

DICKSON **insights**

Spring 2015 • CD289

DICKSON DICTIONARY

Vaccine Edition

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The Middle East

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MKT Calculator

Download It For Free On Our Blog.

MICHAEL MILLER • DICKSON INSIGHTS EDITOR-IN-CHIEF

Throughout the short but exciting history of **Dickson Insights**, we've given you content catered to a magazine format. We have taken past content we've created and placed it on the 20-24 pages of our old catalog. Articles on warehouses and hospital supply chains have found their home within these pages.

We've also plugged our blog, a lot. In fact, there are references and calls to action for our blog placed in this particular catalog. Why? We want you to visit! Our blog is not just a regurgitation of the content we've produced here in Dickson Insights. Some articles are similar, but our blog gives us the opportunity to curate our content in a unique way. We can create PDF downloads, link to other blogs, embed videos, and publish an article whenever we want.

The other thing it allows us to do is give back: which is why I'm here writing today. Mean Kinetic Temperature is important to many of our customers. But calculating it is a pain. If you don't have a system like DicksonOne, you are forced to either use an equation to manually compute the value, or rely on sketchy internet converters to do the work for you.

Not any longer. We had our engineers at Dickson create a simple and easy to use Excel Macro that allows you to enter your temperature values into an Excel sheet, and with the push of a button, get your Mean Kinetic Temperature. Celsius or Fahrenheit, it's really, really easy.

All you have to do is visit our blog. Open up Google Chrome, Internet Explorer, Safari, FireFox, even Netscape Navigator, and type in **Blog.DicksonData.com/mkt** and you'll be able to easily download the excel sheet.

Happy temperature monitoring.

VISIT Blog.DicksonData.com/mkt TO DOWNLOAD THE FREE CALCULATOR

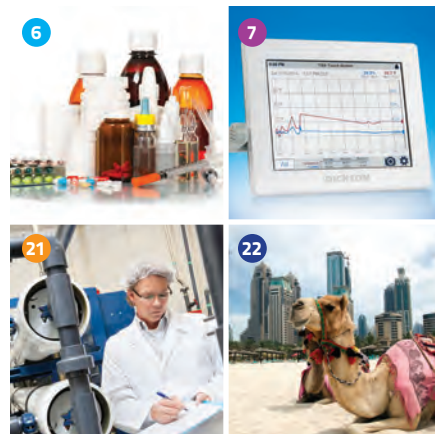


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Our Temperature Mapping Process



1 STEP ONE - CALL US AT 630.543.3747

When you give us a call, we'll get right to the heart of the matter. One of our excellent Representatives will take an initial assessment of your needs, trying to understand your application and mapping requirements. Then, you'll be put into touch with our Temperature Mapping Expert, Jeff Goolsby. Jeff will ask you questions about your specific temperature mapping space, product, and regulations. That's when the ball really gets rolling.

2 STEP TWO - WE MAP TO YOUR NEEDS

If we find that we can meet your needs (we will never take on a job that's outside our scope of mapping or validation ability) we'll start the mapping process. That timeline is fast and efficient: We will start by sending you a detailed but easy-to-complete checklist, which will help us gain a little more information about your facility. We will start looking at layouts of your area, and do any needed research for the specific job you want us for. Once that is complete, we will discuss pricing, and make plans to head to your facility.

Once we arrive at your facility, you can sit back and relax. We will be thorough, completing the temperature and/or humidity mapping to the exact specifications needed to validate your area.

3 STEP THREE - WE PROVIDE DIRECTION

After the mapping is complete, we will pack up our materials, and head back to our headquarters. The data analysis and gathering process will take between 1-2 weeks, and we will keep in contact with you the entire time.

At the end, we will hand you a document that outlines our findings, all the data we gathered, data logger calibration certificates, and finally, our recommendations for continuous monitoring in your facility. It's as easy as that.



The ISPE:

Who Are They? Why Should You Care?

The ISPE describes itself on its website: www.ispe.org, as “the world’s largest not-for-profit association serving its Members by leading scientific, technical and regulatory advancement throughout the entire pharmaceutical lifecycle.”

More simply: The ISPE is an acronym. That acronym stands for the International Society of Pharmaceutical Engineers. So, to our pharma people out there, listen up!

If you are involved in pharmaceutical research or manufacturing you, your company, or someone you know is most likely an ISPE member. The ISPE is different from other acronyms the pharmaceutical world may be familiar with (like FDA, for example) because it is not a government regulation or an accreditation bureau. Instead, they are an international hub for pharmaceutical knowledge. That’s pretty useful for pharmaceutical professionals.

