DICKSON

insights

Summer 2014 ▪ CD279

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What I Learned

My First Four Months at Dickson.

AJOONI SETHI ▪ **DICKSON** INSIDE SALES CONSULTANT

When I tell people I sell temperature, humidity and pressure recorders for a living, there generally aren't a lot of follow-up questions. And that's a shame.

In my first four months at Dickson, I have worked with nurses and doctors, aerospace engineers, sheep's milk farmers, concrete curers, piano tuners, cancer researchers, rare book collectors, city water departments, caviar fishermen, and I heard tell of a customer with a bat cave.

Working at Dickson has made my world larger. I have discovered industries I did not know existed, and learned more about those that I took for granted. I've started to ask more questions about the world around me, wondering who and what is behind the products and services I consume.

And so Dickson has become an amazing place for a recent college grad like me to expand on my formal education. As a Public Policy and French major, I was terrified and yet excited on my first day of sales training as my new boss left me in a room with a chart recorder, a screw driver, the instructions, and said, "Have fun."

I work with a diverse group of customers, each of whom has a unique need. I get to partner with them to find a solution. And unfortunately—but fortunately—there is no script for that.

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Temperature Sensors and Calibration:
The Vaccines For Children Program

If vaccines are not kept cold, they will become less potent. This is a statement that is of course true, and that has been reiterated consistently and frequently by the CDC to those hospitals and clinics that are in the VFC (Vaccines for Children) Program. Keeping vaccines cold may seem as simple as throwing them in a refrigerator when they show up at your door: that's what we do with food, right?

Unfortunately, it is a little more complicated. While you run the risk of melted ice cream if you don't get your groceries home fast enough, there is a much greater health risk of not keeping vaccines cold. In the VFC program, vaccines are given to clinics, who then administer them to children for free. Giving a child a vaccine that is "less potent" is not good. It won't protect them against the disease it is meant to replicate.

The complications come hand in hand with the importance. While you probably don't have a thermometer in your fridge at home, because assuming it's cold is enough, hospitals and clinics want a thermometer (and actually have to have one) in their refrigerators.

Thermometers show you what the temperature of a given point is. They do this through a temperature sensor and a display. (For a mercury thermometer, the bulb of mercury is the sensor, and the display is the glass scale.)

This is the bare-bones minimum knowledge you have to know to be a part of the VFC program, and honestly to administer any vaccines or drugs. So what else? Data loggers.

Data loggers are devices that log the temperature values the temperature sensor reads. They store that information for later download and viewing, and because they are actively logging your temperature values, they come with a host of other features (alarms, graphs, analysis, etc.). A simple temperature sensor requires you to check the temperature values of your vaccines often, and write down those values so that when an auditor shows up at your door, you can prove that the vaccines you stored never escaped a particular temperature range. A data logger does all that work for you.

So which monitoring device should you get? A data logger, of course. However, the mantra in VFC programs often times leans towards "cost-cutting," due to expenses elsewhere in the clinic, and the fact that these vaccines are being given out for free to children in need. Data loggers, because of their added functions, cost much more than simple temperature sensors (we've made the argument that they don't, when you consider the labor cost of checking a thermometer often, and the financial risk that comes with administering vaccines with a reduced potency).

A better question should be "Which one do you HAVE to get?" That depends. We wish we could give you a straight answer, but we'd have to know where your clinic or hospital is to do so. The organization of the VFC program starts at the federal level, but the local state, county, and city coordinators ultimately decide what kind of devices you have to have, in order to comply with their regulations.

The CDC recommends data loggers. Plain and simple. As you may be aware, the CDC's recommendations for vaccine storage are much more progressive, and thus stringent, than many state requirements. As far as temperature sensors go, this is an overview of what the CDC recommends:

- Thermometers should be digital
- Thermometers should have a remote probe
- Remote probes should be submerged in Glycol or glass beads
- Thermometers should be calibrated and accompanied by a Certificate of Traceability
- Thermometers should be calibrated by an accredited laboratory
- Thermometers should have an accuracy of +/-1F (+/-.5C)
- Thermometers should have an alarm, min/max display, and reset button

What do VFC programs require for temperature sensors? We can't make claims for every state and every auditor, but here is an example from one state, Alabama, on what they require of their providers:

- Place thermometer in refrigerator and freezer
- Check thermometer temperature twice a day
- Keep a daily log at the door of the refrigerator

That is all the information that we could glean with our initial research on the Alabama Department of Health's website. As you can see, the requirements differ greatly from the CDC's recommendations. Depending on the type of thermometer supplied by the Alabama Department of Health to the VFC providers, many of the CDC recommendations may be covered. However, there is no mention of data loggers, accuracy, remote probes, Glycol/glass beads, or calibration.

