

NEW! Digi-Stem® DST400 Thermometer

Choose from 5 Thermocouple Inputs



*Another Innovation
from Palmer Wahl;
proudly made in the
USA!*



Wahl's **NEW! DST400** is the newest addition to Wahl's expanding family of DST Digital Thermometers. They are wide range, high accuracy thermometers designed for many applications where accurate and reliable temperature monitoring is important.

Featuring the same reliable and rugged Wahl Digi-Stem® brand thermometer construction, these new updated thermocouple versions join the popular RTD versions. They offer a choice of one of 5 user specified thermocouple input types - K, J, T, E or S.

Select any of the 5 factory programmed Thermocouple inputs at time of purchase, and change to any of the other 4 inputs after purchase with our easy to use optional DSTCAL software*. Interchangeable stickers are provided to indicate which thermocouple type is programmed at any given time.

DSTCAL Software allows the following functions:

- **Set Thermocouple Type** - Programs meter for use with J, K, T, E or S type thermocouples. One meter - 5 options!
- **Meter Calibration** - Calibrates mV measurements of the meter.
- **Cold Junction Compensation Calibration** - Calibrates CJC sensor for increased accuracy.
- **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.

The Wahl DST400 can be used with a wide selection of thermocouple probes from Wahl, and is compatible with third party thermocouple probes with a 1/2" NPT instrument fitting.

NEMA-4X Stainless Housing withstands use in industrial process monitoring applications, indoors or out, including food, beverage, pharmaceutical, petrochemical and tire & rubber.

Models and Ranges available:

- | | |
|--|--|
| DST400K - Type K Thermocouple,
-40° to 2500°F (-40° to 1371°C) | DST400E - Type E Thermocouple,
-40° to 1832°F (-40° to 1000°C) |
| DST400J - Type J Thermocouple,
-40° to 2192°F (-40° to 1200°C) | DST400S - Type S Thermocouple,
32° to 3200°F (0° to 1760°C) |
| DST400T - Type T Thermocouple,
-40° to 752°F (-40° to 400°C) | |

DST400 Meter Features

- Large 1" Digit LCD Display, readable from 30 Feet
- Meter Accuracy from $\pm 0.5^\circ\text{F}$ ($\pm 0.3^\circ\text{C}$)
- User Selectable $^\circ\text{F}$ or $^\circ\text{C}$
- Quick Response - as fast as .25 second update rate
- Long-Life, Lithium Battery with 4 years life at 2 second sample rate, up to 10 years at 10 second rate
- Ambient operation from -40°F to 158°F (-40° to 70°C)
- NEMA-4X Stainless Housing
- Vibration Tolerant
- Rigid, Remote, or Adjustable Angle Probe connections to allow mounting choices for easy reading
- Software-selectable Sample/Display Update Rate with optional DSTCAL Software
- Direct Replacement for Bimetal, Bulb & Capillary Thermometers, and Mercury-in-Glass Thermometers
- Optional NIST Traceable Certificate of Conformance
- Optional User-Friendly Single Point Calibration Software
- Probes sold separately

Use our eMinder Service to remind you to re-calibrate your thermometer to NIST!
Register for reminders at:
www.palmerwahl.com/register



*Requires recalibration of Cold Junction Compensation with a Thermocouple Calibrator.

Calibration Services Available

DST400 Meter Specifications

DST400 Series Meter Specifications

DST400 Series Specifications					
Model	DST400K	DST400J	DST400T	DST400E	DST400S
Range °F or °C Switchable	-40° to 2500°F -40° to 1371°C	-40° to 2192°F -40° to 1200°C	-40° to 752°F -40° to 400°C	-40° to 1832°F -40° to 1000°C	32° to 3200°F 0° to 1760°C
Meter Accuracy Tamb = 23°C ± 5°C (includes CJC error)	< 1000 = ± 0.5°F, ± 0.3°C > 1000 = ± 2°F, ± 1°C	< 1000 = ± 0.5°F, ± 0.3°C > 1000 = ± 2°F, ± 1°C	± 0.5°F, ± 0.3°C	< 1000 = ± 0.5°F, ± 0.3°C > 1000 = ± 2°F, ± 1°C	Full Range = ± 2°F, ± 1°C
Resolution	1.0" 4-digit display with icons for °F, °C, and low battery.				
Display Resolution	< 1000 = 0.1°; > 1000 = 1°				
Humidity	10 to 100% RH, non-condensing				
Ambient Operating Temperature	-40° to 158°F (-40° to 70°C)				
Ambient Temperature Coefficient (From 23°C ± 5°C)	Input: < 200°C, Maximum of: ± 0.02°C/°C Input: > 200°C, Maximum of: ± 0.05°C/°C				
Models	DST400K	DST400J	DST400T	DST400E	DST400S
Battery Power	1 - C size, Lithium Thionyl Chloride, 3.6V				
Sample/Display Rate	2 Seconds, adjustable in .25 Second intervals to .25 to 10 seconds with software				
Battery Life	> 4 Years at 2-second sample rate, 1 to >10 years (approximate) when set to .25 to 10 second sample/display rate				
"I" Models*	DST400KI	DST400JI	DST400TI	DST400EI	DST400SI
Battery Power	1 - AA size, Lithium Thionyl Chloride, 3.6V				
Sample/Display Rate	4 Seconds, adjustable in .25 Second intervals from .25 to 10 seconds sample display rate with software				
Battery Life	2 Years at 4-second sample rate, 0.5 to > 3 years (approximate) when set to .25 to 10 second sample display/rate				
Housing	Stainless Steel and Polycarbonate, Rating NEMA 4-X. Dimensions: 5.3"W x 4.3"H x 2.7"D (13.5 x 10.9 x 6.9 cm); Weight: 2 lbs. (1kg)				
Options	NIST Traceable Certificate of Conformance				