Which is why you should care. They say knowledge is power. And the ISPE has A LOT of knowledge. The organization has been around since

1980, and for the last 35 years, has been gathering and distributing knowledge to the pharmaceutical world. They have developed a magazine, sponsored multiple conferences, created legitimate publications, and provided training courses for any and all of their members. Basically, they are a powerhouse.

For us here at Dickson, the ISPE is important because of the Guidance Documents they generate on temperature monitoring and cold chain management. Their GAMP (Good Automated Manufacturing Practice) guidelines on validating automated systems has informed our own knowledge of proper ways to validate our own systems, and how we can best help our customers validate their systems using our products. Plus, their Good Practice Guide for Cold Chain Management has been a legitimate resource for us since its creation in May of 2011, especially in our knowledge of temperature mapping as it applies to sensor location.

That’s just one small example of the ISPE’s reach. For pharmaceutical manufacturers, they are an essential resource for knowledge. If you don’t know about them by now, you should.

Transporting Pharmaceuticals?

Three Things You Should Know



1 YOUR TRANSPORT ROUTE IS BEING SCRUTINIZED

The World Health Organization (WHO) recently published guidelines for the storage and transport of time and temperature sensitive pharmaceutical products, and on the transport side, this was something that caught our eye. Qualifying the route your plane, truck, or ship takes is more than just saying, "This is the most direct route." The WHO includes the following qualification parameters: weather data, laboratory tests, equipment tests, and field tests. Maybe most importantly, is the equipment qualification for the transport. If traveling through an especially extreme environment, auditors and regulatory bodies will want to know that your truck, and its cooling system were validated and qualified to hold up in such an environment.

2 THERE IS A TEMPERATURE TASK FORCE

The International Air Transport Association (IATA) is the global trade association for air transportation of goods, and represents over 200 countries. That organization is concerned with the quality of medical and pharmaceutical goods up in the air. So much so, they went ahead and created a task force to deal with temperature sensitive products. That work group, the Time and Temperature Task Force (TTTF) will now begin creating guidelines for the pharmaceutical industry, and act as a liaison between the IATA and pharmaceutical manufacturers and distributors.

3 10-MINUTE SAMPLE INTERVALS FOR TRUCKS

The WHO wants you taking and logging the temperature of your road vehicles at a specific interval, or at least no less than six times per hour per sensor position. That's important, because many, many data loggers have a standard logging time of every 15 minutes. If you have data loggers in your truck, and are transporting pharmaceutical drugs, you need to have many of them, and they need to be taking the temperature of the inside of your truck at least every 10 minutes.



Pharmaceutical Facts:

Liquids vs Solids – Handle With Care

When transporting and storing pharmaceutical drugs, suppliers, manufacturers, and distributors have to deal with both solid drugs (usually in a pill form) and liquid medicines.

As we are sure you remember from chemistry class, liquids and solids have different properties. Solids and liquids are both fundamental states of matter: liquids are almost incompressible, and they take the shape of whatever container they are placed in, while solids on the other hand, are solid.

In regards to pharmaceutical drugs, these two different states of matter have their own unique storage and handling challenges. Below are a few key things that you need to be on the lookout for when storing or transporting each of these states of matter.

Liquids

Leakage: Liquids take the shape of their containers, but they also like getting out of their containers. When transporting liquid drugs,

distributors should be aware of packaging malfunctions and the overall frailness of the liquids they are moving. One small crack in one small bottle could mean a world of trouble.

Temperature Extremes: In most pharmaceutical drug cases, liquids are more susceptible to minimum and maximum temperature extremes than solids. This means that liquid drugs begin to lose their potency, and even become unsafe to consume the second a temperature threshold is crossed. When analyzing temperature data during liquid drug storage, distributors should be on high alert for temperature extremes.

Solids

Mean Kinetic Temperature: Unlike liquids, mean kinetic temperature is a more useful indicator for correct cold storage conditions. Mean Kinetic Temperature is a value used in pharmaceutical drug storage to measure the overall effect of temperature on a pharmaceutical drug. Temperature extremes are still important, but they are more critical for liquid drugs.

