DICKSON
insights

+

VARSITY BLUES
UNIVERSITY MONITORING CHALLENGES

78 F

70 F

LABORATORY

GYMNASIUM

LIBRARY

68 F

CAFETERIA

65 F

Summertime
TEMPERATURE MAPPING

The New **DicksonOne** Touchscreen
More Data At Your Fingertips

As avid readers of Dickson Insights and regular shoppers at **dicksondata.com** are aware, we have an exciting new product: the DicksonOne Touchscreen.

We've had Touchscreen Data Loggers before though, right? What makes these new loggers so special, so different from the old ones? One word: DicksonOne. When we began designing our new line of Touchscreen data loggers, we started with some simple, yet lofty goals: create a device that was feature heavy, easy to use, and allowed users to access their data history . . . anywhere. So we combined a new Touchscreen interface with the power of DicksonOne to deliver our most robust data logger yet.

The new DicksonOne Touchscreen is the best data logger on the market, and here are just a few reasons why:

- Access your data anywhere with DicksonOne.
- Capacitive LCD screen delivers an ultra-responsive, easy to use interface.
- Replaceable Sensors eliminate the headaches of calibration.

To learn more, and build your own touchscreen device, go to **dicksondata.com.**

TABLE OF CONTENTS

A Valuable Free Resource:
Vaccine Monitoring **White Paper**

In last month's catalog, we talked a lot about vaccines. In our Dickson Insights "Vaccine Storage Edition," we threw articles at you that focused on proper temperature storage, do's and don'ts of vaccine monitoring, and the CDC's history of vaccine regulations.

At the end of it all, we presented the first few pages of our "Vaccine Storage White Paper," a free resource that you can download online.

Where can you download it? Just head on over to our blog, **blog.dicksondata.com/vaccinepaper**. There you can download the white paper, and check out each and every post we've ever made concerning vaccine storage, including previewing a hot-topic article on thermal buffers that will premier in next month's edition of "Dickson Insights."

And if you are looking for data loggers that meet CDC recommendations for vaccine temperature monitoring? We have those as well. Whether you are looking for a robust wireless monitoring system, or one USB data logger, we have devices that meet every CDC specification, including accuracy, data storage, alarms, and thermal buffers.

Visit **dicksondata.com/vaccines** to view our vaccine data loggers.

What To Look Out For:
1/2 Year Review of Your Facility

For facility supervisors, managers, and employees, every day in the workplace brings up questions about the day-to-day efficiency, quality, and safety of one's facility. Whether that workplace facility is a hospital, egg producer, or steel manufacturer, conscious and subconscious thoughts wiz around one's mind constantly. Small problems, like "That pallet-jack needs to be replaced," and "Throw out that batch, it is spoiled," probably ignite some thought about the facility at large, but for the most part, the overall structure and organization of a facility remains the same.

Rarely do facility personnel get the chance to take a step back, and look at large scale, sweeping changes that could affect a facility not only day-to-day, but week-to-week, and month-to-month.

Which is why 1/2 year reviews of your facility are so great and important! In the hot/humid or hot/dry weather of summer, a 1/2 year review of your processes can help change the course of the year for a company or organization.

So what should you be on the lookout for when performing your review? We've listed a few things below:

Product Quality

Try to gather as much information on the quality of the products and services that your company provides. Check out data on how much money is thrown out via waste, storage failures, and inventory misman-agement.

Facility Efficiency

Where are you wasting time, resources, and thus money? Figure it out.

Facility Safety

Had any employee accidents this year? What about product recalls? If so, review why they happened, and make sure to implement the necessary changes to ensure that the accidents don't happen again.

It's Getting Hot In Here:
Summertime Temperature Mapping

While Nelly's 2002 smash hit "Hot in Herre," doesn't include the lyrics "It's getting hot in here, so temperature map your warehouse," it is August, which means for most of the United States, it is somewhere between warm and excruciatingly hot outside. Warmer weather puts more stress on the cold chain, and increases the number items that accidentally fall out of the cold chain.

That couldn't be truer than in the warehouse link of the cold chain. If that is your sector, and you house goods that must be kept within particular temperature parameters, then we have a few pieces of advice for you during these hot months.

The first: temperature map your facility! We have a temperature mapping service of our own (give us a call at 630-543-3747 for more information), and for our clients who go through seasonal changes, we recommend mapping at least twice a year. Once in the summer, and once in the winter. Facilities and HVAC systems handle each season uniquely, and sometimes the cold spots in your facility in the winter aren't necessarily the cold (or hot) spots in your facility during the summer. Temperature mapping in the summer is the only true way to get a good thermal overview of your facility.

Next up, consider your roofing material. Talk to the original building owners, and be sure to take notes on the different materials that make up your roof as you prepare for a temperature

mapping study. This specifically concerns those facilities that stack temperature sensitive products to the ceiling.

Along with roofing materials, comes windows. If your facility has windows that face direct sunlight, and are not equipped with a UV screen, our experts have found that while cats like sleeping in the sun, temperature sensitive products should avoid it. Huge temperature spikes can result from sunlight getting in to your facility during the summer.

Finally, is the understanding that the "high point" should be a much bigger concern during the summer than the "low point." While you should pay attention to products getting too cold during the summer, if your power goes out, or your HVAC system fails, temperatures will begin to rise, and rise quickly during the dog days of summer. You should have a good idea of the susceptible areas of your facility before a disaster strikes.

