

## Kestrel 5400 Heat Stress WBGT Meter

The next generation of WBGT and environment monitoring is here with the Kestrel 5400 Weather Meter.



### Measures

- Altitude
- Barometric Pressure
- Density Altitude
- Dew Point Temperature
- Globe Temperature
- Heat Stress Index
- Naturally Aspirated Wet Bulb Temp
- Relative Humidity
- Station Pressure (Absolute Press.)
- Temperature
- Thermal Work Limit (TWL) |
- Wet Bulb Temp. (Psychrometric)
- Wet Bulb Globe Temp. (WBGT)
- Wind Chill
- Wind Speed

The most user-friendly WBGT (Wet Bulb Globe Temperature) meter on the market, the **Kestrel 5400 Heat Stress WBGT Meter** detects when heat-related conditions are unsafe - well before your body does!

The Kestrel 5400 is a handheld, portable, WBGT (Wet Bulb Globe Temperature) measurement tool and environmental data logger. No need for distilled water, bulky globes, complicated setup or expensive equipment. Getting accurate measurements couldn't be easier: just hold the Kestrel Heat Stress Tracker in the area of interest for both instantaneous and average WBGT measurements.

Set the appropriate WBGT thresholds for flag warnings and the loud buzzer, bright LED beacon and on-screen warnings provide instant notification of dangerous conditions.

Plus the Kestrel 5400 comes with commonly used heat safety guidelines on a handy, waterproof chart.

### Features & Benefits

- Flag warnings via loud buzzer & LED beacon!
- Bluetooth LINK works with PC/Mac via Dongle
- Bluetooth LINK to Smartphones / Mobil / Android / IOS
- Takes 1 AA battery (instead of 2 AAA)
- Battery door is in the back, sealed away from the motherboard, should your battery leak as was common with all the 4000 series. All 5000 battery doors are the same and interchangeable.
- Slightly larger and improved higher contrast / resolution screen for any lighting (even sunlight) and easy on your eyes.
- Intuitive user-interface screen navigation
- Multiple Languages (English, French, German, Spanish)
- Scratch and breakage-resistant window
- All meters include both options of Red (NV - Night Vision) & White backlights.
- Slightly bigger, more robust, though not really noticeable difference.
- Roughly 10,000 data points. 4000 series all had under 5000 data points.

### Who's Using the Kestrel 5400 Heat Stress WBGT Meter?

- Athletics & Outdoor Sports
- Coaches & Trainers
- Construction & HVAC
- Education & Classroom Use
- Facilities Management
- Firefighting
- Hazardous Materials Response
- Industrial Hygiene
- Law Enforcement
- Military Training and Operations
- Outdoor Event Organisers

Unlike other WBGT meters on the market, the Kestrel 5400 is a full-featured weather meter as well. Measure wind speed, maximum wind gusts, temperature, humidity, pressure, wind chill, density altitude and more.

Along with having a Wet Bulb Global Temperature reading, the Kestrel 5400 displays thermal work limit ("TWL"), another recognized composite heat stress prediction tool. For both WBGT and TWL, the Kestrel 5400 provides on-screen alarms when conditions enter the caution and danger zones, providing clear and immediate guidance that heat illness prevention steps must be taken. Clothing levels can also be customized, making the Kestrel 5400 particularly useful in activities requiring heavy protective gear which worsens heat stress. The Kestrel 5400 also displays natural wet bulb temperature, and black globe temperature.

No matter what your activity, the Kestrel 5400 provides insight into the critical conditions affecting safety, performance and success. The Kestrel 5400 with LiNK wireless data communication adds a compass for tracking wind direction as well, expanding its usability to include HAZMAT response, and even measuring headwind at the running track!

### Easy Access to Your Data

In addition to measuring the current environmental conditions, the Kestrel 5400 tracks and logs over 10,000 sets of time-stamped data. Your data log can be transferred to a mobile device wirelessly with the LiNK wireless communication option and Kestrel LiNK app, or to a PC/MAC with either the accessory Kestrel LiNK Dongle or waterproof USB Data Transfer Cable (available separately).