Meet The New **DicksonOne Touchscreen**



MORE DATA AT YOUR **FINGERTIPS**

DicksonOne Enabled • Power Over Ethernet • Enhanced User Interface



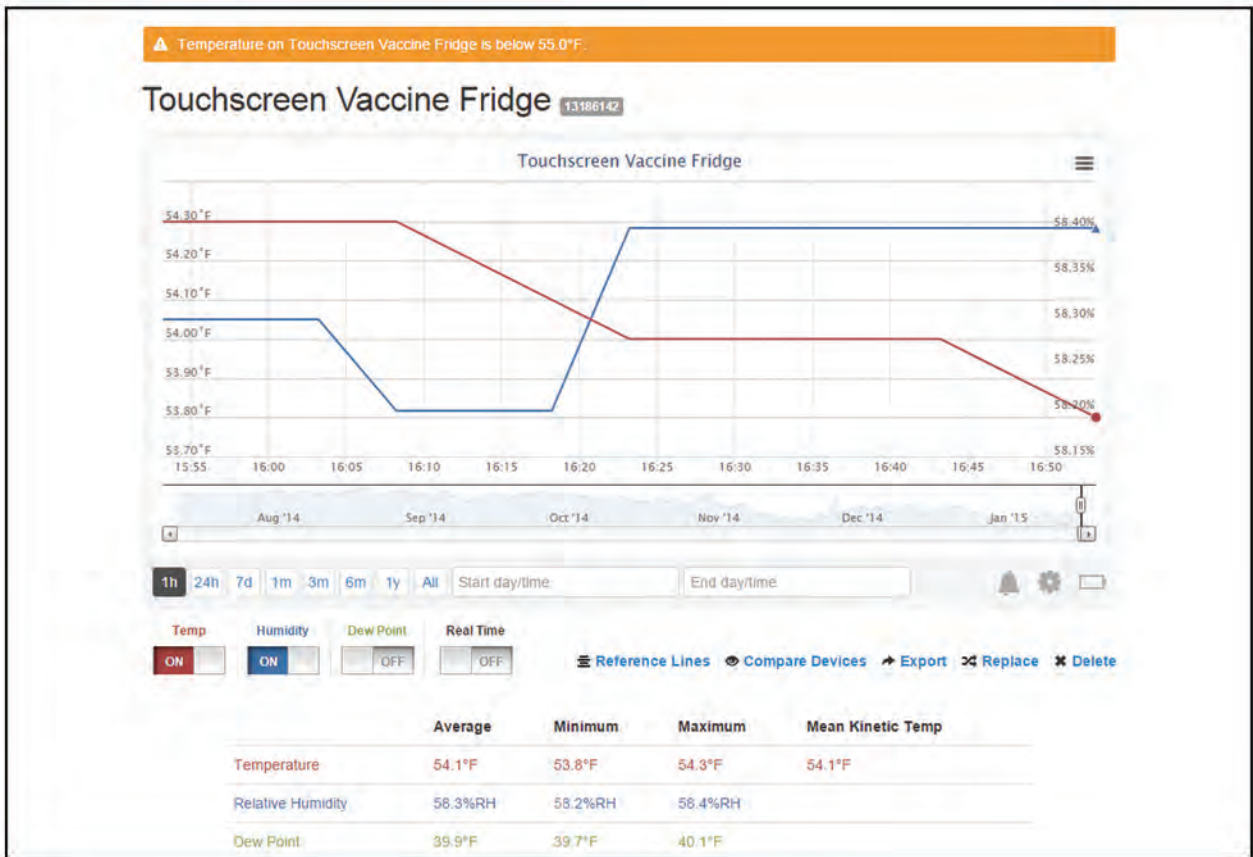
DESIGNED FOR YOU

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** The most important screen just got a whole lot easier to manage. 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.

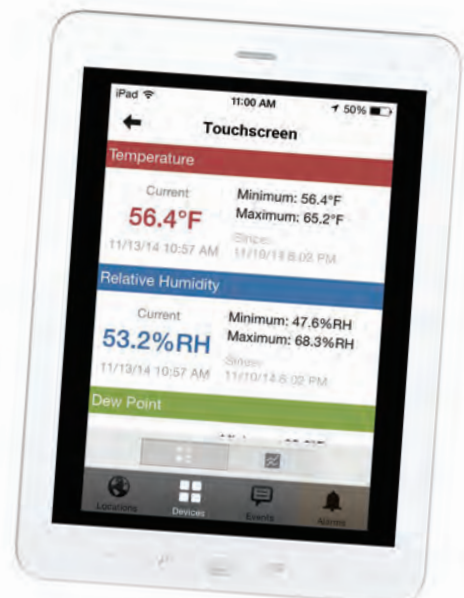
DicksonOne Allows You To

- 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.