Just one example of the challenges facing VFC Program participants are the myriad of different regulations they are expected to follow. What do we recommend? Dickson will always try to make a concerted effort to stay even with the most stringent of regulatory bodies. Thus, it comes as no surprise that we align our own recommendations with that of the CDC.

DICKSON VACCINE MONITORING PRODUCTS

DicksonOne Page 10-12
Wireless, Real-time Monitoring. Meets all CDC recommendations for vaccine storage.

Touchscreens Page 8
All your data at the touch of a finger. Glycol-encased Replaceable Sensor. Perfect for VFC monitoring.

CONCRETE CURING.

We are currently moving out from the depths of summer, nearing the end of sun burned grass, and towards the oranges, reds, and yellows of fall. Summer brings hot weather, whether humid or dry. Fall is fast approaching, and for one particular group of our customers, that means a change in how they produce, implant, and monitor their product.

Construction is an industry that we haven't written a lot on. There are many reasons for this, none of which are satisfactory. The most relevant, is that for us here at Dickson, construction, specifically concrete, is a bit foreign. While all of us have opened a refrigerator or freezer, not all of us have been to a construction site, or in a concrete testing lab.

Yet, we engage in conversations with customers who are involved in the construction process. So, in this month's catalog, we thought we would tackle one aspect of construction: concrete curing.

What is it?

For the uninitiated but interested, concrete curing is the process of moistening concrete that has already been poured or set, over time, to increase its strength and durability. Almost all concrete you see has gone through some sort of curing process.

What does Dickson have to do with it?

Temperature and humidity of course! Controlling the temperature and humidity of the ambient air around the concrete, and the concrete itself, are essential to the curing process. Monitoring these temperatures are essential for testing labs, and for some on site curing as well. Keeping the concrete moist at certain temperatures and for certain amounts of time is key to both accelerating the curing process, and further strengthening the concrete.

A deeper dive:

Concrete curing takes on many different forms, and thus there are different attitudes, processes, and yes, temperatures/RH levels that are necessary for curing specific concrete in specific applications. We will talk about those different forms at a later date, but at the moment, we'd like to focus in on something that we can directly influence, the type of temperature and humidity monitoring that you are doing while your concrete is curing.

First thing's first: do what your auditor says. (For those that were the uninitiated but interested, construction companies, concrete manufacturers, and city works get audited, too.) Listening to your auditor is almost always the number one piece of advice that we will recommend here at Dickson.

Types of Temperature Monitors

There are a 3 distinct "types" of temperature monitors: data loggers, chart recorders, and indicators. These three different types all measure the temperature of an environment at a specific point. They do so through a temperature sensor, which can be anything from a mercury bulb to a K-Thermocouple Probe. They then display that information on a . . . well, a display. For indicators, that is all they do. For data loggers and chart recorders, that information (the temperature/humidity measurement and the date and time) are stored as information. For data loggers, that data is stored in the device for later download (via software) onto a computer, or sent to a cloud application or server for remote access. For chart recorders, that data is written down as it is recorded onto a paper chart.

This may all seem a little elementary, but I'd ask you to keep it in mind as you begin to think about what product is right for you. The two easiest ways to narrow down what "type" of temperature monitor is right for you, is to ask yourself if you need or want temperature data over time, and then what variable you will be measuring (in our case, temperature, or temperature and humidity). If you need temperature data over time, you need a data logger or chart recorder. If you only need to gather temperature data once in a while, in other words just "checking in" with your process, a temperature indicator will do just fine.

For most testing labs and on site curing processes, a data logger or chart recorder is either convenient or necessary to have: your auditor may want some proof the concrete you are laying has been cured at a specific temperature and humidity over a specific amount of time.

What you should consider before you buy:

Location, location, location.

