### DST500 Series

**Stainless Steel Case**
Poly-carbonate H Frame/Window

<table>
<thead>
<tr>
<th>CASE STYLE</th>
<th>DST500</th>
<th>DST540</th>
<th>DST550</th>
<th>DST600</th>
<th>DST650</th>
<th>DST661</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Features</td>
<td>-</td>
<td>-</td>
<td>MN-MAX</td>
<td>FM Approval</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Probes</td>
<td>P100 - 4 wire</td>
<td>P100 - 4 wire</td>
<td>P100 - 4 wire</td>
<td>P100 - 4 wire</td>
<td>P100 - 4 wire</td>
<td>P100 - 4 wire</td>
</tr>
<tr>
<td>Output</td>
<td>4-20mA Transmitter</td>
<td>4-20mA Transmitter</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Connector</td>
<td>1/2” NPT Female Connector</td>
<td>Turk 4 pin Connector</td>
<td>Turk 4 pin Connector</td>
<td>Turk 4 pin Connector</td>
<td>Turk 4 pin Connector</td>
<td>Turk 4 pin Connector</td>
</tr>
<tr>
<td><strong>Meter Range</strong></td>
<td>±328°F to 1472°F (200°F to 800°C)</td>
<td>±328°F to 1472°F (200°F to 800°C)</td>
<td>±328°F to 1472°F (200°F to 800°C)</td>
<td>±328°F to 1472°F (200°F to 800°C)</td>
<td>±328°F to 1472°F (200°F to 800°C)</td>
<td>±328°F to 1472°F (200°F to 800°C)</td>
</tr>
<tr>
<td><strong>System Accuracy</strong></td>
<td>±0.4°F / 0.22°C or ±0.5% of reading, over 1 year period (@ Tamb = 23°C ± 5°C)</td>
<td>±0.4°F / 0.22°C or ±0.5% of reading, over 1 year period (@ Tamb = 23°C ± 5°C)</td>
<td>±0.4°F / 0.22°C or ±0.5% of reading, over 1 year period (@ Tamb = 23°C ± 5°C)</td>
<td>±0.4°F / 0.22°C or ±0.5% of reading, over 1 year period (@ Tamb = 23°C ± 5°C)</td>
<td>±0.4°F / 0.22°C or ±0.5% of reading, over 1 year period (@ Tamb = 23°C ± 5°C)</td>
<td>±0.4°F / 0.22°C or ±0.5% of reading, over 1 year period (@ Tamb = 23°C ± 5°C)</td>
</tr>
<tr>
<td><strong>Ambient Operating Environment</strong></td>
<td>-40°F to 158°F (-40°C to 70°C) 10% to 100% RH non-condensing</td>
<td>-40°F to 158°F (-40°C to 70°C) 10% to 100% RH non-condensing</td>
<td>-40°F to 158°F (-40°C to 70°C) 10% to 100% RH non-condensing</td>
<td>-40°F to 158°F (-40°C to 70°C) 10% to 100% RH non-condensing</td>
<td>-40°F to 158°F (-40°C to 70°C) 10% to 100% RH non-condensing</td>
<td>-40°F to 158°F (-40°C to 70°C) 10% to 100% RH non-condensing</td>
</tr>
<tr>
<td><strong>Display Resolution</strong></td>
<td>0. 1°F/C</td>
<td>0. 1°F/C</td>
<td>0. 1°F/C</td>
<td>0. 1°F/C</td>
<td>0. 1°F/C</td>
<td>0. 1°F/C</td>
</tr>
<tr>
<td><strong>Sample/Display Rate</strong></td>
<td>2 seconds standard, adjustable in 0.25 to 10 seconds</td>
<td>2 seconds standard, adjustable in 0.25 to 10 seconds</td>
<td>2 seconds standard, adjustable in 0.25 to 10 seconds</td>
<td>2 seconds standard, adjustable in 0.25 to 10 seconds</td>
<td>2 seconds standard, adjustable in 0.25 to 10 seconds</td>
<td>2 seconds standard, adjustable in 0.25 to 10 seconds</td>
</tr>
</tbody>
</table>

