

*Accuracy to the
Highest Degree*

Cooper
ATKINS®



FOODSERVICECatalog



"We will continue to provide our dedicated customers with affordable solutions for every temperature measurement challenge - from bi-metal pocket tests to handheld thermocouple units to our high-tech wireless temperature monitoring systems. When foodservice professionals are faced with temperature challenges, they will continue to look to Cooper-Atkins to provide solutions tailored to the needs of their business."

Company History

The inventor of the first bi-metal oven thermometer, David G. Cooper, founded The Cooper Oven Thermometer Company in 1885. During the 1960s, the company developed three cooking product lines and with the acquisition of The Croydon Thermometer Company expanded into weather instrumentation. Two separate marketing groups were established for the consumer and industrial markets to advance these new product lines.

In 1984, the industrial division of Electromedics (Electro-Therm) was purchased, immediately launching Cooper into the digital thermometer business. The company officially became Cooper Instrument Corporation strengthening its presence in the HVAC/R, OEM and industrial markets.

In 2001, after acquiring Atkins Technical (a leader in thermocouple instrument technology), the company became known as Cooper-Atkins Corporation.

In 2003 the corporation acquired KTG, Inc., a developer of wireless enterprise solutions for temperature monitoring and food safety.

Company Overview

Since its establishment in 1885, Cooper-Atkins has built a 130-year, rock-solid reputation providing quality environmental monitoring solutions. In today's rapidly changing world, we continue to expand our technological capabilities to support and protect brand integrity by providing the right tools that ensure consistent food quality and safety across all our business units.



MADE IN U.S.A.

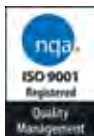


TABLE OF CONTENTS

COOPER PRODUCTS

| | |
|----------------------------|----|
| Pocket Test | 1 |
| Bimetal Cooking | 3 |
| Refrigerator/Freezer | 7 |
| Storage & Wall | 9 |
| Panel Meters | 11 |
| AFL Digitals | 15 |
| Infrareads | 17 |
| Timers | 19 |

ATKINS PRODUCTS

| | |
|----------------------------|----|
| EconoTemp | 21 |
| AquaTuff | 23 |
| AquaTuff Wrap&Stow | 25 |
| Insertion | 27 |
| Direct Connect | 33 |
| Surface | 35 |
| Air and Ambient | 37 |
| Miscellaneous Probes | 39 |

INTELLI-WARE™ PRODUCTS

| | |
|--------------------------------|----|
| Data Loggers | 41 |
| HACCP Manager Solo | 43 |
| HACCP Manager Enterprise | 45 |
| HACCP Manager Mobile | 47 |
| Blue2 | 48 |
| NotifEye | 49 |
| TempTrak | 51 |

| | |
|-------------------|----|
| Accessories | 53 |
|-------------------|----|

| | |
|----------------------|----|
| Resource Guide | 55 |
|----------------------|----|





Mission Statement

"A customer-centric technology leader in monitoring solutions for the global Foodservice, Healthcare and Industrial markets."

Serving Safe Food is Your Business. Food Safety is Ours.

Food safety should always be at the forefront of brand protection. While bacteria outbreaks such as E.coli and salmonella do occur, we can all mitigate the risks by implementing industry-wide best practices designed to protect everyone involved.

We are committed to providing our customers with what they need in an ever-changing technological landscape. As a leading manufacturer of monitoring solutions, Cooper-Atkins offers state-of-the-art food safety technologies to help you protect your brand.

Our customer solution approach offers you:

- Brand Protection
- Regulatory Compliance
- Turn-key Solutions
- Workflow Automation
- Scalability, Expandability and Security
- Cost Savings

Our Customer Solutions Approach

Today's foodservice establishments require consistent monitoring programs. We recognize that increased government compliancy and regulations have burdened customers with digital record-keeping. Our products are designed to be used together as a core element of your business. They will help solve monitoring issues, reduce risk and streamline your operation—saving you time and money.

Excellence. Earned.

There is a reason top brands turn to Cooper-Atkins. As a leader in the industry, we pride ourselves on forging long-lasting partnerships with our customers. We have a rock-solid reputation providing quality monitoring solutions to top brands such as McDonald's, Burger King, Subway, Wendy's, Taco Bell, and many, many more.

Our proven track record speaks for itself.

We help protect brand integrity by providing the right tools that ensure consistent quality and food safety

McDonald's awarded
Cooper-Atkins the

**"Global Supplier
of the Year 2015"**



New Products & HACCP Management Systems

As a leader in the marketplace, we understand those concerns and proactively listen to our customers. We are always looking to keep ahead of the curve and provide the best tools for our end-users. As a result, we are constantly researching and developing “intelligent” tools that you don’t even know you need...yet!

Automate HACCP Plans with Your Smart Device



HACCP Manager™ Mobile Page 47

Mobile App for HACCP Manager Enterprise with multilingual support.

Automate HACCP Plans for Multiple Locations



HACCP Manager™ Enterprise Page 45

Web-based software for integrated reporting of multiple locations.

Monitor Your Equipment Wirelessly with Instant Alerts 24/7!



NotifEye™ Page 49

Self-installable wireless monitoring.

Transmit Data To Your Smart Device via Bluetooth Technology



Blue2™ Page 48

Wireless transmission for HACCP Manager Mobile and 3rd Party Applications.

Maintain Menus and Checklists Digitally



HACCP Manager™ Solo Page 43

Eliminates manual record keeping and data logs.

Monitor Your Cooking and Cooling Processes



CooknCool Page 19

Digital Thermo-Timer with time and temperature rising and declining alarms

POCKET TEST THERMOMETERS

A pocket test thermometer takes the guesswork out of cooking and assures that a displays, taking the temperatures of food, liquids, and surfaces are an easy task.

Cooper-Atkins' bimetal pocket test thermometers have an external dimple on the little to no drift out of calibration, so are less likely to give variable readings.

- **PROTECTIVE POCKET SHEATH**
- **MAGNIFYING LENS FOR EASY VIEWING**




DPS300
Swivel Head Digital Pocket Test



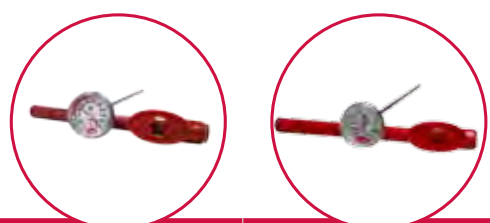
Bimetal









| | 1236-17 | 1246-01C | |
|------------------------|--------------------------|---|--|
| | Bimetal Pocket Test | Bimetal Pocket Test | |
| Temperature Range: | 25° to 125°F | -40° to 180°F (-40° to 80°C) | |
| Accuracy: | ±2°F | ±2°F (±1°C) | |
| Housing Material: | Stainless Steel | Stainless Steel | |
| Dial Diameter: | 1" (25mm) | 1" (25 mm) | |
| Stem Diameter: | 0.150" (3.0 mm) | 0.150" (3.0 mm) | |
| Stem Length: | 5" (127 mm) | 5" (127 mm) | |
| Lens Material: | Magnifying Polycarbonate | Magnifying Polycarbonate | |
| Antimicrobial Plastic: | - | Yes Sheath Only | |
| Weight: | 0.5 oz (14 g) | 0.5 oz (14 g) | |
| Regulatory Listings:: | |  | |
| Warranty | 1 Year | 1 Year | |

safe temperature has been reached to destroy harmful bacteria. With magnifying lens and crisp dial faces or large LCD stem to indicate the minimum insertion point. Digitals yield a faster response and provide greater overall accuracy with

Digital



| | 1246-02C | 1246-03C |
|--|---|---|
| | Bimetal Pocket Test | Bimetal Pocket Test |
| | 0° to 220°F (-20° to 100°C) | 50° to 550°F (10° to 285°C) |
| | ±2°F (±1°C) | ±5°F (±3°C) |
| | Stainless Steel | Stainless Steel |
| | 1" (25 mm) | 1" (25 mm) |
| | 0.150" (3.0 mm) | 0.150" (3.0 mm) |
| | 5" (127 mm) | 5" (127 mm) |
| | Magnifying Polycarbonate | Magnifying Polycarbonate |
| | Yes Sheath Only | Yes Sheath Only |
| | 0.5 oz (14 g) | 0.5 oz (14 g) |
| |  |  |
| | 1 Year | 1 Year |

| | DPS300 | DT300 |
|-----------------------|---|--|
| | Swivel Head Digital | Oval Style Digital |
| Temperature Range: | -40° to 302°F (-40° to 150°C) | -40° to 302°F (-40° to 150°C) |
| Accuracy: | ±2°F (±1°C) | ±2°F (±1°C) |
| Resolution: | 0.1° | 0.1° |
| Response Time: | <18 seconds | <20 seconds |
| Stem Length: | 4.75" (121 mm) | 4.625" (117 mm) |
| Shaft Diameter: | 0.150" (3.8 mm) | 0.150" (3.8 mm) |
| Housing: | ABS Plastic | ABS Plastic |
| Power: | (1) 1.5V #LR44 | (1) 1.5V #LR44 |
| Auto Shut-Off: | 10 min | - |
| Display LCD: | 0.5" (13 mm) | 0.875" (22 mm) |
| Weight: | 1 oz (28 g) | 0.5 oz (14 g) |
| Regulatory Listings:: |   RoHS |   RoHS |
| Warranty | 1 Year | 1 Year |

BIMETAL COOKING THERMOMETERS

Our specialty foodservice thermometers are marked with correct temperature and hot holding, you will get the results you want every time.

- ▶ HACCP GUIDELINES
- ▶ STAINLESS STEEL CONSTRUCTION



323 Roasting Thermometer

Preset pointer for accurate measurements





3270
Deep Fry
Thermometer
Wooden Handle
and Hold/Ideal
zoned dial

| | 322 | 323 | 329 | |
|----------------------|---|---|---|--|
| | Candy/Jelly/ Deep-Fry Thermometer | Roasting Thermometer | Deep-Fry Confection Paddle Thermometer | |
| Temperature Range: | 200° to 400°F (90° to 200°C) | 120° to 200°F (49° to 93°C) | 100° to 400°F (40° to 200°C) | |
| Accuracy: | ±5°F | ±2°F (±1°C) | ±2°F (±1°C) | |
| Housing Material: | Stainless Steel | Stainless Steel | Stainless Steel | |
| Dial Diameter: | 2.5" (64 mm) | 2.5" (64 mm) | - | |
| Stem Diameter: | 0.19" (4.8 mm) | 0.19" (4.8 mm) | - | |
| Stem Length: | 6" (152.4 mm) w/ vessel clip | 6" (152 mm) | 12.5" (318 mm) | |
| Lens Material: | Glass | Glass | Non-toxic liquid-filled glass tuber | |
| Weight: | 2 oz (57 g) | 2 oz (57 g) | 4 oz (113.4 g) | |
| Regulatory Listings: |  |  | | |
| Warranty: | 1 Year | 1 Year | 1 Year | |

zones for food safety and product quality. With a large selection of NSF-listed thermometers specifically for cooking

**3210****3270****1236-70**

| Grill Surface Thermometer | Deep-Fry Thermometer | Espresso Thermometer |
|---|--------------------------------|---|
| 100° to 600°F (50° to 300°C) | 50° to 550°F (10° to 285°C) | 0° to 220°F |
| ±25°F (±12°C) | ±10°F (±5°C) | ±2°F |
| Aluminum | Stainless Steel | Stainless Steel |
| 2.5" (64 mm) | 2.5" (64 mm) | 1" (25 mm) |
| - | 0.25" (6.3 mm) | 0.15" (3.6 mm) |
| - | 15" (381 mm) | 5" (127 mm) |
| Glass | Glass | Magnifying Polycarbonate |
| 3 oz (85 g) | 5.5 oz (156 g) | 0.5 oz (14 g) |
|  | - |  |
| 1 Year | 1 Year | 1 Year |



3210 Grill Surface Thermometer
With unique grips for easy
removal from hot grill surfaces



**329
Paddle
Thermometer**
With easy to
grip plastic
handle and
preset
pointers



**BIMETAL
COOKING
THERMOMETERS**

Our specialty foodservice thermometers are marked with correct temperature and hot holding, you will get the results you want every time.