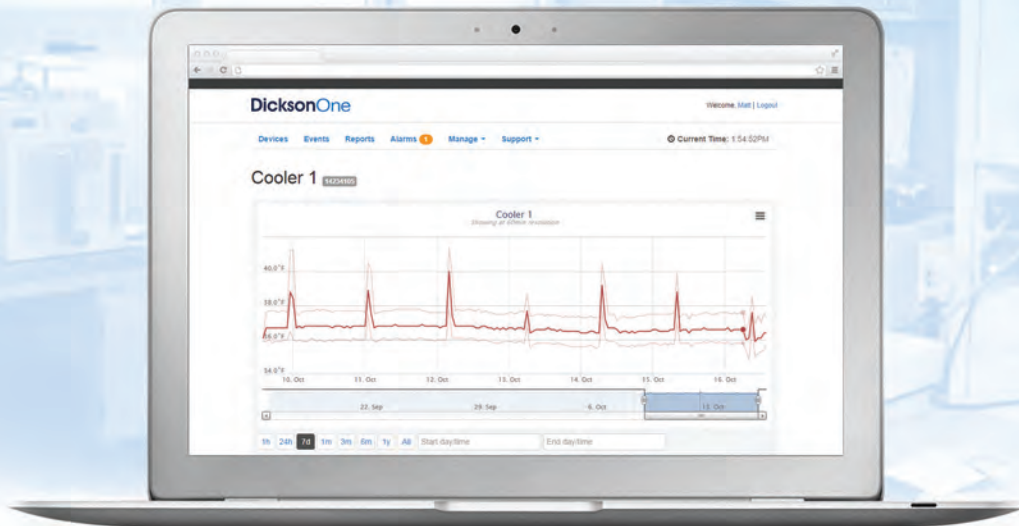


Connect With Us:



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, where 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.

The screenshot shows the 'Alarms' section of the DicksonOne interface. It includes a navigation bar with 'Devices', 'Events', 'Reports', 'Alarms' (highlighted), 'Manage', 'Support', and 'Admin'. The current time is 2:21:02 PM. Below the navigation bar, there are two tables: 'Current Alarms' and 'Alarm history'.

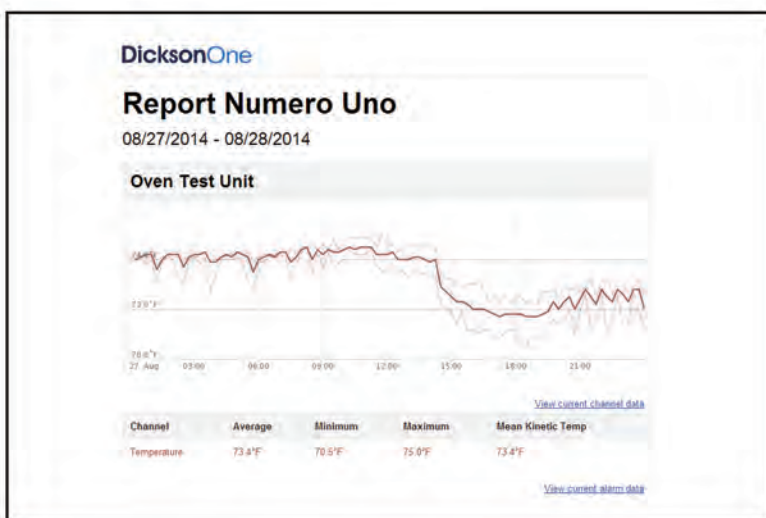
Alarm Triggered	Device	Condition	Recent Reading
01/20/2015 03:08:13 PM CST <small>(19 days, 21 hrs, 11 mins ago)</small>	Touchscreen Vaccine Fridge	Temperature < 55.0°F	53.8°F 11/20/2015 04:53:13 PM CST

Alarm Triggered	Device	Condition	Duration
01/19/2015 02:53:13 PM CST	Touchscreen Vaccine Fridge	Temperature < 55.0°F	7 hrs, 30 mins
01/19/2015 04:43:13 AM CST	Touchscreen Vaccine Fridge	Temperature < 55.0°F	6 hrs, 20 mins

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



WAREHOUSE



Warehouse Loggers



MEDICAL



Medical Facility Loggers



DicksonOne Touchscreen Pricing

MODEL	REMOTE PROBE	PRICE
TSB	USB Download	\$299
TWE	DicksonOne WiFi/Ethernet Connection and Download	\$499
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 Glass 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



