



TEL-TRU Manufacturing Co.

DIGI-TEL™ THERMOMETERS



*Replacement for
Liquid-in-Glass Thermometers*

www.teltru.com

Temperature + Pressure

*Since
1916*



Tel-Tru Manufacturing Company

408 St. Paul St., Rochester, New York 14605 USA

Phone: 585.232.1440 • 800.232.5335 • Fax: 585.232.3857 • E-mail: info@teltru.com • Web: www.teltru.com

DIGI-TEL™ THERMOMETERS

► GENERAL INDUSTRIAL APPLICATIONS

- A direct replacement alternative for Liquid-in-Glass Thermometers, Bimetal Thermometers, and Gas or Vapor Actuated Remote Reading Thermometers
- Easy to read from a distance
- Rugged and heavy duty
- High accuracy
- Long life batteries
- Simple installation into existing thermowells



► RETORT APPLICATIONS

Meets the requirement of FDA Rule 21 CFR Part 113.40: Equipment used for thermally processed low acid foods packed in hermetically sealed containers, specifies the use of at least one temperature indicating device per retort. Requirements include:

- Accurate to $\pm 1^{\circ}\text{F}$ ($\pm .5^{\circ}\text{C}$) tested and traceable to NIST
- Certified calibration provided with every unit
- Identified with a tag number
- Shock and vibration tested
- Environmental protection vs. spray
- Integrated display and sensor assembly
- Resistant to electromagnetic interference



► DAIRY APPLICATIONS

Pasteurized Milk Ordinance (PMO) requires the following specifications for indicating thermometers:

- Accurate to $\pm .5^{\circ}\text{F}$ tested and traceable to NIST
- Sealed and tamper-proof probe and sensor assemblies
 - Shock and vibration tested
 - Environmental protection vs. spray
 - Tamper-proof calibration method
 - Self diagnostic circuit-failure detection noted on display
- Meets 3-A Sanitary Standard 74-06 requirements



TRACEABLE TO
NIST





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SPECIFICATIONS AND FEATURES

► DISPLAY

- Temperature range span -75/750°F or -60/400°C
- Accuracy $\pm 0.5^\circ\text{F}$ from 0°F to 300°F
- Accuracy below 0°F and above 300°F, add $\pm 0.0065^\circ\text{F}$ per degree
- Resolution 0.1°F or C
- Sample rate 3 sec.
- NIST traceable factory calibration
- High-visibility 1" tall LCD digital display
- Battery type
 - Factory Installed 5 year Lithium
 - Field Replaceable 2 year 3.6V 1/2 AA Lithium
- Error codes noted on display if problem is detected
- Microprocessor technology for improved stability, accuracy and PC based field calibration

► PROBE

- RTD sensor Pt1000 2-wire
- 316 Stainless Steel
- Stems 2 ½" to 24" x 0.25" diameter
- Connection fittings:
 - ½" NPT – standard
 - Available options:
 - ½" NPT Union,
 - ½" BSPT
 - 1¼ x 18 UNEF-2A with ⅝" stem and tapered bulb
 - Plain bushing if sliding union required
 - Tri-Clover 3-A sanitary flanges - sizes ¾" to 4"

► HOUSING

- 5" 304SS case with direct mounted 316SS sensor probe
 - Back connected
 - Bottom connected
 - Adjustable angle
- 4½" case polypropylene body with Teflon covered cable and remote sensor probe

► ENVIRONMENTAL

- Ambient operating temperature range -40°F to 176°F (-20°C to 80°C)
- Relative humidity $\leq 90\%$ non-condensing
- Mechanical shock $\leq 100\text{ g}$
- Vibration 5 to 60 Hz, 1G max
- Conforms to EU/EMC directive 2004/108/EC
- Enclosure rating IP66

► OTHER

- Weight 2 lbs
- Serial number on each unit for identification
- Warranty 5 years from shipment:
 - www.teltru.com/t-warranty.aspx**
- Certificate of Calibration – traceable to NIST – standard
- Factory recertification and maintenance program – optional
- Factory non-warranty repair service - including battery replacement for factory installed batteries

DIGI-TEL INDUSTRIAL DIRECT THERMOMETERS, 5" CASE

Tel-Tru Electronic Thermometers offer a high visibility read-out, maximum accuracy, rugged convenience, and industry-leading value for your investment.