By doing a temperature mapping study, and then analyzing your data, you can see which areas of your facility fluctuate the most, and which areas tend to stay warmer than others.

Armed with that information, you can begin to look for solutions to those target areas: better air circulation, new HVAC outputs, and upgraded temperature monitoring.

FACILITY OPINIONS

How Temperature Monitoring Changes Facility Behavior

Temperature monitoring may seem like a small factor in the overall operations of a production facility, but facility managers and company owners shouldn't discount its effect on how a facility operates.

There are tangible benefits to temperature monitoring. For example: adhering to regulations, product safety, and product insurance are all direct and easily perceived reasons that companies monitor the temperature of the environment that their products reside in. We tend to hammer home these benefits in the content that we provide, and the product explanations featured in this catalog and on our website.

But, there are some intangible benefits that come as a result of temperature monitoring. Some of these are easy to perceive immediately after a temperature monitoring data logger or system is installed, and others take time to come to complete fruition. Regardless however, temperature monitoring has a positive effect on facilities that incorporate it into their quality assurance system for more reasons than just documenting when temperatures get too hot or too cold.

One of those intangible benefits, is something that we've had customers mention to us off hand while in the course of a temperature mapping study, or just when they call in with a question about one of our data loggers. And that benefit is a change in facility behavior.

When temperature and/or humidity is a concern in your facility, and you do a good job monitoring your environment, team habits change. For instance, in one of our recent facility visits, a quality assurance manager mentioned that the data loggers posted in their facility not only were key to securing their latest logistics deal, but also got their

production team interested in the other parameters that come with quality assurance, leading to greater communication between the quality assurance department, and the production floor.

In another Dickson customer case, the decision to buy an extra data logger as a back up to a current HVAC system led a research team to use the data logger for tests within its laboratory. Once considered a constant in their tests, when the data logger was introduced, the next round of experiments included temperature not as a constant, but as a variable that could change and affect the quality of a final product.

Finally, our customers have found that temperature monitoring changes facility mindset when it comes to data. Temperature can be seen as a single number, that you simply want to stay below a certain threshold and above another. However, with products like DicksonOne, temperature data has driven innovation across our customers' facilities. That innovation can come through changes in risk management strategies, efficiency testing, or transportation security. Whatever the reason, temperature monitoring is here to stay, and you should enjoy how it changes your facility behavior.

Meet The New
DicksonOne Touchscreen

MORE DATA AT YOUR FINGERTIPS

DicksonOne Enabled ▪ Power Over Ethernet ▪ Enhanced User Interface

DESIGNED **FOR YOU**

Our goal when designing the new line of **Touchscreen Data Loggers** was to create a feature-heavy and easy-to-use device that allowed users access to their entire data history, anywhere. We pushed the limits of connectivity, user-interface, and functionality, to deliver the most robust data logger on the market.

Data At The Source

1 **The Graph** Your environmental history just got a whole lot easier to navigate through. We overhauled the user-interface, and made it easy to view and manage your data.

2 **Your Channels** Every touchscreen will automatically calculate the minimum, maximum, and average temperatures of your selected view.

3 **Real-time Monitoring** Push the play button, and your device will update back to the most recent set of readings.

4 **Device Settings** Your Touchscreen is robust. When you navigate your devices settings, you can adjust sample rates, set alarms, and connect to DicksonOne.
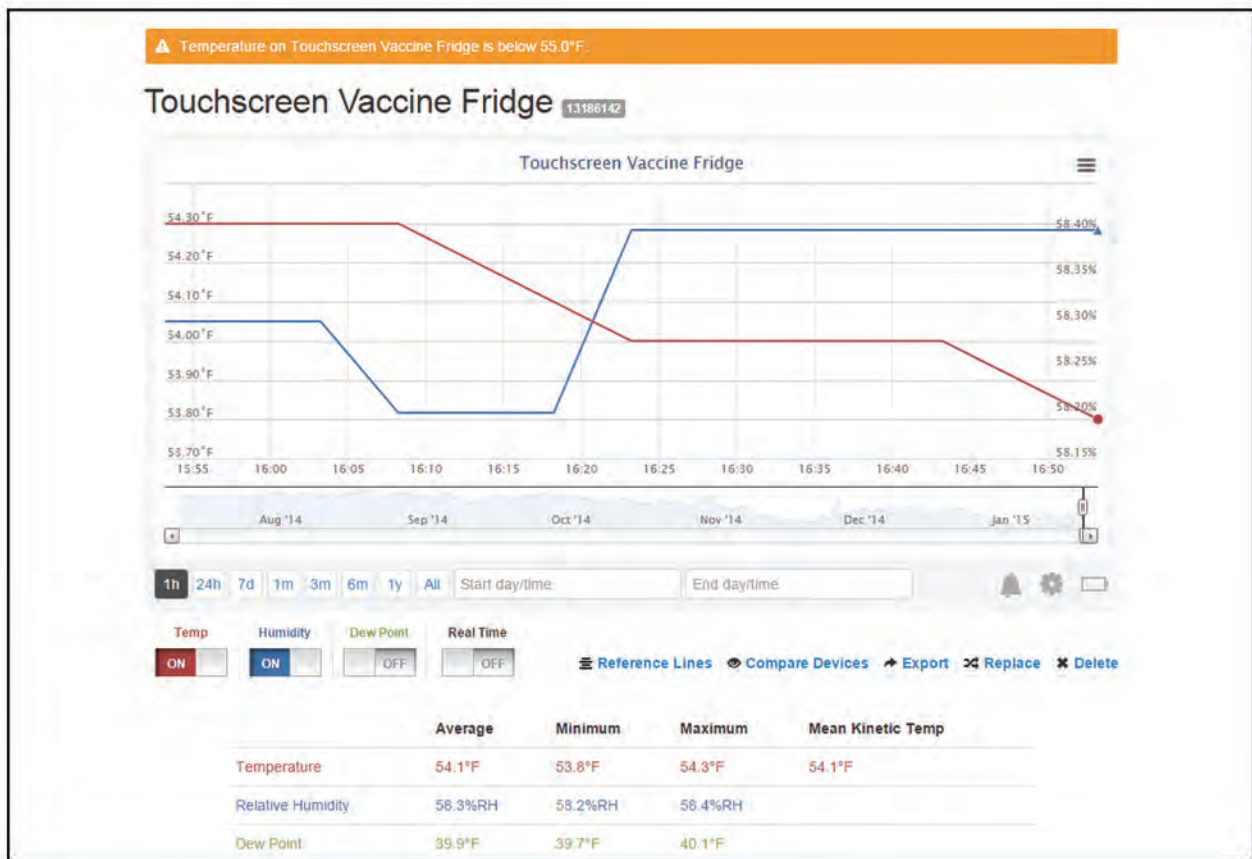
NOW WITH **DICKSONONE**

