

DICKSON

Environmental Monitoring + Compliance Experts



CUSTOMER HIGHLIGHT

WALGREENS TAKES RX DELIVERY NATIONWIDE

TRIED-AND-TRUE

5 WAYS TO MAINTAIN FOOD SAFETY IN AN OLDER FACILITY

CRITICAL CONDITIONS

GUIDELINES FOR HANDLING AND STORING HAZARDOUS DRUGS

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May 2019

FEATURE



14 Critical Conditions

Guidelines for Handling and Storing Hazardous Drugs

ABOUT US

Dickson was incorporated in the United States in 1923. By using the best and newest innovations, Dickson enables our customers to manage compliance, asset protection, data analysis, and product quality with confidence. Today, Dickson provides validated solutions and services for over 80% of Fortune 100 companies in highly-regulated industries including healthcare, medical device, pharmaceutical, food, aerospace and more. With the trust of over 80,000 customers worldwide, Dickson helps to protect billions of dollars' worth of assets and remains an industry innovator and leader.

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DICKSON

YOUR SERVICE EXPERTS



MAPPING



CALIBRATION



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In most regulated industries, monitoring systems are not the only thing necessary for compliance. Turn to our team of experts for your compliance needs.

SERVICES BY DICKSON

WE'RE EXPERTS IN MORE THAN MONITORING

Dickson's devices have been monitoring temperature for almost a century. Now you can leverage that experience and our knowledgeable team of experts to help manage your compliance process from start to finish.

Our experts are here for you.

 630.543.3747

 support@dicksondata.com

MEET OUR DIRECTOR OF SERVICES

Antoine Nguyen
Director of Services



Before coming to Dickson, Antoine spent more than 18 years in validation with companies that answer to FDA audit. With Antoine and his team at the helm, you can feel confident that your job is well cared for.

MAPPING

ARE YOUR PRODUCTS STORED SAFELY?

Mapping the differences and changes in temperature within a three-dimensional space can be a daunting task, but the data is invaluable. Let us help keep your business fully compliant by documenting temperature distribution and provide you with the rationale for permanent monitoring placement to protect your temperature-sensitive products.



WAREHOUSE MAPPING

Temperature and humidity can impact materials in your warehouse. Locating the hot and cold spots now can mean less spoiled product and fewer failed audits later.



COLD STORAGE MAPPING

Every refrigerator and freezer has its own nuances. Is the temperature distribution even? A successful mapping will ensure your storage systems adhere to safety standards.



CHAMBER MAPPING

Are your chambers' conditions equal on the top and bottom shelves? Understanding the exact environmental conditions of any chamber is critical to ensure repetition and accuracy.

VALIDATION

ARE YOUR SYSTEMS OPERATING AS INTENDED?

Our team of compliance experts will help you meet your validation needs from start to finish. We'll test every aspect, ensure no detail is overlooked, and document the proper working order of your equipment or software system. With their expertise, you'll have documentation in hand that stands up to audits.



INSTALLATION QUALIFICATION

Let us verify your equipment has been properly installed and that it is ready to work per your specifications. Once that's in place we will work to establish a baseline for the equipment.



OPERATIONAL QUALIFICATION

We will confirm your equipment operates appropriately within its defined operating parameters. You will also receive verification that your system meets its design specifications.



PERFORMANCE QUALIFICATION

Dickson takes the time to authenticate your equipment is performing correctly and within specification. You can count on Dickson to verify that it is meeting your intended use.

CALIBRATION

WHICH CALIBRATION DO YOUR AUDITORS REQUIRE?

Using Dickson's ISO 17025 A2LA accredited calibration laboratory is the best way to ensure that your Dickson instrument is calibrated properly. With over 90 years of experience, we have SOP's in place to ensure that each unit is calibrated to a precise and accurate specification.

1-POINT NIST

- One specific temperature and/or humidity point (middle) calibration
- Good if your temperature or humidity varies little
- Specify the temperature and/or humidity point to best reflect your application

OR

3-POINT NIST

- Three-point (high, middle, and low) temperature and/or humidity calibration
- Provides a larger proof of accuracy
- Specify the temperature and/or humidity points to best reflect your application

INSTALLATION

HOW DO YOU IMPLEMENT NEW SYSTEMS?

Let us give you your time back by installing your loggers wherever, whenever. Once everything is up and running, we will test the devices to ensure they are working as intended.



SELF

Install DicksonOne units on your own.

By following along with our installation guide, it should take just a few minutes to set up each device in your system.



HYBRID

Let us help you with some of the heavy lifting.

Your team installs the units and we help manage the software's implementation, including alarms, locations, permissions, and more.



TURNKEY


Sit back and we'll take care of everything.

We install the devices and set up the software on your behalf, and you have the peace of mind in knowing it has all been done right.

Whether you're a seasoned professional or working with your first environmental monitoring system, Our team is ready to assist you every step of the way.

AT YOUR CONVENIENCE

BY GEORGE SORENSEN



Just a few months after offering deliveries in several markets, Walgreens announced that it will be expanding home deliveries for prescriptions nationwide. A partnership with FedEx will allow them to deliver prescriptions for a fee of \$4.99 as quickly as next-day. This is a continuation of a partnership that began last year when Walgreens began offering package drop-off and pick-up services at a few thousand stores. They will also be offering same-day deliveries in a few cities including Chicago, Dallas, New York, four cities in Florida.

