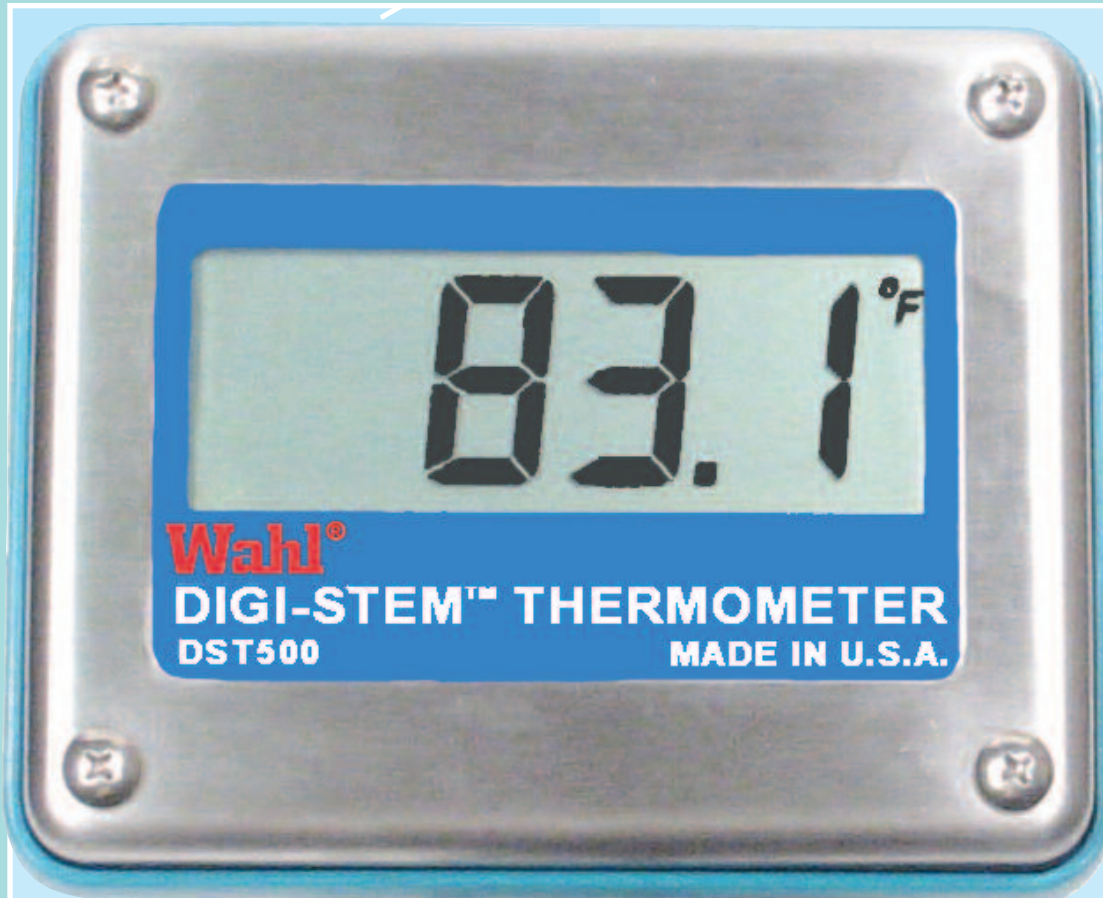


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BEP-Bestobell

www.bestobell.com



Actual Size

- Accurate
- Reliable
- Low Ambient Temperature Coefficient
- Rigid & Remote Sensors for Industrial Process
- Temperature Indicators & Transmitter System

DST500
DSX500
DST550

**Digi-Stem® Digital High Accuracy
RTD Thermometer Systems
for Process Monitoring & Control**

Another Innovation from Palmer Wahl!

