English, French, Spanish, German, Italian)
- Waterproof & Floats
- Rugged, Drop-Tested
- Made in the USA
- 5-Year Warranty

measures

WIND SPEED | TEMPERATURE | ALTITUDE | DENSITY ALTITUDE | RELATIVE AIR DENSITY MOISTURE CONTENT/GRAINS | HUMIDITY | AIR DENSITY | STATION PRESSURE DEWPOINT TEMP | BAROMETRIC PRESSURE

Measure CFM without a calculator. Do your job with **one less step.**

The Kestrel 4200 gives you immediate and accurate readings of volume air flow, wet bulb temperature, and humidity ratio. Enter the duct shape and dimensions, hold the Kestrel in the air flow and the volume air flow readings are displayed right on the screen.

0842

features

- Flip-Open Impeller Cover
- Large Three-Line Graphical Display
- Backlight
- Wide Operating Range
- High Accuracy
- Patented Impeller and Sensor Technology
- No-Tools User-Replaceable Impeller
- Quick Response External Temperature Sensor
- Temperature Corrected Humidity Sensor
- Minimum and Maximum Values
- Wind Speed Average Function
- Clock & Calendar
- Customizable Automatic and Manual Data logger (3600 Points)
- On-Screen Data Charting
- Data Upload
- Waterproof & Floats
- Rugged, Drop-Tested
- Made in the USA
- 5-Year Warranty

INCLUDES

Neck Lanyard

Batteries – 2AAA (average life 400 hours)

Kestrel Certificate of Conformity

ACCESSORIES

Kestrel Portable Vane Mount

Tripod for Stationary Use

Carrying Case

Kestrel Computer Interface and Communicator Software

Replacement Impeller

RH Calibration Kit

Dongle

AVAILABLE IN BLUETOOTH.
0842B

measures

WIND SPEED | AIR VELOCITY | VOLUME AIR FLOW | TEMPERATURE | WIND CHILL
RELATIVE HUMIDITY | DEWPOINT TEMP | WET BULB TEMP | HUMIDITY RATIO
BAROMETRIC PRESSUREALTITUDE | DENSITY ALTITUDE | HEAT STRESS INDEX

NANCE HVAC technical school students measure airflow

The horticulture department uses the Kestrel in High Tunnels at Orgeon State University.

0835DT

One easy number to spray safe.
Measure once, spray once.

Minimize waste and maximize safety with the Kestrel 3500 Delta T. Delta T allows you to accurately assess acceptable spraying conditions to ensure you're within guidelines and help you select the right spray nozzle. (Delta T is the difference between wet bulb and dry bulb temperatures. It's an accurate predictor of chemical evaporation rates.)

INCLUDES

- Neck Lanyard
- Slide on Cover
- CR2032 Coin Cell Battery (average life 300 hours)
- Kestrel Certificate of Conformity

ACCESSORIES

- Kestrel Portable Vane Mount
- Tripod for Stationary Use
- Carrying Case
- Replacement Impeller
- RH Calibration Kit

features

- Sure-Grip Protective Cover
- Backlight
- Wide Operating Range
- High Accuracy
- Patented Impeller and Sensor Technology
- No-Tools User-Replaceable Impeller
- Quick Response External Temperature Sensor
- Temperature Corrected Humidity Sensor
- Minimum and Maximum Values
- Wind Speed Average Function
- Hold Function
- Clock
- Waterproof & Floats
- Rugged, Drop-Tested
- Made in the USA
- 5-Year Warranty

measures

WIND SPEED | MAX WIND GUST | AVERAGE WIND SPEED | AIR/WATER/SNOW TEMPERATURE WIND CHILL | RELATIVE HUMIDITY | HEAT STRESS INDEX | DEWPOINT TEMP | WET BULB TEMP BAROMETRIC PRESSURE | ALTITUDE | DELTA-T

The Kestrel 4500 in action at a sniper competition.

**Photo courtesy of Drake Associates*

0845HTAN
0845HOLV

AVAILABLE IN BLUETOOTH.
0845HBTAN
0845HBOLV

Kestrel®

Pocket Weather® Tracker

with HORUS® Atrag™ Ballistics Software

Make your first shot even **under extreme conditions**

The first light-weight, hand-held tool to give you both comprehensive environmental data plus integrated aiming solutions. Streamline your mission with the combined capabilities of instant, accurate environmental readings along with ballistics algorithms and calculating power equivalent to a ruggedized PDA – all in one unit!