- ▶ **HACCP GUIDELINES**
- ▶ **STAINLESS STEEL CONSTRUCTION**



2237-04
Make the perfect espresso every time!



| | 2200-07 | 2237-04 | |
|----------------------|---|---|--|
| | Cooling Thermometer | Espresso Thermometer | |
| Temperature Range: | 30° to 165°F | 0° to 220°F (-10° to 104°C) | |
| Accuracy: | ±2°F (±1°C) | ±2°F (±1°C) | |
| Housing Material: | Stainless Steel | Stainless Steel | |
| Dial Diameter: | 2" (50 mm) | 1.75" (44 mm) | |
| Stem Diameter: | 0.197" (6.3 mm) | 0.15" (3.8 mm) | |
| Stem Length: | 18" (466 mm) w/ vessel clip | 7" (178 mm) w/ vessel clip | |
| Lens Material: | Glass | Magnifying Polycarbonate | |
| Weight: | 3 oz (85 g) | 1 oz (28 g) | |
| Regulatory Listings: |  |  | |
| Warranty: | 1 Year | 1 Year | |

zones for food safety and product quality. With a large selection of NSF-listed thermometers specifically for cooking



2238-14



24HP

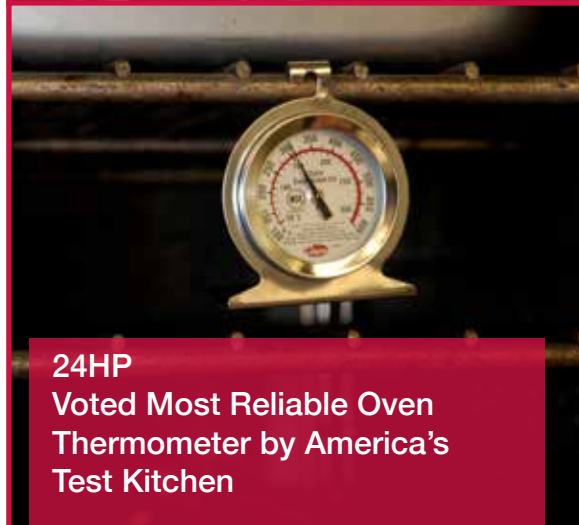


26HP

| 8" Stem Test | Oven Thermometer | Holding Cabinet Thermometer |
|---|---|---|
| 50° to 550°F (10° to 288°C) | 100° to 600°F (50° to 300°C) | 100° to 175°F (38° to 80°C) |
| ±5°F (±3°C) | ±25°F (12.5°C) | ±3°F (1.5°C) |
| - | Stainless Steel | Stainless Steel |
| 2" (50 mm) | 2" (50 mm) | 2" (50 mm) |
| 0.15" (3.8 mm) | - | - |
| 8" (203 mm) w/ vessel clip | - | - |
| Glass | Glass | Glass |
| 1 oz (28 g) | 1.5 oz (43 g) | 1.5 oz (43 g) |
|  |  |  |
| 1 Year | 1 Year | 1 Year |



2200-07
Cooling Thermometer
Monitor temperatures as it cools

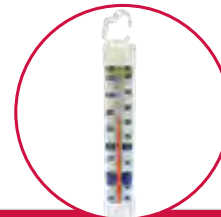




24HP
Voted Most Reliable Oven
Thermometer by America's
Test Kitchen

REFRIGERATOR AND FREEZER THERMOMETERS

Freezers and coolers protect the freshness of food and ingredients. Temperature meters and wireless monitoring are available. Keep constant and accurate

- ▶ HACCP GUIDELINES
- ▶ FOOD GRADE PLASTIC



| | 25HP | 330 | 335 | |
|----------------------|---|---|---|--|
| | Refrigerator Thermometer | Vertical Glass Tube | Horizontal Glass Tube | |
| Temperature Range: | -20° to 80°F (-29° to 27°C) | -40° to 120°F (-40° to 50°C) | -40° to 80°F (-40° to 25°C) | |
| Accuracy: | ±2°F (±1°C) | ±2°F (±1°C) | ±2°F (±1°C) | |
| Housing Material: | Stainless Steel | Food Grade Plastic | Stainless Steel | |
| Dimensions: | 2.375 x 1.5" x 3" (60 mm x 38 mm x 76 mm) | 0.625 x 0.25" x 4.25" (16 mm x 6.4 mm x 108 mm) | 4.75 x 0.875" x 1.125" (121 mm x 22mm x 29mm) | |
| Lens Material: | Glass | - | Food Grade Polycarbonate | |
| Weight: | 1.5 oz (43 g) | 0.25 oz (7 g) | 1 oz (28 g) | |
| Regulatory Listings: |  |  |  | |
| Warranty: | 1 Year | 1 Year | 1 Year | |

systems from small mechanical thermometers that hang or stick inside refrigerated units to more sophisticated panel temperatures to stay compliant and prevent food spoilage.



535



2560



PM180



Min/Max
temperature
recalled for
Probe 1

Min/Max
temperature
recalled for
Probe 2

RECALL SEPARATE MIN / MAX
TEMPERATURES FOR EACH PROBE!

| Cooler Thermometer | Digital Thermometer | Dual-Cool |
|---------------------------------|---|---------------------------------|
| -20° to 120°F (-30° to 50°C) | -22° to 122°F (-30° to 50°C) | -25° to 180°F (-32° to 82°C) |
| ±5°F (±2°C) | ±1°F (±0.5°C) | ±2°F (±1°C) |
| Plastic | Antimicrobial Plastic | Plastic |
| 2" (51 mm) | 3.562 x 1.25" x 3.5" (90 mm x 32 mm x 89 mm) | - |
| Plastic | Food Grade Polycarbonate | - |
| 0.5 oz (14 g) | 1.5 oz (43 g) | 5 oz (142 g) |
| - | CE NSF RoHS | CE RoHS |
| 1 Year | Lifetime | 1 year |

PM180-01

- PM180 Panel Thermometer
- 2013 Air Probe
- 2113 Solid Simulator Probe

PM180-02

- PM180 Panel Thermometer
- (2) 2013 Air Probe

PM180-03

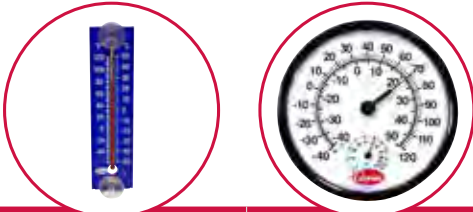
- PM180 Panel Thermometer
- (2) 2113 Solid Simulator Probe

Dual-Cool (PM180)
Cooper-Atkins' first dual temperature panel thermometer with interchangeable probes, Min/Max alarm settings and Hi/Lo temperature recall. Equipped with user-adjustable settings, it can simultaneously measure temperatures within two separate storage environments.

STORAGE
AND WALL

Short term holding for perishable and potentially hazardous foods must be monitoring of temperatures in critical food-related areas and increase employee

- ▶ HACCP GUIDELINES
- ▶ OVERSIZED WALL THERMOMETERS FOR EASY VIEWING



| | 268 | 212-150-8 | |
|-----------------------|--------------------------------|---------------------------------|--|
| | Glass Stick Indoor/Outdoor | 12" Wall w/ Humidity Scale | |
| Temperature Range: | 40° to 120°F (-40° to 50°C) | -40° to 120°F (-40° to 50°C) | |
| Accuracy: | ±2°F (±1°C) | ±3°F (1.5°C) | |
| Lens Dimensions: | - | 11.5" (292 mm) | |
| Lens Material: | - | Plastic with UV additive | |
| Weight: | 2 oz (57 g) | 15 oz (425 g) | |
| Warranty: | 1 Year | 1 Year | |
| RH Range: | - | 0 to 100% | |
| RH Accuracy: | - | ±5% @ 50 to 99% RH | |

monitored carefully. Foods in dry storage also require proper monitoring. Our oversized wall thermometers allow easy awareness.

**212-158-8****212-159-8****212-159C-8****255-06****255-14**

| 12" Dry Storage/ Prep w/ Humidity Scale | 12" Cooler/ Freezer w/ Humidity Scale | 12" Cooler/ Freezer w/ Humidity Scale, Celsius | 6" Indoor/ Outdoor | 6" Cooler/ Freezer |
|---|---|---|--------------------------------|-----------------------|
| 10° to 80°F | -10° to 80°F | -25° to 35°C | 60° to 120°F (-50° to 50°C) | 10° to 80°F |
| ±3°F | ±3°F | ±1°C | ±2°F (±1°C) | ±2°F |
| 11.5" (292 mm) | 11.5" (292 mm) | 11.5" (292 mm) | 3.75" (95 mm) | 3.75" (95 mm) |
| Plastic with UV additive | Plastic with UV additive | Plastic with UV additive | Clear Acrylic | Clear Acrylic |
| 15 oz (425 g) | 15 oz (425 g) | 15 oz (425 g) | 3 oz (85 g) | 3 oz (85 g) |
| 1 Year | 1 Year | 1 Year | 1 Year | 1 Year |
| 0 to 100% | 0 to 100% | 0 to 100% | - | - |
| ±5% @ 50 to 99% RH | ±5% @ 50 to 99% RH | ±5% @ 50 to 99% RH | - | - |

PANEL METERS

Easily monitor the internal temperature of your coolers and freezers without use in walk-in refrigerators, display cases, holding and specialty cabinets, dairy

▶ RETRO-FIT APPLICATIONS ▶ REMOTE INTERIOR TEMPERATURE READINGS



| | DM120 | DM120S-0-3 |
|--------------------------|---------------------------------------|---------------------------------------|
| | Front Flange, Back Connect | Back Flange, Back Connect |
| Temperature Range: | -40° to 120°F (-40° to 48°C) | -40° to 120°F (-40° to 48°C) |
| Accuracy: | ±2°F (±1°C) | ±2°F (±1°C) |
| Resolution: | 0.1° | 0.1° |
| Ambient Operating Range: | 15° to 150°F up to 90% non-condensing | 15° to 150°F up to 90% non-condensing |
| Response Time: | 30 second updates | 30 second updates |
| LCD: | 1.3" x 0.5" (33 mm x 13 mm) | 1.3" x 0.5" (33 mm x 13 mm) |
| Lead Length: | 39" (1 m) | 39" (1 m) |
| Case Material: | Stainless Steel | Stainless Steel |
| Case Dimensions: | 3.0" x 1.375" (76 mm x 27 mm) | 3.47" x 1.1" (88 mm x 28 mm) |
| Power: | (1) 1.5V #LR754 | (1) 1.5V #LR754 |
| Mounting: | Front Flange | Back Flange |
| Weight: | 2.5 oz (71 g) | 3.5 oz (99 g) |
| Regulatory Listings: | CE NSF RoHS | CE NSF RoHS |
| Warranty: | 1 year | 1 year |

| | 6142-13 |
|----------------------|--|
| | Front Flange, Back Connect |
| Temperature Range: | -40° to 120°F (-40 to 50°C) |
| Accuracy: | ±2°F (±1°) at 10° and 40°F (-12° and 4.5°C) ±5°F (±2.5°C) at 110°F (43°C) |
| Dial Dimension: | 2" (51 mm) |
| Capillary Length: | 48" (1.2 m) |
| Case Material: | Stainless Steel |
| Flange: | Front |
| Connection: | Back |
| Mounting: | Flush |
| Weight: | 5 oz (142 g) |
| Regulatory Listings: | RoHS |
| Warranty: | 1 year |

opening the door. Our NSF-listed panel meters offer an easy solution to reading internal air temperatures perfect for cases, freezers and more.



6142-06

6142-20
6142-58

6642-06



6812-02

7112-01
7612-06

| 6142-06 | 6142-20 6142-58 | 6642-06 | 6812-02 | 7112-01 7612-06 |
|---|--|---|---|--|
| Front Flange, Back Connect | Front Flange, Back Connect | Strap Hang, Bottom Connect | Back Flange, Back Connect | Front Flange, Back Connect |
| 40° to 240°F (10° to 115°C) | -40° to 60°F (-40° to 15°C) | -40° to 60°F (-40° to 15°C) | -40° to 120°F (-40° to 50°C) | -40° to 60°F (-40° to 15°C) |
| ±2°F (±1°C) from 140° to 210°F (60 to 99°C) | ±2°F (±1°C) at 10° to 40°F (-12° to 4.5°C) | ±2°F (±1°C) at 10° to 40°F (-12° and 4.5°C) | ±2°F (±1°C) at 10° to 40°F (-12° and 4.5°C) ±5°F (±2.5°C) at 110°F (43°C) | ±2°F (±1°C) at 10° to 40°F (-12° to 4.5°C) |
| 2" (51 mm) | 2" (51 mm) | 2" (51 mm) | 2" (51 mm) | 2.5" (64 mm) |
| 48" (1.2 m) | 48" (1.2 m) - 6142-20 20' (6.1 m) - 6142-58 | 48" (1.2 m) | 48" (1.2 m) | Strap Hanger (7612-06) |
| Stainless Steel | Stainless Steel | Stainless Steel | Stainless Steel | Stainless Steel |
| Front | Front | Strap Hanger no flange | Back | Front - 7112-01 Bottom - 7612-06 |
| Back | Back | Bottom | Back | Back - 7112-01 - |
| Flush | Flush | - | Surface | Flush - 7112-01 - |
| 5 oz (142 g) | 5 oz (142 g) | 5 oz (142 g) | 5 oz (142 g) | 7 oz (198 g) - 7112-01 5.6 oz (159 g) - 7612-06 |
| RoHS | RoHS | RoHS | RoHS | RoHS |
| 1 year | 1 year | 1 year | 1 year | 1 year |

DIGITAL PANEL METERS

Easily monitor the internal temperature of your coolers and freezers without use in walk-in refrigerators, display cases, holding and specialty cabinets, dairy