The **Touchscreen** now gives you the option to connect directly to **DicksonOne.** You get all of your data at your fingertips, and now you can access it anywhere, too. Just connect your device to your local WiFi network, or plug it into an Ethernet port, log into **DicksonOne**, and boom, complete data control.
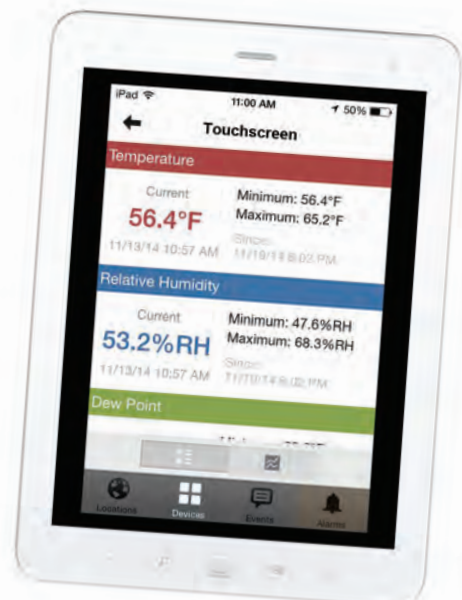
DicksonOne Allows You To

- Get email, text, or phone call alarms from your Touchscreens.

- Access every one of your Touchscreens' data history on one website.

- Generate customizable reports, delivered directly to your inbox when you want.

The new Touchscreen allows for USB download to DicksonWare.

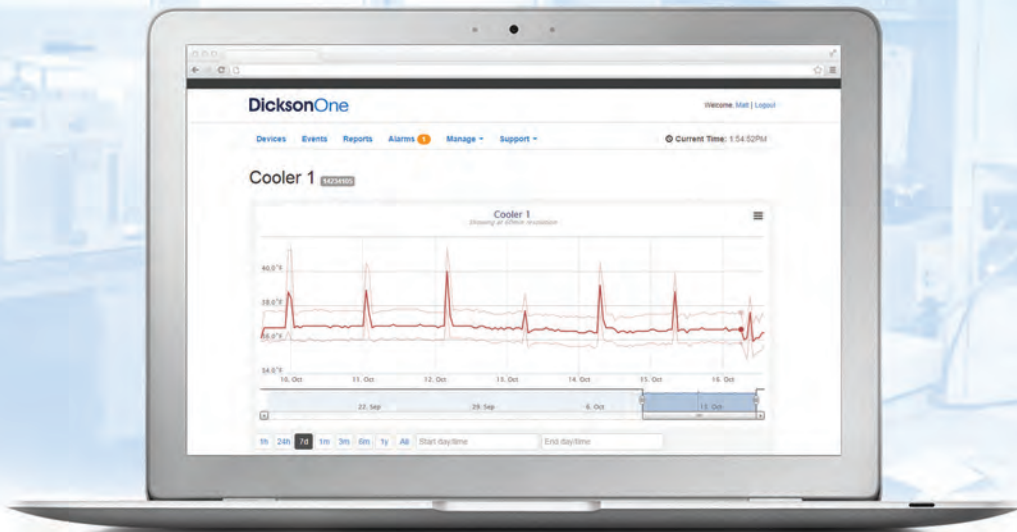Only DicksonWare A017/A027 will function with Touchscreen Loggers.

DicksonOne

Wireless Temperature and Humidity Monitoring

HOW IT **WORKS**

When you log onto **DicksonOne.com**, your environmental data, from every location, appears before your eyes. Charts and pens, get outta here. USB cords and software on a disc, you too. **DicksonOne** Loggers transmit your data wirelessly to the **DicksonOne** Cloud, were you can access it anytime.

Power Over Your Environment

EMAIL, TEXT & PHONE CALL ALARMS

When something bad happens in your facility, **DicksonOne** can send anyone in your organization an email, text, or phone call. Temperature too high? Humidity too low? We've got you covered.