► HOW TO ORDER:

Create detailed part number from chart below:

A	B	C	D	E	F	G	H
N	D	5	A	X	0	9	1
1	1	1	P	2	2	0	2
							2

Code	Description		
A	Case Size and Mounting - Industrial		
ND5A	5" Adjustable Angle		
ND5B	5" Back Connect		
ND5C	5" Bottom Connect 6:00 Probe		
ND5D	5" Bottom 3:00 Probe		
ND5E	5" Bottom 9:00 Probe		
ND5F	5" Bottom 12:00 Probe		
B	Battery Option		
X	Factory Installed		
B	Field Replaceable Battery		
C	Range		
09	-75/750°F		
58	-60/400°C		
D	Accuracy (at 0-300°F or -15-150°C)		
21	±2°F (±1.1°C)		
11	±0.5°F (±0.3°C)		
E	Lens		
1	Glass (Std)		
3	Polycarbonate		
F	Probe Type and Diameter		
P22	316SS Blunt (Std), .250" Diameter		
P32	316SS Pointed, .250" Diameter		
P55	316SS 5/8" stem with 7/16" tapered bulb		
G	Probe Length*		
<i>Available for probe type P22 and P32 above</i>		<i>Available for probe type P55 above only</i>	
02	2.5"	<i>To fit nominal lengths of MIG thermowells</i>	
04	4"		
06	6"		
09	9"	BE	3.5"
12	12"	06	6"
15	15"	09	9"
18	18"	12	12"
24	24"		
H	Connection		
6	1/2" NPT		
2	1/2" NPT Union		
7	1/2" BSPT		
4	Plain Bushing		
5	1-1/4" x 18 UNEF-2A Swivel Nut <i>(only available for probe type P55 above)</i>		

Optional Additional Items

Code	Description
96003602	Tagging, 316 stainless steel engraved
10000004-DT	Certificate of Compliance & Origin
Contact Factory	Non-Warranty Repair Service
96021301	Calibration Recertification Service
4906301	Interface cable and Software Kit <i>for field calibration</i>
96017901	Replaceable 2 year 3.6V 1/2 AA Lithium Battery



► ND5A



► ND5C



► ND5B

Calibration Certificate sold standard with every unit.

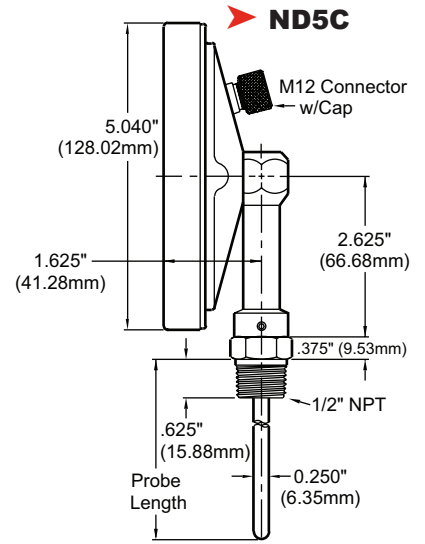
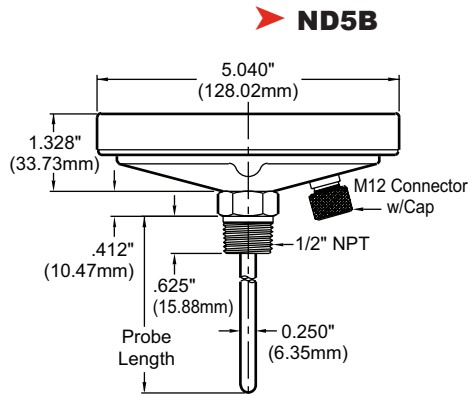
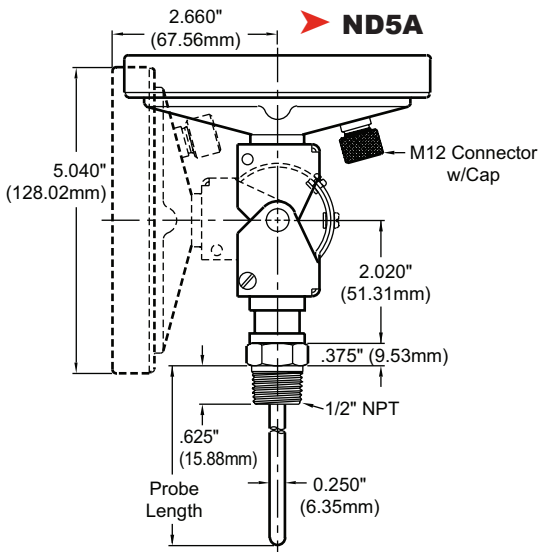