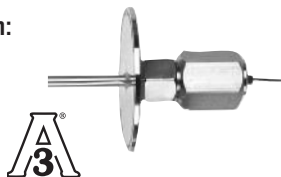
* DST Meters come standard with a "C" cell battery, ready for ground shipment in the contiguous 48 states and some areas of Canada. For air shipments, either an "I" model with a "AA" battery, or "NB" model with no battery, is required to avoid additional charges in compliance with transportation regulations regarding "C" cell lithium metal batteries. Specify on order form.

Specifications subject to change without notice

Process Connection Options

Sanitary Fitting, Process Connection:

Authorized 3-A Sanitary Standard 74-05 Tri-clamp® flanged fittings to fit 1.5" to 3.0" diameter tube sizes for milk, food and pharmaceutical processing.

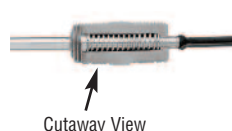


Transition Fitting, Process Connection:

Unthreaded transition fitting for hand held operation, or use in open vessels with no thread.



Spring Loaded Stem*: Maintains a positive force against the bottom of thermowells. Not for direct immersion in fluids; connection is not pressure tight. Allows approximately 1 inch of spring compression travel.



Welded Fitting*, Process Connection: Sealed for immersion in fluids, sanitary, and high-pressure applications.



Probes are sold separately and can be configured to fit your specific application. See the ordering guide to build your complete DST400 System. For help with ordering, or for available Probes and Thermowells, please contact us at 1-800-421-2853