INCLUDES

- Soft Carry Pouch
- Neck Lanyard
- Batteries - 2AAA (average life 400 hours)
- Kestrel Certificate of Conformity

ACCESSORIES

- Kestrel Portable Vane Mount
- Tripod for Stationary Use
- Tactical Carry Case
- Replacement Impeller
- RH Calibration Kit
- Dongle

features

- **Five customizable targets** for location, distance, direction, declination and winds.
- **Select and store** multiple guns and rounds with full-featured software.
- **IP67 waterproof and MIL-STD-810G rugged** for durability in extreme environments.
- **Optional integrated Bluetooth® data transfer** capabilities to wirelessly download weapon and round libraries.
- **Built-in digital compass** for target bearing and wind direction.
- **Two AAA batteries** offer hundreds of hours of use plus the convenience of swapping batteries right in the field.
- **All the environmental measurements, storage and charting** capabilities of the Kestrel 4500.

Kestrel NV: As Rugged as the Environment. As Stealthy as the Mission.

Due to overwhelming demand from our military customers, the Kestrel NV line was born in 2005. Military personnel and pilots flying in darkness are often concerned with preserving their night vision and secure position. The NV model has the same features as its more colorful counterparts, but is olive drab or desert tan (4000 and 4500 models only) with a reduced brightness backlight which helps protect the users' adapted night vision. It takes 30 to 45 minutes for the average eye to adapt to darkness and maximize night vision. Even a short burst of white, yellow, green or blue light "bleaches out" the rod cell photoreceptors in the eye and causes night blindness until the entire adaptation process can take place again. The dim backlight is also much more difficult to detect with the naked eye in night or covert operations.

(The NV backlight appears soft greyish pink, not red, and is still in the visible spectrum, so it is not compatible with night-vision equipment. The Kestrel 4000 and 4500 is also offered in Olive Drab with a standard backlight for users who prefer the subdued color but do not need the reduced brightness backlight.)

0825NV

0835NV

0840NVTAN

0840NVOLV

0845NVTAN

0845NVOLV

Break Boundaries with Bluetooth®

Instant Weather Data Plus Instant Wireless Data Transfer!

Kestrel Weather Meters with integrated Bluetooth® wireless data transfer offer the ultimate in portable and accurate environmental data. A complete, hand-held weather station – measure and log numerous critical environmental conditions; wind speed, wind direction, temperature, humidity, barometric pressure, altitude, density altitude, wet bulb, dewpoint and more.

Now, both real-time and logged data can be transferred wirelessly and automatically to a laptop or PDA, making a Kestrel 4000 series weather meter the perfect tool for virtually any job that requires quick and reliable weather data – Bluetooth® technology eliminates the need for a separate interface and cabling.

Bluetooth® data transfer is available throughout the entire Kestrel 4000 series, including specialty Kestrel units.

0840BGRY 0840BORG 0840BOLV 0840BNVOLV 0840BNVTAN

0843B 0842B 08425B 0845BYEL 0845BNVTAN 0845BNVOLV

Director of Sales and Marketing Katie Godfrey uses the Blue Ocean Megaphone on the Schuylkill River in Philadelphia.

0100

*ALSO AVAILABLE IN TAN/OLIVE DRAB MILITARY VERSION.

0100MIL

Your job demands a powerful voice...

and a megaphone that won't quit.

When you're in charge of safety and security, you need to be heard loud and clear. Command attention with a powerful megaphone that's built tough to endure both environmental conditions and job-related hazards. The Blue Ocean Megaphone drowns out the competition with unique features and rugged durability not seen in other megaphones. The rechargeable battery gives you long-lasting power while eliminating the cost, hassle, and environmental impact of replacing multiple C or D cells. Sturdy, waterproof design maximizes resistance against cracking and corrosion.