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➤ MODELS WITH FACTORY INSTALLED BATTERY:



➤ MODELS WITH FIELD REPLACEABLE BATTERY:



➤ ND5CB-P55
5" Bottom Connect 6:00 Probe with Field Replaceable Battery, 5/8" stem with 7/16" tapered bulb



➤ ND5BB
5" Back Connect with Field Replaceable Battery



➤ ND5AB
5" Adjustable Angle with Field Replaceable Battery

DIGI-TEL SANITARY DIRECT THERMOMETERS, 5" CASE

This heavy duty thermometer meets 3-A Standard Sanitary Standard 74-06 requirements for Sensors and Sensor Fittings and Connections Used on Milk and Milk Products Equipment.* Other application markets include the food and beverage processing and pharmaceutical industries. No thermowell is required because a Tri-Clamp® sanitary fitting is integral to the thermometer, reducing installation and instrument costs.

► HOW TO ORDER:

Create detailed part number from chart below:

A	B	C	D	E	F	G	H											
S	D	5	B	X	0	9	2	1	3	P	2	2	0	2	3	-	1	0

Code	Description
A	Case Size and Mounting - Sanitary
SD5A	5" Adjustable Angle
SD5B	5" Back Connect
SD5C	5" Bottom Connect 6:00 Probe
SD5D	5" Bottom 3:00 Probe
SD5E	5" Bottom 9:00 Probe
SD5F	5" Bottom 12:00 Probe
B	Battery Option
X	Factory Installed
B	Field Replaceable Battery
C	Range
09	-75/750°F
58	-60/400°C
D	Accuracy (at 0-300°F or -15-150°C)
21	±2°F (±1.1°C)
11	±0.5°F (±0.3°C)
E	Lens
1	Glass (Std)
3	Polycarbonate
F	Probe Type and Diameter
P22	316SS Blunt (Std), .250" Diameter
P32	316SS Pointed, .250" Diameter
G	Probe Length*
IC	1.625"
02	2.5"
CH	4.5"
AT	7.5"
DC	10.5"
EC	13.5"
FJ	16.5"
JQ	22.5"
H	Connection
3-05	3/4" Tri-Clamp (316LSS) **
3-10	1 1/2" Tri-Clamp (316LSS) ***
3-20	2" Tri-Clamp (316LSS)
3-25	2 1/2" Tri-Clamp (316LSS)
3-30	3" Tri-Clamp (316LSS)
3-40	4" Tri-Clamp (316LSS)

used on both 1/2" and 3/4" lines *used on both 1" and 1 1/2" lines

Optional Additional Items

Code	Description
96003602	Tagging, 316 stainless steel engraved
10000004-DT	Certificate of Compliance & Origin
Contact Factory	Non-Warranty Repair Service
96021301	Calibration Recertification Service
4906301	Interface cable and Software Kit for field calibration
96017901	Replaceable 2 year 3.6V 1/2 AA Lithium Battery

*Tri-Clamp is a registered trademark of Alfa Laval Inc. Corporation

Calibration Certificate sold standard with every unit.



► SD5A



► SD5C



► SD5B



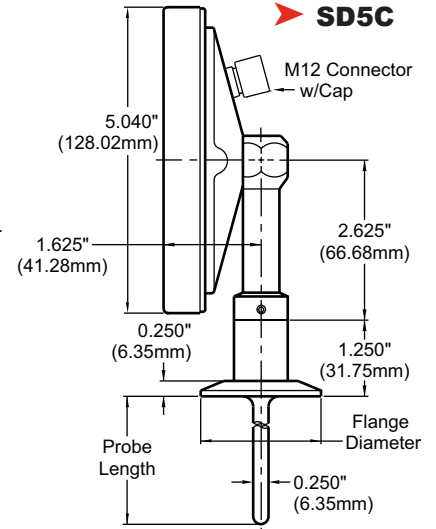
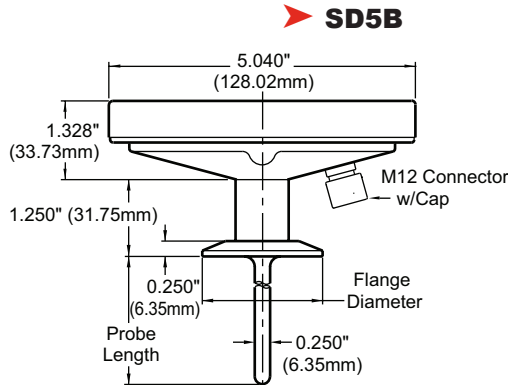
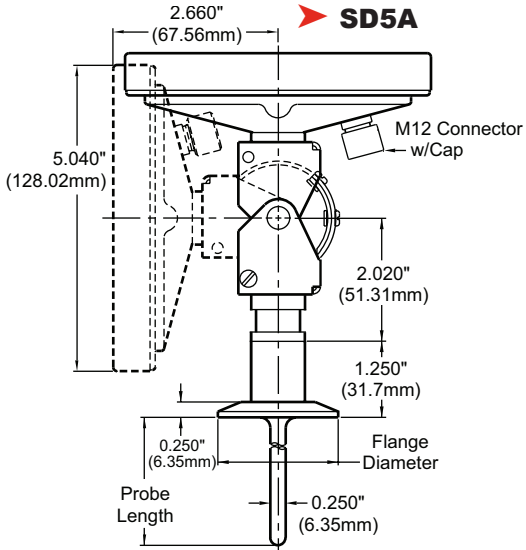