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

WAHL DST400 METER & PROBE ORDERING GUIDE							
Code	Step 1 - order Digi-Stem DST400 Thermocouple Meter (NIST purchased separately)					Price	Add \$
DST400K	Digi-Stem TC Meter, LCD, Factory configured for Type K TC, ("C" Battery included), -40° to 2500°F (-40° to 1371°C)						
DST400J	Digi-Stem TC Meter, LCD, Factory configured for Type J TC, ("C" Battery included), -40° to 2192°F (-40° to 1200°C)						
DST400T	Digi-Stem TC Meter, LCD, Factory configured for Type T TC, ("C" Battery included), -40° to 752°F (-40° to 400°C)						
DST400E	Digi-Stem TC Meter, LCD, Factory configured for Type E TC, ("C" Battery included), -40° to 1832°F (-40° to 1000°C)						
DST400S	Digi-Stem TC Meter, LCD, Factory configured for Type S TC, ("C" Battery included), 32° to 3200°F (0° to 1760°C)						
I ¹	Digi-Stem TC Meter, LCD, International ("AA" Battery included) (add "I" to meter number)					N/C	_____*
NB ¹	Digi-Stem TC Meter, (No Battery incl). Requires purchase of "C" battery from local supplier (add "NB" to end of model number)						
Stop here if ordering meter only. If ordering a probe, please continue with Step 2.	Code	Step 2 - order Probe Connection (Select One)				Select or Add \$	
	DST4	DST400 Series Grounded Probe					
	DSX4	DST400 Series Ungrounded Probe					
	Code	Thermocouple Type (Select One)				Select or Add \$	
	K	Type K Thermocouple				N/C	_____*
	J	Type J Thermocouple				N/C	_____*
	T	Type T Thermocouple				N/C	_____*
	E	Type E Thermocouple					
	S	Type S Thermocouple					
		Code	Process Connection (Select One)				Select or Add \$
	01	1/2" NPT Fitting					
	02	3/4" NPT Fitting, Welded only;					
	03	1-1/2" Dia, 3-A Sanitary Std 74-05; Stem Type Code "2" (Stem Material Codes 3 or 4 only)					
	04	2" Dia, 3-A Sanitary Std 74-05; Stem Type Code "2" (Stem Material Codes 3 or 4 only)					
	05	2-1/2" Dia, 3-A Sanitary Std 74-05; Stem Type Code "2" (Stem Material Codes 3 or 4 only)					
	06	3" Dia, 3-A Sanitary Std 74-05; Stem Type Code "2" (Stem Material Codes 3 or 4 only)					
	09	Unthreaded Transition Fitting					
	Code	Mounting Style (Select One) For Back, Left or Right Side Mount specify Code B-Rigid, & add #13146				Select or Add \$	
	A	Adjustable Angle (Not available on Remote Stems)					
	B	Rigid (Bottom Connected)				N/C	_____*
	C	Remote (Mounting Bracket not included)					
	Code	Stem Type (Select One) Process Conn Codes "01, 02" only. Stem Material Codes "1, 3, 5, 7" only				Select or Add \$	
	2	Welded				N/C	_____*
	3	Spring Loaded.					
	Code	Stem Material/Construction/Length (1-72 Inches) (Select One)			Price	Add \$	
	1	304 SS, 1/4" Dia, Temp Rating 500°F (260°C), Specify exact length: _____			@ \$/inch		
	2	304 SS, 3/8" Dia, Temp Rating 500°F (260°C), Specify exact length: _____			@ \$/inch		
	3	316 SS, 1/4" Dia, Temp Rating 500°F (260°C), Specify exact length: _____			@ \$/inch		
	4	316 SS, 3/8" Dia, Temp Rating 500°F (260°C), Specify exact length: _____			@ \$/inch		
	5	304 SS, 1/4" Dia, Temp Rating 1500°F (815°C), Specify exact length: _____			@ \$/inch		
	6	304 SS, 3/8" Dia, Temp Rating 1500°F (815°C), Specify exact length: _____			@ \$/inch		
	7	316 SS, 1/4" Dia, Temp Rating 1500°F (815°C), Specify exact length: _____			@ \$/inch		
	8	316 SS, 3/8" Dia, Temp Rating 1500°F (815°C), Specify exact length: _____			@ \$/inch		
<p>¹ DST Meters come standard with a "C" cell battery, ready for ground shipment in the contiguous 48 states and some areas of Canada. For air shipments, either an "I" model with a "AA" battery, or "NB" model with no battery, is required to avoid additional charges in compliance with transportation regulations regarding "C" cell lithium metal batteries. Specify on order form.</p>							
Insert Model Number Code in white boxes below to construct Part Number for product desired, and carry over to next page.		Code	Stem Lengths (Specify) (Specify exact length desired)		Price		
		01X - 72X	1 to 72 Length in inches - 13X = 13 inch, 14X = 14 inch, 15X = 15 inch, etc. For fractional lengths substitute X with: A = 1/4", B = 1/2", C = 3/4", Example: 13B = 13-1/2". Specify Code from Length above.		Pricing for Stem Length above		
Stop here if ordering Adjustable Angle or Rigid Probe.				If ordering Remote Probe continue with options on next page.			
DST400__	DS__4						

Wahl DST400 Ordering Guide

WAHL DST400 METER & PROBE ORDERING GUIDE

Continue below if ordering Remote Probe.

Code	Step 3 - order Remote Probe Cable Type/Length (Select One)	Price	Add \$
1	PVC, Temperature Rated 105°, Specify exact length desired: _____	@ \$/meter	
2	Teflon, Temperature Rated 204°C, Specify exact length desired: _____	@ \$/meter	
3	Armored Stainless Steel - .195" Diameter, over Teflon wire, Specify exact length desired: _____	@ \$/meter	
Code	Remote Cable Length (Specify Code from Length above)		
02-99	2 to 99 Length in meters - 02 = 2 meters, 03 = 3 meters, 24 = 24 meters, etc. Specify Code from Length above.		
← Remote Probe Ordering information			
<i>Remember to include TC probe number from previous page and combine with remote probe number from this page to obtain final part number.</i>			

Insert Final Part Number below:

Meter	Probe	Adjustable Angle and Rigid Probe Ordering Information (from previous page)					Remote Probe Ordering Information (from above)	
DST400_____	DS_4							

Wahl DST400 Series Optional Accessories Ordering Guide

Step 4 - order DST400 Series Software and Accessories	Price	Add
DSTCAL DST400 Series Calibration Software Kit (includes USB Cable, DST/USB Interface Module, and Digi-Stem Serial Interface Cable)		
DST400 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		
DSA3062 Spare Lithium Thionyl Chloride "C" Battery		
12234-03 Spare Lithium Thionyl Chloride "AA" Battery for I versions		
DS-M Calibration & Firmware Upgrades ²		
DST4NIST NIST Traceable Certificate of Conformance of System & Firmware Upgrades ² Std Set Test Points(New/Subsequent)		
DST4NIST-1 NIST Traceable Certificate of Conformance of System & Firmware Upgrades ² User Specified Test Points(New/Subsequent)		
Add \$30.00 per User Specified Test Point.		
13146 90 Degree Elbow ³ for Fixed units, Specify Back Connection (B), Left (L) or Right Side (R) Mount		

² Upgrades if applicable, are included in price.

³ For Back, Left, or Right Side Mounting Style specify Code B-Rigid, and add #13146 - 90° Elbow accessory, and specify as shown above.

Prices and Specifications are subject to change without notice