

# Kestrel DROP

First Waterproof, Rugged, Wireless, Environmental Data Logger measuring temperature, humidity and pressure. Monitor and record the conditions of indoor and outdoor environments and easily access real-time as well as historical data on your phone or tablet through a Bluetooth Smart connection to the Kestrel LiNK app.



## World's Easiest-to-Use Rugged Environmental Data Logger

### Drop D1

Wireless Temperature Data Logger



Know your temperature conditions anywhere with the small, rugged Kestrel DROP D1 Temperature Logger.

### D1 Measurements

-  Temperature
- 





### Drop D2

Wireless Temperature & Humidity Data Logger



The Kestrel DROP D2 is the easiest way to monitor and track temperature, humidity, heat index and dew point in almost any environment – wet or dry, indoors or out.

### D2 Measurements

-  Temperature
-  Heat Index
-  Humidity
-  Dew Point Temp.








### Drop D3

Wireless Temperature, Humidity, & Pressure Data Logger



The Kestrel DROP D3 is designed to monitor and record a full suite of environmental conditions, including temperature, humidity, heat index, dew point temperature, station pressure, density altitude and pressure trend in a variety of indoor, outdoor and industrial applications.

### D3 Measurements

-  Temperature
-  Heat Index
-  Humidity
-  Dew Point Temp.
-  Station Pressure
-  Density Altitude
-  Pressure Trend
- 

All models available in all three colors: High visibility red, blue and desert tan.

## Count on Kestrel DROPS in Virtually Any Environment

### Small, Light and Rugged

Each DROP logger measures just 1 x 1.8 x 2.4 inches (24 x 46 mm x 60 mm) and weighs just 1.2 ounces (34 grams). DROP loggers meet military and international standards for water, dust and shock resistance (IP-67 and MIL-STD-810G) and are conveniently equipped with a sturdy D-ring for hanging in almost any environment. No wiring or complicated setup, the DROP can also be worn by employees for on-site conditions monitoring.



## Bluetooth Enabled

The Kestrel DROPs employ Bluetooth Smart technology for wireless data transfer to the Kestrel LiNK App. Bluetooth Smart is the intelligent, power-friendly version of Bluetooth wireless technology. With Kestrel LiNK you can view real-time readings from any DROP logger within wireless range (100' or more line of site). You don't have to actively pull the logger from the field to get the data, you just have to be within Bluetooth range



## Real-Time Alerts

Through the Kestrel LiNK app, you can adjust the DROP's logging interval and set up real-time threshold alerts. Readings can be updated as frequently as every 2 seconds, and logging time and date are automatically updated whenever connected to your smart device. You can also send and share real-time and logged environmental data via email, Facebook or Twitter.



## Battery Life

The Kestrel DROPs run on a single coin-cell battery. Adjust the logging interval and other settings, such as real-time threshold alerts and multiple DROP connections to customize connection frequency and battery life to your needs. Store thousands of data points and get months of logging

