

**DICKSON**

# DW4

## Temperature Chart Recorder w/ Probe

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## Product Applications

This distant reading temperature recorder features an ultra rugged NEMA 4X case. The DW4 provides an written record on 4" (10.2cm) circular charts. The recorders use a gas filled bulb and capillary system to record temperature from remote locations. Power is supplied by a single "AA" battery that has an average life of one year. The entire recording system including 6' of capillary is enclosed with weather resistant material that stands up to outdoor environment and harsh indoor environments.

## Useful Features

- Sturdy NEMA 4x waterproof case
- Submersible Probe
- Water and dust resistant case protects chart in process environments
- Stainless steel bulb and sealed capillary for remote sensing of temperature
- Operates on a single "AA" battery for up to one year

# Product Specifications



<b>Temperature Ranges:</b>	-50 to +50°C, 0 to 100°C, -20 to +120°F, 0 to +250°F
<b>Temperature Sensor:</b>	Gas or vapor filled system (bourdon tube with capillary)
<b>Temperature Accuracy:</b>	±2% full scale
<b>Probe:</b>	External 4" x 0.5" DIA (10.2 cm x 1.3 cm DIA) stainless steel bulb with 6' (183 cm) capillary
<b>Average Response Time:</b>	30 seconds in well-stirred water, time is for 63% to full scale step change
<b>Recording Time:</b>	7 day or 24 hour
<b>Ambient Operating Temperature:</b>	-20 to +122°F (-30 to +50°C)
<b>Chart Size:</b>	4" DIA (10.2 cm)
<b>Power Supply:</b>	One "AA" alkaline battery, up to 1 year average life
<b>Weight:</b>	2.5 lbs. (1.1 kg)
<b>Case:</b>	Fiberglass NEMA 4X with door window (weather resistant/water resistant)
<b>Warranty:</b>	1 year
<b>Dimensions:</b>	6.5" x 6.0." x 2.9" (15.9 cm x 15.2 cm x 47.4 cm)
<b>Mounting:</b>	Back plate mounting holes for wall mounting
<b>Includes:</b>	Pen, "AA" battery, starter pack of charts, & instruction manual

# Charts (for current pricing go to [www.dicksonweb.com](http://www.dicksonweb.com) or call 1-800-323-2448)

Range	7 Day Chart	24 Hour Chart
-50 to +50°C	C083	
0 to +100°C	C012	
-20 to +120°F	C017	
0 to +250°F		C032

# Accessories (for current pricing go to [www.dicksonweb.com](http://www.dicksonweb.com) or call 1-800-323-2448)

Description	Order #
NIST Traceable Calibration 1-pt. (new units)	N100
NIST Traceable Calibration 3-pt. (new units)	N300
Pens (6 red)	P222
Carrying Case	A708
Two Year Extended Warranty	E200

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# Calibration Services - New Units

**N100 - NIST Traceable Calibration 1-Point:** Includes documentation to one Dickson pre-selected point on new units only.

**N300 - NIST Traceable Calibration 3-Point:** Includes documentation of three Dickson pre-selected points (a high, medium, and low) on new units only.

**N400 - Deluxe A2LA Accredited NIST Traceable Calibration 3-Point:** ISO Guide 25/A2LA Documentation of 3 pre-selected points of as found data before and after calibration for Dickson temperature and/or humidity instrumentation on new units only.

**N995 - NIST User Selected Temperature Points:** Documentation of one customer specified point. Should be selected in addition to one of the above calibration options.

## The Importance and Benefits of Regular Calibrations

Once you begin to use your precision Dickson instrumentation, regular calibrations are necessary to ensure accurate readings.

The following Calibration Services are available:

**N150 - NIST Traceable Calibration 1-Point:** Includes documentation to one Dickson pre-selected point after re-calibration.

**N350 - NIST Traceable Calibration 3-Point:** Includes documentation of three Dickson pre-selected points (a high, medium, and low) after re-calibration.

**N450 - Deluxe A2LA Accredited NIST Traceable Calibration 3-Point:** ISO Guide 25/A2LA Documentation of 3 pre-selected points of as found data before and after calibration for Dickson temperature and/or humidity instrumentation.

**N995 - NIST User Selected Temperature Points:** Documentation of one customer specified point. Should be selected in addition to one of the above calibration options.

### Why should I recalibrate my instrumentation?

Over time dirt, dust and normal handling can throw your precision instrumentation out of calibration. Regular calibrations ensure that you receive the most accurate readings possible.

### How often should I recalibrate my instrumentation?

Depending on the environment your instrument is used in and how often it is handled you will want to recalibrate your instrument every 6 to 12 months. Instruments in environments where there are extreme temperatures, wide temperature ranges, humidity or pressure variations, high condensation, dirt, dust and other debris will require calibration at least every 6 months. Instruments that are frequently moved or in locations with heavy machinery that cause vibrations should also be calibrated at least every 6 months.

### Why should I return my instrument to Dickson for calibration?

Dickson calibrates your instrument at the factory using proprietary production/calibration software that guarantees proper calibration.

### Our Capabilities

Dickson is the first manufacturer of humidity and temperature instrumentation to receive A2LA accreditation. We are also NIST Traceable; our procedures conform to MIS-STD-45662A, ANSI/NCSL 2540-1-1994, ISO/IEC Guide 25 and ISO10012. We are experts in the manufacture and calibration of humidity and temperature instruments.

**Fast Service:** Our turnaround time is 3 days or less so you receive not only expert service but fast service as well.

**Easy:** We make it easy for you! No phone calls for Return Authorization Numbers are required. We remind you when your instrument is due for calibration. You simply send in the completed Calibration Order Form with your unit for calibration with freight prepaid to Dickson.