www.palmerwahl.com

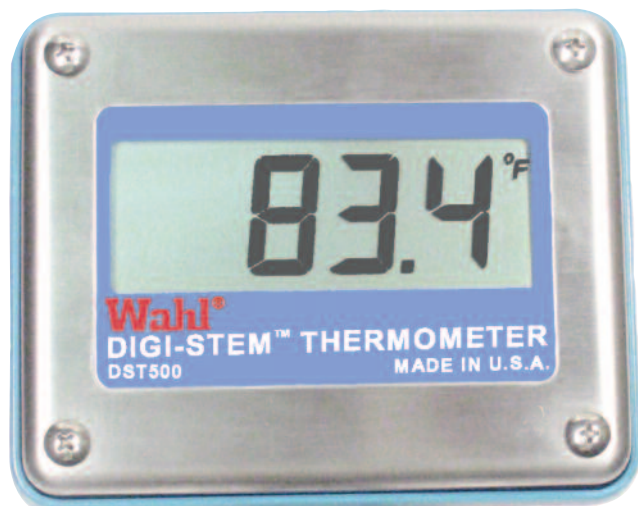
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10/08 Rev K
Revised 05/17

Key Features and Benefits



Wahl DST500 with Rigid Mount shown with 1-1/4"-18 Swivel Nut Fitting with Tapered Bulb for use in thermowells.



Another Innovation from Palmer Wahl!

Shown on cover:

Wahl DST500 Adjustable Angle mounting system allows meter adjustment to any angle required for best viewing.

Shown with 1-1/4"-18 Swivel Nut Fitting and 1/4" Diameter Stem for quick response in union connections.

Applications

- Dairy & Food Processors
- USDA
- Pharmaceutical Companies
- Refineries and Energy Processors
- All Temperature Critical Applications



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Wahl's **NEW!** DST500 and DSX500 Series Digital RTD Thermometer Systems are wide range, high accuracy thermometers designed for many applications where accurate and reliable temperature monitoring and recording are important.

- **DST500** - Meter with Local Display
- **DSX500** - Meter with Local Display and 4-20mA Transmitter
- Exclusive Adjustable Meter Display Update Rate
- User Selectable °F or °C
- Ambient operation from -40°F to 158°F (-40° to 70°C)
- Field Replaceable Battery, Long Life - 2 years nominal
- Rigid, Remote, or Adjustable Angle for easy reading
- Programmable "R0" for "matching" sensor to meter
- User friendly Single Point Calibration Software (Optional)
- Tamper Resistant - all adjustments require software
- Exclusive Quick Disconnect Connector option on Remote Cables
- 1" High Display readable from 30 feet away
- Optional Adjustable Display Mount for easy reading angle

DST500

The Wahl DST500 Temperature Indicator System offers the highest precision temperature measurement technology - making it a great choice for your processing needs. It features a 1" high LCD display - readable from 30 feet away! The DST500 also includes a field replaceable battery with a 4 year operational life, and is available in a variety of probe configurations including MIG standard tapered bulb for direct drop-in MIG replacement in thermowells. The Adjustable Angle probe option allows easy adjustment of the display for the best viewing option.

DSX500

The Wahl DSX500 Temperature Indicator and Transmitter System includes the same features as the DST500, but is loop powered from an integral, 4-20 mA transmitter, for reliable data transmission. The DSX500 Transmitter is factory configurable to your specification, or user configurable with the optional DSTCAL software kit.