CUSTOMIZABLE REPORTS

The DicksonOne Reporting Suite allows you to:

- Create and customize reports of any and all your loggers
- Choose who in your organization will receive which reports
- Change and modify the frequency of reports

Connect With Us:
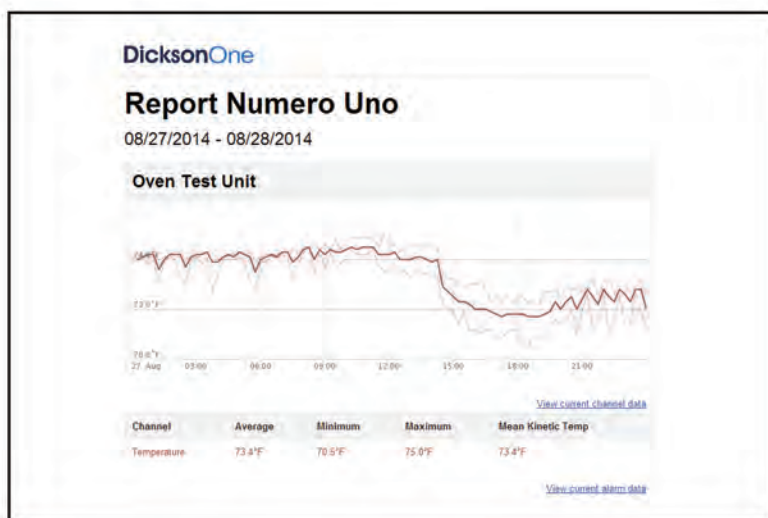
WAREHOUSE

Warehouse Loggers

DicksonOne WiFi Logger

WFH20 $499

MEDICAL

Medical Loggers

DicksonOne Ethernet Logger

ENT21 $479

DicksonOne
Touchscreen Pricing

MODEL	REMOTE PROBE	PRICE
TSB	USB Download	**$424**
TWE	DicksonOne WiFi/Ethernet Connection and Download	**$524**
TWP	DicksonOne Download and Power over Ethernet	**$599**

The new Touchscreen allows for USB download to DicksonWare.
Only DicksonWare A017/A027 will function with Touchscreen Loggers.

DicksonOne
Hardware Pricing

MODEL	REMOTE PROBE	PRICE
WFH20/ENH20	Digital Temperature and Humidity Replaceable Sensor	**$499**
WFT20/ENT20	Digital Temperature Sensor	**$499**
WFT21/ENT21	Thermistor Temperature Sensor with Gass Beads	**$479**
WFT23/ENT23	K-Thermocouple Temperature Sensor	**$479**
WFT25/ENT25	Platinum RTD Temperature Sensor	**$599**

DicksonOne
Software Pricing

DEVICES	FEATURES	PRICE
1 to 10	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	**$300/year**
11 to 25	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	**$725/year**
26 to 50	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	**$1400/year**
51 +	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	**Call for Quote**

* Dickson offers a Basic Plan, with 30 Day Data Deletion, and 1 hour sample rates
  for unlimited loggers at no cost.

Calibration In Five Seconds

HOW REPLACEABLE SENSORS **WORK**

Dickson Replaceable Sensors are Dickson's answer to the headache of calibrating your temperature or humidity monitoring device. When your device needs to be calibrated, just pop off your sensor, and pop on a new one. It's that easy. Now when you order a DicksonOne or Touchscreen Logger, you get the benefit of never having to ship a logger back to us again.

WITHOUT REPLACEABLE SENSORS

1. Order a recalibration for your device.
2. Acquire a Return Authorization Code from a Dickson Representative.
3. Take unit out of its environment.
4. Move products out of environment/install backup monitoring system.
5. Box unit up.
6. Ship unit to Dickson.
7. Dickson recalibrates unit and ships it back.
8. Receive the unit.
9. Disassemble backup system/move product back into environment.
10. Reinstall unit/system..

Total Down Time: 7-10 Days

VS

WITH REPLACEABLE SENSORS

1. Order a Replaceable Sensor.
2. Take old sensor off, put new sensor on.

Total Down Time: 0 Days

All DicksonOne and Touchscreen Loggers are
RS COMPATIBLE.

High Temp Solutions

1 **HT 300 Waterproof, High Temperature Data Logger** HACCP and FDA Compliant. USB Download. IP68 Rating. Temperature Range -40° to 257°F (-40° to 125°C). **$349**

2 **HT350 High Temperature Process Logger** HACCP Compliant, K–Thermocouple Probe, USB Download, and a large temperature range. Temperature Range -40° to 257°F (-40° to 125°C). **$349**

D605 Probe sold separately. For more information on Dickson's Probes and Accessories, visit **dicksondata.com.**

Instant Data Solutions

3 **TC700/TH700 Touchscreen Handheld Indicator** Instant temperature or temperature/humidity data. No-slip silicone cover. Battery powered. **$299**
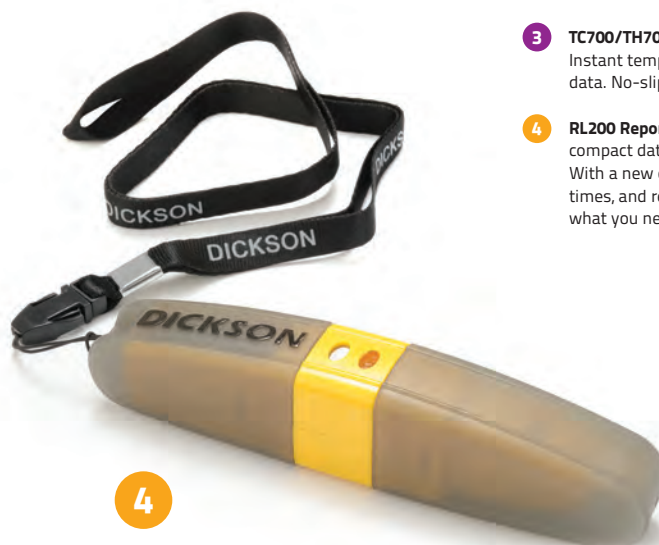
4 **RL200 Report Logger** We decided to make the best compact data logger on the market, our RL200. With a new outer case, user selectable logging times, and redesigned PC interface, it's exactly what you need. **$59**

Temperature and Temperature/Humidity
Chart Recorders

Want a physical readout right where you are monitoring? Our Chart Recorders have you covered. For ninety years we've built the best chart recorders in the business. Check out our models below.