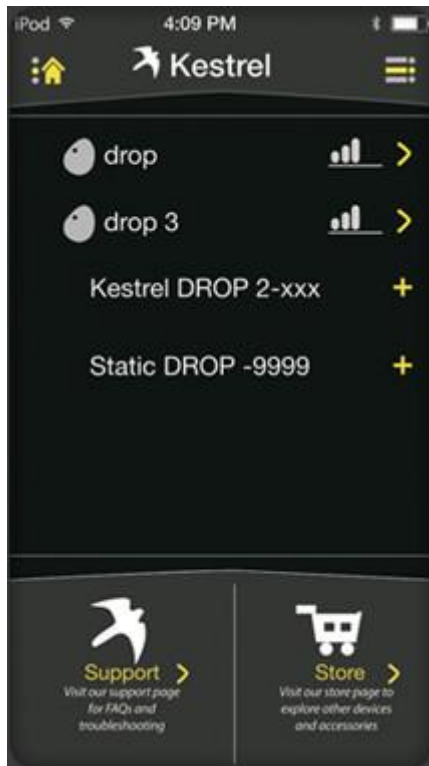


## Wirelessly View & Retrieve Data with Kestrel LiNK

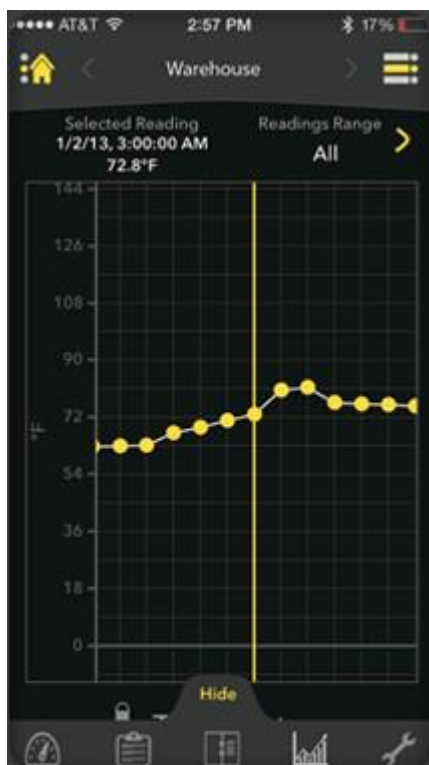
A Kestrel DROP can hold months of temperature, humidity and pressure data for later retrieval, or you can connect and view conditions real-time (up to 100' line of sight) with the Kestrel LiNK app. A single phone or tablet can connect to up to 8 DROP loggers concurrently and store data logs from many more. The best part about the Kestrel LiNK app is its ease of use. Once the Kestrel LiNK app is downloaded (free) from the app store, simply

turn your phone or tablet's Bluetooth to "ON," open the app, connect to your DROP and start logging!

## 1 Connect Your Drop



## 2 Log, View & Chart Real-Time Data



### 3Share Data



#### **iOS and Android Requirements:**

**iOS:** iOS 6 installed iPhone 4s, iPad 3rd generation or iPod Touch 5th generation – or any later iOS or hardware configuration. Will not work on iPhone 4, 3GS on 3G or any earlier iPad or iPod generation

**Android:** Android 4.2 and higher. Works with most Android devices with Bluetooth Smart®, including Samsung Galaxy, Nexus 4, Motorola Droid, and other recent generation phones and tablets.



## The DROP Design Difference

NK's team of experts and engineers is determined to make the most accurate and reliable wireless data loggers available. With a wide variety of data loggers on the market, there are very important differences that make the Kestrel DROP the best choice for almost every application.

1. Patented external thermally isolated thermistor for fast accurate readings
2. Precision capacitive humidity sensor (D2 and D3 only)
3. Wide range pressure sensor (D3 only)
4. LED light for locating and managing multiple DROPs
5. Provides months of use on one, user-replaceable CR2032 coin cell battery
6. Equipped with a sturdy D-ring for hanging wherever needed
7. Individually calibrated against NIST-traceable standards
8. Status button used for quick connection to BT, battery test and LED light test
9. Rugged UV-resistant molded enclosure
10. MIL-STD-810G drop-tested, IP67 water- and dustproof

## Awards & Reviews

## **Backpacker Magazine –Editor’s Choice Award 2015**

"How many times have you been out in the backcountry and wondered, 'How cold did it get last night?' or 'Exactly how hot was that scorching hike?' We wonder that all the time when we're out testing, and now with the Kestrel DROP we finally have the data we want."



### **Gardening**

"I have been using my D2 to monitor my indoor garden. I started with seeds and I'm hoping to transplant them later this spring. Monitoring the temperature and humidity in the area I have them has led to more sprouts and success than I have had in years past. Humidity has a direct effect on the plant's ability to transpire at a healthy rate, and being able to take some action around the plants conditions has been awesome."



### **Pet Care**

"We use our D2 to monitor the environment in our car for my canine. He has to be left in our vehicle at times while I visit doctors or have other appointments. We love that we are able to be notified of the environment if the vehicle becomes uncomfortable for him."