▶ RETRO-FIT APPLICATIONS ▶ REMOTE INTERIOR TEMPERATURE READINGS

**DM450****PM120-08****PMRH120****SP120**

Front Flange, Back
Connect

Mini Rectangular, White

Mini Rectangular, Temp &
Humidity

Square Solar Panel

| | | | | |
|--------------------------|---|---|--|---|
| Temperature Range: | -40° to 450°F (-40° to 230°C) | -40° to 122°F (-40° to 50°C) | -12° to 140°F (-24° to 60°C) | -58° to 158°F (-50° to 70°C) |
| Accuracy: | ±2°F (±1°C) from -40° to 300°F ±2% of reading from 301° to 450°F | ±1.8°F (±1°C) from -4° to 122°F (-20° to 50°C) ±3.6°F (±2°C) below -4°F (20°C) | ±2°F (±1°C) ±5% RH from 30° to 75%RH/ at 32° to 122°F (0° to 50°C) | ±2°F (±1°C) |
| Resolution: | 0.1° | 0.1° | 0.1°/1% RH | 0.1° |
| Ambient Operating Range: | 0° to 150°F up to 90% non-con- densing | 0° to 120°F up to 90% non-condensing | 0° to 120°F up to 90% non-condensing | 0° to 120°F up to 90% non-condensing |
| Response Time: | 30 seconds 10 second updates | 30 seconds | 5 seconds | 30 seconds 10 second updates |
| LCD: | 1.3" x 0.5" (33 mm x 13 mm) | 1.875" x 0.625" (48 mm x 16 mm) | 1.875" x 0.625" (48 mm x 16 mm) | 1.875" x 0.625" (48 mm x 16 mm) |
| Lead Length: | 39" (1 m) | 39" (1 m) | 39" (1 m) | 10' (3 m) |
| Case Material: | Stainless Steel | Polycarbonate | Polycarbonate | ABS |
| Case Dimensions: | 3.0" x 1.375" (76 mm x 27 mm) | 2.7" x 1.4" x 1.1" (69 mm x 36 mm x 28 mm) | 2.75" x 1.5" x 1" (70 mm x 38 mm x 25 mm) | 2.75" x 2.75" x .75" (70 mm x 70 mm x 19 mm) |
| Power: | (1) 1.5V #LR754 | (1) 1.5V AA | (1) 1.5V AA | Solar w/ battery back-up (1) 1.5V A76 |
| Mounting: | Front Flange | Optional Mounting Flange (Model 9302) | Optional Mounting Flange (Model 9302) | Hangs |
| Weight: | 3 oz (85 g) | 2 oz (57 g) | 2.5 oz (71 g) | 2.5 oz (71 g) |
| Regulatory Listings: | CE RoHS | CE RoHS | CE RoHS | CE RoHS |
| Warranty: | 1 year | 1 year | 1 year | 1 year |

opening the door. Our NSF-listed panel meters offer an easy solution to reading internal air temperatures perfect for cases, freezers and more. Our digital panel meters are suitable for a wide range of applications.

**SP160****Rectangular Solar**

-58° to 158°F
(-50° to 70°C)

±1°F (0.5°C) from 32° to 122°F
(0 to 50°C)

±2°F from -4° to 32°F (-20° to
50°C)

±3.6°F/2°C <-4°F (-20°C) and >
122°F (50°C)

0.1°

0° to 120°F up to 90%
non-condensing

10 second updates

1.4" x 0.5"
(36 mm x 13 mm)

48" (1.2 m)


ABS

4.5" x 1.125" x .625"
(114 mm x 29 mm x 16 mm)

Solar w/ battery back-up
(1) 1.5V AAA

Hangs

3 oz (85 g)

CE  RoHS

1 year

**T158****Digital w/
Remote
Sensor**

Temperature
Range:

(Internal)
32° to 122°F
(0° to 50°C)
(External)
-58° to 158°F
(-50° to 70°C)

Accuracy:

±2°F (±1°C)

Humidity:

RH Accuracy:

-

Unit
Dimensions:

5" x 1.5" x 3.5"
(127 mm x
38mm x 89mm)

Resolution:

-

Display - LCD

2.875" x 2.125"
(73 mm x 54
mm)

Power:

(1) 1.5V Battery
AAA

Mounting:

Hangs or Stands

Weight:

5.5 oz (156 g)

Regulatory
Listings:

CE  RoHS

Warranty:

1 Year

**TRH122M****Mini
Thermometer
Hygrometer**

14° to 122°F
(-10° to 50°C)

±2°F (±1°C)

10% to 99% RH

±5% from 25%
to 95% RH

2.75" x .75" x
4.25"
(17 mm x 19mm
x 108mm)

0.1°

1.5" x 0.5"
(38 mm x 13 mm)

(1) 1.5V Battery
AAA

Hangs

3 oz (85 g)

CE  RoHS

1 Year

**TRH158-0****Min/Max
Thermometer
Hygrometer**

32° to 122°F
(0° to 50°C)

±2°F (±1°C)
±5% RH

25% to 90% RH

±5%

5" x .875" x 3.5"
(127 mm x 22mm
x 89mm)

0.1°/1.0%RH

2.875" x 2.125"
(73 mm x 54
mm)

(1) 1.5V Battery
AAA

Hangs or Stands

4.5 oz (127 g)

CE  RoHS

1 Year

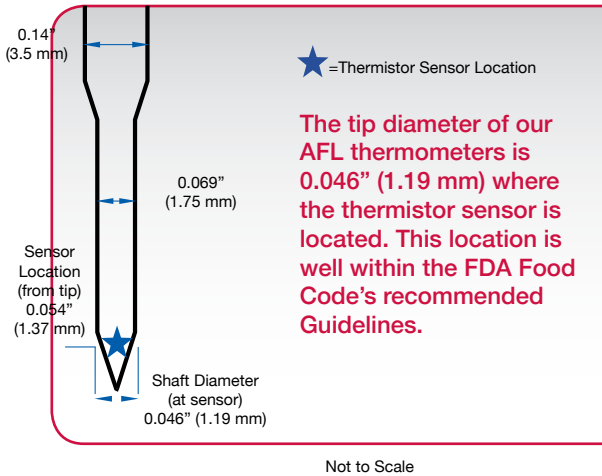
AFL DIGITAL THERMOMETERS

Thermistor-based technology has developed over time to produce an inexpensive, temperature range. Our digital pocket tests will help you obtain readings faster durable, the AFL line of digital thermometers boast the industry's only Lifetime

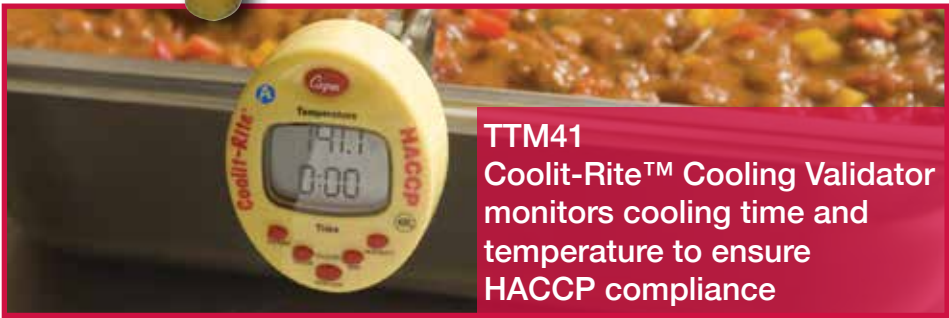


- ▶ EASY READ DIGITAL DISPLAY
- ▶ LIFETIME WARRANTY
- ▶ QUICK RESPONSE TIME

- 1 Waterproof IPX7
- 2 Max/Min and Hold Modes
- 3 Antimicrobial Plastic
- 4 Flashing Temperature Alarm
- 5 °F/°C Selectable
- 6 Reduced Tip for <6 Second Response Time



| | DFP450W | |
|----------------------------|----------------------------------|--|
| | Pocket Test w/ Temperature Alarm | |
| Temperature Range: | -40° to 450°F (-40° to 232°C) | |
| Accuracy: | ±2°F (±1°C) | |
| Resolution: | 0.1° | |
| Response Time (in liquid): | <6 seconds | |
| LCD Display: | 0.875" x 0.375 (22 mm x 9.5mm) | |
| Stem Length: | 4.75" (121 mm) | |
| Power: | (1) 1.5V #LR44 | |
| Battery Life: | 500 Hours | |
| Auto Off: | 10 min. | |
| Water Resistance Rating: | IPX7 Dishwasher Safe | |
| Regulatory Listings: | CE NSF RoHS | |



TTM41 Coolit-Rite™ Cooling Validator monitors cooling time and temperature to ensure HACCP compliance

accurate and quick-responding digital thermometer. Thermistor instruments can be very accurate within a limited because the thermistor sensor located in the tip of the stem and they have easy to read LCD displays. Made to be Warranty!

**DPP400W**

Pen-Style
Pocket Test

-40° to 392°F
(-40° to 200°C)

±2°F (±1°C)

0.1°

<6 seconds

0.975" x 0.25
(22 mm x 6mm)

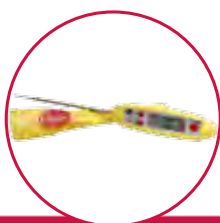
2.75" (70 mm)

(1) 1.5V #LR44

500 Hours

10 min.

IPX7

**DPP800W**

MAX Pocket
Test with
Extended Sheath

-40° to 450°F
(-40° to 232°C)

±1°F (0.5°C)

0.1°

<6 seconds

1.5" x 0.5
(38 mm x 13mm)

4" (102 mm)

(1) 1.5V #LR44

500 Hours

10 min.

IPX7
Dishwasher Safe

**TTM41**

15" Stem
Coolit-Rite
Cooling Validator

-4° to 302°F
(-20° to 150°C)

±2°F (±1°C)

0.1°

-

1.25" x 1
(32 mm x 25mm)

15" (381 mm)

(1) 1.5V #LR44

1 Year

-

Water
Resistant

**TTM41-10**

10" Stem
Coolit-Rite
Cooling Validator

-4° to 302°F
(-20° to 150°C)

±2°F (±1°C)

0.1°

-

1.25" x 1
(32 mm x 25mm)

10" (254 mm)

(1) 1.5V #LR44

1 Year

-

Water
Resistant

**DFP450W**
Digital Pocket Test
with Temperature Alarm**DPP400W**
Pen-style
Digital Pocket Test**DPP800W**
MAX
Digital Pocket Test

INFRARED
THERMOMETERS

Non-contact infrared thermometers measure surface temperatures fast. These thermometers are perfect for measuring items in display cases, salad bars, and

Optical resolution is expressed as a ratio of the distance to the object and resolution, and the smaller the spot size that can be measured. The laser

- ▶ QUICKLY MEASURE SURFACE TEMPERATURES
- ▶ LASER SIGHTING



462
Slim-Line Infrared



481
DualTemp2 Infrared
with RTD Probe



412
Gun-style Infrared
with thermocouple
jack



| | 412 | 462 |
|-----------------------------|--|----------------------------------|
| | Infrared w/ Thermocouple Jack | Slim-Line Infrared |
| Temperature Range: | Infrared -76° to 932°F (-60° to 500°C) Type K Thermocouple Jack -83° to 1999°F (-64° to 1400°C) | -40° to 536°F (-40° to 280°C) |
| Infrared Accuracy: | Infrared ±4°F (±2°C) | Infrared ±2°F (±1°C) |
| Probe Accuracy: | Thermocouple Jack ±2°F (±1°C) | - |
| Resolution: | 0.1°/1° above 200°F | 0.1°/1° above 230°F |
| Ambient Operating Range: | 32° to 122°F (0° to 50°C) | 32° to 122°F (0° to 50°C) |
| Laser: | Single Dot | Single Dot |
| Distance to Spot (D:S): | 12:1 | 6:1 |
| Emissivity: | 0.95 default Adjustable from 0.10 to 1.0 | Preset at 0.97 |
| Power: | (2) 1.5V AAA | (1) 9V battery |
| Battery Life: | 180 Hours | 12 Hours |
| Auto Off: | 60 sec. | 7 sec. |
| Weight: | 6 oz (170 g) | 5 oz (142 g) |
| Regulatory Listings: | CE RoHS | CE RoHS |
| Warranty: | 1 Year | 1 Year |

units are lightweight, ergonomically designed and eliminate cross-contamination during temperature checks. Infrared buffers.

the diameter of the temperature measurement area. The larger the ratio number, the better the instrument's sighting included in some instruments assists in aiming at the measured spot.

► PREVENTS CROSS CONTAMINATION



470

**Mini
Infrared**

-27° to 428°F
(-33° to 220°C)

Infrared
±3.6°F (±2°C)

-

0.1°/1° above 200°F

32° to 122°F
(0° to 50°C)

-

1:1

Preset at 0.95

(1) #CR2032

40 Hours

15 sec.

1 oz (28 g)



1 Year



480

**DualTemp Infrared
and Probe**

Infrared
-27° to 428°F (-33° to 220°C)
Probe
-67° to 626°F (-55° to 330°C)

Infrared
±4°F (±2°C)

Thermocouple Jack
±2°F (±1°C)

0.1°/1°F above 200°F

32° to 122°F
(0° to 50°C)

-

1:1

0.95 default
Adjustable from 0.10 to 1.0

(1) #CR2032

40 Hours

15 sec.

2.5 oz (72 g)



1 Year



481

**DualTemp with
Platinum RTD Probe**

Infrared
-40° to 536°F (-40° to 280°C)
Probe
-40° to 392°F (-40° to 200°C)

Infrared
±2°F (±1°C)

RTD Probe
±1°F (±0.5°C)

0.1°

32° to 122°F
(0° to 50°C)

Illumination Beam

3:1

Preset at 0.97

(1) 9V battery

100 Hours

20 sec.