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**



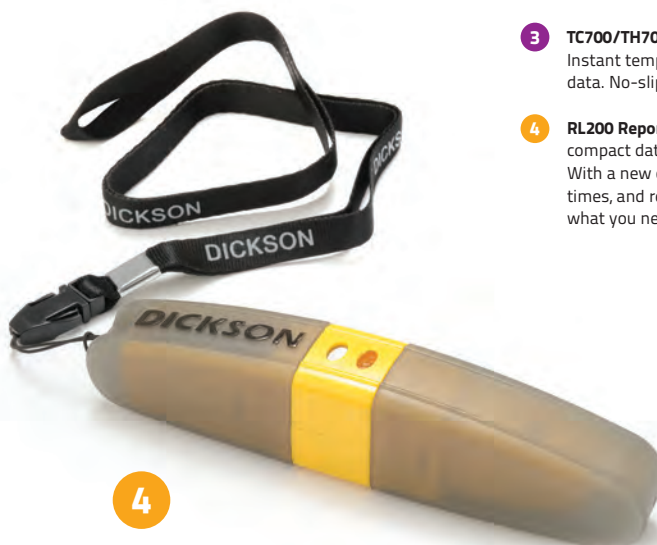
- 2 HT350 High Temperature Process Logger** HACCP Compliant, K-Thermocouple Probe, USB Download, and a large temperature range. Temperature Range -40° to 257°F (-40° to 125°C). **\$349**

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

Instant Data Solutions



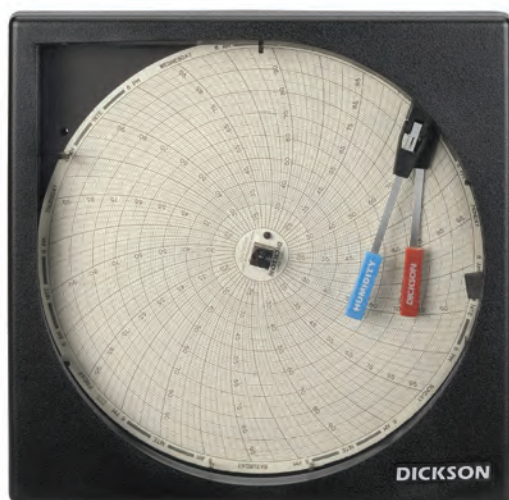
- 3 TC700/TH700 Touchscreen Handheld Indicator**
Instant temperature or temperature/humidity data. No-slip silicone cover. Battery powered. **\$299**



- 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 $\pm 0.8^\circ\text{F}$, $\pm 0.44^\circ\text{C}$.
SM320* \$299 Temperature Logger. Remote Probe. Range with Probe -300 to 2000°F, -184 to 1093°C. Accuracy $\pm 1.8^\circ\text{F}$, $\pm 1.0^\circ\text{C}$.
SM325* \$399 Temperature and Humidity Logger. Two Remote Probes. Range with Probe -300 to 2000°F, -184 to 1093°C. Accuracy $\pm 1.8^\circ\text{F}$, $\pm 1.0^\circ\text{C}$.
SM420 \$499 Temperature Logger. Remote Probe. Range with Probe -50 to 350°F, -45 to 176°C. Accuracy $\pm 0.5^\circ\text{F}$, $\pm 0.28^\circ\text{C}$.
TM320 \$299 Temperature and Humidity Logger. Range -4 to 158°F, -20 to 70°C. Accuracy $\pm 0.8^\circ\text{F}$.
TM325 \$399 Temperature and Humidity Logger. Remote Probe. Range -40 to 185°F, -40 to 85°C. Accuracy $\pm 0.8^\circ\text{F}$.
- 2 **SP125 \$119** Temperature Logger. Accuracy $\pm 1.2^\circ\text{F}$, $\pm 0.67^\circ\text{C}$. Range -10 to 176°F, -23 to 80°C.
SP175 \$229 Temperature Logger with Thermo-couple Probe. Accuracy $\pm 1.8^\circ\text{F}$, $\pm 0.1^\circ\text{C}$. Range -300 to 2000°F, -30 to 50°C. A203 Probe required for +500°F.
TP125 \$199 Temperature and Humidity Logger. Accuracy $\pm 0.8^\circ\text{F}$, $\pm 0.45^\circ\text{C}$. Range -10 to 176°F, -23 to 80°C.
- 3 **SP425 \$159** Temperature Logger. Digital Display. Accuracy $\pm 1.2^\circ\text{F}$, $\pm 0.67^\circ\text{C}$. Range -4 to 158°F, -20 to 70°C.
TP425 \$249 Temperature and Humidity Logger. Digital Display. Accuracy $\pm 0.8^\circ\text{F}$, $\pm 0.45^\circ\text{C}$. Range -4 to 158°F, -20 to 70°C.
- 4 **SK550 \$699** Temperature. Pack of twelve. Accuracy $\pm 1.8^\circ\text{F}$, $\pm 1^\circ\text{C}$. Range -4 to 158°F, -20 to 70°C.
TK550 \$999 Temperature & Humidity. Pack of twelve. Accuracy $\pm 1.8^\circ\text{F}$, $\pm 1^\circ\text{C}$. 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.