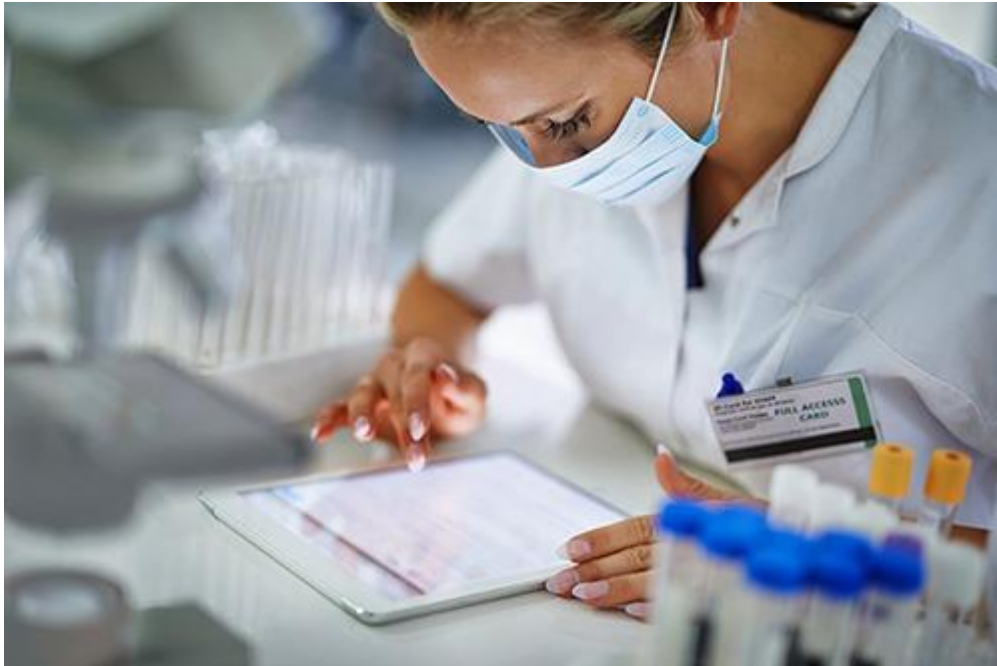
## **Animal Husbandry**

"We've been using a D2 to monitor the conditions around our goat's feeding area this spring. The conditions have been all over the place from warm days to snow, so it has been helpful to know the conditions on site for our animals! We've used other monitors in the past, but nothing has stood up to the outdoors (and curious goats) like the DROP has."



## **Who's Using the Kestrel DROP Data Loggers?**

Kestrel DROP Data Loggers can be easily used in a wide variety of indoor, outdoor and industrial applications. You can employ multiple loggers for pinpoint visibility of where environmental factors are creating unsafe conditions.



## **Research & Academics**

Data logging in an academic environment can help teach basic science and environmental principles to children. Leaving a data logger in an indoor or outdoor environment and tracking the temperature, humidity and pressure changes over a period of time can help children explore weather patterns and start to understand how to document and support science experiments with appropriate data and measurements



## **Food & Beverage Safety**

Temperature monitoring is critical to quality control throughout the food industry. Kestrel DROPS are the ideal tool for accurately tracking and logging temperature to ensure



compliance with environmental, health and safety standards, including Hazard Analysis and Critical Control Points (HACCP) regulations. DROPs can be used to monitor temperature along the entire cold chain and food distribution cycle.



## Facilities Management

Kestrel DROPs provide environmental monitoring locally or throughout an entire building with no setup, configuration or wiring required. The units can be used short term for troubleshooting in an isolated area or long term in multiple locations to create a building profile. Data from multiple locations and parameters can be combined for a complete view of building performance.



## **Agriculture & Livestock**

Monitoring agricultural and livestock processes requires a rugged, waterproof device like the Kestrel DROP logger, which is capable of withstanding hot and humid conditions in remote areas. The Kestrel DROP is also the ideal tool for monitoring livestock conditions, during both raising and transportation.



## **Heat Stress Prevention**

Are hot conditions a concern in your workplace? Ensure OSHA compliance and protect employee health and wellness by monitoring conditions with the Kestrel DROP data loggers. View temperature, humidity and heat index exactly where employees are working. Track conditions anywhere needed in a factory, warehouse, farm, storage area or distribution center.