Their major competitor, CVS, announced in June 2018 that they will begin their nationwide delivery program. CVS will also be delivering allergy medications, vitamins, and household products. Both companies believe their delivery options are faster than the mail-order prescription programs that have been around for many years.

The expanded partnership between Walgreens and FedEx follows the acquisition of PillPack by Amazon. The distribution network of Amazon is expected to help grow PillPack greatly, challenging the dominance of brick-and-mortar pharmacies like Walgreens and CVS. Walgreens president of operations, Richard Ashworth, believes "next-day prescription home delivery is another convenience driver, alongside our industry leading number of extended hours pharmacies and one of the most downloaded digital apps in the category, designed to put care in the hands of our patients". He finished by saying "this expansion of our alliance with FedEx illustrates our commitment to filling prescriptions as fast and easy as possible". Walgreens has spent years building its network of stores to get closer to their customer's homes. Now, their success continues by combining with the resources of FedEx air and ground delivery network to be able to compete with the potential growth of PillPack.

While one partnership is growing, Walgreens is testing a new partnership with Kroger grocery stores. Kroger will begin offering select grocery products along with Home Chef Meal kits at select Walgreens stores in Northern Kentucky and the Chicagoland area. These expanding partnerships are all part of the growing convenience that Walgreens is trying to bring to its customers. **D**

DicksonOne isn't just a monitoring system.

It's a spend-more-time-with-patients, avoid-audit-findings, and cover-your-assets system.

SIMPLE
SCALABLE
COMPLIANT

DicksonOne is a cloud-based environmental monitoring system featuring an easy-to-use interface for monitoring your critical variables, allowing you to remain compliant without taking up too much of your time. Plus with multiple alarm notification methods, you can ensure the right people are up-to-date on any excursion with time to act before something spoils.

Read on for more information on DicksonOne's 21 CFR Part 11 compliance, the system's intuitive interface, alarming, and more.

DicksonOne

☑ SIMPLE

DicksonOne touchscreens and data loggers collect temperature, humidity, and differential pressure data and automatically deliver it to the DicksonOne cloud application. No more downloading data or changing charts—DicksonOne does all the work for you.

- ☑ Easily navigate the system with DicksonOne’s intuitive interface
- ☑ Use the dashboard page to view all loggers by location at-a-glance
- ☑ View trend graph and data summary with just one click
- ☑ Set up recurring reports, delivered how and when you want them
- ☑ Access your data 24/7 from any internet-connected device

☑ SCALABLE

DicksonOne is for monitoring systems of any size. Whether you’re monitoring a single fridge or chambers around the world, all of your data ends up in a single, online platform.

- ☑ No limit on adding unique user names and passwords
- ☑ Apply alarm conditions and notifications to multiple devices and channels at once with alarm templates
- ☑ Conveniently create, edit, and manage alarm notifications and recipients for all locations in one place with escalation policies

☑ COMPLIANT

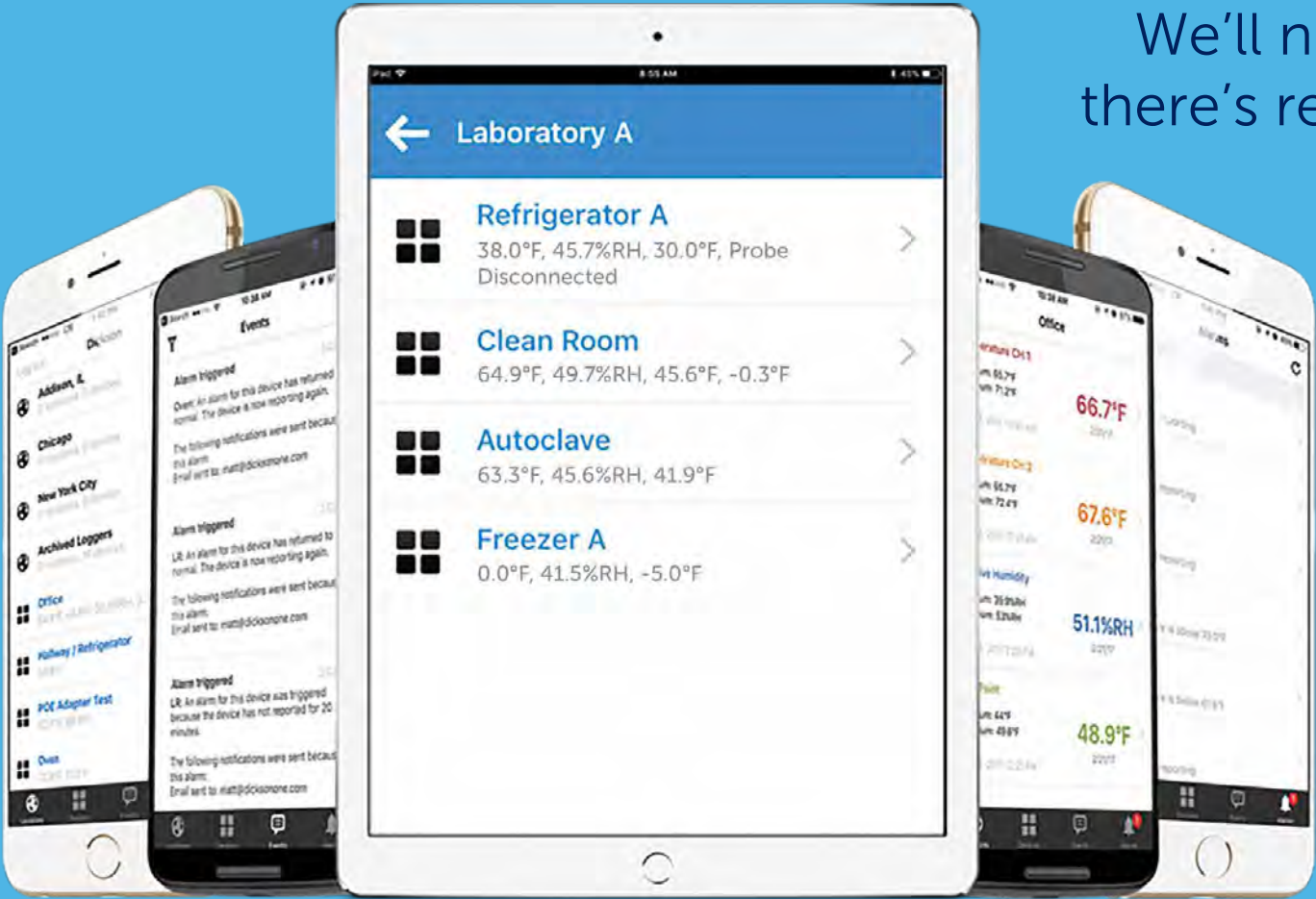
In highly compliant environments that are heavily regulated, there are a lot of boxes you need to check to ensure you’re ready for an audit. Here are a few of the boxes our system checks:

- ☑ 21 CFR Part 11 compliance
- ☑ Secure transmission of data and unlimited data storage
- ☑ NIST and A2LA (ISO 17025) accredited Calibration Lab
- ☑ VFC-approved system for monitoring vaccine refrigerators

PEACE OF MIND

WITH REAL-TIME NOTIFICATIONS

We’ll notify you when there’s reason to worry.



1

Choose **when** you’d like to be notified:

Set up alarms for high/low variable readings and receive notifications when devices aren’t reporting or a probe has been disconnected.

2

Choose **how** you’d like to be notified:

Be notified via text, phone, email, or audible alarm whenever an alarm condition is met.

COMPLY

WITH CONFIDENCE

Knowing all of your company’s nuances through cloud-based monitoring and data collection can give you the confidence you need for total compliance. **With DicksonOne’s custom reporting feature, you’ll get just that.**

DicksonOne



DicksonOne TWP Touchscreen with POE
Dimensions: 8.5 x 1.75 x 7" | Display Dimensions: 8" Diagonal
Display Type: LCD Touchscreen

The Touchscreen

A capacitive 8" touchscreen offers our best user experience ever, and now features customizable views, alarms, and more. Plus, with DicksonOne compatibility, you get your data at your fingertips, and wherever else you might need it.

- Intuitive user-interface makes it easy to view and manage your data
- Automatically calculates and updates summary data for the selected time range
- Includes passcode protection for unit security

Replaceable Sensors™

With Dickson's patent pending Replaceable Sensors, you can recalibrate any DicksonOne device on the fly without having to send in your device. Just order a newly calibrated sensor, receive it in the mail, and plug it into the unit in a motion that's as simple as swapping batteries in your television remote.



Select the sensor that's right for your application:



Single or Dual
K-Thermocouple
Temperature Sensor



Platinum RTD
Temperature Sensor



Single or Dual
Temperature Thermistor
Sensor with buffer
solution



Differential Pressure
Sensor



Ambient Temperature or
Temperature & Humidity
Sensor

Designed with
your needs in
mind.



	DWE	TWE	TWP
DICKSONONE ENABLED	✓	✓	✓
WIFI/ETHERNET	✓	✓	✓
REPLACEABLE SENSOR PORTS	1	2	2
RELAYS		Optional	Optional
PROXIES		✓	✓
VIEW HISTORICAL DATA AT THE POINT OF MONITORING		✓	✓
POWER OVER ETHERNET	w/ Adapter	w/ Adapter	✓
SCREEN SPECS	Segmented Display	8" LCD Touchscreen	8" LCD Touchscreen
BACKUP BATTERY	1 Week	70 Hours	70 Hours
BACKUP STORAGE	400,000 Points	1,000,000 Points	1,000,000 Points

Yearly DicksonOne Subscription Plans

BASIC	STARTER	REGULAR	PLUS	ENTERPRISE
\$0	\$300	\$725	\$1,400	Call TODAY for a quote!
Unlimited devices. Data stored for 30 days. One-hour sample interval.	1-10 devices. Data stored for life of account. Multiple sample rates. Email, phone, & text alerts. API access.	11-25 devices. Data stored for life of account. Multiple sample rates. Email, phone, & text alerts. API access.	26-50 devices. Data stored for life of account. Multiple sample rates. Email, phone, & text alerts. API access.	51+ devices. Data stored for life of account. Multiple sample rates. Email, phone, & text alerts. API access.