6 oz (170 g)



1 Year

TIMERS

Time and temperature are joint components for many applications. Cooper-control, stopwatch capabilities, wall or magnet mounting, non-skid rubber feet

- ▶ **LARGE, EASY READ DISPLAY**
- ▶ **ADJUSTABLE VOLUME CONTROL**
- ▶ **MEMORY RECALL FEATURE**



- Programmable time and temperature alarms
- Set a “High” alarm when monitoring the cooking process
- Set a “Low” alarm for monitoring the cooling process
- Replacement Probe (#9406) is available



Wire hanger is perfect for mounting on coffee urns and air pots.



FT24 Timer
With volume control and a flashing red light when alarm goes off

| | DTT361-01 | |
|--------------------------|---|--|
| Cook N Cool Thermo-Timer | | |
| Unit Range: | -25° to 392°F (-310° to 200°C) 23:59:59 Hours | |
| Resolution: | 1 second | |
| Power Source: | (3) 1.5V AAA | |
| Memory / Recall: | Yes | |
| Modes: | Clock, Timer, Preset Temperature | |
| Alarm Level (Decibel): | 80 decibels | |
| Housing: | ABS Plastic | |
| LCD Dimensions: | 2.25" x 1.5" (57 mm x 38 mm) | |
| Weight: | 7 oz (198 g) | |
| Regulatory Listings: | CE RoHS NSF COMPONENT | |
| Warranty: | 1 Year | |

Atkins' timers are popular because of their large, easy-to-read displays. Our digital timers feature an adjustable volume and grease-resistant keypads. Recall settings help save time in the kitchen.

**FT24****TC6****TFS4****TM60****TS100****TW3**

Large
Single-Station
Timer

Six-Button
Timer

Multi-Station
Timer

Long Ring
Mechanical
Timer

Timer/
Stopwatch

Large Digit
Multi-Function
Timer

23:59:59
Hours

23:59:59 Hours

99 Hours
59 Minutes

0 to 60
Minutes

99 Minutes
59 Seconds

99 Minutes
59 Seconds

1 second

1 second

Hours/Minutes
Minutes/Seconds

1 minute

1 second

1 second

(4) 1.5V "C"

1.5V AAA

(4) 1.5V "C"
9374 AC Adapter
(optional)

Wind up

1.5V LR44

1.5V LR44

Yes

Yes

Yes

-

Yes

Yes

-

Counts
up/down

Counts
up/down

Counts
down

Counts up

Counts down,
counts up
after set time is
reached

90 decibels

85 decibels

90 decibels

70 decibels

70 decibels

70 decibels

ABS Plastic

ABS Plastic

ABS Plastic

Stainless Steel

ABS Plastic

ABS Plastic

0.875" x 2.25"
(22 mm x 54 mm)

0.625" x 1.625"
(16 mm x 41
mm)

3" x 3"
(76 mm x 76 mm)

-

-

1.5" x 2.5"
(38 mm x 76
mm)

1 lb 3 oz (539 g)

2 oz (57 g)

1 lb 6 oz (523 g)

4 oz (113 g)

1 oz (28 g)

3 oz (85 g)

CE

CE RoHS

CE RoHS

-

CE RoHS

CE RoHS

1 Year

1 Year

1 Year

1 Year

1 Year

1 Year

ECONOTEMP

Get advanced technology at an affordable price. The EconoTemp™ is a general speed and more versatility. The removable rubber boot provides superior impact



The slim line design sits nicely in the palm of your hand and provides an

- ▶ **INDUSTRY LEADING 5-YEAR WARRANTY**
- ▶ **ERGONOMIC DESIGN**
- ▶ **WATER RESISTANT**



Instruments



| | 32311 | 32322 | 93013-K |
|----------------------|---|---|--------------------|
| | EconoTemp™ | EconoTemp™ Plus | |
| Temperature Range: | -40° to 500°F (-40° to 260°C) | -40° to 1000°F (-40° to 538°C) | 32311-K Instrument |
| Accuracy: | ±1°F (±0.5°C) | ±1°F (±0.5°C) | 50012-K Probe |
| Housing Material: | ABS | ABS | 50306-K Probe |
| Resolution: | 1° | 0.1° up to 495°F (257°C) | 50335-K Probe |
| Power: | (3) 1.5V AAA | (3) 1.5V AAA | 14057 Case |
| Battery Life: | 4500 hours | 4500 hours | |
| Auto Off: | 10 min. | 10 min. | |
| Weight: | 6 oz (170 g) | 6 oz (170 g) | |
| Regulatory Listings: | CE  RoHS | CE  RoHS | |
| Warranty: | 5 Year | 5 Year | |

purpose, thermocouple temperature monitoring instrument that is a step up from the digital pocket test, offering greater resistance and has molded tabs on the side to hold and store most needle probes.

ergonomic grip.

Kits



93230-K



93232-K



93233-K



93237-K



94020-K

KIT INCLUDES:

| 32311-K Instrument | 32311-K Instrument | 32311-K Instrument | 32311-K Instrument | 32311-K Instrument |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 50336-K Probe | 50306-K Probe | 50012-K Probe | 31901-K Probe | 50337-K Probe |
| 9368 Wall Bracket | 50336-K Probe | 50306-K Probe | 31905-K Probe | 9368 Wall Bracket |
| | 14235 Case | 50336-K Probe | 31907-K Probe | |
| | 9368 Wall Bracket | 14235 Case | 14240 Case | |
| | | 9368 Wall Bracket | 9368 Wall Bracket | |

AQUATUFF

For a durable, fast response thermocouple, look no further than the AquaTuff the AquaTuff™ name implies, are IPX7 waterproof rated for greater reliability and areas.

The non-Wrap-n-Stow enclosure design allows for maximum versatility and can

- ▶ **INDUSTRY LEADING 5-YEAR WARRANTY**
- ▶ **IPX7 WATERPROOF**
- ▶ **ERGONOMIC DESIGN**



93970-K
AquaTuff™
Thermocouple Kit





Easy twist-open
battery hatch
9370

35100-K
AquaTuff™
Thermocouple Instrument

Instruments



| | 35100 | 35200 |
|-----------------------|---|---|
| | Waterproof Thermocouple | Waterproof Thermocouple |
| Temperature Range: | -100° to 999°F (-73° to 537°C) | -100° to 999°F (-73° to 537°C) |
| Accuracy: | ±0.5°F (±0.3°C) | ±0.5°F (±0.3°C) |
| Housing Material: | ABS Plastic | ABS Plastic |
| Resolution: | 0.1° | 0.1°/ 1° selectable |
| Hold: | - | Yes |
| Backlight: | - | Yes |
| Power: | (2) 1.5V AAA | (2) 1.5V AAA |
| Battery Life: | 1800 hours | 1800 hours |
| Auto Off: | 10 min. | 10 min. |
| Replacement Item For: | 38653-K 38658-K | 39658-K |
| Weight: | 5 oz (142 g) | 5 oz (142 g) |
| Regulatory Listing: | CE  RoHS | CE  RoHS |
| Warranty: | 5 Year | 5 Year |

series. The AquaTuff™ Series Thermocouple Instruments are highly accurate, NIST traceable and most importantly, as durability in harsh environments. They are ideally suited for wet, steam-filled environments in kitchens and processing

be used with any Type K thermocouple probe.

Kits



93086-K



93970-K



94003-K

KIT INCLUDES:

35100-K
Instrument

35200-K
Instrument

35100-K
Instrument

50012-K Probe

50012-K Probe

50209-K Probe

50209-K Probe

50306-K Probe

9369 Wall
Bracket

50306-K Probe

50335-K Probe

14235
Medium Case

14235
Medium Case



THE NON WRAP&STOW™
INSTRUMENTS ARE
COMPATIBLE WITH ANY TYPE
K THERMOCOUPLE PROBE
FOR MAXIMUM VERSATILITY.
THERMOCOUPLE INSTRUMENTS
AND PROBES ALSO AVAILABLE
IN TYPE J AND T

IPX7 WATERPROOF

All the AquaTuff™ instruments are IPX7 waterproof rated and durable for harsh environments.

An IPX7 level reading means the instrument can be completely submerged in 1 meter of water for 30 minutes without water damage.



AQUATUFF™ WRAP & STOW™

The AquaTuff series with Wrap&Stow™ probes are the right choice when accuracy calibrated with a TRUE 0.9°F accuracy and probes can be replaced in the field heavy duty, patented probe can be stored safely alongside the unit housing.

Wrap & Stow probes can be replaced at your location and maintain a total

The 35340 AquaTuff includes an Intelligent Stabilization (ITS) feature that includes a memory function that can store up to 250 readings.

- ▶ **INDUSTRY LEADING 5-YEAR WARRANTY**
- ▶ **IPX7 WATERPROOF**
- ▶ **UNIQUE CABLE STORAGE CHANNEL**

Instruments


35132
35135
35140
35232
35235

w/ DuraNeedle
Probe

w/ Angled
Surface Probe

w/ MicroNeedle
Probe

w/ DuraNeedle

w/ Angled
Surface Probe

**Temperature
Range:**

-100° to 500°F
(-73° to 260°C)

-100° to 500°F
(-73° to 260°C)

-100° to 500°F
(-73° to 260°C)

-100° to 500°F
(-73° to 260°C)

-100° to 500°F
(-73° to 260°C)

Accuracy:

±0.9°F (±0.5°C)
total system
accuracy

±0.5°F (±0.3°C)

±0.9°F (±0.5°C)
total system
accuracy

±0.9°F (±0.5°C)
total system
accuracy

±0.5°F (±0.3°C)

**Housing
Material:**

ABS Plastic

ABS Plastic

ABS Plastic

ABS Plastic

ABS Plastic

Resolution:

0.1°

0.1°

0.1°

0.1° / 1°
selectable

0.1° / 1°
selectable

Hold:

No

No

No

Yes

Yes

Backlight:

No

No

No

Yes

Yes

Power:

(2) 1.5V AAA

(2) 1.5V AAA

(2) 1.5V AAA

(2) 1.5V AAA

(2) 1.5V AAA

Battery Life:

1800 hours

1800 hours

1800 hours

1800 hours

1800 hours

Auto Off:

10 min.

10 min.

10 min.

10 min.

10 min.

Weight:

7 oz (199 g)

8 oz (227 g)

7 oz (199 g)

7 oz (199 g)

8 oz (227 g)

**Regulatory
Listings:**

Warranty:

5 Year Instrument

5 Year Instrument

5 Year Instrument

5 Year Instrument

5 Year Instrument

**Probe
Response
Time:**

1 second (Liquid)

2 seconds
(Oiled Surface)

1 second (Liquid)

1 second (Liquid)

2 seconds
(Oiled Surface)

is your top priority. Total system accuracy ensures this instrument and probe combination will deliver. The probe is without the need for recalibration. Wrap&Stow™ designs are available with a unique, cable storage channel so that the

system accuracy within food safety guidelines without need for further calibration.

prevents the temperature from being displayed until a stabilized temperature is reached. The ITS mode also

Replacement Probe



35240

**w/ MicroNeedle
Probe**

**-100° to 500°F
(-73° to 260°C)**

**±0.9°F (±0.5°C)
total system
accuracy**

ABS Plastic

**0.1°/ 1°
selectable**

Yes

Yes

(2) 1.5V AAA

1800 hours

10 min.

7 oz (199 g)

CE NSF RoHS

5 Year Instrument

1 second (Liquid)



35340

**ITS w/
MicroNeedle
Probe**

**-100° to 500°F
(-73° to 260°C)**

**±0.9°F (±0.5°C)
total system
accuracy**

ABS Plastic

0.1°

-

-

(2) 1.5V AAA

1800 hours

10 min.

7 oz (199 g)

CE RoHS

5 Year Instrument

1 second (Liquid)



55032

**DuraNeedle
Replacement
Probe**



55035

**MicroNeedle
Replacement
Probe**



55040

**Angled Surface
Replacement
Probe**



**WRAP & STOW
PROBES CAN BE
REPLACED AT
YOUR LOCATION
AND MAINTAIN THE
TOTAL SYSTEM
ACCURACY WITHOUT
CALIBRATION.**

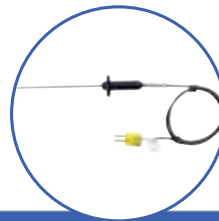


THERMOCOUPLE PROBES

High quality thermocouple thermometers should be coupled with the most in the foodservice industry and are well suited for numerous tasks. Each probe resistant cables. Probes are designed and built to the highest standards allowing

Used to measure insertion and immersion temperatures of food products

- ▶ **MOST EXTENSIVE PROBE LINE IN THE INDUSTRY**
- ▶ **ALL PROBES MANUFACTURED IN AN ISO 9001:2008 FACILITY**



31901-K

Needle Probe



39035-K

**1/8" Diameter
Straight Cable**



49122-K

**Ultra Fine
Chisel Tip Probe
4" Stem**

| | 31901-K | 39035-K | 49122-K |
|----------------------------|--------------------------------|----------------------------------|---|
| | Needle Probe | 1/8" Diameter Straight Cable | Ultra Fine Chisel Tip Probe 4" Stem |
| Temperature Range: | -40° to 400°F (-40° to 205) | -40° to 400°F (-40° to 205°C) | -100° to 500°F (-73° to 260°C) |
| Max Tip Temperature: | 400°F (205°C) | 400°F (205°C) | 500°F (260°C) |
| Max Cable Temperature: | 400°F (205°C) | 400°F (205°C) | 221°F (105°C) |
| Response Time (in liquid): | 4 seconds | 4 seconds | 3 seconds |
| Shaft Length: | 4" (102 mm) | 4" (102 mm) | 4" (102 mm) |
| Shaft Tip Diameter: | 0.125" (3.2 mm) | 0.125" (3.2 mm) | 0.065" (1.7 mm) |
| Cable Length Max Extended: | 24" (610 mm) | 36" (914 mm) FEP Jacket | 36" (914 mm) PVC Jacket |
| Weight: | 1 oz (28 g) | 1 oz (28 g) | 1 oz (28 g) |
| Warranty: | 1 Year | 1 Year | 1 Year |

appropriate probe for the application. Cooper-Atkins' thermocouple probes are the most extensive line you will find is designed by Cooper-Atkins engineers, manufactured in our U.S. facility and built with high-temperature, abrasion- for probe interchangeability with minimal impact on total system accuracy.