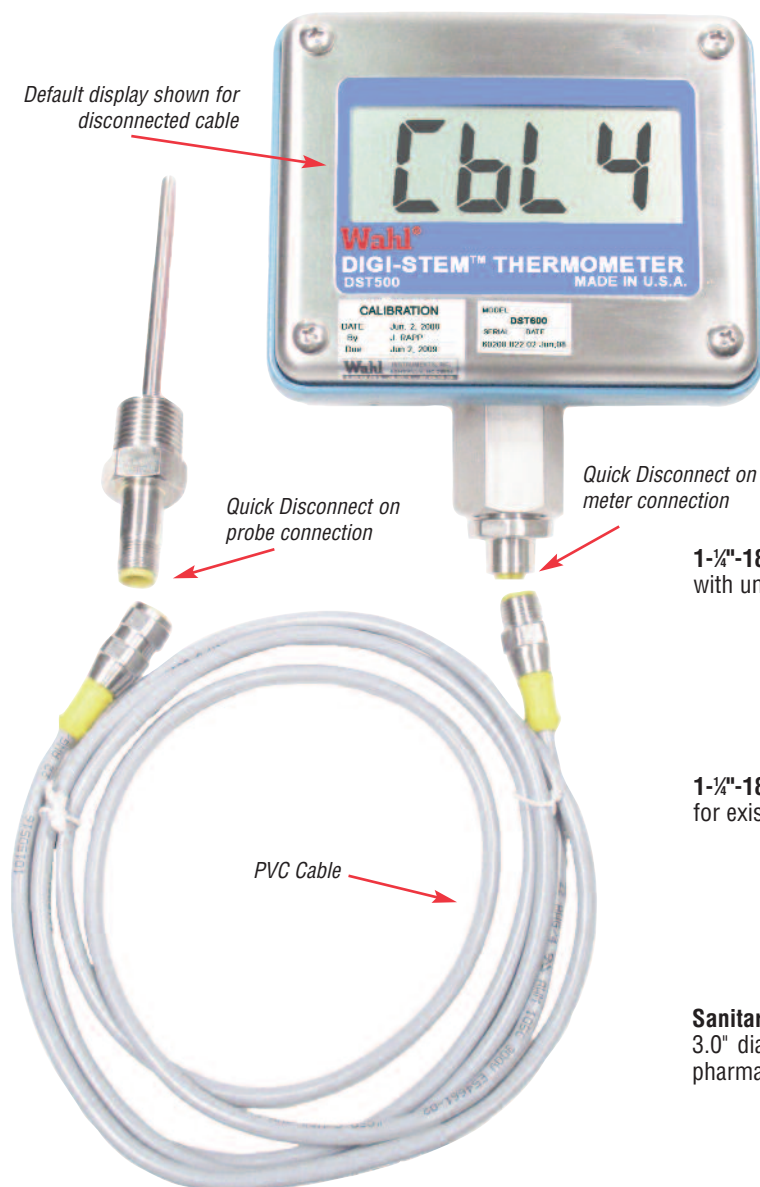


Wahl DSX500 Transmitter unit.

Complete Calibration Services Available

Probe Selection and Measurement

Wahl®
DST500
DSX500

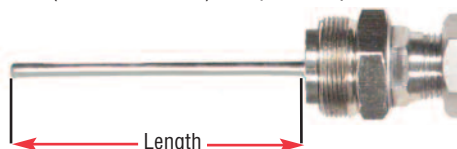


Optional Quick Disconnect for Calibration Convenience

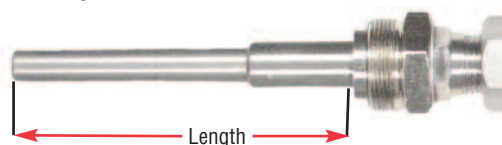
Optional Quick Disconnect for both probe and meter connections offers convenient calibration for the user. This industry leading, and time saving capability allows the probe and meter to be removed and taken to the calibration lab and calibrated as a system - *without removing the permanently installed cable.*

Custom Built Probes available.
Call Customer Service for information.

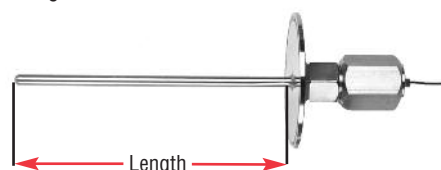
1-1/4"-18 Swivel Nut Fitting with 1/4" Diameter Stem - for use with union connections (no thermowells) for quick response.



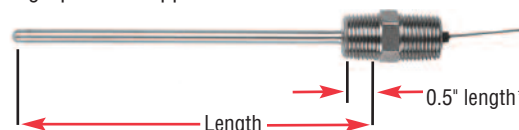
1-1/4"-18 Swivel Nut Fitting with Tapered Bulb - Direct replacement for existing MIG's. **Requires use with thermowell.**



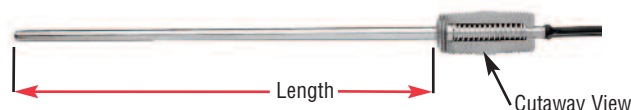
Sanitary Probe: Authorized 3-A Sanitary Standard 74-06 for 1.5" to 3.0" diameter tube sizes with tri-clamp fitting for milk, food and pharmaceutical processing.



Brazed Probe: For use in thermowells, or low pressure applications.
Welded Probe: Sealed for immersion in fluids; for use in thermowells, sanitary, and high-pressure applications.



Spring Loaded Probe: Maintains a positive force against the bottom of thermowells; not for direct immersion in fluids; assembly is not sealed. Allows approximately 1 inch of travel.