INTERESTED IN A
MONTHLY PLAN?



Enjoy the flexibility of a monthly plan with prorated devices and the ability to add devices when you're ready.



\$3 PER DEVICE
(Per device, per month.
Credit card required)

CRITICAL CONDITIONS

Guidelines for Handling and Storing Hazardous Drugs

BY RACHEL KELLETT

According to the Centers for Disease Control and Prevention (CDC), close to 8 million healthcare employees in the U.S. alone are potentially exposed to hazardous drugs every year. When improperly managed, drugs such as chemotherapy medications, antiviral drugs, hormone agents, and more can cause severe adverse health effects. These can range from skin rashes, infertility, spontaneous abortions, and congenital malformations to cancers and immune disorders. The risks associated with the improper storage and handling of hazardous drugs are well-known, but some previous regulations have failed to provide a comprehensive set of guidelines that covers the spectrum of drugs within the industry.

In 2008, the United States Pharmacopeia (USP) sought to address this need for new storage and handling regulations. According to their website, "USP is a not-for-profit, science-driven organization that has an established process for convening independent experts in the development and maintenance of healthcare quality standards."

Efforts by the USP to create a new set of hazardous drug storage and handling guidelines came to fruition in February 2016 as what is now known as USP General Chapter <800>. These guidelines describe requirements including responsibilities of personnel handling hazardous drugs, facility and engineering controls, procedures for deactivating, decontaminating and cleaning, storage, spill control, and documentation. They apply to all healthcare personnel who receive, prepare, administer, transport or otherwise come in contact with hazardous drugs and all the environments in which they are handled. Under these new guidelines, pharmacies, hospitals, patient treatment centers, and physician practice facilities are required to meet new, more rigorous environmental and safety criteria to reduce potential risks to healthcare workers and their patients, with a key aspect of the regulations related to the storage of products.

Here are a few key excerpts from the USP<800>:

"Hazardous drugs (HDs) must be stored in a manner that prevents spillage or breakage if the container falls. Do not

store HDs on the floor. In areas prone to specific types of natural disasters (e.g., earthquakes), the manner of storage must meet applicable safety precautions, such as secure shelves with raised front lips.

Antineoplastic HDs requiring manipulation other than counting or repackaging of final dosage forms and any HD. These HDs must be stored in an externally ventilated, negative-pressure room with at least 12 air changes per hour (ACPH). Non-antineoplastic, reproductive risk only, and final dosage forms of antineoplastic HDs may be stored with other inventory if permitted by entity policy.

Sterile and non-sterile HDs may be stored together, but HDs used for non-sterile compounding should not be stored in areas designated for sterile compounding to minimize traffic into the sterile compounding area.

Refrigerated antineoplastic HDs must be stored in a dedicated refrigerator in a negative pressure area with at least 12 ACPH [e.g., storage room, buffer room, or containment segregated compounding area (C-SCA)]. If a

refrigerator is placed in a negative pressure buffer room, an exhaust located adjacent to the refrigerator's compressor and behind the refrigerator should be considered."

It is critical that all facilities faced with the task of storing and handling hazardous drugs begin to assess their current environments. For some, the new requirements could mean major renovations to these areas or other changes that may impact workflow, processes, and purchasing decisions.

As the healthcare industry continues to improve its standard of care, it's crucial that pharmacies, hospitals, patient treatment centers, and physician practice facilities reevaluate their processes, including how they handle and store hazardous drugs. It is imperative that these facilities invest in new solutions now that will allow them to keep pace with the more stringent regulations of tomorrow. [D](#)

FAST. EASY. COST-EFFECTIVE.

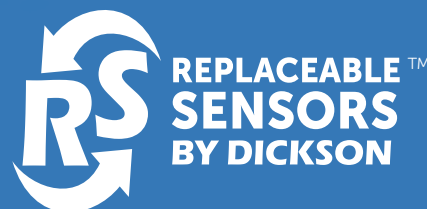
REPLACEABLE SENSORS™

*Calibrate in less
than a minute!*



Meet the fastest way to calibrate.

Gone are the days of downtime. Now, with Dickson's patent pending Replaceable Sensors, you can continuously monitor without interruption when it's time to recalibrate. No need to power down or unplug your device—simply unplug the existing sensor and plug in the new sensor for instant calibration. **For specifications, turn to page 21.**



DICKSON

PRODUCT INNOVATORS



**DICKSONONE
DEVICES**



**DATA
LOGGERS**



**REPLACEABLE
SENSORS™**



**CHART
RECORDERS**

Since 1923, we've strived to incorporate the best and newest technologies into our products to bring you monitoring solutions of the highest caliber. We maintain the world's widest selection of top quality instruments customized to fit your monitoring needs. From chart recorders to the new DicksonOne, we are constantly creating, which has made us an industry leader in environmental monitoring.

PRODUCTS BY DICKSON



DICKSONONE TOUCHSCREEN

A capacitive 8" touchscreen offers our best user experience ever and now features customizable views, alarms, and more. Plus, with the option for DicksonOne compatibility, you get your data at your fingertips and wherever else you might need it.