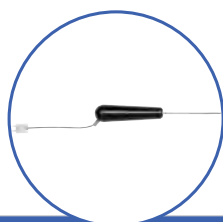
including solids, semi-solids and liquids.

► CUSTOM MANUFACTURING AVAILABLE FOR UNIQUE APPLICATIONS

Insertion



49126-K



49135-K



50145-K



50101-K



50143-K

**4" Reduced Tip -
Straight Cable**

**4" Rugged
Needle - Straight
Cable**

**4" Rugged
Needle - Coil
Cable**

**Frozen Product
Needle Probe**

**Heavy Duty
Needle Probe**

32° to 932°F
(0° to 500°C)

-40° to 400°F
(-40° to 205°C)

-40° to 500°F
(-40° to 260°C)

-40° to 400°F
(-40° to 205°C)

-40° to 500°F
(-40° to 260°C)

932°F (500°C)

400°F (205°C)

500°F (260°C)

400°F (205°C)

500°F (260°C)

400°F (205°C)

400°F (205°C)

176°F (80°C)

400°F (205°C)

176°F (80°C)

1 second

4 seconds

4 seconds

4 seconds

5 seconds

4" (102 mm)

4" (102 mm)

4" (102 mm)

3" (76 mm)

4" (102 mm)
8", 18" and 24"
Available

0.063" (1.6 mm)

0.125" (3.2 mm)

0.125" (3.2 mm)

0.150" (3.8 mm)

0.150" (3.8 mm)

36" (914 mm)
FEP
Jacket

36" (914 mm)
FEP
Jacket

48" (1.2 m)
Polyurethane
Jacket

30" (762 mm)
Flexible
Armored Cable

48" (1.2 m)
Polyurethane
Jacket

4 oz (113 g)

4 oz (113 g)

4 oz (113 g)

1 lb (454 g)

5 oz (142 g)

1 Year

1 Year

1 Year

1 Year

1 Year

THERMOCOUPLE
PROBES

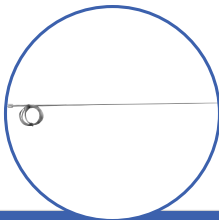
High quality thermocouple thermometers should be coupled with the most in the foodservice industry and are well suited for numerous tasks. Each probe resistant cables. Probes are designed and built to the highest standards allowing

Used to measure insertion and immersion temperatures of food products

- ▶ **MOST EXTENSIVE PROBE LINE IN THE INDUSTRY**
- ▶ **ALL PROBES MANUFACTURED IN AN ISO 9001:2008 FACILITY**



50263-K Patty Probe
Unique probe insertion isolates heat transfer from probe tip to Depth Stop, resulting in highly accurate and repeatable temperature measurements.



| | 49140-K | 50200-K | |
|----------------------------|---|----------------------------------|--|
| | High Temp Fry Vat probe Armored Cable | Vat Probe w/ Clip | |
| Temperature Range: | 32° to 2012°F (0° to 1100°C) | -40° to 400°F (-40° to 205°C) | |
| Max Tip Temperature: | 2012°F (1100°C) | 400°F (205°C) | |
| Max Cable Temperature: | 400°F (205°C) | 400°F (205°C) | |
| Response Time (in liquid): | 2 seconds | 12 seconds | |
| Shaft Length: | 24" (610 mm) | 8" (203 mm) | |
| Shaft Tip Diameter: | 0.188" (4.8 mm) | - | |
| Cable Length Max Extended: | 36" (914 mm) Flexible Armor | 36" (914 mm) FEP Jacket | |
| Weight: | 6 oz (170 g) | 2 oz (57 g) | |
| Warranty: | 1 Year | 1 Year | |

appropriate probe for the application. Cooper-Atkins' thermocouple probes are the most extensive line you will find is designed by Cooper-Atkins engineers, manufactured in our U.S. facility and built with high-temperature, abrasion-for probe interchangeability with minimal impact on total system accuracy.

including solids, semi-solids and liquids.

► CUSTOM MANUFACTURING AVAILABLE FOR UNIQUE APPLICATIONS

Insertion



50208-K

50209-K

50263-K

50264-K

50293-K

50294-K

**Fry Vat Probe
Armored Cable**

**MicroNeedle -
Coil Cable**

**60° Patty Probe
w/ 3/16" depth**

**60° Patty Probe
w/ 1/4" depth**

**90° Patty Probe
w/ 3/16" depth**

**90° Patty Probe
w/ 1/4" depth**

-40° to 400°F
(-40° to 205°C)

-100° to 500°F
(-73° to 260°C)

-100° to 500°F
(-73° to 260°C)

-100° to 500°F
(-73° to 260°C)

-100° to 500°F
(-73° to 260°C)

-100° to 500°F
(-73° to 260°C)

400°F (205°C)

500°F (260°C)

500°F (260°C)

500°F (260°C)

500°F (260°C)

500°F (260°C)

400°F (205°C)

176°F (80°C)

176°F (80°C)

176°F (80°C)

176°F (80°C)

176°F (80°C)

8 seconds

1 second

1 second

1 second

1 second

1 second

7.3" (185 mm)

3.5" (89 mm)

8" (203 mm)

8" (203 mm)

8" (203 mm)

8" (203 mm)

0.188" (4.8
mm)

0.043" (1 mm)

0.043" (1 mm)

0.043" (1 mm)

0.043" (1 mm)

0.043" (1 mm)

30" (762 mm)
w/Flexible
Armored
Jacket

48" (1.2 m)
Polyurethane
Jacket

48" (1.2 m)
Polyurethane
Jacket

48" (1.2 m)
Polyurethane
Jacket

48" (1.2 m)
Polyurethane
Jacket

48" (1.2 m)
Polyurethane
Jacket

3 oz (85 g)

2 oz (57 g)

3 oz (85 g)

3 oz (85 g)

3 oz (85 g)

3 oz (85 g)

1 Year

1 Year

1 Year

1 Year

1 Year

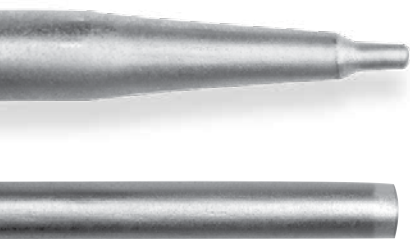
1 Year

THERMOCOUPLE
PROBES

High quality thermocouple thermometers should be coupled with the most in the foodservice industry and are well suited for numerous tasks. Each probe resistant cables. Probes are designed and built to the highest standards allowing

Used to measure insertion and immersion temperatures of food products

- ▶ **MOST EXTENSIVE PROBE LINE IN THE INDUSTRY**
- ▶ **ALL PROBES MANUFACTURED IN AN ISO 9001:2008 FACILITY**



50316-K
Flat-tipped immersion probe that can be used to take surface temperatures.



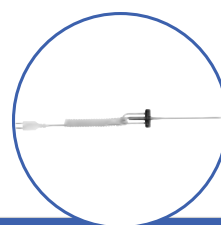
| | 50334-K | 50335-K | 50336-K | |
|----------------------------|--|---------------------------------------|------------------------------------|--|
| | DuraNeedle - Straight Cable | Needle Probe w/ Coil Cable | DuraNeedle - Coil Cable | |
| Temperature Range: | -100° to 500°F (-73° to 260°C) | -40° to 500°F (-40° to 260) | -40° to 500°F (-40° to 260) | |
| Max Tip Temperature: | 500°F (260°C) | 500°F (260°C) | 500°F (260°C) | |
| Max Cable Temperature: | 400°F (205°C) | 176°F (80°C) | 176°F (80°C) | |
| Response Time (in liquid): | 1 second | 4 seconds | 2 seconds | |
| Shaft Length: | 4" (102 mm) | 4.5" (114 mm) 8" and 10" Available | 6" (152 mm) | |
| Shaft Tip Diameter: | 0.085" (2.2 mm) | 0.125" (3.2 mm) | 0.085" (2.2 mm) | |
| Cable Length Max Extended: | 34" (864 mm) Fluoroelastomer Jacket | 48" (1.2 m) Polyurethane Jacket | 48" (1.2 m) Polyurethane Jacket | |
| Weight: | 2 oz (57 g) | 2 oz (57 g) | 2 oz (57 g) | |
| Warranty: | 1 Year | 1 Year | 1 Year | |

appropriate probe for the application. Cooper-Atkins' thermocouple probes are the most extensive line you will find is designed by Cooper-Atkins engineers, manufactured in our U.S. facility and built with high-temperature, abrasion-for probe interchangeability with minimal impact on total system accuracy.

including solids, semi-solids and liquids.

► CUSTOM MANUFACTURING AVAILABLE FOR UNIQUE APPLICATIONS

Insertion



| 50360-K | 50361-K | 50426-K | 50427-K | 50316-K |
|---|----------------------------------|---------------------------------------|---------------------------------------|---|
| Oven Needle Probe | Armored Meat Probe | 4" Reduced Tip - Coil Cable | 12" Reduced Tip - Coil Cable | 4" Blunt Tip - Coiled Cable |
| -40° to 500°F (-40° to 260°C) | -40° to 400°F (-40° to 205°C) | 32° to 932°F (0° to 500°C) | 32° to 932°F (0° to 500°C) | -100° to 500°F (-73° to 260°C) |
| 500°F (260°C) | 400°F (205°C) | 932°F (500°C) | 932°F (500°C) | 500°F (260°C) |
| 600°F (316°C) | 400°F (205°C) | 176°F (80°C) | 176°F (80°C) | 176°F (80°C) |
| 2 seconds | 4 seconds | 1 second | 1 second | 6 seconds (metal surface) / 1 second (liquid) |
| 5.5" (140 mm) | 3.875" (98 mm) | 4" (102 mm) | 12" (305 mm) | 4" (102 mm) |
| 0.085" (2.2 mm) | 0.085" (2.2 mm) | 0.063" (1.6 mm) | 0.063" (1.6 mm) | 0.125" (3.2 mm) |
| 35" (889 m) Stainless Steel Overbraid | 10' (3 m) Flexible Armor | 48" (1.2 m) Polyurethane Jacket | 48" (1.2 m) Polyurethane Jacket | 48" (1.2 m) Polyurethane Jacket |
| 1 oz (28 g) | 6 oz (170 g) | 5 oz (142 g) | 5 oz (142 g) | 2 oz (57 g) |
| 1 Year | 1 Year | 1 Year | 1 Year | 1 Year |

THERMOCOUPLE
PROBES

High quality thermocouple thermometers should be coupled with the most in the foodservice industry and are well suited for numerous tasks. Each probe resistant cables. Probes are designed and built to the highest standards allowing

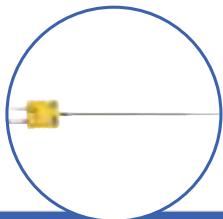
Direct Connect probes plug directly into the instrument without a cable to

- ▶ **MOST EXTENSIVE PROBE LINE IN THE INDUSTRY**
- ▶ **ALL PROBES MANUFACTURED IN AN ISO 9001:2008 FACILITY**



50207-K
MicroNeedle Probe

**DIRECT CONNECT
PROBE ALLOWS FOR
SINGLE-HANDED
OPERATION!**





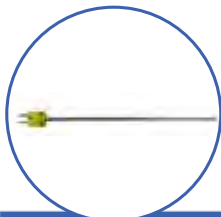


| | 49127-K | 50207-K |
|-------------------------------|-------------------------------|-----------------------------------|
| | Reduced-Tip Direct Connect | MicroNeedle - Chiseled Tip |
| Temperature Range: | 32° to 932°F (0° to 500°C) | -100° to 500°F (-73° to 260°C) |
| Max Tip Temperature: | 932°F (500°C) | 500°F (260°C) |
| Response Time: (in Liquid) | 1 second | 1 second |
| Shaft Length: | 4" (102 mm) | 3.75" (95 mm) |
| Shaft Tip Diameter: | 0.063" (1.6 mm) | 0.043" (1 mm) |
| Cable Length Max Extended: | Direct Connect (no cable) | Direct Connect (no cable) |
| Weight: | 0.5 oz (14 g) | 0.5 oz (14 g) |
| Warranty: | 1 year | 1 year |

appropriate probe for the application. Cooper-Atkins' thermocouple probes are the most extensive line you will find is designed by Cooper-Atkins engineers, manufactured in our U.S. facility and built with high-temperature, abrasion-for probe interchangeability with minimal impact on total system accuracy.

provide easy one-handed operation.