We can't stress this one enough. After variable and data, this is the most important for construction companies who are curing concrete. Where are you doing the curing? Will you be on site, in your plant, or in a testing lab? Somewhere else? Think about where you will be curing, and what type of effect that will have on the rest of the features that come with a data logger or chart recorder. If you are on site, you may not have a power outlet close, so battery power would be essential. If you are in a harsh environment, you may need a durable, robust logger to deal with the elements. If you are in a lab, you may need more than one logger to understand how temperature fluctuations in one test differ from those in another. The list goes on and on.

Probe

What are you measuring? For some, they want a remote temperature probe to measure the actual temperature of their concrete. So, that probe must be submersed in the concrete, and thus should probably be a K-Thermocouple Probe. If you are looking to measure the ambient air during ponding or test immersion, you may want to know the ambient humidity of the air right above your concrete. This would call for a digital temperature and humidity sensor.

Trends vs Data Points

A chart recorder is going to only show you temperature trends, not exact data points. If you simply want to glean the general temperature and/or humidity range of your curing application, these will work just fine. However, if you would like to know exactly what temperature and/or humidity your concrete was at around 4:30PM, or any other time (along with getting graphing capabilities and much more) you will need a data logger.

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

Recalibration Made Easy

THE OLD WAY

1. Call or order a recalibration online.
2. Acquire a Return Authorization Code from a Dickson Representative.
3. Take unit and probe out of their environment.
4. Shut down production/storage area if necessary.
5. Install backup system.
6. Box unit up.
7. Ship it to Dickson.
8. Dickson recalibrates the unit and ships it back.
9. Receive the unit.
10. Reinstall system.

Total Down Time: 7-10 Days

THE NEW WAY

1. Call or order a Replaceable Sensor online.
2. Receive Replaceable Sensor.
3. Take old sensor off, put new sensor on.

Total Down Time: 0 Days

MODEL	PROBE TYPE	TEMPERATURE RANGES	ACCURACY	PRICE
TEMPERATURE/HUMIDITY				
R200	Digital Sensor	-40° to 185°F (-40° to 85°C)	±0.8°F, 20 to 120°F (±0.44°C, -6.67 to 48.89°C)	**$69**
R250	Digital Straight Sensor	-40° to 185°F (-40° to 85°C)	±0.8°F, 20 to 120°F (±0.44°C, -6.67 to 48.89°C)	**$69**
TEMPERATURE				
R300	Digital Sensor	-22° to 122°F (-30° to 50°C)	±0.8°F, 20 to 120°F (±0.44°C, -6.67 to 48.89°C)	**$49**
R350	Digital Straight Sensor	-22° to 122°F (-30° to 50°C)	±0.8°F, 20 to 120°F (±0.44°C, -6.67 to 48.89°C)	**$49**
R400	K-Thermocouple	300° to 2000°F (-184° to 1093°C)	±1.8°F, -22 to 122°F (±1°C, -30 to -50°C)	**$49**
R500	Thermistor in Glycol Bottle	-58° to 158°F (-50° to 70°C)	±0.9°F, -58 to 68°F (±0.5°C, -50 to 20°C)	**$69**
R525	Stainless Steel Thermistor	-40° to 300°F (-40° to 149°C)	±0.8°F, -20 to 176°F (±0.44°C, -28 to 80°C)	**$69**
R600	Platinum RTD	-148° to 350°F (-100° to 176°C)	±0.5°F, -148 to 350°F (±0.3°C, -100 to 176°C)	**$199**
R700	Dual K-Thermocouple	300° to 2000°F (-184° to 1093°C)	±1.8°F, -22 to 122°F (±1°C, -30 to -50°C)	**$99**
R800	Dual Thermistor in Glycol Bottles	-58° to 158°F (-50° to 70°C)	±0.9°F, -58 to 68°F (±0.5°C, -50 to 20°C)	**$69**

Environmental Monitoring

For Every Application

1. 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 $

2. Touchscreen Handheld Indicator

TC700/TH700 Instant temperature or temperature/humidity data. No-slip silicone cover. Battery powered.

299 $

3. Waterproof High Temperature Data Logger

HT300 Waterproof, High Temperature Data Logger. HACCP and FDA Compliant. USB Download. IP68 Rating. Temperature Range -40° to 257°F (-40° to 125°C).

349 $

TOUCHSCREEN DATA LOGGERS

Full Control
At Your Fingertips.

No running back to your PC to view your data. Jumbo 4.9" x 6.4" touchscreens. Zoom and scroll with the touch of a finger. Audible/visual alarms. USB and FLASH card data download. Rechargeable Backup Battery. Optional Display Lock. Replaceable Sensor Compatible.