**Stainless Steel Case and H Frame Poly-carbonate Window**

<table>
<thead>
<tr>
<th>CASE STYLE</th>
<th>DST500</th>
<th>DST540</th>
<th>DST550</th>
<th>DST600</th>
<th>DST650</th>
<th>DST661</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Features</td>
<td>-</td>
<td>-</td>
<td>MN-MAX</td>
<td>FM Approval</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Probes</td>
<td>P100 - 4 wire</td>
<td>P100 - 4 wire</td>
<td>P100 - 4 wire</td>
<td>P100 - 4 wire</td>
<td>P100 - 4 wire</td>
<td>P100 - 4 wire</td>
</tr>
<tr>
<td>Output</td>
<td>4-20mA Transmitter</td>
<td>4-20mA Transmitter</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Connector</td>
<td>1/2” NPT Female Connector</td>
<td>Turk 4 pin Connector</td>
<td>Turk 4 pin Connector</td>
<td>Turk 4 pin Connector</td>
<td>Turk 4 pin Connector</td>
<td>Turk 4 pin Connector</td>
</tr>
<tr>
<td><strong>Meter Range</strong></td>
<td>±328°F to 1472°F (200°F to 800°C)</td>
<td>±328°F to 1472°F (200°F to 800°C)</td>
<td>±328°F to 1472°F (200°F to 800°C)</td>
<td>±328°F to 1472°F (200°F to 800°C)</td>
<td>±328°F to 1472°F (200°F to 800°C)</td>
<td>±328°F to 1472°F (200°F to 800°C)</td>
</tr>
<tr>
<td><strong>System Accuracy</strong></td>
<td>±0.4°F / 0.22°C or ±0.5% of reading, over 1 year period (@ Tamb = 23°C ± 5°C)</td>
<td>±0.4°F / 0.22°C or ±0.5% of reading, over 1 year period (@ Tamb = 23°C ± 5°C)</td>
<td>±0.4°F / 0.22°C or ±0.5% of reading, over 1 year period (@ Tamb = 23°C ± 5°C)</td>
<td>±0.4°F / 0.22°C or ±0.5% of reading, over 1 year period (@ Tamb = 23°C ± 5°C)</td>
<td>±0.4°F / 0.22°C or ±0.5% of reading, over 1 year period (@ Tamb = 23°C ± 5°C)</td>
<td>±0.4°F / 0.22°C or ±0.5% of reading, over 1 year period (@ Tamb = 23°C ± 5°C)</td>
</tr>
<tr>
<td><strong>Ambient Operating Environment</strong></td>
<td>-40°F to 158°F (-40°C to 70°C) 10% to 100% RH non-condensing</td>
<td>-40°F to 158°F (-40°C to 70°C) 10% to 100% RH non-condensing</td>
<td>-40°F to 158°F (-40°C to 70°C) 10% to 100% RH non-condensing</td>
<td>-40°F to 158°F (-40°C to 70°C) 10% to 100% RH non-condensing</td>
<td>-40°F to 158°F (-40°C to 70°C) 10% to 100% RH non-condensing</td>
<td>-40°F to 158°F (-40°C to 70°C) 10% to 100% RH non-condensing</td>
</tr>
<tr>
<td><strong>Display Resolution</strong></td>
<td>0. 1°F/C</td>
<td>0. 1°F/C</td>
<td>0. 1°F/C</td>
<td>0. 1°F/C</td>
<td>0. 1°F/C</td>
<td>0. 1°F/C</td>
</tr>
<tr>
<td><strong>Sample/Display Rate</strong></td>
<td>2 seconds standard, adjustable in 0.25 to 10 seconds</td>
<td>2 seconds standard, adjustable in 0.25 to 10 seconds</td>
<td>2 seconds standard, adjustable in 0.25 to 10 seconds</td>
<td>2 seconds standard, adjustable in 0.25 to 10 seconds</td>
<td>2 seconds standard, adjustable in 0.25 to 10 seconds</td>
<td>2 seconds standard, adjustable in 0.25 to 10 seconds</td>
</tr>
</tbody>
</table>