► CUSTOM MANUFACTURING AVAILABLE FOR UNIQUE APPLICATIONS

Direct Connect

|  |  |  |  |  |
|---|--|--|---|--|
| 50210-K | 50337-K | 50405-K | 51210-K | 51337-K |
| MicroNeedle - Hemi Tip | DuraNeedle Direct Connect | Blunt-Tip Direct Connect | MicroNeedle w/ Flanged Connector | DuraNeedle w/ Flanged Connector |
| -100° to 500°F (-73° to 260°C) | -100° to 500°F (-73° to 260°C) | -100° to 500°F (-73° to 260°C) | -100° to 500°F (-73° to 260°C) | -100° to 500°F (-73° to 260°C) |
| 500°F (260°C) | 500°F (260°C) | 500°F (260°C) | 500°F (260°C) | 500°F (260°C) |
| 1 second | 1 second | 6 seconds (oiled surface) 1 second (liquid) | 1 second | 1 second |
| 3.75" (95 mm) | 4" (102 mm) | 7.5" (190 mm) | 3.75" (95 mm) | 4" (102 mm) |
| 0.043" (1 mm) | 0.085" (2.2 mm) | 0.125" (3.2 mm) | 0.043" (1 mm) | 0.085" (2.2 mm) |
| Direct Connect (no cable) | Direct Connect (no cable) | Direct Connect (no cable) | Direct Connect (no cable) | Direct Connect (no cable) |
| 0.5 oz (14 g) | 0.5 oz (14 g) | .5 oz (14 g) | 0.5 oz (14 g) | 0.5 oz (14 g) |
| 1 year | 1 year | 1 year | 1 year | 1 year |

THERMOCOUPLE
PROBES

High quality thermocouple thermometers should be coupled with the most in the foodservice industry and are well suited for numerous tasks. Each probe resistant cables. Probes are designed and built to the highest standards allowing

Surface probes are suitable for measuring temperatures on a variety of surfaces.

Note: The major source of error in reading surface temperature is obtaining or grease to improve heat transfer; 2) use a large contact area and 3) press the

- ▶ **MOST EXTENSIVE PROBE LINE IN THE INDUSTRY**
- ▶ **ALL PROBES MANUFACTURED IN AN ISO 9001:2008 FACILITY**



50012-K
Swiveling bell sensor self-
orients to the surface for
superior contact.



50014-K
Weighted probe allows for
hands-free use



| | 31907-K | 50001-K | |
|----------------------------|----------------------------------|--|--|
| | Bell Surface Probe | Right Angle Flat Surface Probe | |
| Temperature Range: | -40° to 400°F (-40° to 205°C) | -40° to 400°F (-40° to 205°C) | |
| Max Tip Temperature: | 400°F (205°C) | 400°F (205°C) | |
| Max Cable Temperature: | 400°F (205°C) | 400°F (205°C) | |
| Response Time: | 5 seconds (oiled surface) | 7 seconds (oiled surface) | |
| Shaft Length: | 4" (102 mm) | 9" (229 mm) | |
| Cable Length Max Extended: | 24" (610 mm) Silicone Jacket | 30" (762 mm) Flexible Armored Cable | |
| Weight: | 1 oz (28 g) | 6 oz (170 g) | |
| Warranty: | 1 Year | 1 Year | |

appropriate probe for the application. Cooper-Atkins' thermocouple probes are the most extensive line you will find is designed by Cooper-Atkins engineers, manufactured in our U.S. facility and built with high-temperature, abrasion-for probe interchangeability with minimal impact on total system accuracy.

Griddles or grills should be checked frequently to ensure that proper cooking temperatures are maintained.

adequate heat transfer from the surface into the measuring probe tip. To reduce this error: 1) use a small amount of oil probe's tip firmly against the measuring surface.

► CUSTOM MANUFACTURING AVAILABLE FOR UNIQUE APPLICATIONS

Surface



50012-K

**120° Angle
Surface Probe**

**-40° to 500°F
(-40° to 260°C)**

500°F (260°C)

176°F (80°C)

**4 seconds
(oiled surface)**

4.5" (114 mm)

48" (1.2 m)

5 oz (142 g)

1 Year



50014-K

**Weighted Griddle
Surface Probe**

**-40° to 500°F
(-40° to 260°C)**

500°F (260°C)

400°F (205°C)

**2 seconds
(oiled surface)**

-

**30" (762 mm)
Flexible
Armored Cable**

2 lb (907 g)

1 Year



50318-K

**Ceramic Tip
Straight Stem**

**-40° to 1202°F
(-40° to 650°C)**

1202°F (650°C)

176°F (80°C)

**1 second
(oiled surface)**

4" (102 mm)

**48" (1.2 m)
Polyurethane
Jacket**

5 oz (142 g)

1 Year



50319-K

**Ceramic Tip -
Right Angled**

**-40° to 1202°F
(-40° to 650°C)**

1202°F (650°C)

176°F (80°C)

**1 second
(oiled surface)**

5" (127 mm)

**48" (1.2 m)
w/ Polyurethane
Jacket**

6 oz (170 g)

1 Year

THERMOCOUPLE
PROBES

High quality thermocouple thermometers should be coupled with the most in the foodservice industry and are well suited for numerous tasks. Each probe resistant cables. Probes are designed and built to the highest standards allowing

These probes are suitable for measuring air temperatures. Some are clip for attaching the sensor inside freezers, coolers or ovens.

- ▶ **MOST EXTENSIVE PROBE LINE IN THE INDUSTRY**
- ▶ **ALL PROBES MANUFACTURED IN AN ISO 9001:2008 FACILITY**



NOTE: AIR HAS A LOW THERMAL CONDUCTIVITY AND DENSITY WHICH RESULTS IN SLOWER PROBE RESPONSE TIMES. TO ACHIEVE A MORE RAPID RESPONSE IN AIR TEMPERATURE, WAVE THE PROBE TIP BACK AND FORTH TO CREATE AIR MOTION ACROSS THE PROBE TIP.



| | 31903-K | 31905-K | |
|----------------------------|-------------------------------|---|--|
| | Hand-Held Air Probe | Bare Tip Probe | |
| Temperature Range: | -40° to 400°F (-40° to 205°C) | -40° to 400°F (-40° to 205°C) | |
| Max Tip Temperature: | 400°F (205°C) | 400°F (205°C) | |
| Max Cable Temperature: | 400°F (205°C) | 400°F (205°C) | |
| Response Time: | 9 seconds in 5 m/sec. air | 1 sec. (liquid) 3 sec. 5 m/ sec. air | |
| Shaft Length: | 4" (102 mm) | - | |
| Cable Length Max Extended: | 24" (610 mm) Silicone Jacket | 24" (610 mm) Silicone Jacket | |
| Weight: | 1 oz (28 g) | 1 oz (28 g) | |
| Warranty: | 1 year | 1 year | |

appropriate probe for the application. Cooper-Atkins' thermocouple probes are the most extensive line you will find is designed by Cooper-Atkins engineers, manufactured in our U.S. facility and built with high-temperature, abrasion-for probe interchangeability with minimal impact on total system accuracy.

designed to measure ambient temperature, while other models monitor internal temperatures and include a

▶ CUSTOM MANUFACTURING AVAILABLE FOR UNIQUE APPLICATIONS

Air and Ambient



39032-K

Hand-Held
Air Probe -
Straight Cable

-328° to 400°F
(-200° to 205°C)

400°F (205°C)

400°F (205°C)

11 seconds in
5 m/sec. air
steam

4" (102 mm)

36" (914 mm)
FEP
Cable

1 oz (28 g)

1 year



49138-K

Bare Tip w/ 48"
Cable

32° to 896°F
(0° to 480°C)

896°F (480°C)

896°F (480°C)

1 second (liquid)
9 sec. 5 m/sec. air

-

48" (1.2 m)
Fiberglass
Jacket

1 oz (28 g)

1 year



50302-K

Air Probe w/
Shield/Clip

32° to 896°F
(0° to 480°C)

896°F (480°C)

896°F (480°C)

1 second (liquid)
10 sec. 5 m/
second air

2.125" (54 mm)

46.5" (1.2 m)
Fiberglass Jacket

1 oz (28 g)

1 year



50306-K

Oven/Cooler/
Freezer Probe
w/ Clip

-100° to 600°F
(-73° to 316°C)

600°F (316°C)

600°F (316°C)

1 second (liquid)
10 sec. 5 m/
second air

2.125" (54 mm)

43" (1.1 m)
Stainless Steel
Overbraid

1 oz (28 g)

1 year



50332-K

Hand-Held Air
Probe - Coil
Cable

-100° to 500°F
(-73° to 260°C)

500°F (260°C)

176°F (80°C)

10 seconds in
5 m/sec. air

4" (102 mm)

48" (1.2 m)
Polyurethane
Jacket

2 oz (57 g)

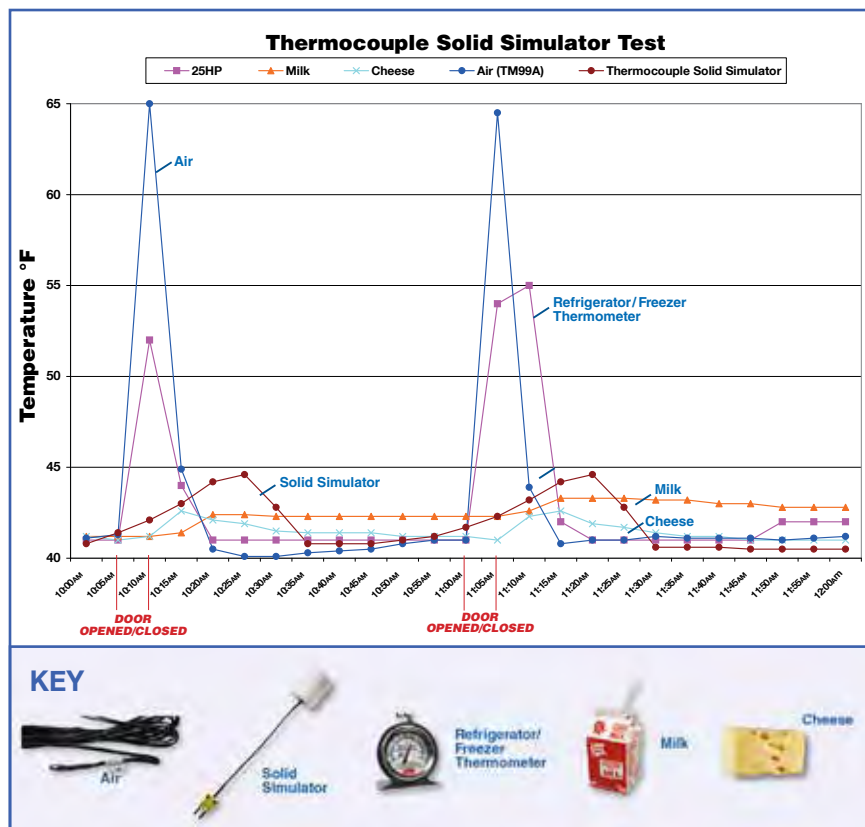
1 year

THERMOCOUPLE PROBES

High quality thermocouple thermometers should be coupled with the most in the foodservice industry and are well suited for numerous tasks. Each probe resistant cables. Probes are designed and built to the highest standards allowing

Cooper-Atkins manufactures hundreds of different probes for a multitude of uses Customer Service at 860-347-2256 or visit www.cooper-atkins.com.

- ▶ **MOST EXTENSIVE PROBE LINE IN THE INDUSTRY**
- ▶ **ALL PROBES MANUFACTURED IN AN ISO 9001:2008 FACILITY**



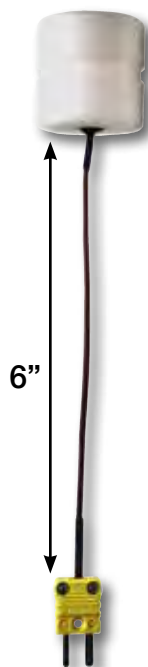
39138-K

**Air Bare Tip w/
36" Cable**

| | |
|----------------------------|-------------------------------------|
| Temperature Range: | -328° to 400°F (-200° to 205°C) |
| Max Tip Temperature: | 400°F (205°C) |
| Max Cable Temperature: | 400°F (205°C) |
| Response Time: | 1 sec. liquid & 7 sec. 5 m/sec. air |
| Shaft Length: | - |
| Cable Length Max Extended: | 36" (914 mm) FEP Jacket |
| Weight: | 1 oz (28 g) |
| Warranty: | 1 year |



52048-K
Thermocouple Solid Simulator Simulates food product temperature. Mounted with a cable-tie.