Why Calibration is important for your Instruments

- **Product Safety and Compliance.**
- **Increase customer satisfaction with consistent products.**
- **Ensure traceability throughout entire manufacturing process by maintaining accuracy records.**
- **Register your product for our Calibration eMinder Service to be reminded when calibration is due.**
Go to: www.palmerwahl.com/register



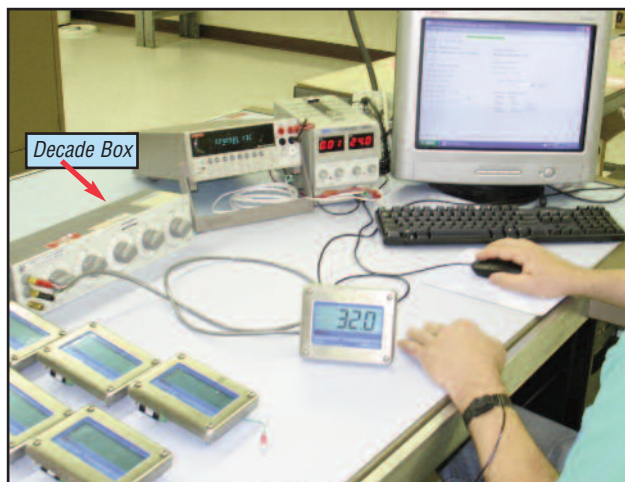
Complete Calibration Services Available

*Note: some connections include 1/2" of threads when measuring probe length. Contact Customer Service for information.

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Calibration and Programming Software and Accessories

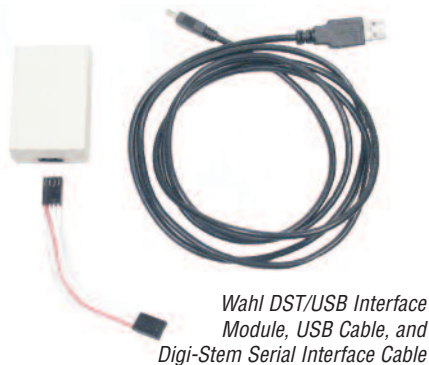


Meter Calibration of a Digi-Stem Meter
utilizing a decade box and DST/USB Interface Module.



System Calibration of a Remote Digi-Stem utilizing an ice bath and
DST/USB Interface Module.

Wahl **DSTCAL Software Kit** is user friendly and includes on-screen prompts for guiding the user through their operation. **DSTCAL** requires Vista, Windows XP, or Windows 7 to operate, and includes a USB cable, DST/USB Interface Module, and Digi-Stem Serial Interface Cable in order to connect the Wahl DST & DSX500 to a PC.



Wahl DST/USB Interface
Module, USB Cable, and
Digi-Stem Serial Interface Cable

Probe R0

Probe R0 - The Wahl DST500 & DSX500 include an exclusive compensation feature utilizing a programmable R0 calibration coefficient for increased accuracy. This allows the meter and probe to be "matched" to each other, and guarantees an accurate system.

DST500 Calibration Software

DSTCAL Calibration Software Kit - This software allows the customer to configure the following parameters:

- **Sample/Display Rate** - Factory default at 2/seconds. Adjustable from .25 seconds to 10 seconds in .25 second intervals. Slower update rates extend battery life.
- **Probe R0** - Compensation feature which allows calibration of meter to be "matched" to probe.
- **Current Transmitter Programming** - Allows assignment of 4-mA and 20-mA values in °F or °C.
- **Burnout Setting** - controls current direction in event of open probe. Upscale drives to 22.0-mA and Downscale drives to 3.5-mA.
- **Meter Calibration** - uses fixed resistances to calibrate the resistance measurement electronics by connecting to known fixed resistances.
- **System Calibration** - used to calibrate a sensor to a meter using a standard ice bath.

Software Accessories

DST500/DSX500 Fixed Probe Calibration Cable - 13500-04

Extends the probe leads when performing system calibrations on fixed probe systems. Allows the meter to be conveniently placed on the benchtop, while the probe is installed in an ice bath.

DST500/DSX500 Interconnect Calibration Cable - When probe wiring is difficult to remove, simply disconnect the probe and meter from the cable, and use the 2 meter interconnect cable for performing lab calibration.