TWE WiFi/Ethernet Connection	STARTING AT \$524
TWP Power Over Ethernet	STARTING AT \$599

Ambient Operating Temperature Conditions: 32°F to 140°F (-0°C to 60°C)
Battery Backup: 70 Hours
Data Capacity: Approx 1,000,000 sample points (backup)
Dimensions: 8.5 x 1.75 x 7"
Display Dimensions: 8" Diagonal
Display Type: LCD Touchscreen
Sensor Type: Replaceable Sensor(s) (*sold separately*)
Download Type: WiFi/Ethernet
Alarm Type(s): Text, Email, Phone Call, Audio/Visual



TWE, TWP

DICKSONONE DATA LOGGER

The DicksonOne data logger collects temperature, humidity, and differential pressure data and automatically delivers it to the DicksonOne cloud application. From there, you can access your secure data from any internet-connected device, anywhere in the world. No more downloading data or changing charts—DicksonOne does all the work for you.

DWE WiFi/Ethernet Connection	STARTING AT \$350
------------------------------	----------------------

Ambient Operating Temperature Conditions: 32°F to 158°F (-0°C to 70°C)
Data Capacity: Approx 400,000 sample points (backup)
Dimensions: 1.7 x 4.25 x 4.25"
Display Type: Digital
Sensor Type: Replaceable Sensor(s) (*sold separately*)
Download Type: WiFi/Ethernet
Alarm Type(s): Text, Email, Phone Call, Audio/Visual



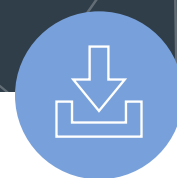
DWE



DicksonOne

21 CFR Part 11 Compliant. Scalable. Simple.

DicksonOne is a cloud-based environmental monitoring system featuring an easy-to-use interface for monitoring your critical variables, allowing you to remain compliant without taking up too much of your time. Plus, with multiple alarm notification methods, you can ensure the right people are up-to-date on any excursion with time to act before something spoils. For more information, turn to page 8 or visit DicksonData.com/DicksonOne.



TOUCHSCREEN Compatible with DicksonWare 2.0

TSB Touchscreen - USB	STARTING AT \$424
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Ambient Operating Temperature Conditions: 14°F to 140°F (-10°C to 60°C)
Battery Backup: 70 Hours
Data Capacity: Approx 1,000,000 sample points (backup)
Dimensions: 8.5 x 1.75 x 7"
Display Dimensions: 8" Diagonal
Display Type: LCD Touchscreen
Sensor Type: Replaceable Sensor(s) (*sold separately*)
Alarm Type(s): Audio/Visual



TSB

DISPLAY Compatible with DicksonWare 2.0

SP425 Display Temperature Data Logger	\$172
---------------------------------------	-------

Range: -4°F to 158°F (-20°C to 70°C)
Accuracy: $\pm 1.2^\circ\text{F}$ from -4°F to 158°F ($\pm 0.7^\circ\text{C}$ from -20°C to 70°C)

TP425 Display Temperature & Humidity Logger	\$269
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Range: -4°F to 158°F (-20°C to 70°C)
Accuracy: $\pm 0.8^\circ\text{F}$ from 20°F to 120°F ($\pm 0.44^\circ\text{C}$ from -6°C to 48°C)
Humidity: $\pm 2\%$ RH from 0 to 60%; $\pm 3\%$ RH from 60 to 95%

DSB Display Temperature & Humidity Logger	STARTING AT \$309
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Ambient Operating Temperature Conditions: 32°F to 158°F (-0°C to 70°C)
Battery Type: 2 AA Batteries (AC Power Adapter sold separately)
Battery Life: Approx 2 years
Data Capacity: Approx 400,000 readings
Sensor Type: Replaceable Sensor(s) (*sold separately*)
Alarm Type(s): Audio/Visual



SP425



TP425



DSB

COMPACT Compatible with DicksonWare 2.0

SP125 Temperature Data Logger	\$129
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Range: -10°F to 176°F (-23°C to 80°C)
Accuracy: $\pm 1.2^\circ\text{F}$ from -10°F to 176°F ($\pm 0.7^\circ\text{C}$ from -23°C to 80°C)

SK550 Compact Temperature Data Logger	\$699
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Coin-Sized Temperature Logger **Pack of 12**
Range: -4°F to 158°F (-20°C to 70°C)
Accuracy: $\pm 1.8^\circ\text{F}$ from -4°F to 158°F ($\pm 1^\circ\text{C}$ from -20°C to 70°C)

TK550 Compact Temperature & Humidity Logger	\$999
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Coin-Sized Temperature & Humidity Logger **Pack of 12**
Range: -4°F to 158°F (-20°C to 70°C)
Accuracy: $\pm 1.8^\circ\text{F}$ from -4°F to 158°F ($\pm 1^\circ\text{C}$ from -20°C to 70°C)
Humidity: $\pm 2\%$ RH from 0 to 60%; $\pm 3\%$ RH from 60 to 95%



SP125



TK550



DATA LOGGERS

INDICATORS

No software required

MM120 Vaccine Alarm Thermometer — \$55

1-Probe Vaccine Alarm Thermometer, Battery Powered
Temperature Range: -50°F to 122°F (-50°C to 50°C)
Accuracy: $\pm 1.8^\circ\text{F}$ from 0° to 122°F ($\pm 1^\circ\text{C}$ from -18°C to 50°C)