INCLUDES

Protective Bumper in Personal Choice of Color

Rechargeable Battery Battery Pack

Battery Charging Station

Detachable Carry Strap

ACCESSORIES

MicrophoneTripod

features

- **Waterproof and floats.** Built tough to stand up to the harsh demands of the rowing environment.
- **Wrap around handle design** maximizes drop resistance and durability and makes it easier to hold and carry. (Patent-pending design)
- **Digital audio amplification** for exceptional clarity volume and power efficiency.
- **Convenient hands free operation** with optional microphone.
- **13 different bumper colors** choices to personalize your Megaphone.
- **Rechargeable, removable battery** – forget the hassle, cost and environmental impact of buying C or D cells!
- **Lithium-ion (Li-ion) battery pack** provides up to 6 hours of use while still being light-weight and compact. Carry an extra battery in your pocket and talk all day.
- **Built-in** foghorn and siren.

Choose your protective bumper.

0119 Bumper

Red Orange Yellow Blue Green Purple Pink Grey Black White Baby Blue Maroon Olive Drab Desert Tan

extras your tools

Maximize your monitoring capabilities.

The ultimate in portability - your Kestrel Pocket Weather Meter goes wherever you go. Maximize your weather monitoring capabilities with the right accessories. Clip the Kestrel on to your belt, easily set up a compact complete weather station for constant data collection, or wirelessly upload information to your computer. Kestrel accessories make this hand-held weather device fully field-deployable.

EXTRAS

Mini Tripod
0807

Clamp any Kestrel into this sturdy but lightweight tripod to hold it upright for taking readings in the field. Ultra-compact and portable, it folds to just 7.5" and weighs 4.8 oz.

Kestrel Interface & Software
0804 SER
0804 USB

The Kestrel® Interface is the ideal companion to any model in the Kestrel 4000 family. Upload data to your computer for long-term storage, in-depth analysis and detailed charting.

Kestrel Tripod Clamp
0793

Holds any model Kestrel. Attaches to any standard tripod.

Collapsible Compact Tripod
0792

Use the Kestrel friendly clamp (also available separately) to accommodate any Kestrel model. Or remove the clamp to attach the Vane Mount. Weighing only 1.7 pounds and collapsing to a compact 14 inches high, this tripod is the perfect companion on any trip!

Replacement Impeller
0801

Unique and patented to Kestrel. Large blade area and precision axle and bearings for whisper accuracy. Individually calibrated in our NIST traceable wind tunnel. Pops into place without tools.

Kensington Dongle
0790

Enables wireless communication for PCs without Bluetooth capabilities. Plug into any available USB port on your PC and instantly send and receive data wirelessly.

Silva Polaris Compass
0808
This compass has 2° graduation lines as well as large numerals at every 20° mark, and its clear base plate makes it easy to read a map and set bearings.

Tactical Kestrel Carry Case
0806 BRN
0806 BLK
0806 GRN
0806 CAM
Manufactured exclusively for NK in the USA, this case is MOLLE/PALS compatible. Available in Black, Coyote Tan, Brown and Ranger Green and Multicam.

Nitelze Kestrel 4000 Carry Case
0805
Slip your Kestrel in this sturdy padded nylon case and carry it on your belt or pack strap with ease. An elastic battery loop inside securely holds two backup AAA batteries. (Black only)

Kestrel Portable Vane Mount
0791
Assembles in seconds and the precision pivot and lightweight vane extension allows the unit to spin freely in the slightest of breezes. Paired with the Kestrel's 1400 + data-point memory log, extensive data can be collected including wind speed and direction.

RH Calibration Kit
0802
The RH calibration kit includes items necessary to maintain a stable environment while performing field calibration of one or more Kestrel units. Reusable for dozens of calibrations or verifications.

NIST-TRACEABLE ACCURACY

Each Weather Meter and wind impeller is individually tested and calibrated for every single measured value before it leaves our factory. Wind impellers are tested in our wind-tunnel at low and high speed and their startup speed is verified in a micro-tunnel. Relative humidity models receives a two-point calibration in humidity and temperature controlled chambers monitored by a highly accurate dewpoint hygrometer. Temperature and pressure are both verified against calibrated standards. Each of our primary standards used in calibration is traceable to the National Institute of Standards and Technology (NIST). Our primary Calibration Standards are sent for calibration on a regular schedule, and only approved laboratories and NIST themselves are used for calibration. Every Kestrel includes a free Certificate of Conformity detailing our testing procedures and specifications.