Vaccines:

A Dickson Dictionary

Industry terms can have different meanings to the different people inhabiting the industry. When we hear the term "Concrete Curing" we immediately think of temperature and evaporation. The construction worker on site doing the curing however, he may only think of strength and durability.

Due to the different connotations of words and phrases in the different industries that we serve, we've decided to create our own dictionaries. These dictionaries are meant to explain jargon that's thrown around your work site or office, the way temperature and humidity experts might see it.

First up, vaccines! Vaccines are some of the most closely monitored (or at least they should be) products in the world. Enjoy our definitions of some frequently used terms!

Best Practice (n.)

DEFINITION: The little blue ribbon that shows up in the CDC's Vaccine Storage and Handling Toolkit; The accepted standard for storing and handling vaccines; What your vaccine coordinator wants you to do.

EXAMPLE: Sacred Heart Hospital had recently complied with best practices by removing all vaccines from refrigerator-freezer combo storage units.

Calibration (n.)

DEFINITION: A test and adjustment of your data logger, thermometer, or sensor to ensure accuracy; proof that your sensor is accurate; something you should do every year.

EXAMPLE: Mark sent his data logger back to the manufacturer for a calibration, as it had been over a year since his hospital had purchased the device.

CDC (n.)

DEFINITION: The Center for Disease Control and Prevention; the people who develop vaccine storage and handling recommendations; the organization you should look to for the most up-to-date storage guidance.

EXAMPLE: A print-out of the CDC's Vaccine and Storage Handling Toolkit was printed out at every vaccine fridge in the clinic.

Diluent (n.)

DEFINITION: Almost always referred to in conjunction with vaccines when one is discussing storage; must also be stored at correct temperatures; used to dilute the vaccine.

EXAMPLE: Betty had remembered to transfer the vaccines to a new cooler during the power outage, but had forgotten about the diluents that needed to be stored at the same temperature.

Data Logger (n.)

DEFINITION: A vaccine insurance policy; device used to measure and record temperature in your refrigerator or freezer; better than a temperature log or chart recorder; recommended by the CDC.

EXAMPLE: Cary had just installed a data logger in her refrigerator a week earlier, and the data she was reading suggested the refrigerator had begun to malfunction.

Freezer (n.)

DEFINITION: Where VAR, HZV, MMRV, and MMR, should be stored; colder than a refrigerator; should not be connected to a refrigerator

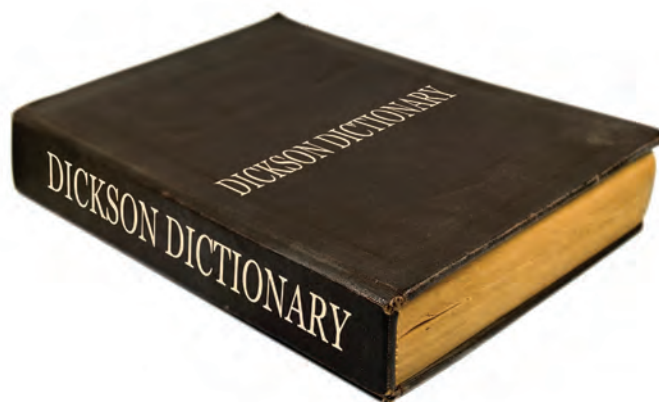
EXAMPLE: The vaccines that Jen stored in the freezer where also sensitive to light, so she kept the door to the freezer open as little as possible.

Expiration Date (n.)

DEFINITION: Information on the vaccine label that tells vaccine distributors the last day they can administer the vaccine; what you should check when you receive vaccines; a reminder to rotate stock every week.

EXAMPLE: Sam saw that some vaccines in his refrigerator had expired the day prior, so he separated them from the rest of his vaccines, and placed them in a container within the fridge labeled "DO NOT USE."

And there is more! If you enjoyed this post, visit our blog, Blog.DicksonData.com to view our entire Vaccine Dictionary, and to read more Dickson Dictionaries!



Healthcare IT Prescription: A Data Logger For Your Server Room

Last month in **Dickson Insights**, our feature story focused on server room and data center temperature. We outlined an issue that happened at Yale University, and talked through the different temperature and humidity nuances that a data center provides.