# Getting Started

- Replace chart paper.
- Set time by inserting a coin into chart hub and turning clockwise until the current hour is referenced to the time index clip. (Time index clip is directly to the right and below the pen tip.)
- Remove protective pen cap.
- Turn instrument ON. The ON/OFF switch is located inside the door on the upper left corner of the dial plate. The DW4 features a gas filled system – carefully uncoil the capillary tubing when recorder is mounted or positioned in area of use. DO NOT CRIMP OR CUT CAPILLARY. The entire bulb should be immersed. Exposing capillary to temperatures much different than ambient may cause inaccuracies. The recorder requires approximately 15 minutes to stabilize.

## Pen Replacement

Slide the used pen cartridge off and slide the new one on. Typical pen life is one year.

## Battery Replacement

The battery compartment is located inside the door, in the lower left corner of the dial plate. (Standard “AA” battery.)

- Turn the battery cover counter-clockwise with a coin to unscrew it.
- Remove the old battery, and replace the new battery in the holder, with the positive end facing out—toward the battery cover.
- Replace the cover and turn clockwise to tighten.

# Troubleshooting

## Pen Tension

If the pen is not touching the paper, remove red pen and push the metal pen arm down near the middle of the arm. If that does not work unscrew the pen arm from the recorder and bend the pen arm down. Make sure the unit is in a stable environment, replace the pen arm at the same spot from where it was removed.

## Chart Does Not Rotate

If the chart is not rotating make sure the center strip of the chart is inserted properly into the black center hub of the recorder making sure the chart is not torn or ripped. If the chart is properly installed and there is still no rotation the clock needs to be replaced, please call customer service for a return authorization number.

# Warranty

Dickson warrants that the products it sells will be free from defects in material and workmanship under normal use and service for a period of twelve months after delivery. In the event of a claim under this warranty, the product or part must be returned to the factory for repair or replacement (shipping pre-paid) with a Return Authorization Number (see Return Information above). It will be repaired at Dickson's option without charge. This warranty DOES NOT cover routine calibration, pen, chart and battery replacement. The foregoing warranty and remedy are exclusive and in lieu of all other warranties either expressed or implied. Dickson shall not be liable for consequential or incidental damages resulting from failure or malfunction of its products. Dickson makes no warranty for products not manufactured by it or for any products modified by buyer, or subject to misuse or neglect.

## Factory Service & Returns

Contact the factory (630-543-3747) for a Return Authorization (RA) Number before returning any instrument. The model number, serial number and a purchase order number will be requested before an RA number is issued.

- Carefully repack the instrument, label the outside of the box with the RA# and return the instrument (freight pre-paid) to Dickson.
- All instruments that do not have the RA# clearly marked on the outside of the box will be refused. When returning instruments for credit, please include all accessories in shipment.
- Calibration/Freight charges are non-refundable.

NOTE: Dickson shall not be liable for consequential or incidental damages resulting from failure or malfunction of its products.

### Customer Satisfaction

Dickson takes pride in providing you, the customer, with the highest quality instrumentation. We welcome the opportunity to help you in any way possible. Whether it be a question or a new idea in documentation, the Dickson Company would like to hear your response. Please call our Customer Service Department at 1-800-323-2448 or (630) 543-3747 (in Illinois).

### Software Return Policy

IMPORTANT-Read your Software License Agreement carefully before installing software. Dickson will accept returns for replacement of defective disks and CDs only.

## DICKSON

930 South Westwood Avenue  
Addison, Illinois 60101

Phone: (630) 543-3747 • E-mail: DicksonCSR@dicksonweb.com



**Fax to: 1-800-676-0498** Mail to: Dickson, 930 S. Westwood Ave, Addison, IL 60101

**Step 1 - Bill To:**

Name \_\_\_\_\_  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_  
 State \_\_\_\_\_ Zip \_\_\_\_\_  
 Phone (        )        - \_\_\_\_\_  
 Email \_\_\_\_\_




**Step 2 - Ship To** (if different than above)

Name \_\_\_\_\_  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_  
 State \_\_\_\_\_ Zip \_\_\_\_\_  
 Phone (        )        - \_\_\_\_\_  
 Email \_\_\_\_\_

**Step 3 - Ordering Information**

Order #	Quantity	Price/Unit	Total
_____	_____	\$ _____ /each	\$ _____
_____	_____	\$ _____ /each	\$ _____
_____	_____	\$ _____ /each	\$ _____
_____	_____	\$ _____ /each	\$ _____
			Subtotal: \$ _____
In Illinois, add 7.5% sales tax ▶			Tax: \$ _____
			Freight: \$ _____
<b>All Prices in U.S. Dollars ▶</b>			<b>Total: \$ _____</b>

**Step 4 - Payment Method**

Check: Check # \_\_\_\_\_  
 Money Order  
 Credit Card:        
 Credit Card Number: \_\_\_\_\_ Expires: (mm/yy) \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_ Signature \_\_\_\_\_  
 Purchase Order: P.O.# \_\_\_\_\_ (Net 15 days for established customers)  
 Customer #: \_\_\_\_\_

**U.S.A. Freight Charges**

Total Order	UPS 2nd Day	UPS Next	UPS Ground
\$0-100	\$16	\$33	\$10
\$101-400	\$20	\$42	\$15
\$401-700	\$28	\$57	\$18
\$701-1,000	\$37	\$60	\$26
\$1,001-1,500	\$56	\$77	\$39
\$1,501-2,000	\$74	\$97	\$46

\$2,001-over Please call Dickson Customer Service  
 All shipments UPS 2nd day unless otherwise requested.

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