8 and 6 Inch Models

Eight and Six Inch Chart Recorders display detailed temperature and humidity values.

MODELS AND FEATURES

KT6	6 Inch Temperature	**Starting at $369**
KT8	8 Inch Temperature	**Starting at $419**
TH6	6 Inch Temperature and Humidity	**Starting at $489**
TH8P	8 Inch Temperature and Humidity	**Starting at $489**

4 and 3 Inch Models

Four and Three Inch Temperature Chart Recorders designed to fit any application.

MODELS AND FEATURES

SL4350	4 Inch	**$239**
SL4100	4 Inch	**$239**
SC3 Series	3 Inch	**$239**

Charts sold separately. For charts and accessories, call **630.543.3747** or go to **www.DicksonData.com.**

Temperature and Temperature/Humidity

Data Logging Solutions

Data loggers are cost effective solutions for monitoring countless applications. With solutions for the food, pharma, manufacturing and dozens of other industries, Dickson's data loggers get you your data how you want it.

1

2

3

4

1 **SM300 $249** Temperature Logger. Range –4 to 158°F, –20 to 70°C. Accuracy ±0.8°F, ±0.44°C.
SM320* $299 Temperature Logger. Remote Probe. Range with Probe –300 to 2000°F, –184 to 1093°C. Accuracy ±1.8°F, ±1.0°C.
SM325* $399 Temperature Logger. Two Remote Probes. Range with Probe –300 to 2000°F, –184 to 1093°C. Accuracy ±1.8°F, ±1.0°C.
SM420 $499 Temperature Logger. Remote Probe. Range with Probe –50 to 350°F, –45 to 176°C. Accuracy ±0.5°F, ±0.28°C.
TM320 $299 Temperature and Humidity Logger. Range –4 to 158°F, –20 to 70°C. Accuracy ±0.8°F.
TM325 $399 Temperature and Humidity Logger. Remote Probe. Range –40 to 185°F, –40 to 85°C. Accuracy ±0.8°F.

2 **SP125 $119** Temperature Logger. Accuracy ±1.2°F, ±0.67°C. Range –10 to 176°F, –23 to 80°C.
SP175 $229 Temperature Logger with Thermocouple Probe. Accuracy ±1.8°F, ±0.1°C. Range –300 to 2000°F, –30 to 50°C. A203 Probe required for +500°F.
TP125 $199 Temperature and Humidity Logger. Accuracy ±0.8°F, ±0.45°C. Range –10 to 176°F, –23 to 80°C.

3 **SP425 $159** Temperature Logger. Digital Display. Accuracy ±1.2°F, ±0.67°C. Range –4 to 158°F, –20 to 70°C.
TP425 $249 Temperature and Humidity Logger. Digital Display. Accuracy ±0.8°F, ±0.45°C. Range –4 to 158°F, –20 to 70°C.

4 **SK550 $699** Temperature. Pack of twelve. Accuracy ±1.8°F, ±1°C. Range –4 to 158°F, –20 to 70°C.
TK550 $999 Temperature & Humidity. Pack of twelve. Accuracy ±1.8°F, ±1°C. Ranges –4 to +158°F, –20 to +70°C.

Software required and sold separately.
For software and other accessories, call **630.543.3747** or go to **www.DicksonData.**

Connect With Us

Dickson Social Media Accounts

@DicksonData

Channel:
DicksonData

Search
"Dickson"

Search
"Dickson Data Loggers"

PRESSURE DATA LOGGERS

Pressure Data Logger One second sampling rate. User replaceable battery. Optional delayed start. USB connectivity. Pressure sensor includes built-in diaphragm seal.

PR125	**$499**	0-100 PSI
PR325	**$499**	0-300 PSI
PR525	**$599**	0-500 PSI

Rugged Utility Pressure Data Logger Water resistant case. 3 year battery. Unobtrusive design. Fits easily in a toolbox. USB Connection.

PR150	**$499**	0-100 PSI
PR350	**$499**	0-300 PSI

PRESSURE CHART RECORDERS

4 and 8 Inch Models

Four and Eight Inch Chart Recorders to meet your needs.

Single AA battery powered. Rugged low-maintenance design features. 7-day or 24-hour recording times. 1/4 inch NPT Connector.

MODELS AND FEATURES

0-100 PSI	**PW860/1**	$629	**PW470**	$449
0-200 PSI	**PW864/5**	$629	**PW474**	$449
0-300 PSI	**PW866/7**	$629	**PW476**	$449
0-500 PSI			**PW479**	$449
0-1000 PSI	**PW875**	$749		

Charts sold separately. For charts and accessories, call **630.543.3747** or go to **www.DicksonData.com.**

We Like Accuracy. So Should You.