What we did not touch on, were the benefits of any one data logger over another.

That is what this article is for. We will obviously be speaking about Dickson products, and one Dickson product in particular, but feel free to use this guide to help you navigate the large (and sometimes overwhelming) data logger market. If you are in the IT world, this guide should help you better understand our world: the data logging one.



Variable(s) The easiest way to narrow down your data logger search, is to know what you will be measuring. For data centers, that usually means temperature, humidity, and maybe water detection. For Dickson products, that means you will be looking to our temperature and humidity ambient sensors. These sensors and their associated data loggers provide two channels of measurement: temperature and humidity, each extremely accurate and calibrated to your needs.

Alarms Temperature rises fast in a data center. With energy costs and HVAC concerns, managing the temperature of a data center has become more robust, but the rapidness with which temperatures can rise when there is a power or HVAC malfunction remains constant. For that reason, your data logger should have a thorough alarming system. That means more than just an annoying beep at the source. You should want to be notified of rising or falling temperatures when you are away. For Dickson products, that means the DicksonOne family of data loggers. These loggers give you the option of customizable phone call, text, or email alarms, along with that annoying beep at the source.

Connectivity Next up, is how you want to access your data logger's data. If you opted out of the robust alarming system above, you are stuck with a manual USB download. If you didn't, you have options. Many companies offer WiFi, Ethernet, Cellular, and Radio Frequency connectivity of your data loggers. Data centers and server rooms usually have WiFi or Ethernet connectivity, so that is what we would suggest. Choosing between the two is a matter of preference. There is a certain amount of security that comes with Ethernet (less likely to have a lost connection) but snaking Ethernet cord everywhere can be inconvenient. Either way, our DicksonOne system has you covered. And now, with our DicksonOne Touchscreen having the option of Power over Ethernet, you can decide to not have to find a wall outlet for your data logger.

Number Finally, we have the number of data loggers that you will need. Some server rooms are made up of one simple rack of computer servers, and others are entire data center campuses. As for our products, the data logger in the picture above is perfectly scalable. And we think it's exactly what you need.

Medical Device Manufacturers: Who Regulates You?

For actual Medical Device Manufacturers, the question posed in the title of this article may seem a little silly. Medical Device Manufacturers obviously know who monitors, regulates, and audits them, and who they have to answer to when something goes wrong. For the rest of us though? We are left scratching our heads a bit.

Medical devices aren't really "consumed" by humans, so it would seem they would be regulated by a different governmental body than food or pharmaceutical drugs. However, in the United States, that is not the case. Medical devices fall under the umbrella of the Food and Drug Administration (FDA).

But what about the other places on this planet we call home? Below we've outlined what organizations regulate the medical device industry in some other countries around the world. We've provided a brief overview of each organization, and their associated webpage where you can find more information.

1. Canada: The Food and Drugs Act – The Minister of Health – Health Canada

In 1920, the Food and Drugs Act was passed by the Parliament of Canada to help ensure the safety of food, drugs, cosmetics, and some therapeutic devices. Today, that act is still in existence (although it has been updated many times), and now has an annex dealing with Medical Device Regulations. In Canada, the Minister of Health has the power to enforce the Food and Drugs Act.

Website: www.hc-sc.gc.ca

2. England: Medicines and Healthcare Products Regulatory Agency – Department of Health

In England, the 2003 merger of the Medicines Control Agency and the Medical Devices Agency created the Medicines and Healthcare Products Regulatory Agency. This agency is tasked with making sure medicines and medical devices are safe and up to acceptable standards. One of this agency's chief roles is in surveil-



lance post product marketing, otherwise known as audits!

Website: www.gov.uk/government/organisations/medicines-and-healthcare-products-regulatory-agency

3. Australia: ARGMD – Therapeutic Goods Administration – Department of Health

The Australian Therapeutic Goods Administration carries out assessments and monitoring activities of medical devices in order to ensure their safety for consumers within the country. On their website they list safety recalls, public notices, and have separate portals for consumers and medical professionals.

Website: www.tga.gov.au

4. The World: The World Health Organization (WHO)

While the World Health Organization can only propose regulations and make recommendations, they are a huge player in the world of medical device regulations. The WHO recognizes that proper regulation and safety of medical device production and storage is important for their attainment of the Millennium Development Goals. Overall, the WHO is there for guidance for medical device manufacturers.

Website: www.who.int/medical_devices/



BACK TO THE DESERT.