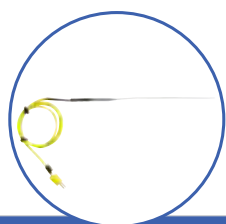


appropriate probe for the application. Cooper-Atkins' thermocouple probes are the most extensive line you will find is designed by Cooper-Atkins engineers, manufactured in our U.S. facility and built with high-temperature, abrasion-for probe interchangeability with minimal impact on total system accuracy.

that can be custom-designed for specific needs. For information on any item not shown or listed here, please contact

► CUSTOM MANUFACTURING AVAILABLE FOR UNIQUE APPLICATIONS

Miscellaneous Probes



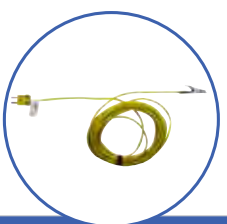
49138-K

Air Bare Tip w/
48" Cable



50305-K

Mountable
Freezer/Cooler
Probe



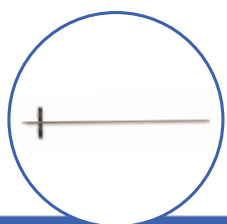
50415-K

Dishwasher
Probe



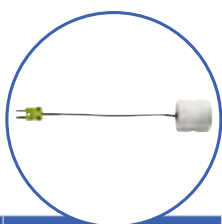
50416-K

Air Probe Bare
Tip 15' Cable



50701-K

Combo Probe
- Heavy Duty
T-Handle



52048-K

Solid Simu-
lator

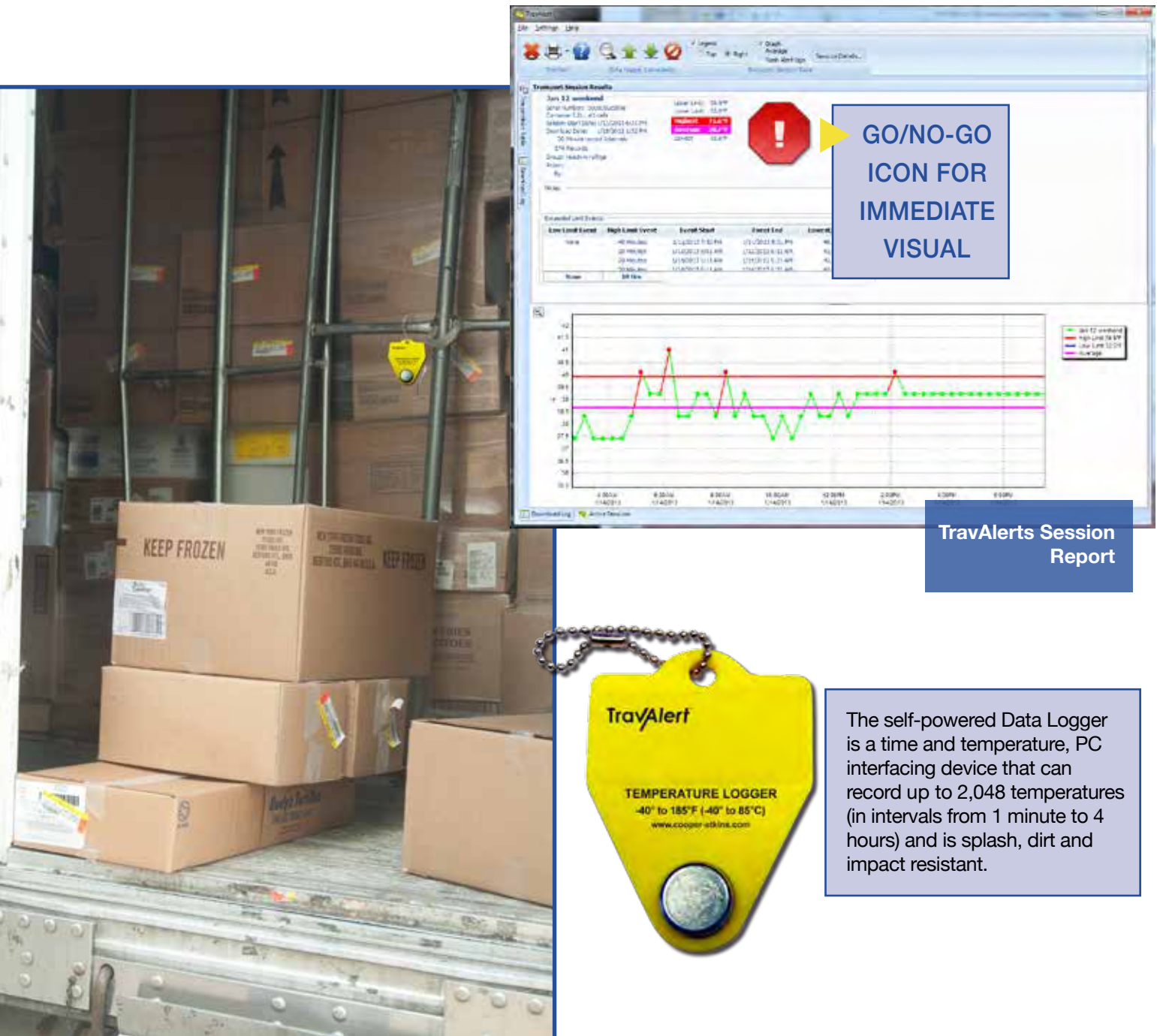
| | | | | | |
|---|----------------------------------|----------------------------------|--|--|--|
| 32° to 896°F (0° to 480°C) | -40° to 400°F (-40° to 205°C) | -67° to 221°F (-55° to 105°C) | -328° to 400°F (-200° to 205°C) | -100° to 500°F (-73° to 260°C) | -40° to 180°F (-40° to 82°C) |
| 896°F (480°C) | 400°F (205°C) | 221°F (105°C) | 400°F (205°C) | 500°F (260°C) | 180°F (82°C) |
| 896°F (480°C) | 176°F (80°C) | 221°F (105°C) | 400°F (205°C) | 400°F (205°C) | - |
| 1 second liquid 9 sec. 5 m/sec. air | 25 seconds air | 9 seconds in 5 m/sec. air | 1 sec. liquid & 7 sec. 5 m/ sec. air | 2 seconds liquid | Stabilization of Simulator - up to 2 hours |
| - | - | - | - | 35" (889 mm) | - |
| 48" (1.2 m) Fiberglass Jacket | 24" (610 mm) FEP Jacket | 15' (4.6 m) PVC Jacket | 15' (4.6 m) FEP Jacket | 36" (914 mm) Fluoroelasto- mer Jacket | 6" (152 mm) FEP Jacket |
| 1 oz (28 g) | 3 oz (85 g) | 3 oz (85 g) | - | 15 oz (425 g) | 2.5 oz (71 g) |
| 1 year | 1 year | 1 year | 1 year | 1 Year | 1 year |

DATALOGGERS

Dataloggers are commonly used for monitoring storage temperatures during and record temperatures of stationary refrigeration units or hot-holding cabinets. resistant.

▶ **ALL READINGS FOR SESSION SHOWN IN GRAPH AND TABULAR FORMAT**

IN-TRANSIT DATA LOGGING



transportation and provide highly accurate data for use in the foodservice industry. They can also be used to monitor Our self-powered data loggers are time and temperature, PC interfacing devices that are splash, dirt and impact

- ▶ **RECORD UP TO 2,048 TEMPERATURES
(IN INTERVALS FROM 1 MINUTE TO FOUR HOURS)**
- ▶ **REPROGRAMMABLE FOR MULTIPLE USES**

TravAlert

2300

9387 Data Logger (5)
9364 i-Button Reader Cable (2)
9365 USB Adapter (2)
9386 Software CD (2)



9386

Software
CD-Rom



9387

Logger Tag

2302

9387 Data Logger (5)
9364 i-Button Reader Cable (1)
9365 USB Adapter (1)
9386 Software CD (1)

GL100

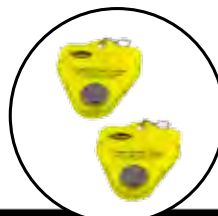
GL100-01

9387 Data Logger (5)
9364 i-Button Reader Cable (1)
9365 USB Adapter (1)
9386 Software CD (1)



9345

GL100 Software



GL100

Data Logger Kit

Accessories



9364

2300/GL100
Reader Cable



9365

2300/GL100
USB Adapter



9378

Disposable
Transit Pouches

SPECIFICATIONS

Temperature Range: -40° to 185°F (-40° to 85°C)

Accuracy: ±2°F (±1°C) from -22° to 176°F (-30° to 70°C)

Resolution: 1°F (0.5°C) increments

Recording Intervals: 1-255 user-programmable intervals up to 2,048 readings

Tag: ABS plastic, water-resistant tag with stainless steel button

Reprogrammable for multiple uses

Battery: Lithium

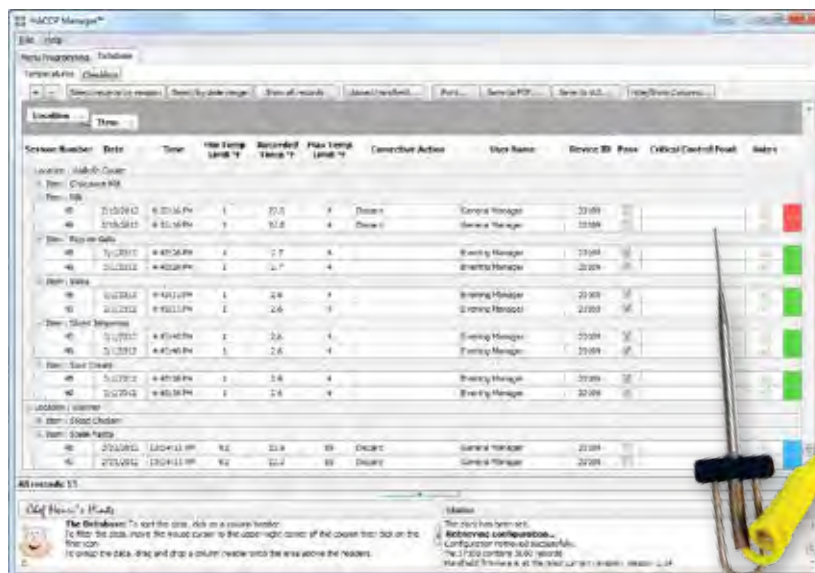
Warranty: 1 year

HACCP MANAGER SOLO

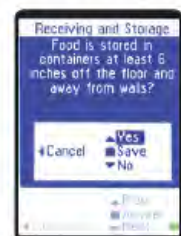
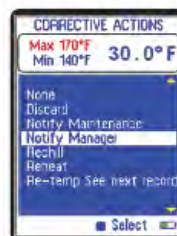
Collecting temperature and task list data has never been easier or more reliable. of-the-art system features a thermocouple thermometer that allows you to collect Not only will the quality of your foods be consistent, but with proper attention to

- ▶ **TRANSFER DATA EASILY BETWEEN HANDHELD AND PC**
- ▶ **HANDHELD STORES UP TO 3,000 RECORDS**

MAINTAIN MENUS AND CHECKLISTS DIGITALLY



To reduce managing reams of paper logs that are laborious to analyze, the Handheld collects and stores that information, significantly saving time and streamlining the process of specific HACCP requirements - a huge benefit.



Use the HACCP Manager in place of paper, pencil and clipboards and stop stuffing those filing cabinets! This state-information on everything from HACCP procedures, product temperatures, corrective actions and visual inspections. preset CCP's food preparation will be safe from bacterial contamination.

► STORE MULTIPLE MENUS FOR EASY RECALL

Kits

93710

Solo Kit

Kit includes a 50209-K MicroNeedle Probe, USB Cable and battery charger.

Software

9384

Solo Software

USB Installable Software

The easy-to-install software comes with a comprehensive Help menu should there be a question on setting up CCPs and parameters, downloading or running reports.

Handhelds



37100

Solo Handheld

Accessories



9382

US Adapter & Battery Charger



9382

USB Cable



9393

3 pack Adapters Euro, UK & Australia



9381

Replacement Battery

Specifications

Temperature Range: -99.9° to 999.9°F (-73.2° to 537.7°C)

Accuracy: ±1°F (±0.5°C)

Stores up to 3,000 temperatures and 300 menu items

Stores 1,500 checklist records (150 questions)

Water resistant

ABS Plastic with protective rubber boot

Accepts all Type K thermocouple probes

Traceable to NIST standards

Rechargeable lithium ion battery

5-year warranty

**GREAT FOR SMALL AND
SINGLE LOCATION BUSINESSES**

System Requirements

Windows XP, Vista, Windows 7

Universal Serial Bus (USB) port

512 MB of memory

500 MB of hard disk space

USB Drive

HACCP MANAGER ENTERPRISE

A more versatile HACCP Manager system, HACCP Manager Enterprise was from HACCP Manager Solo is that the Enterprise version allows a company of multiple reporting structures, typically including regions, districts, restaurants, etc., any location.

Two models of the Handheld are available, the 37200 and 37500 Wi-Fi. The main for communication.

► MULTIPLE LOCATIONS' DATA AVAILABLE AND MANAGED FROM A SINGLE, REMOTE PLATFORM

AUTOMATE HACCP PLANS FOR MULTIPLE LOCATIONS!



DEVELOPED
WITH A CUSTOM
HIERARCHY
THAT ALLOWS
YOU TO MIMIC
YOUR SPECIFIC
RESTAURANT
STRUCTURE!

Kits

| 93751 | 93755 |
|---|-----------------------------------|
| 37200 Handheld | 37500 WiFi-enabled Handheld |
| Both Kits include a 50209-K MicroNeedle probe, USB cable and battery charger. | |



developed in order to allow users to network multiple locations within a single dashboard. The main functional difference any size and any number of locations to set up multiple levels (completely customizable) that can accommodate and dictate the specific user security permissions at each level. All data can be stored, reviewed and analyzed from

difference is the 37500 has a built-in WiFi module to allow wireless data transfer, whereas the 37200 requires a USB

- ▶ **CREATE GLOBAL MENUS AND TASKS/CHECKLISTS FOR MULTIPLE LOCATIONS**
- ▶ **CUSTOMIZE ADVANCED PERMISSION SETTINGS BASED ON USER ROLES FOR SPECIFIC FUNCTIONS**

Software



10755

**HACCP Manager
Enterprise Software**

Handhelds



37200

**Enterprise
Handheld**



37500

**Enterprise
WiFi Handheld**

SUPPORT & TRAINING

On-board training speeds up configuration and remote support with any issues simplify and speed up diagnosing and helping with issues.