12360-002 - 2 meter length, 4 conductor cable for use in calibration when installed remote cable cannot be easily removed.

For ordering assistance for all DST500 Series Meters
please call Customer Service at 1-800-421-2853

Complete Calibration Services Available



Meter Specifications and Accessories

Wahl®
DST500
DSX500

DST500 & DSX500 RTD METER SPECIFICATIONS

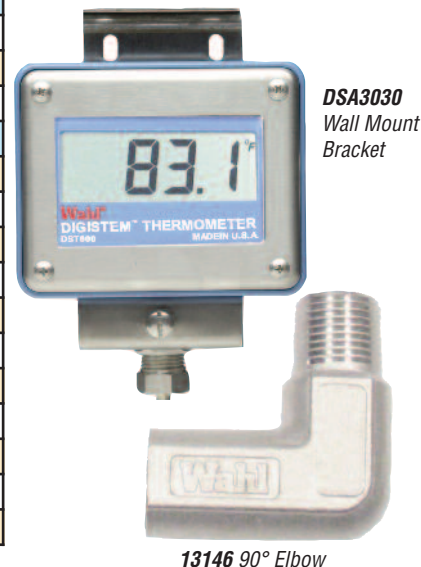
Model	DST500	DST500I	DSX500
	Meter with Local Display	Meter with Local Display and "AA" Battery for International shipments	Meter with Local Display and 4-20mA Transmitter
Meter Range	-328° to 1472°F (-200° to 800°C)		
Scale	User Selectable for °F or °C		
Meter Accuracy	± 0.1°F/C, over 1-year period (@ Tamb = 23°C ± 5°C)		
Meter and Probe Accuracy	Temp ≤ 300°F (148.8°C) = ± 0.3°F (± 0.2°C), Temp > 300°F (148.8°C) = ± 0.25% of reading		
Display	1.0" 4-digit LCD display with icons for °F, °C and Low Battery	1.0" 4-digit LCD display with icons for °F, °C and Low Battery	1.0" 4-digit LCD display with icons for °F and °C
Display Resolution	0.1°F/C, 1°F above 999.9°F		
Sample/Display Rate	2 sec. std, adjustable in .25 sec. intervals from .25 to 10 seconds	3 sec. std, adjustable in .25 sec. intervals from .25 to 10 seconds	2 sec.s std, adjustable in .25 sec. intervals from .25 to 10 seconds
Ambient Operating Environment	-40° to 158°F (-40° to 70°C), 10% to 100% RH non-condensing, Vibration - MIL STD 202G		
Ambient Temperature Coefficient	Maximum of 0.003°/°C over Ambient Operating Temperature Range from 23°C ± 5°C		
Enclosure Weight / Dimensions	SS and Polycarbonate (NEMA 4X), Weight: 2 lbs. (1kg) Dim: 5.3" W x 4.3" H x 2.7" D (13.5 x 10.9 x 6.9 cm).		
Sensor/Probe	• Sensor - 4-wire RTD, R0 = 100Ω, Alpha = .00385 Ω/Ω°C • 304 or 316 Stainless Steel Probe construction • Fixed Stem Probes or Remote probes with rugged IP68 connection system		
CE Approval	Yes	Yes	CE approved with loop power cable installed indoors and < 30m
Battery / Power Supply	1-Lithium Thionyl Chloride "C" Battery, User Replaceable	1-Lithium Thionyl Chloride "AA" Battery, User Replaceable	Loop Powered 10-36VDC
Battery Life	4 yrs nominal at 2 sec. update interval	2 yrs nominal at 3 sec. update interval	N/A
4-20mA Output	No	No	Yes
Output Accuracy	N/A	N/A	± 0.2°F/0.1°C
Minimum Span	N/A	N/A	18°F (10°C)
Output Scaling	N/A	N/A	Factory or user programmable with DST Software Kit
Output Connection	N/A	N/A	1/2" NPT Female