**Optional DSTCAL Software allows the following functions for DST500 and DST600 Series:**
- Set Sample/Display Rate - Optimizes sample rate to match your process speed and maximize battery life
- Tamper Resistance - DSTCAL software is required for all temperature adjustments, providing added security
- Probe RS - allows programming of a probes R0 value into the meters memory, for increased accuracy
- Meter Calibration - Calibrates the resistance measurement electronics by use of known fixed resistances
- System Calibration - Automatically measures/programs the R0 value for connected probe by placing it into an ice bath

**Specifications subject to change without notice.**

Note: see important information regarding the shipping of Lithium Thionyl Chloride batteries on page 4 under the DST400 Series table.

**You May Also Be Interested In:**
- DST500-FM
- DST620
- DST651
- DST820
- DST921
### Specification

<table>
<thead>
<tr>
<th>CASE STYLE</th>
<th>PROBES</th>
<th>METER SPECIFICATIONS</th>
<th>DISPLAY SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless Steel Case</td>
<td>Poly carbonate H Frame/Window</td>
<td>Stainless Steel Case and H Frame/ Polycarbonate Window</td>
<td></td>
</tr>
<tr>
<td>Thermocouple Type</td>
<td>Type K</td>
<td>Type J</td>
<td>Type T</td>
</tr>
<tr>
<td>Probe Accuracy</td>
<td>±0.1°F (±0.1°C)</td>
<td>±0.1°F (±0.1°C)</td>
<td>±0.3°F (±0.2°C)</td>
</tr>
<tr>
<td>Sensor Lead Resistance</td>
<td>1000 ohms Maximum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meter Range</td>
<td>-40°F to 250°F (-40°C to 137°C)</td>
<td>-40°F to 212°F (-40°C to 100°C)</td>
<td>-40°F to 752°F (-40°C to 400°C)</td>
</tr>
<tr>
<td>Ambient Operating Environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature Coefficient</td>
<td>From 23°C ± 5°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input</td>
<td>±0.02°F</td>
<td>±0.0°C</td>
<td>±0.3°C</td>
</tr>
<tr>
<td>Ambient Temperature Coefficient</td>
<td>From 23°C ± 5°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input</td>
<td>±0.02°F</td>
<td>±0.3°C</td>
<td>±0.0°F</td>
</tr>
<tr>
<td>Vibration</td>
<td>Vibration Resistant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery Life</td>
<td>Approximately 4 Years at 2 second sample rate, 1 to &gt; 10 years (approximate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display Icons</td>
<td>1</td>
<td>2 Seconds, adjustable in .25 seconds intervals to .25 to 10 seconds with software</td>
<td></td>
</tr>
<tr>
<td>Display Resolution</td>
<td>Less than 0.01°F, 0.1°C</td>
<td>1°</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Model DST400K replaces Models DST200 and DST300

### Features for All Digi-Stem Models:
- Large 1” Digit LCD Display, readable from 30 Feet.
- Meter Accuracy from ±0.1°F (±0.1°C).
- User Selectable °F or °C.
- Quick Disconnect option (DST500 Series and DST600 Series only).
- Long-Life, Lithium Battery up to 10 years at 10 second update rate.
- Ambient operation from -40°F to 158°F (-40°C to 70°C).
- NEMA-4X Stainless Steel Housing.
- Vibration Resistant.
- Loop-powered Transmitter models available at 10-36 V DC.
- Software-selectable Sample/Display Update Rate with optional Wahl DSTCAL Software.
- Optional NIST Traceable Certificate of Conformance.
- Optional User-Friendly Single Point Calibration Software.
- Multiple mounting methods available.
- PROBES ARE SOLD SEPARATELY! Choose from our extensive line of standard probes, or have our engineers design a custom solution for your application.
- Most Probes constructed of MgO packed Mn cable (sold separately).
- Probes offering Direct Replacement for Bimetal, Bulb & Capillary and Mercury-in-Glass Thermometers available.