Learning About The Cold Chain In The Middle East

A little less than a year ago, DicksonOne Product Manager, Matt McNamara, traveled to Dubai to meet with one of Dickson's distributors, and a Cold Chain Expert, Mr. Brij M. Suri. Matt toured Dubai, learning the nuances of our customer's applications, and even speaking at a Cold Chain Seminar about the benefits of wireless temperature monitoring and Software as a Service applications.

One of the most interesting parts of his trip: a camel milk production facility. And it didn't just fascinate Matt, it fascinated all of us here at Dickson. We liked his pictures, videos, and stories of the camel milk facility so much, we asked him to write about his experience. That Customer Profile of Camelicious was one of our most read Dickson Insight articles, and one of our most enjoyable to publish.

Last December, Matt and another one of our temperature and humidity monitoring experts, Jeff Goolsby, traveled back to Dubai to learn more about the Cold Chain, and to specifically speak at a conference our friend Brij M. Suri was hosting: The 3rd Annual International Cold Chain Management Seminar.

It may seem a little odd that we traveled to the desert like conditions in the Middle East to talk with international Cold Chain leaders, but we did. And if you think about it, what better way to learn about keeping medicines, drugs, and food cold than where it's hardest to do so: the desert.



Jeff (left) and Matt (right) take questions from an audience of medical and cold chain professionals.

WHO WE SENT

Matt McNamara: DicksonOne Product Manager

Profile: After 6 years at Dickson, Matt has become our foremost authority on wireless temperature and humidity monitoring. He's the Swiss Army Knife of our company, and to our customers as well. As the DicksonOne Product Manager, Matt has helped guide hundreds of organizations through the Cold Chain mine field.

Jeff Goolsby: Senior Sales Consultant and Temperature Mapping and Validation Expert

Profile: During his time at Dickson, Jeff has become one of the leading international experts on Temperature Mapping and Validation Projects. His knowledge comes from years of regulatory research and a hands-on approach. Jeff has worked with multiple Fortune 500 companies to find the best Temperature Mapping and Validation solution for them. He is our guru of temperature sensor placement, air stratification, and the layout of any building or warehouse.

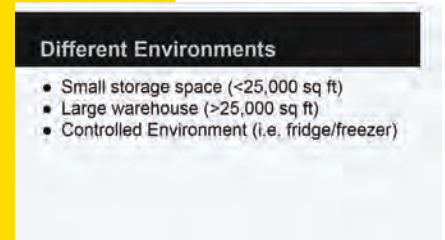
THE CONFERENCE

While the Dickson customers that Matt and Jeff visited last December were intriguing, The 3rd Annual International Cold Chain Management Seminar took the cake as their favorite part of the trip. The Seminar featured a wide variety of speakers from the Middle East and abroad, all sharing their own expertise on managing the cold chain. Government officials, compliance experts from pharmaceutical companies and even two medical doctors showed up to speak at the show. In the final Press Release for the event, the words "debate" and "discuss" were mentioned in the opening paragraph. Matt and Jeff found those two words to be exactly what they were getting in to.

One of the most interesting and hotly debated moments of the conference occurred during Jeff's presentation on Temperature Mapping. Temperature Mapping is a widely and vehemently debated topic, because at the moment, there is no set of standards or regulations that speak to it directly. Cold Chain professionals know that it is important, even critical to understanding the different temperatures in their facility, but regulatory bodies don't specifically say how to go about mapping a refrigerator, cold room, or entire warehouse.

This made Jeff's presentation on Temperature Mapping one of the most interesting parts of the seminar. When it came time for Jeff to take questions from the audience, the cold chain professionals shot their hands up and began to debate what best practices for temperature mapping actually are. They asked Jeff questions about everything related to temperature

mapping, looking for some guidance on how they could ensure their products were stored safely.



A slide from Jeff's presentation on Temperature Mapping.

Jeff obliged. The next 20 or so minutes of the seminar were some of its most fruitful. Experts shared their knowledge on topics like mean kinetic temperature, liquid drugs, and temperature stratification. What came out of the discussion was a better understanding of proper GMP and GDP protocol.

When Jeff and Matt returned they spoke of their third trip to Dubai as the best. They were able to take away valuable information from each presenter, and have already used some of that knowledge to help out our customers stateside. We are excited to head back to the Dubai next year, for the 4th installment of the International Cold Chain Management Seminar.

Acknowledgments: Thank you to Mr. Brij M. Suri and Abdullah Haider GT LLC for their support of the seminar, and for acting as a gracious host to Matt and Jeff during their trip to Dubai.

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