MM125 Vaccine Alarm Thermometer — \$66

2-Probe Vaccine Alarm Thermometer, Battery Powered
Temperature Range: -58°F to 122°F (-50 to 50°C)
Accuracy: $\pm 1.8^\circ\text{F}$ from 0° to 120°F ($\pm 1^\circ\text{C}$ from -18°C to 49°C)

D182 Infrared Thermometer — \$60

Non-Contact Infrared Thermometer, Lightweight, Easy-Grip, Battery Powered
Temperature Range: -58°F to 986°F (-50°C to 530°C)
Accuracy: $\pm 2\%$ of Reading or 2°C, Whichever is Greater

D186 Infrared Thermometer — \$149

Non-Contact Infrared Thermometer
Lightweight, Easy-Grip, Battery Powered.
Temperature Range: -67°F to 536°F (-55 to 280°C)
Accuracy: $\pm 1^\circ\text{F}$ from 32°F to 150°F ($\pm 0.6^\circ\text{C}$ from 0°C to 66°C)

TC700 Touchscreen Handheld Indicator — \$299

Instant Temperature Data, No-Slip Silicone Cover, Battery Powered
Temperature Range: -200°F to 1999°F (-128°C to 1093°C)
Accuracy: $\pm 1.8^\circ\text{F}$ from -22°F to 122°F ($\pm 1^\circ\text{C}$ from -30°C to 50°C)

TH700 Touchscreen Handheld Indicator — \$299

Instant Temperature/Humidity Data, No-Slip Silicone Cover, Battery Powered
Humidity Range: 0 to 95% RH (non-condensing)
Temperature Range: -40°F to 185°F, (-40°C to 85°C)
Accuracy: $\pm 0.8^\circ\text{F}$ from 20°F to 122°F ($\pm 0.45^\circ\text{C}$ from -6°C to 50°C)

HIGH TEMP

Compatible with DicksonWare 2.0

HT300 Waterproof, High Temperature Data Logger — \$349

HACCP and FDA Compliant, USB Download, IP68 Rating
Temperature Range: -40°F to 257°F, -40°C to 125°C
Accuracy: $\pm 1.8^\circ\text{F}$ from -40°F to 257°F ($\pm 1^\circ\text{C}$ from -40°C to 125°C)

HT350 High Temperature Process Logger — \$349

HACCP Approved, K-Thermocouple Probe, USB Download
Temperature Range: -40°F to 257°F (-40 to 125°C)
Accuracy: $\pm 1.8^\circ\text{F}$ from -22°F to 122°F ($\pm 1^\circ\text{C}$ from -30°C to 50°C)



MM120

MM125



D182

D186



TC700

TH700



HT300

HT350



PATENT PENDING

REPLACEABLE SENSORS™

REPLACEABLE SENSORS (PATENT PENDING)

Now, you have the option to calibrate the sensor as opposed to the unit. By splitting up the sensor from the data logger and chart recorder, we've created a plug-and-play device that will keep you in compliance and save you time and resources.

RKTC/RKTC2 Single/Dual K-Thermocouple Temperature Sensor — \$110

Temperature Range: -300°F to 2000°F (-184°C to 1093°C)
Accuracy: $\pm 1.8^\circ\text{F}$ from -22°F to 122°F ($\pm 1^\circ\text{C}$ from -30°C to 50°C)

RTHM/RTHM2 Single/Dual Glycol Thermistor Sensor — \$110

Temperature Range: -58°F to 158°F (-50°C to 70°C)
Accuracy: $\pm 0.9^\circ\text{F}$ from -58°F to 68°F ($\pm 0.5^\circ\text{C}$ from -58°C to 20°C)

RTRH Temperature and Humidity Sensor — \$110

Temperature Range: -40°F to 185°F (-40°C to 85°C)
Temperature Accuracy: $\pm 0.8^\circ\text{F}$ from 20°F to 122°F ($\pm 0.4^\circ\text{C}$ from -6.7°C to 50°C)
Humidity Accuracy: $\pm 2\%$ RH from 5.0 to 95% RH

RRTD Platinum Temperature Sensor — \$225

Cable Length: 6ft (182cm)
Temperature Range: -148°F to 350°F (-100°C to 176°C)
Accuracy: $\pm 0.5^\circ\text{F}$ from -148°F to 350°F ($\pm 0.3^\circ\text{C}$ from -100°C to 176°C)



DIFFERENTIAL PRESSURE

We've expanded our catalog to include differential pressure monitoring with a new sensor for DicksonOne. Get data delivered to DicksonOne with programmable alerts via text, call, or email to let you know when your pressure is out of control.

RS080 Differential Pressure Sensor (2") — \$149

Measurement Range: ± 2 inches H₂O
Accuracy: ± 0.06 inches H₂O

RS081 Differential Pressure Sensor (0.5") — \$149

Measurement Range: ± 0.5 inches H₂O
Accuracy: ± 0.015 inches H₂O



Note: Replaceable sensors for DSB and chart recorders have different part numbers



DICKSONWARE

Why go digital? That's easy.