MODEL	REMOTE PROBE	PROBE TYPE	TEMPERATURE RANGES	ACCURACY	RELAYS	PRICE
TEMPERATURE/HUMIDITY						
FH625	Optional	Temp/RH PCS*	-40°F to 185°F (-40° to 85°C)	±0.8°F, ±0.45°C		**$489**
FH635	Optional	Temp/RH PCS*	-40°F to 185°F (-40° to 85°C)	±0.8°F, ±0.45°C	▪	**$529**
TEMPERATURE						
FT600	Optional	Temp PCS*	0 to 122°F (-17° to 50°C)	±0.8°F, ±0.45°C		**$399**
FT620	1	KT/C	-300°F to 2000°F (-184° to 1093°C)	±1.8°F, ±1°C		**$449**
FT630	2	KT/C	-300°F to 2000°F (-184° to 1093°C)	±1.8°F, ±1°C	▪	**$499**
FT625	▪	Thermistor	-40°F to 300°F (-40° to 148°C)	±0.8°F, ±0.45°C		**$449**
FT640	1	Thermistor/Glycol	-40°F to 158°F (-40° to 70°C)	±0.9°F, ±0.5°C		**$469**
FT645	2	Thermistor/Glycol	-40°F to 158°F (-40° to 70°C)	±0.9°F, ±0.5°C		**$489**
FT660	▪	RTD	-148°F to 350°F (-100° to 176°C)	±0.5°F, ±0.28°C		**$549**

*Pre-Calibrated Sensor

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, visit Page 15, call **630.543.3747** or go to **www.DicksonData.com.**

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Dickson Social Media Accounts

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Channel: DicksonData

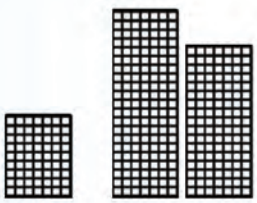
Search "Dickson"

Search "Dickson Data Loggers"

DicksonOne

Temperature and Humidity Monitoring. Re-imagined.

DicksonOne is a wireless temperature and humidity monitoring system that automatically collects your data and delivers it to wherever you are. No more changing charts, no more downloading data.



MULTI-LOCATION How many points will you be monitoring? 1, 5, 100, 1000? From small cheese factories to multi-location healthcare distributors, DicksonOne is up for the task. Monitoring an additional location is as simple as buying another logger.

ALARMS When temperatures get too hot or cold, your power goes out, or your probe is unplugged, DicksonOne can call, text, or email you to alert you of the mishap. Throw away less products, and ensure the safety of your environment, even when you're not there.

INFINITE STORAGE We don't run out of space, and you never have to worry about hard drives or file folders. We've got you covered.

WHY DID WE MAKE IT?

DicksonOne is the direct result of customer feedback like this:

1. We want to monitor **multiple locations** with one system.
2. We're spending too many **personnel** hours changing charts and pens.
3. We want an **easier way** to share our data.
4. We need **more robust** alarming capabilities.
5. I need to view **my data** from anywhere.

DICKSONONE HARDWARE

DicksonOne Data Loggers are robust and reliable. With battery backup, your choice of Ethernet or Wi-Fi communication, and a digital display, these loggers provide the security and convenience your application needs.

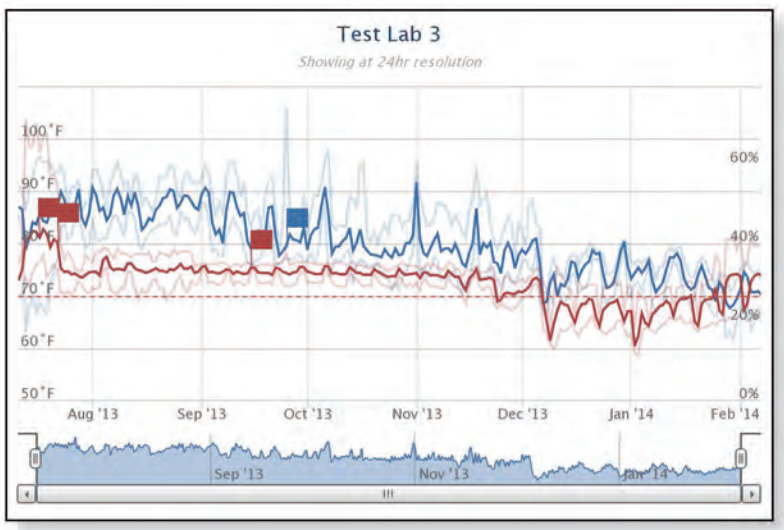
DICKSONONE SOFTWARE

DicksonOne is a SaaS (Software as a Service) platform that automatically stores your data and makes it accessible anywhere.