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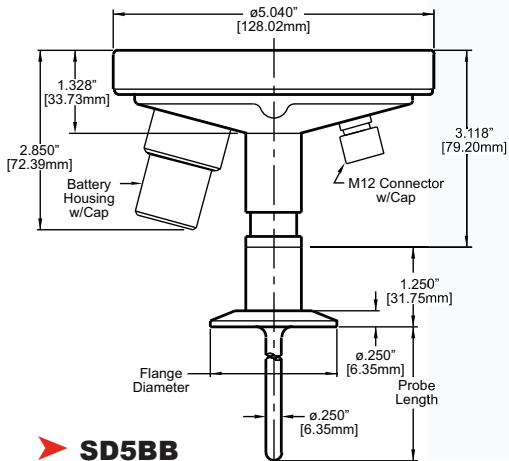
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➤ MODELS WITH FACTORY INSTALLED BATTERY:



➤ MODELS WITH FIELD REPLACEABLE BATTERY:

➤ SD5AB
5" Adjustable Angle with Field Replaceable Battery



➤ SD5CB
5" Bottom Connect 6:00 Probe with Field Replaceable Battery



DIGI-TEL INDUSTRIAL REMOTE THERMOMETERS, 4½" CASE

The Tel-Tru ND4R Industrial Remote display is protected from volatile materials, high vibration, or other environmental conditions when mounted remotely from the sensor.

► HOW TO ORDER:

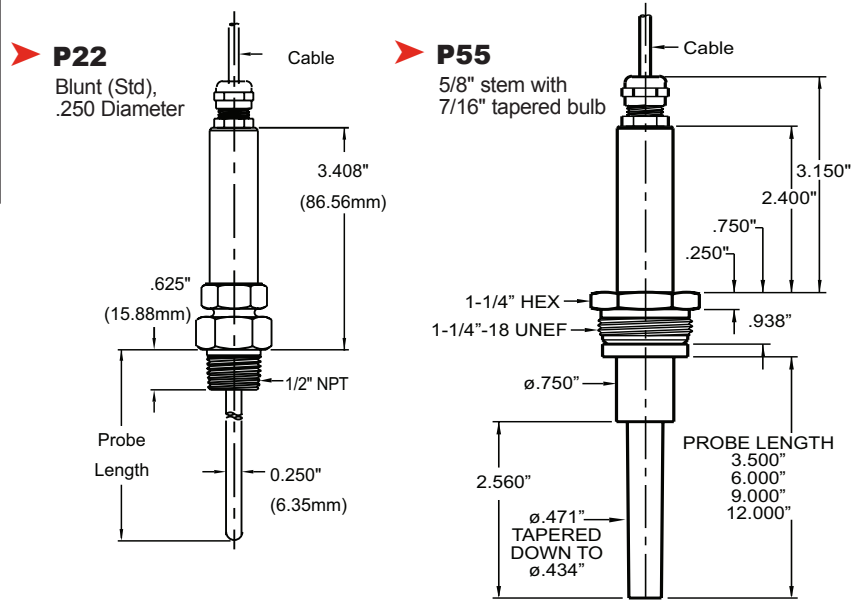
A	B	C	D	E	F	G	H	I
N D 4 R	B	0 9	2 1	5	P 2 2	0 2	2 -	C 1 0 0 5