DicksonWare allows you to store and share data easily with others in your organization by displaying downloaded data. For more information, visit DicksonData.com/Dicksonware.



ZERO DOWN TIME

Take the old sensor off. Put the new sensor on. It's that simple.



COMPLIANT

Sensors come with your choice of NIST or A2LA calibration certificates.



COST-EFFECTIVE

Backup units are no longer needed. Pay for a sensor, not an extra device.



CHART RECORDERS

8" CHART RECORDERS

Temperature

- KT8P0** \$485
8" (203mm) Temperature Chart Recorder with Replaceable Sensor and Battery Operation; Range Based on Chart
- KT8P2** \$545
8" (203mm) Temperature Chart Recorder with Replaceable Sensor, AC Power (Battery Back-Up), and Display; Range Based on Chart
- KT8P3** \$660
8" (203mm) Temperature Chart Recorder with Replaceable Sensor, AC Power (Battery Back-Up), Display, and Alarm; Range Based on Chart
- KT856** \$845
8" (203mm) Temperature Chart Recorder with Replaceable Sensor, AC Power (Battery Back-Up), Display, Alarm, and Relays; Range Based on Chart

Temperature & Humidity

- TH8P0** \$569
8" (203mm) High-Resolution Temperature & Humidity Chart Recorder with Battery Operation and Replaceable Sensor; 32°F to 122°F (0°C to 50°C)
- TH8P2** \$660
8" (203mm) High-Resolution Temperature & Humidity Chart Recorder with Display and Replaceable Sensor; Range Based on Chart
- TH8P3** \$789
8" (203mm) High-Resolution Temperature & Humidity Chart Recorder with Display, Alarm, and Replaceable Sensor; Range Based on Chart
- TH8P5** \$845
8" (203mm) High-Resolution Temperature & Humidity Chart Recorder with Display, Alarm, Relays, and Replaceable Sensor; Range Based on Chart

Pressure

- PW860** \$729
8" (203mm) Pressure Chart Recorder, 0-100 PSI, 7-Day
- PW861** \$729
8" (203mm) Pressure Chart Recorder, 0-100 PSI, 24-Hr
- PW864** \$729
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- PW865** \$729
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- PW866** \$729
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- PW867** \$729
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- PW875** \$865
8" (203mm) Pressure Chart Recorder, 0-1000 PSI, 24-Hr



KT8P2



TH8P3



PW860

CHARTS & PENS

Don't forget to reorder charts for your recorders before they run out, and always make sure to have extra pens on hand in case their ink runs dry. Visit [DicksonData.com/charts](https://www.dicksondata.com/charts) or call 630.563.4218 to reorder today!

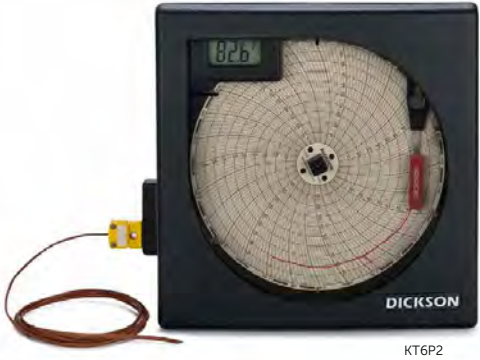
6" CHART RECORDERS

Temperature

- KT6P1** \$429
6" (152mm) Temperature Chart Recorder with Replaceable Sensors; Range Based on Chart
- KT6P2** \$545
6" (152mm) Temperature Chart Recorder with Probe, Display, and Replaceable Sensors; Range Based on Chart
- KT6P5** \$695
6" (152mm) Temperature Chart Recorder with Probe, Display, Alarms, Relay, and Replaceable Sensors; Range Based on Chart

Temperature & Humidity

- TH6P1** \$569
6" (152mm) Temperature & Humidity Chart Recorder with Replaceable Sensors, 32°F to 122°F (0°C to 50°C)
- TH6P2** \$660
6" (152mm) Temperature & Humidity Chart Recorder with Probe, Display and Replaceable Sensors, 32°F to 122°F (0°C to 50°C)
- TH6P3** \$789
6" (152mm) Temperature & Humidity Chart Recorder with Alarms, Probe, Display and Replaceable Sensors, 0°F to 122°F (0°C to 50°C)



KT6P2

4" CHART RECORDERS

Temperature

- SL4100** \$279
4" (101mm) Portable, Battery Operated Temperature Chart Recorder with Display, 0°F to 100°F (-18°C to 37°C)
- SL4350** \$279
4" (101mm) Portable, Battery Operated Temperature Chart Recorder with Display, -22°F to 122°F (-30°C to 50°C)

Pressure

- PW470** \$524
4" (101mm) Pressure Chart Recorder, 0-100 PSI, 7-Day or 24-Hr
- PW474** \$524
4" (101mm) Pressure Chart Recorder, 0-200 PSI, 7-Day or 24-Hr
- PW476** \$524
4" (101mm) Pressure Chart Recorder, 0-300 PSI, 7-Day or 24-Hr
- PW479** \$524
4" (101mm) Pressure Chart Recorder, 0-500 PSI, 24-Hr