The software is the real key to DicksonOne. We believe it rises above the competition in usability, security, and scalability. The interface is easy to navigate for everybody, from your IT team to the end-user working with the product you're trying to keep safe. DicksonOne is 21CFR11 compliant, and all data is backed up redundantly, perfect for showing an audit trail. We've had a jump on all other environmental monitoring systems for over a year, and we've kept it that way. We continually improve the system and add new features based on customer feedback. Seriously, someone is working to make it better right now.

The list of features in DicksonOne is endless. Instead of listing them all, we invite you to see for yourself.

Start your free trial at **www.DicksonOne.com**



DicksonOne
Hardware Pricing

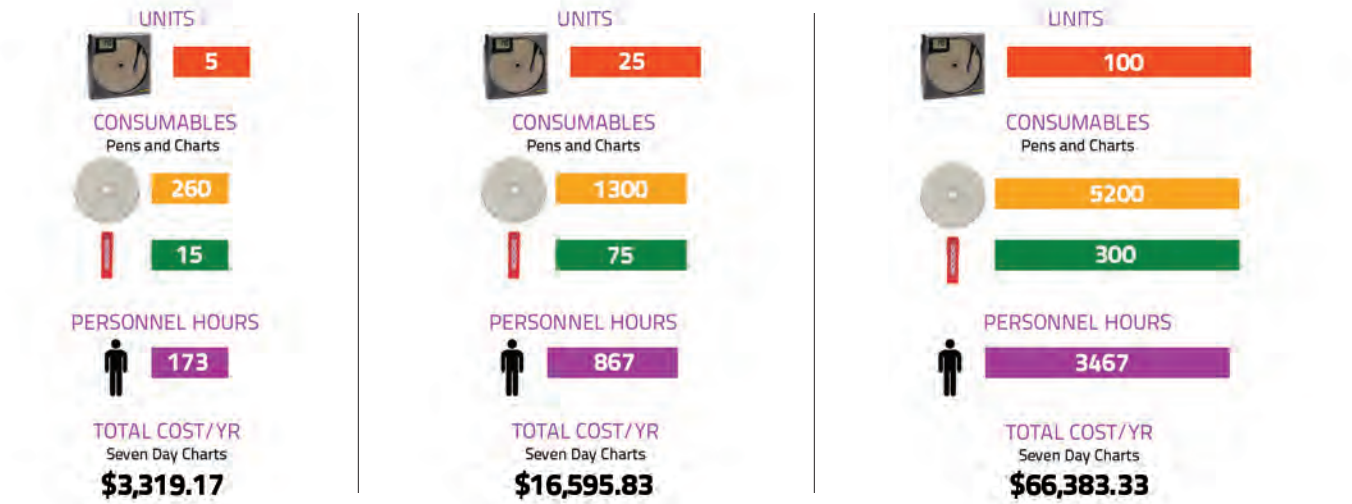
MODEL	REMOTE PROBE	PRICE
WFH20/ENH20	Digital Temperature and Humidity Replaceable Sensor	**$499**
WFT20/ENT20	Digital Temperature Sensor	**$499**
WFT21/ENT21	Thermistor Temperature Sensor with Glycol Bottle	**$479**
WFT23/ENT23	K-Thermocouple Temperature Sensor	**$479**
WFT25/ENT25	Platinum RTD Temperature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

DicksonOne
Software Pricing

DEVICES	FEATURES	PRICE
1 to 5	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	**$119/year**
6 to 20	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	**$359/year**
21 to 50	Unlimited Data, Multiple Sample Rates, API Access, Email, Phone, and Text Alarms	**$1199/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.

Consider The Cost Of That Old Chart Recorder...