ACCURACY GUARANTEE

We guarantee that your Kestrel Weather Meter will perform within specifications when you receive it. If you believe your Kestrel is not meeting specifications when you receive it, call us and we'll help you troubleshoot over the phone. If it still appears that it may be out of specification, return your Kestrel to us within 30 days of purchase and we will test and recalibrate all values at no charge and reissue your Certificate of Conformity.

CALIBRATION SERVICES

We offer multiple levels of calibration services to meet your needs. With our most affordable basic calibration, we repeat every calibration step used when your Kestrel was manufactured and reissue your unit's Certificate of Conformity. We can provide NIST-traceable Calibration Services with full documentation of as-found and as-left values, as well as verification at customer-designated points. We even offer "tune-up" services including replacement impellers and batteries.

KESTREL FIVE-YEAR WARRANTY

We understand that Kestrel Meters are used to help people do their jobs more efficiently, and that reliability is paramount. Kestrel Meters are trusted by wildland firefighters, scientific researchers, professional meteorologists, first responders, HAZMAT teams, and even the US Military. We know they don't lead a pampered life, and we design them for years of performance in tough conditions. Every Kestrel Weather Meter is built in our manufacturing facility in Boothwyn, Pennsylvania, and tested multiple times during and after assembly for function, sealing and appearance. We guarantee every Kestrel product to be free of defects in materials and workmanship for a period of FIVE YEARS from your date of purchase. We will repair or replace any defective product or part when notified within the warranty period, and will return the product via domestic ground shipping at no charge.

The following issues do not result from a manufacturing defect and are not covered under this warranty:

- Damage resulting from severe impact, crushing or intentional mechanical harm
- Modifications or attempted repairs by someone other than an authorized NK repair agent
- Normal wear from use of the product
- Failed batteries and/or battery corrosion damage
- Re-calibration beyond 30 days from your date of purchase

Your warranty period will be measured from your date of purchase. The best way to ensure full warranty coverage is to REGISTER your Kestrel Weather Meter promptly via NK's website). We keep your registration information strictly confidential and do not sell it, share it, or use it for anything but product-related information bulletins (which you may decline receiving). If you do not register and cannot provide proof of purchase, your warranty period will be measured from our date of manufacture (by serial number). Note that you may check your unit's date of manufacture by entering its serial number in the warranty support area of NK's website.

We request that you contact NK if you feel your product is not working properly. We can often resolve product issues by phone or e-mail, saving you the time and expense of returning the unit. If we require the product to be returned, we will direct you to the support area of our website to request a Return Authorization to expedite the return of your unit to you.

CUSTOMER CARE PROGRAM

NK wants you to be a Kestrel customer for life, so we take care of you even beyond the terms of the above warranty with our Customer Care Program. Trade-in any Kestrel Weather Meter, no matter the age or condition or how it was damaged, and receive a discount on a replacement product. Your trade-in discount applies to the same or higher model. Your trade-in must be surrendered to receive the discount and cannot be retained for parts or attempted salvage. Check our website for trade-in values of each model.

NK SUPPORTS YOU

Get answers to any and all of your Kestrel questions when you need them. Kestrel Pocket Weather Meters are backed by a full five-year warranty. Even after our industry-leading warranty expires, each Kestrel is covered by our Trade-In/Trade-Up Customer Care program. Go to kestrelweather.com for full service support. You can register your Kestrel, download the latest version of software, purchase tune-ups or certifications, post technical questions and comments and get responses on our Knowledge Center. Plus, check out what other Kestrel users are saying in the product reviews section.

Mary Giovanetti, Kestrel Customer Service Representative.

TO CONTACT SERVICE AND SUPPORT:

phone
Toll Free: 800-784-4221
610-447-1555
Mon-Thu, 9am-5pm ET &
Fri, 9am-4pm ET

technical support
techsupport@nkhome.com

order & repair status information
orders@nkhome.com

If you have a question, we have an answer.