Create detailed part number from chart below:

Code	Description
A	Case Size and Mounting - Industrial ND4R 4.5" Remote Mount
B	Battery Option B Field Replaceable Battery
C	Range 09 -75/750°F 58 -60/400°C
D	Accuracy (at 0-300°F or -15-150°C) 21 ±2°F (±1.1°C) 11 ±0.5°F (±0.3°C)
E	Lens 5 Glass, Shatterproof (Std) 3 Polycarbonate
F	Probe Type and Diameter P22 316SS Blunt (Std), .250" Diameter P32 316SS Pointed, .250" Diameter P55 316SS 5/8" stem with 7/16" tapered bulb
G	Probe Length <i>Available for probe types P22 and P32 above</i> 02 2.5" 04 4" 06 6" 09 9" 12 12" 15 15" 18 18" 24 24" <i>Available for probe type P55 above only</i> <i>To fit nominal lengths of MIG thermowells</i> BE 3.5" 06 6" 09 9" 12 12"
H	Connection 2 1/2" NPT Union 5 1-1/4" x 18 UNEF-2A Swivel Nut <i>(only available for probe type P55 above)</i>
I	Cable Length -C1005 5 feet -C1010 10 feet -C1015 15 feet -C1020 20 feet -C1025 25 feet -C1030 30 feet -C1040 40 feet -C1050 50 feet -C1075 75 feet -C1100 100 feet

Optional Additional Items

Code	Description
96003602	Tagging, 316 stainless steel engraved
10000004-DT	Certificate of Compliance & Origin
Contact Factory	Non-Warranty Repair Service
96021301	Calibration Recertification Service
4906301	Interface cable and Software Kit for field calibration
96017901	Replaceable 2 year 3.6V 1/2 AA Lithium Battery



Calibration Certificate sold standard with every unit.

DIGI-TEL SANITARY REMOTE THERMOMETERS, 4½" CASE

The Tel-Tru SD4R Sanitary Remote display is protected from volatile materials, high vibration, or other environmental conditions when mounted remotely from the sensor.

➤ **HOW TO ORDER:**

A	B	C	D	E	F	G	H	I
S	D	4	R	B	0	9	1	1
3	P	2	2	0	2	3	-	1
0	-	1	0	-	C	1	0	0
5								

Create detailed part number from chart below:

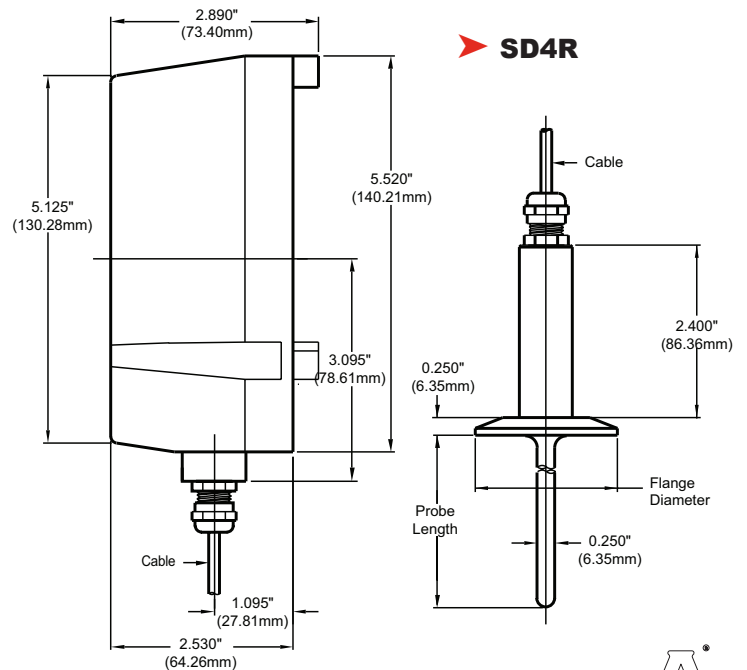
Code	Description
A	Case Size and Mounting - Sanitary SD4R 4.5" Remote Mount
B	Battery Option B Field Replaceable Battery
C	Range 09 -75/750°F 58 -60/400°C
D	Accuracy (at 0-300°F or -15-150°C) 21 ±2°F (±1.1°C) 11 ±0.5°F (±0.3°C)
E	Lens 5 Glass, Shatterproof (Std) 3 Polycarbonate
F	Probe Type and Diameter P22 316SS Blunt (Std), .250" Diameter P32 316SS Pointed, .250" Diameter
G	Probe Length IC 1.625" 02 2.5" CH 4.5" AT 7.5" DC 10.5" EC 13.5" FJ 16.5" JQ 22.5"
H	Connection 3-05 3/4" Tri-Clamp (316LSS) * 3-10 1 1/2" Tri-Clamp (316LSS) ** 3-20 2" Tri-Clamp (316LSS) 3-25 2 1/2" Tri-Clamp (316LSS) 3-30 3" Tri-Clamp (316LSS) 3-40 4" Tri-Clamp (316LSS)
I	Cable Length -C1005 5 feet -C1010 10 feet -C1015 15 feet -C1020 20 feet -C1025 25 feet -C1030 30 feet -C1040 40 feet -C1050 50 feet -C1075 75 feet -C1100 100 feet