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	6 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, visit Page 15, call **630.543.3747** or go to **www.DicksonData.com.**

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

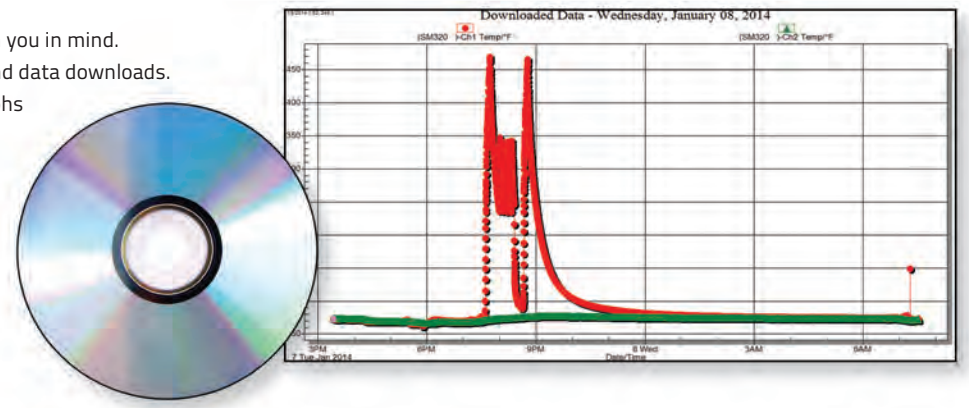
0-100 PSI	**PW860/1**	**$629**	**PW470**	**$449**
0-200 PSI	**PW864/5**	**$629**	**PW474**	**$449**
0-300 PSI	**PW866/7**	**$629**	**PW476**	**$449**
0-500 PSI			**PW479**	**$629**
0-1000 PSI	**PW875**	**$749**		

Charts sold separately. For charts and accessories, visit Page 15, call **630.543.3747** or go to **www.DicksonData.com.**

DicksonWare

DicksonWare Software was designed with you in mind. Easy installation. Painless logger setup and data downloads. Data visualization through populated graphs and tables.

Learn more at **www.DicksonData.com**



PROBE ACCESSORIES

D617 $52 10' K-TC Straight Extension Cable

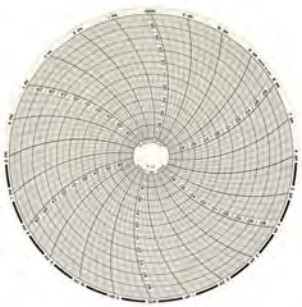
D605 $79 4" Piercing Probe

A203 $125 6" High Temperature Immersion Probe

CHARTS AND PENS

We make reordering charts and pens a cinch.

Only authentic Dickson charts and pens guarantee the accuracy of your temperature, humidity, and pressure data. Fortunately we've made the process of reordering charts and pens fast and easy. Simply go to www.DicksonData.com, click 'Charts and Pens" at the top, choose your device, and easily reorder to the exact specifications you desire. Or give us a call.



Go to **DicksonData.com**
Or call **630-543-3747**

Power Outages?
DicksonOne to the Rescue.

Less than two years ago, our Product Manager, Matt, posted on the Dickson Blog after a semi-truck took out some power lines around the Dickson offices and manufacturing plant. Well, it happened again. . .

At around 2:00PM yesterday afternoon, a semi-truck clipped one of our power lines. This time, the location of the disaster was behind our building, with the offending truck not just making a power line pole lean, but ripping it in half and sliding it along the roof of another building.

So, we lost power for the remainder of the day. We apologize for our phone system being down to anyone who may have called our offices during this time. Power didn't return until later that night, but we know our lunches were kept cold.

How? DicksonOne.

Last time this occurred, Matt used it as an opportunity to explain the importance of monitoring your environment with battery backup. If you are reading this, you probably use a Dickson product, or are interested in environmental monitoring, specifically temperature and humidity. You've probably heard the terms "data logger," and "chart recorder" often. But do your monitoring devices have the ability to alert you when they are no longer reporting?

Loss of power can happen anywhere, and at any time. Tornado season is right behind us, hurricane season is right around the corner, earthquakes happen, and thunderstorms quickly become very scary. Monitoring with battery backup is essential.

It's been two years since Matt's post, and since then, he's been busy. He is now the Product Manager of our revolutionary temperature and temperature and humidity monitoring system **DicksonOne**. In those two years, we've come a long way in protecting the products that you want to keep at certain temperatures. Specifically with the use of alarms.

DicksonOne gives users the ability to set up phone call, text, and email alerts when something goes wrong. For example, you can have the DicksonOne system send you an email

whenever your incubator temperature goes above 32F. Or, you can have DicksonOne call you whenever the temperature of your pharmaceutical warehouse goes below 55F.