### Optional DSTCAL Software

- Set Thermocouple Type - Programs meter for use with J, K, T, E or S type thermocouples.
- Set Sample/Display Rate - Optimizes sample rate to match your process speed and maximize battery life.
- Tamper Resistance - DSTCAL software is required for all temperature adjustments, providing added security.
- Meter Calibration - Calibrates mV measurements of the meter.
- Cold Junction Compensation Calibration - Calibrates CJC sensor for the selected thermocouple type.

**Note:** Wahl Industries has come standard with a “C” cell Lithium Thionyl Chloride battery, ready for ground shipment in the contiguous 48 states and some areas of Canada. For air shipments, either a “C” model with a AA Lithium Thionyl Chloride or “NB” model with no battery is required to avoid additional charges in compliance with transportation regulations regarding Lithium Thionyl Chloride batteries. Specify when ordering.

**Notes for all Digi-Stems regarding the shipping of Lithium Thionyl Chloride batteries:**
- All batteries come standard with a “C” cell Lithium Thionyl Chloride, ready for ground shipment in the contiguous 48 states and some areas of Canada. For air shipments, either an “I” model with a AA Lithium Thionyl Chloride or “NB” model with no battery is required to avoid additional charges in compliance with transportation regulations regarding Lithium Thionyl Chloride batteries. Specify when ordering.
- * Models set in 4 second update rate, adjustable in .25 second intervals from .25 to 10 seconds.

### Meter Selection Guide

**CHOOSE THE DST400 SERIES METERS IF YOU:**
- Are looking for mid level accuracy.
- Want a wide temperature measurement range.
- Need rugged thermocouple probes.
- Need fast response thermocouple probes.
- Want to use low-cost probes.
- Can use existing probes from other manufacturers as well as Wahl probes.

**Features for Digi-Stem Systems:**

- User Selectable °F or °C.
- Long-Life, Lithium Battery up to 10 years at 10 second update rate.
- Quick Disconnect option (DST500 Series and DST600 Series only).
- Long-Life, Lithium Battery up to 10 years at 10 second update rate.
- Ambient operation from -40°F to 158°F (-40°C to 70°C).
- NEMA-4X Stainless Steel Housing.
- Vibration Resistant.
- Loop-powered Transmitter models available at 10-36 V DC.
- Software-selectable Sample/Display Update Rate with optional Wahl DSTCAL Software.
- Optional NIST Traceable Certificate of Conformance.
- Optional User-Friendly Single Point Calibration Software.
- Multiple mounting methods available.
- PROBES ARE SOLD SEPARATELY! Choose from our extensive line of standard probes, or have our engineers design a custom solution for your application.
- Most Probes constructed of MgO packed Mn cable (sold separately).
- Probes offering Direct Replacement for Bimetal, Bulb & Capillary and Mercury-in-Glass Thermometers available.

---

**DIGI-STEM® THERMOMETER**

**RTD AND THERMOCOUPLE SYSTEMS**

**Meter Selection Guide**

Virtually every industry relies on temperature measurement in some manner. Measuring correctly can mean the difference in producing a high quality product, between safe and dangerous; between proper equipment function and down-time.

Use of precision digital temperature instrumentation from Palmer Wahl can make the difference in your business. With our Digi-Stem System, choose your meter, select or have us design the probe needed for your application and you’re set.

Call us today - to learn the difference!