*used on both 1/2" and 3/4" lines **used on both 1" and 1 1/2" lines

Optional Additional Items

Code	Description
96003602	Tagging, 316 stainless steel engraved
10000004-DT	Certificate of Compliance & Origin
Contact Factory	Non-Warranty Repair Service
96021301	Calibration Recertification Service
4906301	Interface cable and Software Kit <i>for field calibration</i>
96017901	Replaceable 2 year 3.6V 1/2 AA Lithium Battery

Calibration Certificate sold standard with every unit.





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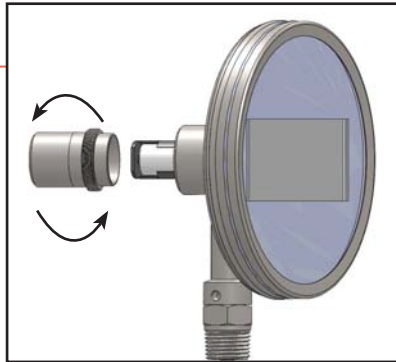
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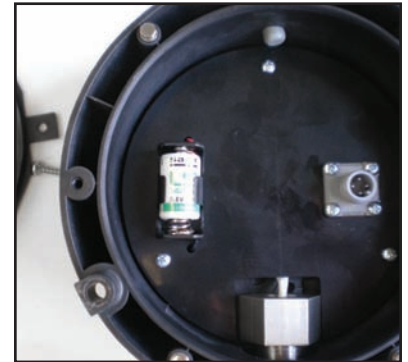
► CHANGING BATTERIES

Replace battery with a 3.6V ½ AA Lithium battery (Saft LS 14250 or equivalent), with negative terminal at spring end of battery holder.

Full instructions available at:
www.teltru.com/images/document/digitel/01204010.pdf



Direct Mount



Remote Mount

► PROGRAMMING SOFTWARE - OPTIONAL

- Field calibration
- User-selectable display resolution

Full instructions available at: www.teltru.com/images/document/digitel/01204019.pdf

COMPANION PRODUCTS

► CHECK-SET® THERMOMETER CALIBRATOR

Environmental Safety and Health Professionals, Quality Assurance Managers and HACCP Coordinators in food processing/smoking, preparing/cooking, holding/serving and cooling/storage are using Check-Set Thermometer Calibrators to verify the accuracy of their dial and digital thermometers.

CHECK AND CALIBRATE AT YOUR CRITICAL TEMPERATURE POINT

- 40°F and 160°F / 5°C and 90°C - Dual cold and hot units.
- 40°F - Low temperature holding.
- 140°F - High temperature holding.
- 160°F - Temperature at which E. Coli and other pathogens are killed.
- 212°F - Point of boiling water
- Each unit serialized and certified traceable to the National Institute for Standards and Testing.
- Built in circuitry to warn if unit is more than 1°F out of calibration.
- Optional factory re-certification and maintenance program.

GENERAL CHECK-SET THERMOMETER CALIBRATOR

SPECIFICATIONS: For complete information see:

<https://www.teltru.com/s-46-calibrator.aspx>

Accuracy:	±0.2°F
Stability:	±0.06°F to ±0.09°F
Heating Time:	Approximately 3 – 8 minutes (varies with temperature set point)
Stem Diameter:	Varies by model
Voltage:	90 to 130 VAC, 50/60 Hz
Power:	25 – 45 Watts
Weight:	8.9 to 9.2 lbs.
Housing Mat.:	Stainless Steel 304SS
Size:	3-1/16" H x 6-5/8" W x 10-7/8"D (78 mm x 168 x 276 mm)