DST/DSX500 Series Software and Accessories

DSTCAL	DST/DSX500 Series Calibration Software Kit
12360-002	DST/DSX500 Series Interconnect Calibration Cable: 2 meter length - 4 conductor
13500-04	DST/DSX500 Series Fixed Probe Calibration Cable
DST/DSX500 Series Meter Accessories and NIST Traceable Certificate of Conformance	
DSA3030	Wall Mount Bracket (for Remote Mount units)
DSA3031	Wall Mount Bracket (for Remote Mount units) with Grounding Lug
DSA3032	Security Screw Kit (Screws, washers, security wire seal, instructions. Installed when purchased with meter)
DSA3033	Security Wire Seals, Tamper Resistant, 10/pack, Toolless, 8", SS Wire
DSA3060	Spare "C" size Lithium Thionyl Chloride Battery
12234-03	Spare "AA" size Lithium Thionyl Chloride Battery for "I" versions
DS-M	Calibration & Firmware Upgrades (Upgrades if applicable, included in price)
	Call Customer Service for Calibration or NIST information for this product
13146X	90 Degree Elbow for Rigid Stem models, Specify X: Back Connection (B), Left (L) or Right Side (R) Mount

*Upgrades if applicable, are included in price

Specifications subject to change without notice



Complete Calibration Services Available

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Wahl® DST550 MIN-MAX Recording

Digi-Stem® DST550 MIN-MAX Recording Thermometer with 4-Wire RTD Accuracy



Wahl DST550 with
Rigid Mount shown
with 1/2" NPT Thread
& 1/4" diameter stem

*Another Innovation
from Palmer Wahl!*

Wahl's **NEW!** DST550 is a wide range, high accuracy RTD thermometer with built in Minimum and Maximum Temperature recording. The system is designed for use wherever the recording of Minimum and Maximum temperature are required. Min-Max data is recalled by simply depressing an operator interface switch.

- User Selectable Sample Interval of 6 seconds or 60 seconds
- Auto Display Shutoff after 1 minute
- User Selectable °F or °C
- Ambient operation from -58° to 158°F (-50° to 70°C)
- Field Replaceable Battery, Long Life - 2 years nominal
- Rigid, Remote, or Adjustable Angle for easy reading
- Internal Diagnostics for Fault Detection
- Programmable "R0" for "matching" sensor to meter
- User friendly Single Point Calibration Software (Optional)
- Tamper Resistant - all adjustments require software
- Exclusive Quick Disconnect Connector option on Remote Cables
- 1" High Display readable from 30 feet away

The Wahl DST550 measures temperature at the selected sample interval and updates the MIN and MAX registers as needed. The operator interface switch allows the operator to wake up the DST550, scroll through the current, min and max temperatures; and reset the MIN and MAX registers to start a new MIN/MAX acquisition period.

DST550 Display Modes



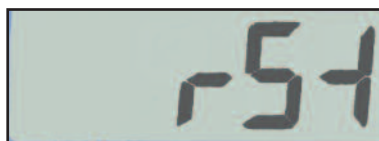
Press switch to display current temperature



Press switch again to display minimum temperature



Press switch again to display maximum temperature



Press switch and hold for reset mode



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DST550 SERIES RTD METER SPECIFICATIONS	
	DST550
Model	MIN-MAX RTD Recording Meter with Local Display
Meter Range	-328° to 1472°F (-200° to 800°C)
Scale	User Selectable for °F or °C
Meter Accuracy	± 0.1°F/°C, over 1-year period (@ Tamb = 23°C ± 5°C)
Meter and Probe Accuracy	Temp ≤ 300°F (148.8°C) = ± 0.3°F (± 0.2°C), Temp >300°F (148.8°C) = ± 0.25% of reading
Display	1.0" 4-digit LCD display with icons for MIN, MAX, °F, °C, Low Battery, and Self-Checking warnings
Display Resolution	0.1°F/°C. 1°F above 999.9°F
Sample Rate	User Selectable, 6 second or 60 second
Ambient Operating Environment	-58° to 158°F (-50° to 70°C) Weather Resistant
Low Temperature Survivability	-70°F (-56.7°C)
Ambient Temperature Coefficient	Maximum of 0.003°/°C over Ambient Operating Temperature Range from 23°C ± 5°C
Enclosure Weight / Dimensions	Stainless Steel and Polycarbonate (NEMA 4X), Weight: 2 lbs. (1kg) Dimensions: 5.3" W x 4.3" H x 2.7" D (13.5 x 10.9 x 6.9 cm).
Sensor / Probe	• Sensor - 4-wire RTD, R0 = 100Ω, Alpha = .00385 Ω/Ω°C • 304 or 316 Stainless Steel Probe construction • Fixed Stem or Remote probes with rugged IP68 connection system
Battery Power Supply	1 - Lithium Thionyl Chloride "C" Battery
Battery Life	2 year minimum