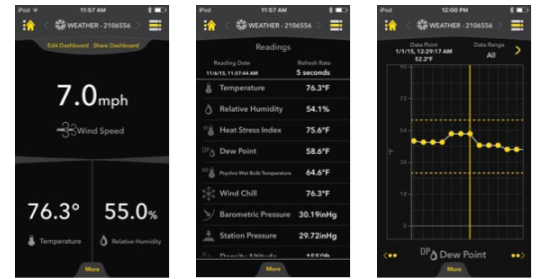
Pair the Kestrel 5400 with the optional Kestrel Vane Mount for hands-free measurements over the course of the practice, training session or workday. And for maximum functionality, choose the Kestrel 5400 with LiNK to transmit live measurements to your phone or tablet when you're within range. The Kestrel LiNK app will also display alerts on your mobile device to let you know when conditions have become dangerous.

### Choose Kestrel LiNK Option to Add the Power of Apps

LiNK is Kestrel's wireless data communication system, powered by Bluetooth® low energy. Choose the Kestrel 5400 with LiNK option and you get full iOS, Android, PC and Mac app support.

See real-time readings on your phone or tablet on a customizable dashboard up to 100' away (line of sight). Download stored data from your Kestrel to save or share it. Plus, you can update the firmware on your Kestrel when improvements are released.

Simple communication to Windows and Mac computers is provided through the optional LiNK USB Dongle or USB Data Transfer Cable. Download your data to view, analyze and archive. Enables firmware update of Kestrel 5 series meters.



Optional Kestrel LiNK

*Note: Bluetooth® low energy is built into all recent iOS and Android devices. PC and Mac connectivity require purchase of a Kestrel LiNK USB Dongle. Non-LiNK units can be connected to PCs and Macs, but NOT phones and tablets, using the Kestrel USB Data Cable.*

### How Does the Kestrel 5400 Work?

The Kestrel 5400 uses a 1-inch black globe to gather information about the environment, which isn't possible with current Kestrels. As is true with the original Wet Bulb Globe Temperature apparatus, a temperature sensor is installed inside the globe that will measure the temperature inside. The temperature inside the globe is a function of the ambient air temperature, solar insolation and wind speed.

As one can imagine, a sunny day will make the globe hotter because it's painted black, and colder ambient temperatures will have a tendency to cool off the globe. Lastly, the wind will cause the globe to get closer to the ambient air temperature because it will carry heat away from the globe when the air is cooler, or increase heat transfer to the globe if the air is warmer than the globe.

The Kestrel must sit out for a period of time to allow the globe to adjust to true atmospheric conditions - a recommended minimum of 7-10 minutes. The globe temperature is then taken into account along with other measurements, such as ambient temperature, humidity and pressure, to calculate more meaningful measurements, such as Wet Bulb Globe Temperature and Thermal Work Limit.



### Indoor Use

Reading the WBGT is important even in indoor settings where heat stress is a concern. The Kestrel has an 'indoor' setting on the WBGT setting which basically turns off the function of taking into account the direct solar radiation from the sun.

It's important to place the Kestrel in a representative area of the conditions that the workers face.

Remember, wind plays a factor in WBGT, so a vane mount can be used indoors as well. In the case of a ceiling fan, if the Kestrel doesn't pick up the ceiling fan, then you are essentially getting the "worst case" WBGT readings which is not actually a bad thing.

If the airflow is pretty strong from the fan and you want to have that factored in, you could mount the Kestrel sideways (vs vertical) so the impeller picks up the wind more realistically.

### Models Available

- KAU-KES-0854ORA Kestrel 5400 Heat Stress WBGT Meter (Safety Orange)
- KAU-KES-0854LVCORA Kestrel 5400 Heat Stress Tracker Pro with LiNK, Compass + Vane Mount
- KAU-KES-0854VORA Kestrel 5400 Heat Stress Tracker + Vane Mount (Safety Orange)
- KAU-KES-0854VTAN Kestrel 5400 Heat Stress Tracker + Vane Mount (Desert Tan)



#### Includes

- Neck Lanyard
- AA Lithium Battery (Average Life 400 Hours)
- Protective Drawstring Pouch
- Certificate of Conformity (w/ specifications)
- Instruction Manual
- Five Year Warranty



### Optional Accessories

- Rotating Vane Mount & Carry Case
- Kestrel LiNK Wireless Dongle (PC/Mac)
- Kestrel USB Data Transfer Cable

### Kestrel 5400 Specifications



Scan (or click) the QR Code using a free iOS / Android App to view the full specifications of the Kestrel 5400 range