SL4100



PW470

3" CHART RECORDERS

Temperature

- SC367** \$279
3" (76mm) Temperature Chart Recorder, -14°F to 32°F (-25C to 0°C)
- SC377** \$279
3" (76mm) Temperature Chart Recorder, 4°F to 50°F (-15°C to 10°C)
- SC386** \$279
3" (76mm) Temperature Chart Recorder, 22°F to 68°F (-5°C to 20°C)
- SC387** \$279
3" (76mm) Temperature Chart Recorder, 50°F to 96°F (10°C to 35°C)
- SC397** \$279
3" (76mm) Temperature Chart Recorder, 76°F to 122°F (25°C to 50°C)



SC387



TRIED AND TRUE

5 Ways to Maintain Food Safety in Your Older Facility

BY GEORGE SORENSEN

It can be exciting to work in a brand new facility with all of the newest equipment available. But, a shiny new facility is not something every company can afford or may need. Some work with faithful old machines that have been getting the job done for years. Although those machines are still churning away as they always have, there are a few things to keep in mind when taking care of your older facilities. Below are 5 ways to maintain a food safe environment.

1. Conduct surveys for bacterial growth regularly

Surveys should be done on a regular basis by a quality assurance or maintenance team. Larger companies may have lab technicians who test high risk areas on a regular basis but smaller companies can turn to a third party to conduct these tests regularly.

These tests should be risk-based. Determine what areas in your facility are the greatest risk to your process and prioritize from there. At minimum, your entire facility should be tested once a year and those high risk areas you have established (i.e. where raw meat is handled) should be tested on a monthly basis.

2. Maintain floors and avoid pooling water

These issues tend to be pretty evident since cracks are usually visible along with pooling water. Cracks can be especially common near and around drains due to thermal expansion so it is important to maintain these areas. Floor cracks are a common issue with older facilities and can become worse if neglected.

The quick fix is to use floor coatings and toppings to seal the cracks and even pitch the floor to redirect

water flow if necessary. It is also important to run a CCTV through a percentage of your pipes to develop a baseline and make sure that no areas of concern get worse.

3. Maintain Door seals and sweeps

Facility doors are an area that can present ongoing risk for contamination. Interior doors need to have proper air seals on all four sides and exterior doors need well-maintained rubber sweeps at the bottom.

4. Repair Damaged walls immediately

It is not uncommon in any kind of facility for people, forklifts, and other objects to run into walls. When a wall is damaged and the interior becomes exposed, it is harder to clean properly and can create an environment vulnerable to bacteria growth. Any damage should be patched as soon as possible to limit any potential contamination and keep the surface easy to clean.

5. Inspect for roof leaks regularly

Leaks in your roof can cause all sorts of problems including mold and bacteria growth, altering ambient temperature, and introducing external contaminants. All these issues can be caused by a small leak in your roof. The issue with roof damage is you may find water dripping in one spot but the original leak or damage could be in a totally different spot.

Depending on the size of your facility, inspecting your entire roof regularly is not necessary or feasible, but a good rule of thumb is to inspect around 25 percent on a yearly basis. [D](#)


MEET YOUR REGIONAL SALES DIRECTOR

Ryan Vandenack Eastern Region

Ryan started with Dickson in 2013 as a member of the inside sales team. With three years of sales experience, plus a vast knowledge of Dickson products and services, he became a Business Development Manager in 2016. Two years later, Ryan gladly accepted the role of Regional Sales Director for the Eastern Region.

"Compliance and quality are extremely important to Dickson and our customers. Each industry comes with their own unique challenges. I always take a customer-centric approach to understand your business' goals and challenges in order to provide a configuration and solution crafted for you specifically. I am excited for the opportunity to work with you and your team to improve compliance while reducing operating costs."

Along with pharmaceutical, medical device, and healthcare companies, Ryan also works with logistics, food, and aerospace companies.

Ryan has a background in sound production and in his free time you can find him indulging in his affinity for music. 

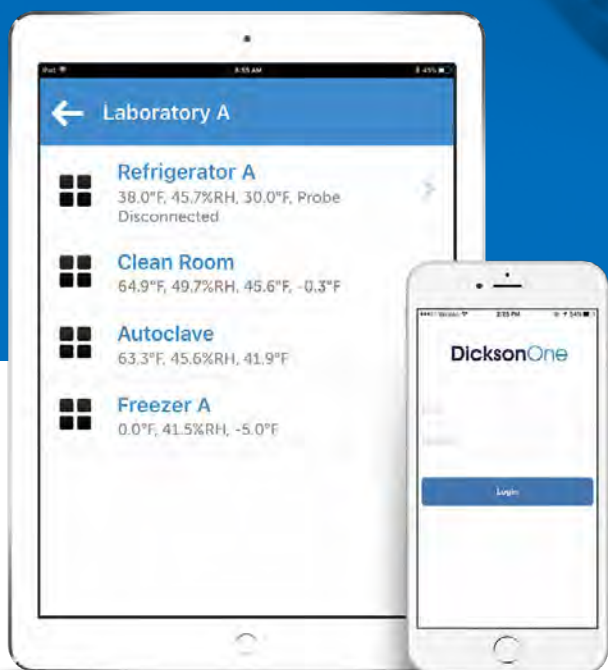
To get in touch with Ryan, send an email to ryan@dicksondata.com or call 630.563.4232.



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