Specifications subject to change without notice

Complete Calibration Services Available

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PW1202
10/08 Rev J
Revised 07/15



America's First Manufacturer of Industrial Temperature and Pressure Instrumentation

Wahl designs and manufactures to the most stringent quality standards. We provide certified, traceable calibration data in support of companies who require meeting ISO 9001:2008, FAA and FDA quality standards. Calibrations to both IPTS-68 and ITS-90 are available.

CALIBRATION SERVICES

STANDARD CERTIFICATION: Unit is calibrated to factory specifications using NIST traceable equipment.

Certificate of Conformance - Statement that our product meets published specifications. Included on the packing list with each shipment.

"Long Form" Certificate of Conformance - Available upon request, includes Certificate of Conformance with customer's PO number, items shipped, and any product serial numbers for products included in the shipment.

Calibration Sticker - (or tag) Advising you of the date your instrument(s) was/were calibrated, and the suggested date for the next calibration. This is provided with most products at time of purchase, and when you return a product for calibration.

NIST TRACEABLE TEST REPORT: Unit is calibrated to factory specifications using NIST Traceable equipment. Provides instrument test data with details of standard instruments used to perform the calibration.



"As Received" and "As Left" Test Data are provided, as appropriate, with any out-of-tolerance conditions noted, and a unique test number assigned.

NIST Traceable Calibration Sticker provides the date your instrument(s) was/were calibrated, technician performing the calibration, suggested date for the next calibration, and references the unique test number shown in the Test Report. Our Quality Management System is certified to conform to ISO9001:2008. We maintain a calibration system in conformance with ANSI/NCSL Z-540 and MIL-STD-45662A.

REPAIR AND OTHER SERVICES

REGISTER YOUR PRODUCT: Registration is fast and easy. In about a minute you can register your product for Warranty Protection and our Calibration Reminder Service to keep your QC Program in compliance. Go to: www.palmerwahl.com/register

REPAIR and OTHER SERVICES: Palmer Wahl offers repair and calibration services on most products we sell. The customer will receive a written estimate for approval before proceeding with work. Repair pricing includes Standard Certification as listed above.

Detailed Repair Report - Available upon request, this report provides details of evaluation and repairs made.

Custom Points - Palmer Wahl will calibrate your instruments at your specified temperature or pressure points.

Special Requests - When calibrating your instrument, our experienced personnel will help you to achieve the level of quality you require in your facility. **Note:** Before returning your product to us, please contact us to obtain a **Return Merchandise Authorization Number**, (RMA). Call Customer Service at 1-800-421-2853 or go to www.palmerwahl.com and click on: Service > Product Return Request.

Wahl Digi-Stems are available from:

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AQUATRONIX
SINCE/DEPUIS 1953

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2880 Argentia Road, Unit 3
Mississauga, ON L5N 7X8
salesdesk@bestobell.com
1-800-668-3979
www.bestobell.com

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Depuis 1953, Produits De Qualités Pour Détecter, Mesurer & Contrôler

Montréal Office

970 Montée de Liesse, #204
St. Laurent, QC H4T 1W7
ventes@bestobell.com
1-877-331-1225

Atlantic Office

166 North Side Road
Riverport, NS B0J 2W0
dmossmann@bestobell.com
902-529-0355

Palmer Wahl Warranty

Manufacturer warrants all products listed in this catalog to be free from defects in material or workmanship under normal use and service. The Manufacturer agrees to repair or replace any product which upon examination is revealed to have been defective due to faulty workmanship or material if returned to our factory, transportation charges prepaid, within the product specific warranty period stated in the catalog by the manufacturer. This warranty is in lieu of all other warranties, expressed or implied and of all obligations or liabilities on its part for damages including but not limited to consequential damages, following the use or misuse of instruments sold by the Manufacturer. No agent is authorized to assume for manufacturer any liability except as set forth above.

ISO 9001:2008
CERTIFIED QUALITY
MANAGEMENT SYSTEM

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