Connect with us online for news, freebies, exclusive promotions and more.

www.facebook.com/KestrelMeters
www.twitter.com/KestrelChick

KESTREL SPECIFICATIONS

Measurement *Response Time*	Model	Units	Operational Range	Resolution	Accuracy (+/-)
Wind Speed (Air Velocity) *1 second*	All Models	**m/s**	*0.4 to 60.0 m/s*	*0.1*	***Larger of 3% of reading or least significant digit***
		ft/min	*59 to 11,948 ft/min*	*1*	
		km/h	*1.0 to 218.0 km/h*	*0.1*	
		mph	*0.8 to 135.0 mph*	*0.1*	
		knots	*0.6 to 118.3 kt*	*0.1*	
		Beaufort	*0 to 12 B*	*1*	
1 inch diameter impeller with precision axle and low-friction Zytel® bearings. Off-axis accuracy -1% @ 5° off-axis; -2% @ 10°; -3% @ 15°. Calibration drift < 1% after 100 hours use at 16 MPH / 7 m/s. Replacement impe Patent 5,783,753).					
Air Flow *1 second*	4200	**cfm**	*0 to 99,999 cfm*	*1*	***3% of reading***
		m^3/h	*0 to 99,999 m^3/h*	*1*	
		m^3/m	*0 to 99,999 m^3/m*	*1*	
		m^3/s	*0.0 to 9,999.9 m^3/s*	*0.1*	
		L/s	*0 to 99,999 L/s*	*1*	
Volume of air flowing through an opening. Automatically calculated from Air Velocity measurement and user-specified duct shape (circle or rectangle) and dimensions (units: in, ft, cm or m). Maximum duct dimensi					
Wind Direction / Forward Heading *1 second*	4500	**°**	*360°*	*1*	*5°*
		Cardinal Points	*360°*	*16 Points*	*5°*
2-axis solid-state magnetoresistive sensor mounted perpendicular to unit plane to permit operation while measuring wind speed. Declination/variation adjustable for True North readout. Accuracy of measurements c calibration routine eliminates magnetic error from batteries or unit and must be run after every full power-down (battery removal or change).					
Temperature *1 second*	2000 2500 3000 3500 4000 4200 4250 4300 4500	**°F**	*-49.0 to 257.0 °F*	*0.1*	*1.8 °F*
		°C	*-45.0 to 125.0 °C*	*0.1*	*1.0 °C*
Air, water or snow temperature. Hermetically-sealed, precision thermistor mounted externally and thermally isolated (US Patent 5,939,645) for rapid response (fastest with airflow of 2.2 mph/1 m/s or greater). Calibra					
Relative Humidity *1 minute*	3000 3500 4000 4200 4250 4300 4500	**%RH**	*0.0 to 100.0 %*	*0.1*	*3.0 %RH*
***Polymer capacitive humidity sensor mounted in thin-walled chamber external to case for rapid, accurate response (US Patent 6,257,074). (To achieve stated relative humidity accuracy, unit must be permitted to equi large, rapid temperature changes and must be kept out of direct sunlight.) Calibration drift +/- 2% over 24 months. Relative humidity may be recalibrated at factory or in field using Kestrel Humidity Calibration Kit (NI*					
Evaporation Rate *1 second*	4300	**$lb/ft^2/hr$**	*0.00 to 1.00 $lb/ft^2/hr$*	*0.01*	*Typical: ±0.02 $lb/ft^2/hr$*