And, DicksonOne can alert you when a logger is not reporting.

Consider this in the context of Dickson's power line issue. When the power to the building went out, Matt received an email from DicksonOne, saying that his logger had quit reporting. When the power went out, the DicksonOne data logger went to battery-backup mode, and when it tried to send the recorded temperature values to the DicksonOne system, it couldn't. The power was out, and thus the internet was out in the DicksonOne building.

So what happened? Matt received the following email, with the subject line "Temperature on Mini Fridge is not reporting."

On Thu, May 8, 2014 at 1:25 PM, DicksonOne <noreply@dicksonone.com> wrote:

An alarm condition has been triggered on logger **MiniFridge** at location **Dickson**

Channel that triggered the alarm: **Temperature**

The condition began at 05/08/2014 01:25:47 PM CDT.

Visit the logger at http://www.dicksonone.com/devices/8859d1757379689132

Starting to connect the dots? While it is not a perfect 1-1 ratio, and we don't recommend using DicksonOne as a way to alert you that the power in your environment is out, the logger did just that. DicksonOne gives you the ability to know when it isn't reporting to the DicksonOne system. When your router goes down, Ethernet cord is unplugged, or your power goes out (among other possible scenarios) you can know about it. Also, none of your temperature or humidity data is lost during power outages. How cool is that?!

We've said quite a bit over the past year that DicksonOne is "your cheapest insurance policy." It's true! The alarming capabilities of DicksonOne are a great temperature monitoring tool, and a great backup to the multiple control systems you may have in place in your facility.

Traditional data loggers may have audible and visual alarms on their devices, which is good. But what if you aren't near the device? If a tree falls in a forest with no one around, does it make a sound? Maybe not, but it's still on the ground, and someone has to pick it up.

Your Monitoring Plan:

Museum and Archival Storage

The last edition of Dickson Insights featured a glimpse into why a museum or archive would monitor the temperature and humidity inside their facility. Perhaps you are a museum coordinator or archivist, and you want to start monitoring your environment. Or, you already do monitor your environment, but don't think you're using the correct equipment, or are monitoring it correctly. What now?

Before you do anything, there are some questions you need to consider. After you've answered each of these questions, you'll be better prepared to analyze what kind of temperature and humidity monitoring device or system you may need.

1. What is your budget?
Figure out how much you have to spend, it will inform your every decision the rest of the way. If you are on a tight budget however, all doors haven't closed. You still have options!

2. What are you storing, and where are you storing it?
Documents, sculptures, furniture, mummies, dinosaurs? If you are in an archive, you may be storing brittle old documents in a large facility that only you and your coworkers are allowed in. If you are in an art gallery, you may have nothing in storage and everything on display. If you have temporary or visiting exhibits, these may require additional temperature and RH monitoring.

3. Do you already have a validated, sophisticated, temperature and humidity control system in your facility?
For some, adding temperature and RH monitors will be to have a backup device for your already amazing HVAC control system (we are looking at you, Smithsonian). For others, no control other than a thermostat in the reading room exists. Many of you may be somewhere in the middle. Figure out what your current capabilities are, and then think on how you can assuage your vulnerabilities with further temperature and humidity monitoring.

4. What kind of documentation do you need? What kind of documentation do you want?
Are you required by your governing agency, grantee, city department, or some other auditing body to guard against deterioration? Do you have to validate anything? Museums usually get a lot more leeway in this regard, in respect to other industries that are required to monitor their environment. The second question is more relevant: what kind of documentation do you want? What do you want to know about the temperature and humidity of your environment? Which leads into our next question . . .

5. What kind of analysis would you like to do?
As the concluding question, we feel it wraps things up nicely. What do you want to get out of temperature monitoring? Why do it in the first place? What kind of information do you want to attain, analyze, and then re-attain?

These five questions are crucial to understand before you begin to add data loggers and chart recorders. Not sure of the answers? **Give us a call.**

In the next catalog of Dickson Insights, we will tackle some of the answers to these questions, and how those answers can be used to pick the right temperature and RH monitor for you.