A2LA ACCREDITATION

Here at Dickson, we calibrate data loggers and chart recorders to the highest standards of thermal accuracy and reliability. As an A2LA accredited laboratory, and the first manufacturer of thermal data logging and chart recording devices to be so, we strive to meet higher standards in the calibration world. Our engineers and calibration technicians have an average of 10 years of experience working in calibration labs, and since 2000, we've completed over 170,000 calibrations.

If that isn't enough of a reason to calibrate with us, consider this: we are a NIST traceable, ISO 17025:2005 accredited organization that will calibrate your device to the exact specifications you desire. Plus, we offer the following calibration types:

- 1-Point NIST
- 3-Point NIST
- 3-Point A2LA
- Any custom point calibration your heart desires.

To learn more about Dickson's calibration capabilities, visit: **dicksondata.com/calibrations**

REPLACEABLE SENSORS

If you calibrate your data logger or chart recorder, you know the headaches that are a result of the tedious process known as recalibration. That process, which includes taking your unit out of its environment, moving in a back-up system, shipping your unit to a calibration laboratory, and then waiting, just got streamlined. Say hello to Replaceable Sensors, by us here at Dickson.

Replaceable Sensors measure the temperature or humidity of your environment, and then send that signal to your data logger for storage. They are calibrated independently of the data logger. What does that mean for you? If you calibrate your data loggers and chart recorders (which you should be doing) it means never, ever having to send your device back in to Dickson for a calibration. Replaceable Sensors take the phrase "down time" out of calibration.

Interested? Visit **dicksondata.com/replaceable-sensors** to watch a product video, and view Dickson products that use Replaceable Sensors.

Connect With Us:

DICKSON EXPLAINS:

What Was In The CDC's OEI-04-10-00430 VFC Report?

In April and May of 2011, a group of analysts from the Office of the Inspector General of the United States of America, conducted an evaluation of 45 Vaccine For Children (VFC) program providers. The team was led by Holly Williams, and was formed to assess the storage conditions of vaccines distributed by the CDC to VFC providers, who were distributing the vaccines to children aged 18 and under, who were eligible under certain program conditions to receive disease fighting vaccines.

The assessment was carried out not like an FBI Mafia or FIFA raid, but more like an academic assessment. The group planned to test the storage conditions of 45 VFC providers, conduct interviews, and collect data. Once the two weeks were over, the team would make their recommendations to the CDC, and provide the results of their study.

What they found, was not good. 76% of the VFC providers surveyed had stored vaccines in unsafe temperature ranges for at least 5 cumulative hours, during a two week study. That 76% number may need a little time to sink in, but nonetheless is alarming to any lay-person. The 5 hours though need a bit of an explanation. Vaccines need to be kept cold to stay effective. Some need to be kept in refrigerators, others in freezers. During the course of this study, for the most part, they were. But for a cumulative 5 hours in over 3/4's of the Vaccine Providers, they were out of acceptable temperature ranges. What's the big deal? If a vaccine is stored outside of critical temperature ranges, it loses potency. Which is a huge, huge problem for the health and well-being of our world.

What else did the report find? Here are a few more alarming statistics:

Each of the 45 providers recorded temperatures that differed from the Inspector General group's independently measured temperatures.

In other words, the VFC providers were not using accurate (and thus most likely not using

calibrated) data loggers or thermometers. Accuracy is if not the most pertinent, then one of the most pertinent issues in thermal measuring.

0 of the 45 VFC providers met all 10 categories of the VFC Operations Guide Requirements.

Those 10 requirements are: Vaccine Storage Equipment, Vaccine Storage Practices, Temperature Monitoring, Vaccine Storage and Handling Plans, Vaccine Personnel, Vaccine Waste, Vaccine Security and Equipment Maintenance, Vaccine Ordering and Inventory Management, Receiving Vaccine Shipments, and Vaccine Preparation.

The most failed category: Vaccine Storage Equipment, where 96% of VFC Providers failed to house their vaccines in proper refrigerators and/or freezers.

The least failed category: Vaccine Preparation, where only 2% of providers failed.

**16 of 45 VFC Providers had expired vaccines,**

13 of whom were storing them directly next to or within their unexpired vaccine supply.

Maybe the one thing worse than administering vaccines stored outside of proper temperature ranges: administering expired vaccines.

All in all, this report was essential, but alarming. The results were published a little over three years ago. Since then, vaccine providers (both VFC and non-VFC) on the whole have improved their vaccine storage practices immensely.

The CDC responded to the above report with new and more stringent recommendations, and now state and city VFC programs are following suit. Gone are the days of dorm style freezers, and chart recorders.