		$kg/m^2/hr$	*0.00 to 5.00 $kg/m^2/hr$*	*0.01*	*Typical: ±0.1 $kg/m^2/hr$*
The rate at which moisture is lost from the surface of curing concrete. Calculated from the primary measurements of wind speed, air temperature, relative humidity and concrete temperature. Requires user measure with an accurate IR or probe thermometer (°F or °C, not included with Kestrel 4300). For maximum accuracy, readings should be taken 20 inches above pour surface with the thermistor shaded, and averaged for 6-10 *Maximum accuracy: ±0.06 $lb/ft^2/hr$ or ±0.3 $kg/m^2/hr$.*					
Pressure *1 second*	2500 3500 4000 4200 4250 4300 4500	**inHg**	*0.3 to 32.5 inHg*	*0.01*	*0.05 inHg*
		hPa / mb	*10.0 to 1100.0 hPa / mb*	*0.1*	*1.5 hPa / mb*
		PSI	*0.15 to 16.0 PSI*	*0.02*	*0.02 PSI*
Air pressure at the location. Adjustable reference altitude allows display of station pressure or barometric pressure corrected to MSL. Monolithic silicon piezoresistive pressure sensor with second-order temperatu 32 to158 °F (0 to70°C) and pressure range 600 to 1100hPa is +\- 0.074 inHg +\-2.5hPa. Pressure sensor may be recalibrated at factory or in field.					
Altitude *1 second*	2500 3500 4000 4200 4250 4300 4500	**ft**	*-6000 to 30000 ft*	*1*	*50 ft*
		m	*-2000 to 9000 m*	*1*	*15 m*
Height above Mean Sea Level ("MSL"). Temperature compensated pressure (barometric) altimeter.					
Crosswind **Headwind, Tailwind** *1 second*	4500	**mph**	*0.8 to 135.0 mph*	*1*	*5%*
		ft/min	*59 to 11,880 ft/min*	*1*	*5%*
		km/h	*1.0 to 217.3 km/h*	*0.1*	*5%*
		m/s	*0.4 to 60.0 m/s*	*0.1*	*5%*
		knots	*0.6 to 117.3 kt*	*0.1*	*5%*
Effective wind relative to a target or travel direction. Calculated from wind speed, wind direction and target heading. Auto-switching headwind/tailwind indication. Ranges expressed refer to primary wind speed.					
Wind Chill *1 second*	2000 2500 3000 3500 4000 4200 4250 4300 4500	**°F**	*0.7 to 135.0 MPH, -49.0 to 257.0 °F*	*0.1*	*1.8 °F*
		°C	*0.4 to 60.0 m/s, -45.0 to 125.0 °C*	*0.1*	*1.0 °C*
Perceived temperature resulting from combined effect of wind speed and temperature. Caclulated based on the NWS Wind Chill Temperature (WCT) Index, revised 2001, with wind speed adjusted by a factor of 1.5 to 10 m above ground. (Specification temperature limits established by WCT Tables.)					
Heat Index *1 second*	3000 3500 4000 4200 4250 4300 4500	**°F**	*0.0 to 100.0 %RH, -49.0 to 257.0 °F*	*0.1*	*3.6 °F*
		°C	*0.0 to 100.0 %RH, -45.0 to 125.0 °C*	*0.1*	*2.0 °C*
Perceived temperature resulting from the combined effect of temperature and relative humidity. Calculated based on NWS Heat Index (HI) tables. (Specification temperature limits established by HI tables.)					