## **Home & Garden**

For outdoor and indoor use, the Kestrel DROP data loggers help users ensure safe conditions even when they can't be there. Kestrel DROPs are ideal for monitoring conditions throughout the house, especially in children's bedrooms, nurseries and basements – anywhere homeowners need peace of mind.



## **Hunting**

Environmental conditions for hunting dogs can be extreme. When temperatures drop to single digits while swimming for ducks or rise to hot double digits during bird season, it's important

to take proper precautions to make sure dogs are properly acclimated. Monitor the exact conditions of hunting dogs by attaching a DROP to a dog's collar.



## **Manufacturing**

Rugged, waterproof, drop-proof and dust-proof Kestrel DROP loggers are suitable for almost all manufacturing, process and industrial applications. Kestrel DROPs are small enough to fit in areas other loggers cannot reach, such as pipework, and tough enough to monitor extreme temperatures throughout production processes.

## **Warranty & Specifications**

Every Kestrel environmental instrument is designed and built entirely in the USA. Kestrel's history and focus on quality and ruggedness is reflected in the DROP's industry-leading five-year warranty. Kestrel has been building rugged environmental instruments that help people do their jobs more safely and efficiently for almost 20 years and has built a reputation for reliability, dependability, and accuracy.

### **Drop Proof**

MIL-STD-810G  
Transit Shock Standard











### **Waterproof**

IP-67







### **Compare Models**

**Measurements**

**D1 D2 D3**

 Temperature	yes yes yes
 Humidity	yes yes
 Heat Index	yes yes
 Dew Point Temp.	yes yes
 Station Pressure	yes
 Density Altitude	yes
 Pressure Trend	yes
Available Colors   	yes yes yes

## Product Specifications

	Accuracy	Resolution	Range
 Temperature	+/- 0.9°F / 0.5°C	0.1°F / 0.1°C	-10°C to 55°C
 Humidity	+/- 2% RH	0.1% RH	10% to 90% RH, 25°C
 Pressure	+/- 1.5 mbar at 25°C, 700-1100 mbar +/- 0.044 inHg at 77°F, 20.67-32.48 inHg	0.1 mbar/0.01 inHg	25°C/77°F, 700 - 1100 mbar/ 20.67-32.48 inHg
 Dew Point	+/- 3°F +/-1.8°C	0.1°F / 0.1°C	10% to 90% RH at 77°F/25°C over 10 - 55°C/50 - 131°F
 Heat Index	+/- 5°F +/-2.6°C	0.1°F / 0.1°C	10% to 90% RH at 77°F/25°C over 10 - 55°C/50 - 131°F
 Density Altitude	+/- 25.0 m +/- 82.0 ft	0.1 m/0.1 ft	10% to 90% RH over 10 - 55°C/50 - 131°F 700 - 1100 mbar/20.67- 32.48 inHg

	Temperature	Humidity	Pressure
Operational Range	0°F/-18°C to 140°F/60°C	0 to 100% RH	10-1200 hPa

DATA STORAGE	D1: 13064 data points, D2: 8165 data points, D3: 6220 data points
SIZE & WEIGHT	2.4 x 1.8 x 0.9 in. / 6 x 4.5 x 2.3 cm.   1.2oz / 34g
BATTERY TYPE	User-replaceable CR2032 (included)

CONNECTIVITY	Bluetooth® Low Energy (BLE) connects to iOS devices (models 4s and later- see website for complete list of compatible models)
LOGGING RATE	2 seconds to 12 hours
DATA STORAGE	D1: 13064 data points, D2: 8165 data points, D3: 6220 data points
STORAGE TEMPERATURES	-22°F to 140°F / -30°C to 60°C
SHOCK RESISTANCE	MIL-STD-810G, Transit Shock, Method 516.5 Procedure IV (4 foot drop test)
WATER RESISTANCE	IP67 and NEMA-6 (30 minute submersion at 1 meter, 3.3 ft)
COMPLIANCE	CE certified, FCC, IC tested, RoHS and WEEE compliant.
SOURCE	Designed and manufactured in USA. Complies with Regional Value Content and Tariff Code Transformation requirements for NAFTA Preference Criterion B.