*NOTE: All information relayed, discussed, and analyzed above was taken from the Office of Inspector General, Report OEI-04-10-00430, "Vaccine For Children Program: Vulnerabilities In Vaccine Management." June, 2012. http://oig.hhs.gov/oei/reports/oei-04-10-00430.pdf.
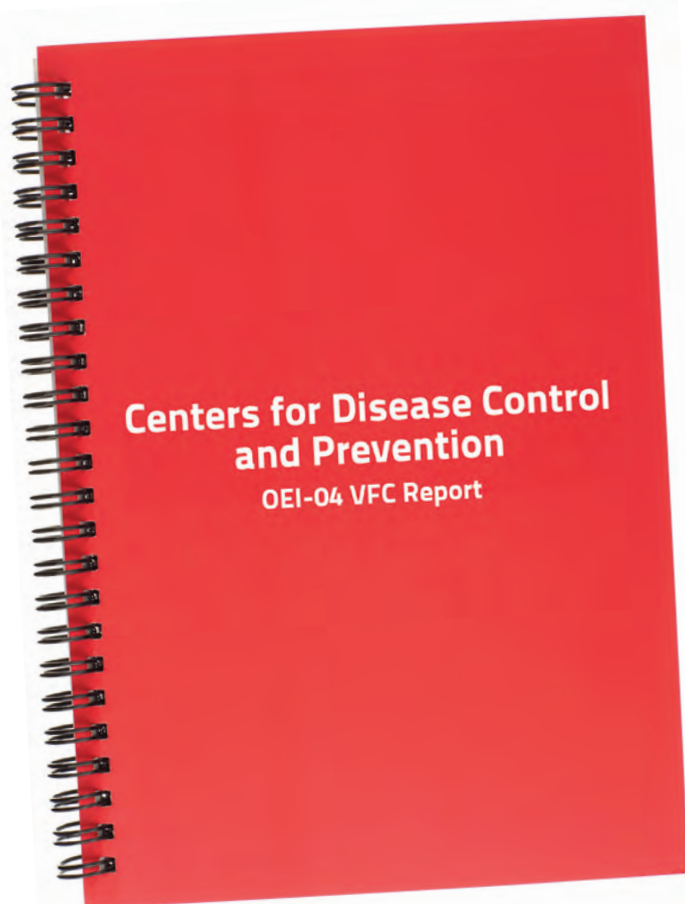
The **Healthcare IT** Blogs You Should Read

1. Christina's Considerations

Author:	Christina Thiest
Website:	thiest.typepad.com
Twitter Handle:	@Cthiest

2. The Digital Health Corner

Author:	David Lee Scher
Website:	davidleescher.com
Twitter Handle:	@dlschermd

3. HIT Consultant

Founder:	Fred Pennic
Website:	hitconsultant.net
Twitter Handle:	@hitconsultant

4. Smart Phone Healthcare

Author:	John Lynn
Website:	smartphonehc.com
Twitter Handle:	@techguy

5. The Healthcare IT Guy

Author:	Shahid Shah
Website:	healthcareguy.com
Twitter Handle:	@ShahidNShah

6. Electronic Health Reporter

Editor:	Scott Rupp
Website:	electronichealthreporter.com
Twitter Handles:	@scotterupp, @EHReporter

7. EMR Straight Talk

CEO:	Scott Ciccarelli
Website:	blog.srssoft.com
Twitter Handle:	@EMRStraightTalk

8. Life As A Healthcare CIO

Author:	John D. Halamka
Website:	geekdoctor.blogspot.com
Twitter Handle:	@jhalamka

9. KevinMD.com

Editor:	Kevin Pho
Website:	kevinmd.com
Twitter Handle:	@kevinmd

10. HIMSS

Website:	blog.himss.org
Twitter Handle:	@HIMSS

Connect With Us:

78 F — LABORATORY
70 F — GYMNASIUM
68 F — LIBRARY
65 F — CAFETERIA
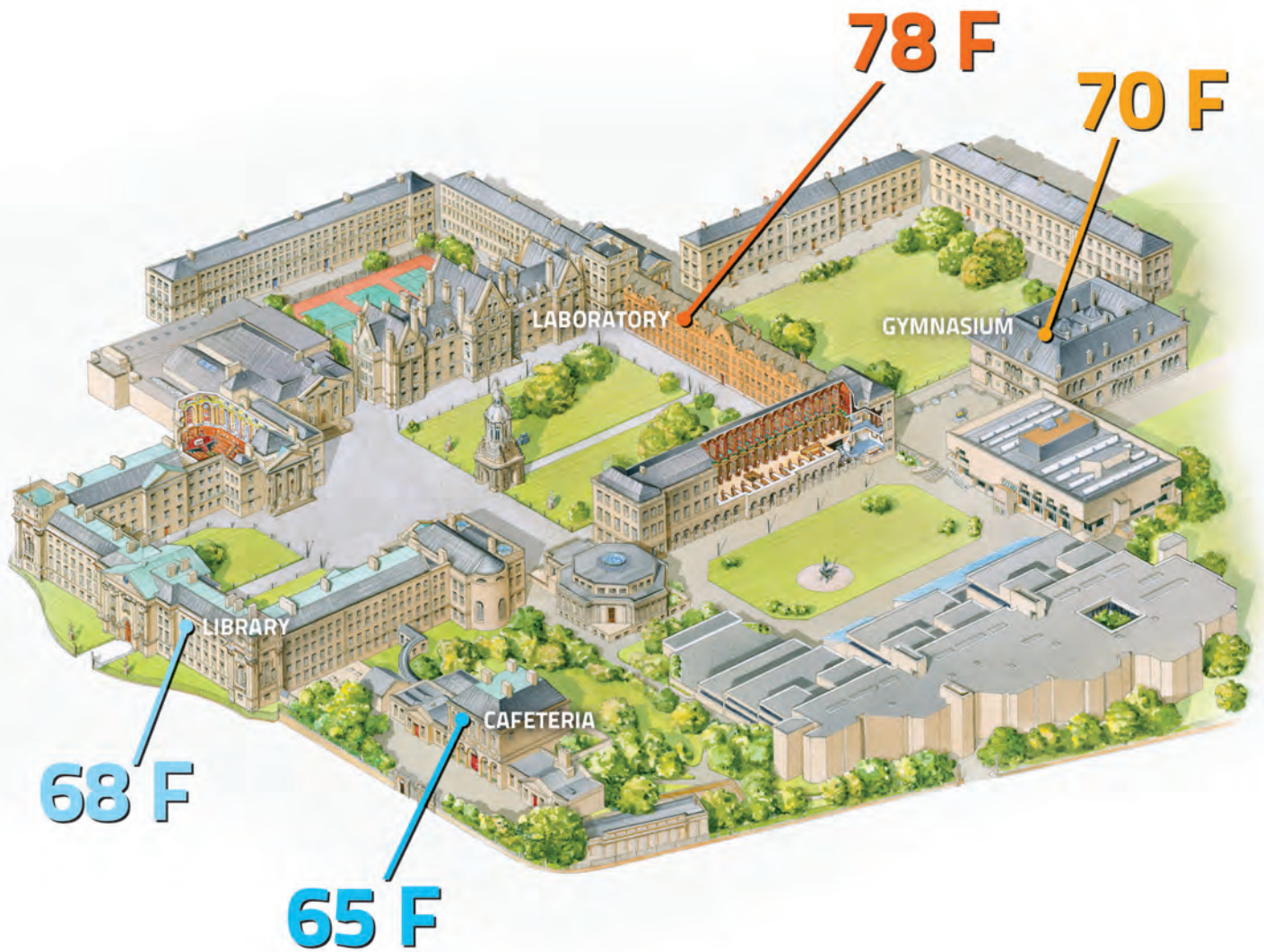
VARSITY BLUES.