Dewpoint *1 second*	3000 3500 4000 4200 4250 4300 4500	°F	0.0 to 100.0 %RH, -49.0 to 257.0 °F	0.1	3.6 °F
		°C	0.0 to 100.0 %RH, -45.0 to 125.0 °C	0.1	2.0 °C
Temperature to which the air must be cooled at a constant pressure for water vapor to condense into water. Calculated from temperature and relative humidity.					
Wet Bulb Temperature *1 second*	3000 3500 4000 4200 4250 4300 4500	°F	-49.0 to 257.0 °F, 0.0 to 100.0 %RH, 8.86 to 32.48 inHg	0.1	3.6 °F
		°C	-45.0 to 125.0 °C, 0.0 to 100.0 %RH, 300.0 to 1100.0 hPa	0.1	2.0 °C
Temperature indicated by a wet bulb psychrometer. Calculated from temperature, relative humidity and pressure.					
Delta T *1 second*	3500 DT	°F	-49.0 to 257.0 °F, 0.0 to 100.0 %RH, 8.86 to 32.48 inHg	0.1	5.4 °F
		°C	-45.0 to 125.0 °C, 0.0 to 100.0 %RH, 300.0 to 1100.0 hPa	0.1	3.0 °C
Difference between dry bulb temperature and wet bulb temperature. When spraying, indicates evaporation rate and droplet lifetime. Safe range for pesticide spraying is 4 to 16 °F / 2 to 9 °C.					
Humidity Ratio *1 second*	4200 4250	gpp	0.000 to 5000.0 gpp	0.1	typical accuracy 10%
		g/kg	0.00 to 720.0 g/kg	0.01	typical accuracy 10%
Mass of water vapor in a mass of air. Commonly expressed as grains/lb and referred to as "grains". Calculated from temperature, relative humidity and pressure.					
Density Altitude *1 second*	4000 4200 4250 4300 4500	ft	-49.0 to 257.0 °F, 0.0 to 100.0 % RH, 8.86 to 32.48 inHg	1	246
		m	-45.0 to 125.0 °C, 0.0 to 100.0 %RH, 300.0 to 1100.0 hPa	1	75
Air density converted to equivalent sea level elevation at the International Standard Atmosphere. Calculated from pressure, temperature and relative humidity.					
Max/Avg Wind Speed (Air Velocity), Crosswind, Headwind/Tailwind	**All Models**	*One-button clear and restart of Max Wind Gust and Average Wind measurement.*			
Pressure Trend	**2500 3500**	*Continuously updating three-hour barometric pressure trend indicator: rising rapidly, rising, steady, falling, falling rap*			
Data Storage / Display	**4000 4200 4250 4300 4500 Horus 4500**	*Minimum, maximum, average and logged history stored and displayed for every measured value. Large capacity data l storage; auto-store interval settable from 2 seconds to 12 hours. Capacity by model (data sets): K4000=4000, K4200=3*			
Data Upload	**4000 4200 4250 4300 4500**	*Requires optional PC interface and provided software. RS-232 connection with USB adapter available.*			
Display	**1000 2000 3000**	*Reflective 3 1/2 digit LCD. Digit height 0.36 in / 9 mm.*			
	2500 3500	*Reflective 5 digit LCD. Digit height 0.36 in / 9 mm.*			
	4000 4200 4250 4300 4500	*Multifunction, multi-digit programmable dot-matrix display.*			
Display Update	**All Models**	*1 second.*			
Display Backlight	**2000 3000**	*Aviation green electroluminescent backlight.*			
	NV Models	*Choice of aviation green or faded pink night vision preserving electroluminescent backlight. Manutal activa*			
Clock / Calendar	**2500 3500**	*Real-time hours:minutes clock.*			
	4000 4200 4250 4300 4500	*Real-time hours:minutes:seconds clock, calendar, automatic leap-year adjustment.*			
Operational Temperature Range (LCD and Batteries)	**All Models**	*The operational temperature range of the liquid crystal display and batteries is 14° F to 131° F / -10 °C to 55 °C. Beyond unit must be maintained within range and exposed for minimum time necessary to take reading.*			
Storage Temperature	**All Models**	*-22 °F to 140 °F / -30 °C to 60 °C.*			
Auto Shutdown	**2000 2500 3000 3500**	*After 45 minutes of no key presses.*			
	4000 4200 4250 4300 4500	*User-selectable: 15 or 60 minutes with no key presses or disabled.*			
Languages	**4000 4200 4250 4300 4500**	*English, French, German, Italian, Spanish.*			
Certifications	**All Models**	*CE certified. Individually tested to NIST-traceable standards are available with certificate of conformity with each new K*			
Battery	**1000 2000 2500 3000 3500**	*CR2032, one, included. Average life, 300 hours. Battery life reduced by backlight use in 2000 to 3500 models.*			
	4000 4200 4250 4300 4500	*AAA Alkaline, two, included. Average life, 400 hours of use, reduced by bac*			
Environmental	**All Models**	*Waterproof (IP67 and NEMA-6). Drop-tested (MIL.STD.810F; unit only. Substantial impact may damage replaceable imp*			
Dimensions	**2000 2500 3000 3500**	*Unit 4.8 x 1.7 x 0.7 in / 122 x 42 x 18 mm. Case 4.8 x 1.9 x 1.1 in / 122 x 48 x 28 mm.*			
	4000 4200 4250 4300 4500	*Unit 5.0 x 1.8 x 1.1 in / 12.7 x 4.5 x 2.8 cm.*			
Weight	**2000 2500 3000 3500**	*Unit 2.3 oz / 65 g. Case 1.3 oz / 37 g.*			
	4000 4200 4250 4300 4500	*Unit 3.6 oz / 102 g.*			

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Kestrel Pocket Weather Meters
21 Creek Circle
Boothwyn, PA USA 19061
www.kestrelweather.com
1-800-784-4221

FSC
Mixed Sources
Product group from well-managed forests, controlled sources and recycled wood or fiber
www.fsc.org
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30%