---

**DIGI-STEM® THERMOMETER**

**RTD AND THERMOCOUPLE SYSTEMS**

**Meter Selection Guide**

Virtually every industry relies on temperature measurement in some manner. Measuring correctly can mean the difference in producing a high quality product, between safe and dangerous; between proper equipment function and down-time.

Use of precision digital temperature instrumentation from Palmer Wahl can make the difference in your business. With our Digi-Stem System, choose your meter, select or have us design the probe needed for your application and you’re set.

Call us today - to learn the difference!

---

**Optional DSTCAL Software allows the following functions for the DST400 Series:**

- Set Thermocouple Type - Programs meter for use with J, K, T, E or S type thermocouples.
- Set Sample/Display Rate - Optimizes sample rate to match your process speed and maximize battery life.
- Tamper Resistance - DSTCAL software is required for all temperature adjustments, providing added security.
- Meter Calibration - Calibrates mV measurements of the meter.
- Cold Junction Compensation Calibration - Calibrates CJC sensor for the selected thermocouple type.

---

**Note:** Wahl Industries has come standard with a “C” cell Lithium Thionyl Chloride, ready for ground shipment in the contiguous 48 states and some areas of Canada. For air shipments, either an “I” model with a AA Lithium Thionyl Chloride or “NB” model with no battery is required to avoid additional charges in compliance with transportation regulations regarding Lithium Thionyl Chloride batteries. Specify when ordering.

**Notes for all Digi-Stems regarding the shipping of Lithium Thionyl Chloride batteries:**
- All batteries come standard with a “C” cell Lithium Thionyl Chloride, ready for ground shipment in the contiguous 48 states and some areas of Canada. For air shipments, either an “I” model with a AA Lithium Thionyl Chloride or “NB” model with no battery is required to avoid additional charges in compliance with transportation regulations regarding Lithium Thionyl Chloride batteries. Specify when ordering.
- * Models set in 4 second update rate, adjustable in .25 second intervals from .25 to 10 seconds.

---

**DIGI-STEM® THERMOMETER**

**RTD AND THERMOCOUPLE SYSTEMS**

**Meter Selection Guide**

Virtually every industry relies on temperature measurement in some manner. Measuring correctly can mean the difference in producing a high quality product, between safe and dangerous; between proper equipment function and down-time.

Use of precision digital temperature instrumentation from Palmer Wahl can make the difference in your business. With our Digi-Stem System, choose your meter, select or have us design the probe needed for your application and you’re set.

Call us today - to learn the difference!

---

**Optional DSTCAL Software allows the following functions for the DST400 Series:**

- Set Thermocouple Type - Programs meter for use with J, K, T, E or S type thermocouples.
- Set Sample/Display Rate - Optimizes sample rate to match your process speed and maximize battery life.
- Tamper Resistance - DSTCAL software is required for all temperature adjustments, providing added security.
- Meter Calibration - Calibrates mV measurements of the meter.
- Cold Junction Compensation Calibration - Calibrates CJC sensor for the selected thermocouple type.

---

**Note:** Wahl Industries has come standard with a “C” cell Lithium Thionyl Chloride, ready for ground shipment in the contiguous 48 states and some areas of Canada. For air shipments, either an “I” model with a AA Lithium Thionyl Chloride or “NB” model with no battery is required to avoid additional charges in compliance with transportation regulations regarding Lithium Thionyl Chloride batteries. Specify when ordering.

**Notes for all Digi-Stems regarding the shipping of Lithium Thionyl Chloride batteries:**
- All batteries come standard with a “C” cell Lithium Thionyl Chloride, ready for ground shipment in the contiguous 48 states and some areas of Canada. For air shipments, either an “I” model with a AA Lithium Thionyl Chloride or “NB” model with no battery is required to avoid additional charges in compliance with transportation regulations regarding Lithium Thionyl Chloride batteries. Specify when ordering.
- * Models set in 4 second update rate, adjustable in .25 second intervals from .25 to 10 seconds.