Everywhere and everything that you need to monitor at school

A few months ago, we discussed a story that the Yale Daily News had reported on: a data server failure that brought down the entire university's website and email accounts, during the wonderfully inopportune time of semester finals.

We've been working with universities for a long time. You can find Dickson data loggers spread across the educational frontier of America, and in colleges and universities abroad as well. But researching that Yale story, and writing about how server room temperature monitoring can prevent data loss, opened our eyes to the diverse challenges that face a university campus when it comes to temperature and humidity monitoring.

College campuses can sometimes seem like small, weird cities. These cities have food services, restaurants, libraries, parks, housing, municipalities, hospitals, and more: everything a normal city does. While they are run by 18-25 year olds, and the bar-to-human ratio may be a little higher than normal cities, college campuses function as mini-cities.

And they should be treated as mini-cities when it comes to temperature and humidity monitoring. It's easy to associate college with the classroom, but for a long, long time now, they have been much more than rooms filled with a chalkboard and desks.

Where should data loggers be placed at in a university? We've outline a few of the spots below. This is in no way an exhaustive list. But it does highlight some of the areas that data loggers, chart recorders, and thermometers should appear in on a college campus.

University Hospitals and Clinics

The university hospital is becoming synonymous with "hospital," and so it's worth mentioning here, especially for all of you large research universities. For the smaller colleges, it's all about the student health care clinic.

Now, there are dozens of places a university hospital should place a temperature data logger (many of which are required by regulators). We've listed a few examples of places to monitor below:

- Vaccine Storage
- Blood Bank Storage
- Incubators
- Organ Storage
- Clean Rooms
- Pharmacies

HVAC Outputs

We should preface this list by acknowledging that "HVAC Outputs" is a pretty general location. Consider this a hodgepodge of the the areas of your university that should be monitored if you feel that they could be trouble if your HVAC system stops working properly. Also, these areas are great locations to test or validate your HVAC system. These locations include:

- Libraries and Book Stores
- Dorms/University Housing
- Recreational Areas
- Warehouse Storage
- Agricultural Research Areas

Food Services

The cafeteria(s) on your university's campus have food, and a lot of it. With thousands of students eating breakfast, lunch, and dinner everyday in dining halls, and with a large staff that includes everyone from experienced quality managers to naive part-time freshman, the food services of your university is a machine with a lot of parts. Some of those parts need to be kept cold or hot, and thus they need a data logger. Locations you should consider monitoring in university food services include:

- Refrigerators
- Freezers
- High-temperature dishwashers
- Large Ovens

Also, consider getting a thermometer with a piercing probe. These little devices can help you determine if red meat and poultry have cooked all the way through.

As you can see, there are a lot of places a university needs to worry about temperature. For more information on how Dickson can help keep your university from getting too hot or cold, visit **DicksonData.com.**

CHECK OUT THE

DICKSON BLOG!

Like what you've read? Find more great information about temperature on our blog: **Blog.DicksonData.com**

DICKSON

Replaceable Sensors
Calibration Made Easy

A few years ago, we set out to engineer a way for our customers to calibrate their loggers and recorders, without ever having to send the devices back to us. What we ended up with, was Replaceable Sensors.

What are these things?
Replaceable Sensors measure the temperature or humidity of your environment, and then send that signal to your data logger for storage. They are calibrated independently of the data logger.

What does that mean for you? If you calibrate your data loggers and chart recorders (which you should be doing) it means never, ever having to send your device back in to Dickson for a calibration. Replaceable Sensors take the phrase "down time" out of calibration.

Interested? Visit **dicksondata.com/replaceable-sensors** to watch a product video, and view products that use Replaceable Sensors.

Scan This QR Code To Visit
DicksonData.com

Quick Response (QR) codes are a type of barcode that can be read by cell phones and other readers. Simply download a QR Reader application on your cell phone, scan the code, and view additional content like product videos!