Food Storage Spotlight

The Warehouse Audit Survival Guide

FDA Inspectors can cause a bit of anxiety. No one wants their company's name in the papers for a salmonella or listeria outbreak. We get that. In order to help you foodies out a bit, we wrote our very own "Warehouse Survival Guide for Food Storage." This is by no means an end-all, be-all list, and you should always consult your on-site auditor or local FDA auditor before implementing any changes, but these few rules will help you out by showing you the essentials of what you will need to survive the next audit of your warehouse.

Rule 1: Validate everything, document more than everything.
Whether you're a storage warehouse that receives multiple kinds of food from multiple vendors, or a warehouse constructed right next to the production floor, only holding items for a few days before they're shipped out to various vendors, you must validate as much of your equipment and processes as you can. Everything should be proven to work, and then documented that it is working. That means temperature mapping your facility, validating your HVAC system, validating your inventory management system, implementing and documenting GMP's, providing power failure plans, developing backup procedures, and much more.

Rule 2: Know the agenda like the back of your hand.
Upon receiving the notice for your routine audit inspection, communicate with the inspector(s) on what they will be investigating. Know exactly what they will be looking at and looking for. If it all possible, set up an internal audit that follows that agenda, and make any small changes you feel need to be made.

Rule 3: Specifically highlight and mention all changes to your warehouse.
It may have been months since you were last audited. In that time, things can change. You could be using a different temperature monitoring system, your HVAC system could have been updated, or you could have moved products around to keep them better organized or safe. Let your auditor know about those changes, show them the validation plans, the procedures that took place, and the procedures that are in place right now that account for the change.

Rule 4: Zip those lips.
We know you have a bubbly personality, and that you don't like awkward silences. But you do not have to fill the silence. Answer questions to the best of your ability, but don't meander around topics while the inspector isn't looking for an answer to anything. Answer questions, but nothing more. Too often, we stumble over our own words, and get ourselves in trouble by talking too much, saying something not true, or contradicting something we said earlier. If your goal is to pass the audit, it's time to zip those lips. The best way to get around this rule? Do everything so correctly and so completely, that you can talk about anything, and it's all right. That's what we recommend.

Rule 5: Do NOT think, "We've just got to pass."
If you take anything away from this survival guide, we ask for it to be Rule 5. We have seen this kind of mindset affect food storage warehouses everywhere, either due to the perceived cost of going the extra mile, or the complications of changing up validation, protocols, and processes. Doing the bare minimum sets yourself up for long-term failure. You may pass your routine audit when you first apply for marketing, but the bare minimum line will change. Will you be prepared for it? We think not. If you ever falter from the bare minimum, you're going to risk your product safety. When it comes to food storage safety, there is no such thing as an overachiever.

DicksonOne

The best way to monitor a vaccine.

What Is It?

- A cloud-based SaaS (software as a service) environmental monitoring system
- WiFi and/or ethernet connected loggers
- Multi-location
- User-friendly interface
- Email, text, and phone call Alarms

WiFi and/or Ethernet

- WiFi loggers offer flexible placement
- Ethernet loggers offer the simplest setup and the utmost reliability

CDC Recommendations

- DicksonOne
  - Provides Continuous Monitoring
  - Has active display with min/max readings
  - Uses a sensor submersed in Glycol/glass beads
  - Calibrated in an A2LA Certified Lab
  - Meets all other CDC Recommendations

VFC Requirements

DicksonOne is currently being used by hundreds of VFC providers across multiple states in the US. DicksonOne either meets or exceeds the requirements for temperature monitoring in vaccine storage for all VFC programs in America: cities, areas, and states.

Logger Specifications*

- Temperature Accuracy: +/- 0.9 F (+/-0.5C)
- Temperature Range: -55 to 122F (-48 to 50C)
- Replaceable Sensor Enabled
- AC Power Required
- Battery Backup: 4AA Batteries

* Logger specifications vary by model. Visit DicksonOne.com for more information.

SaaS Technical Notes

- DicksonOne.com can be accessed from any Windows, Mac, or Linux PC/Laptop
- WiFi loggers need a Windows PC with .Net 4.0 or newer for configuration
- DicksonOne works great with Google Chrome, FireFox, and Safari
- WiFi loggers compatible with WEP, WPA, and WPA2 Personal security protocols

ENT21

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www.DicksonData.com

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Stop By and Say Hello

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September 7-9, 2014
Music City Center, Nashville, TN

PHARMA EXPO™ Processing & Packaging Conference and Tradeshow
November 2-5, 2014 • Chicago, Illinois USA

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630.543.3747

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