Accessories



9382

**US Adapter &
Battery Charger**



9383

USB Cable



9393

**3 pack Adapters Euro,
UK & Australia**



9381

**Replacement
Battery**

MINIMAL UPFRONT COSTS

Hosted software requires minimal capital - nothing to install, manage, or keep up to date; accessible from anywhere with internet access.

Specifications

Temperature Range: -99.9° to 999.9°F (-73.2° to 537.7°C)

Accuracy: $\pm 1^{\circ}\text{F}$ ($\pm 0.5^{\circ}\text{C}$)

Stores up to 3,000 temperatures and 300 menu items

Stores 1,500 checklist records (150 questions)

Water resistant

ABS Plastic with protective rubber boot

Accepts all Type K thermocouple probes

Traceable to NIST standards

Rechargeable lithium ion battery

5-year warranty

System Requirements

Windows XP, Vista, Windows 7 or higher

Internet Explorer 8 or higher, Firefox, Opera, Chrome or Safari

Microsoft XML

2 GB RAM

Intel/AMD Processor 2.0+ GHz

Network Card 10/100/1000 MB

20GB Hard Drive

Adobe Acrobat Reader, Microsoft Word/Excel (recommended for viewing exported reports)

USB Drive (for connecting the 37200 handheld and configuring the 37500)

HACCP MANAGER MOBILE

The HACCP Manager Mobile™ App is designed to allow you to easily perform menu and checklist work activities with a smart device. The HACCP Manager Mobile App is downloaded to a personal smart device, working in conjunction with the Cooper-Atkins Blue2 thermocouple instrument. Temperature data that is collected from the Blue2 and checklist data that has been entered is stored in the app, and then transferred to the HACCP Manager Enterprise software.

- ▶ **MULTILINGUAL - ENGLISH, SPANISH, FRENCH, DUTCH, GERMAN, MANDARIN**
- ▶ **CORRECTIVE ACTION PROMPTS**
- ▶ **TEMPERATURE STABILIZATION WITH OUT-OF-RANGE INDICATORS**



Minimum App Requirements

iOS Devices

- The minimum iOS version is 7.0
- iPhone 4S and later, iPod Touch 5th gen and later,
- iPad 3rd gen and later, iPad mini

Android Devices

- Android 4.4 (KitKat) or later operating system
- The Samsung Galaxy S series, Galaxy Tab series, Motorola Moto G 3rd Generation, ASUS ZenPad 9.0 perform well
- Sub-standard devices include: Lenovo Tab 2 A10-70 running KitKat, RCA 10 Viking Pro running Lollipop, Nextbook Ares 8 running Lollipop

Windows Devices

- Windows phones require Windows version 8.1
- All other devices (tablets, laptops, etc) require Windows 10

For Blue2 Instrument Compatibility

- Device must have Bluetooth 4.0+ radio to work with the Blue2 instrument

Instructions

The Cooper-Atkins HACCP Manager Mobile App can be downloaded for free from Google Play, Apple Store, and Microsoft Store.



BLUE2

The Blue2 eliminates handwritten temperature monitoring by wirelessly transmitting temperatures to a Bluetooth-enabled smart device. The Blue2 instrument was designed to support and improve current business practices such as HACCP compliance as well as automating your checklists and other travel path processes. The Blue2 instrument can utilize any interchangeable Type-K thermocouple temperature probe making it versatile for insertion, air or surface temperature measurement. The data can be integrated into existing third party applications.

- ▶ **IPX7 WATERPROOF**
- ▶ **QUARTER LIMIT WIRE PROBE PROVIDES $\pm 1.5^{\circ}\text{F}$ TOTAL SYSTEM ACCURACY**
- ▶ **LE PAIRING CONSERVES BATTERY LIFEABLE TO NIST STANDARDS**

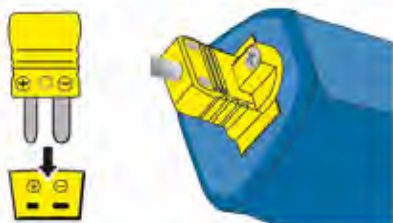


The Blue2 unit works with the HACCP Manager Mobile app and third party apps for increased versatility.



Interchangeable Probes
Can be used with any Type K probe.

51337-K DuraNeedle Probe
Utilizes unique screw-lock



92010-K Kit Includes

- 20100-K Blue 2 Instrument
- 51337-K DuraNeedle
- Direct Connect Probe



Specifications

#20100-K Blue2 Instrument

Temperature Range: -40° to 999°F (-40° to 537°C)

Ambient Operating Range: 32° to 122°F (0° to 50°C)

Resolution: 0.1°

Accuracy: $\pm 0.5^{\circ}\text{F}$ with ambient temperatures between 68° to 86°F , add $\pm 0.1^{\circ}\text{F}$ per degree outside of this ambient range

RF Range: 100 feet, line-of-sight

Bluetooth Low Energy

Power: Replaceable 3v Lithium cell battery (CR123A) (Included)

Battery Life: 500 hours

ABS plastic housing with antimicrobial additive

IPX7 waterproof rated

Traceable to NIST standards

5-year Warranty



Note: EMC Compliance: The Blue2 probe may record temperature measurements beyond the stated accuracy when exposed to radio frequency disturbances between 250Mhz and 1000Mhz with a field strength in excess of 3.0V/m. This deviation is temporary and the Blue2 will recover when the disturbance is removed.

NOTIFEYE

Wireless technology products are the most exciting thing happening in the your equipment every 5 minutes (24/7) without lifting a finger; or receiving an alert the restaurant to know what is going on!

The NotifEye monitoring system eliminates the time and expense of manual monitoring. This system is a low-cost wireless solution that is self-installable and The NotifEye sensors can be easily mounted in any location – wirelessly transmitting monitor temperatures against preset conditions that are defined by the user and

STOP WASTING TIME AND ENERGY MONITORING YOUR EQUIPMENT!



Multiple Applications:

- Refrigerator/Freezers
- Walk-ins/Reach-ins
- Prep Areas
- Dry Storage
- Salad/Deli Bars
- Steam Tables
- Open Air Cases
- Hot-holding Cabinets



Kits



15906

4 Sensor Kit



15907

2 Sensor Kit

Other



15400

Software
(1 Year Included
in Kits)



10185

Retrofit
Solid
Simulator

HOW IT WORKS

Wireless Sensors Send Data via Gateways to the NotifEye™ System and Send Out Instant Email and Text Alerts



foodservice industry today – especially when relating to food safety. Imagine, taking temperature/humidity readings of knowing that the cooler door is open and has been for the last 20 minutes. Better yet, you don't even have to be at

temperature collecting. No longer will you need to visit and record temperatures of equipment requiring frequent ready to use out-of-the-box.

temperatures to the monitoring software; collecting and recording every temperature like clock-work. Each sensor will will alert the user via email and/or text messages.

Sensors



15200

**Temperature
Sensor w/6' probe**



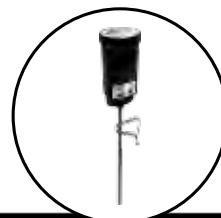
15220

Humidity Sensor



15230

Contact Sensor



15201-01

Immersion Probe

Hardware



15505

Gateway Kit



15506

Repeater



15503

Buffer



15504

Receiver

| General Specifications | |
|---------------------------------------|--|
| Sensor Range: | 2500 ft (typical interior range of 500 ft) |
| Power: | Replaceable 2/3A, 3v Lithium Ion battery |
| Battery Life: | 2.5 - 3 years |
| | 1-year warranty |
| #10185 Retrofit Solid Simulator | |
| Temperature Range: | -25° to 180°F (-32° to 82°C) |
| Stabilization: | Up to 2 hours |
| | FDA-approved Acetal |
| #15505 Gateway (Buffer and Receiver) | |
| Attached to network via | LAN network port |
| | 16 days (400 hours) of data storage for 200 sensors sampling every 15 minutes. |
| | Accommodates an unlimited number of sensors |
| #15506 Repeater | |
| Extends the range of the transmitters | |
| Transmits up to | 4 miles (open field range) |
| Onboard battery back-up with | 24 hours of life |

| #15200 Temperature Sensor* |
|--|
| Temperature Range: -25° to 180°F (-32° to 82°C) |
| Accuracy: ±1°F (±0.5°C) |
| Probe Lead Length: 6 ft. (1.82 m)* |
| #15220 Humidity Sensor |
| Relative Humidity Range: 0-90% RH |
| Ambient Operating Range: -4° to 140°F (-20° to 60°C) |
| Accuracy: ±2% (10-90% RH) |
| #15230 Contact Sensor |
| Magnet operation gap up to 0.75" |
| #15201-01 Immersion Probe |
| Temperature Range: -25° to 180°F (-20° to -60°C) |
| Accuracy: ±1.2°F (±0.5°C) |
| Probe Diameter: 0.25" (06.4 mm) |

*Temperature sensors available with longer probe leads:

15200-10 - 10 ft. (3.05 m)
15200-30 - 30 ft. (9.14 m)

TEMPTRAK

Many facilities are required to maintain consistent monitoring programs to ensure protocols are implemented is a challenge. Mistakes can compromise valuable Enterprise Wireless Environmental Monitoring. When seeking a facilitywide wireless technology for over 12 years.

Whether collecting and sharing data across town or across the country, the robust software platform.

THE DATA COLLECTED ASSISTS IN MEETING ELECTRONIC RECORD KEEPING COMPLIANCES FOR:

- FDA 21 CFR PART 11
- JOINT COMMISSION
- CDC
- HACCP



**compatible with current generation smartphones and tablets*

Why Choose TempTrak Enterprise?

- Facility-wide Solution
- Data Clustering
- On-site Recalibration
- BACnet Compatibility
- ISO 17025 Compliant
- NIST Traceable
- Professional Services
- Regulatory Compliance
- 900 MHz and/or WiFi
- Multiple Alert Options
- Cloud-based Software Deployment
- Made in the USA

900 Hardware



10000-5-P-US

10000-PDT Buffer
10000-US Receiver



10050-US

Repeater

Accessories



9398

AC Adapter for
WiFi Units



10119/10110

Waterproof
Enclosure

There are many, many more probe and monitoring options available. To view additional items, and review item specifications, please visit our website or contact us for more details!

food safety, product quality and government regulatory compliance. With manual data logs, ensuring that proper inventory, cause spoilage and put consumers' lives at risk. These challenges can be overcome by utilizing the TempTrak solution, more than 1200 businesses/campuses worldwide have selected TempTrak, a product at the forefront of

system allows monitoring of an unlimited number of points in an unlimited number of locaDons with a single, incredibly

900 MHz Transmitters



10080DT

Dual
Temperature



10071

Temperature
Humidity



10100-DT

Contact



10086

Analog

WiFi Transmitters



11078

Dual
Temperature



11079

Temperature
Humidity



11109

Contact



11089

Analog

Popular Probes



2020

Insertion
Probe



2033

Air Probe



10113

Solid Simulator
Probe



10140

Dishwasher
Probe

ACCESSORIES

Cooper-Atkins carries various accessories for your temperature instruments. increase cable length on any thermocouple probe.

- ▶ **INSTRUMENT STORAGE**
- ▶ **THERMOCOUPLE EXTENSION CABLES AND CONNECTORS**



▶ **PROBE WIPES ARE IDEAL FOR CLEANING AND SANITIZING.**



▶ **SEE PAGE 56 FOR INSTRUCTIONS ON HOW TO MAKE A PROPER ICE BATH**



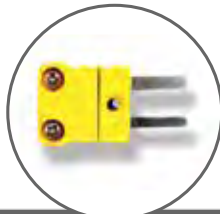
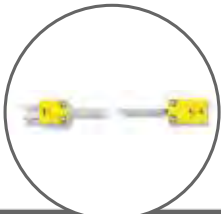
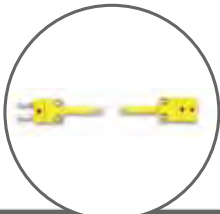
93230-K
with 50336-K DuraNeedle
Probe and wall mount

Instrument Storage



| | 9339 | 9368 | |
|-------------------|--|---|--|
| | Soft Pouch/ Case/Holster | EconoTemp Wall Bracket | |
| Dimensions: | 8.5" x 3.5" x 1" (220 mm x 90 mm x 25 mm) | 5" x 3-5/8" x 1-1/4" (127mm x 92mm x 32mm) | |
| Housing Material: | Nylon | ABS plastic | |

Extension Cables and Connectors



| 10045 | 10046 | 10040-K | PD1389-10 | |
|---------------------|--------------------------------|--|----------------|--|
| 10' Extension Cable | Reinforced 10' Extension Cable | 48" Coiled Retractable Extension Cable | Male Connector | |

Protect your investments by storing instruments in cases designed specifically for the unit and use extension cables to

► PROBE WIPES AND THERMOMETER VALIDATION

Instrument Storage

| | | | | | |
|--|---|---|---|--|---|
|  |  |  |  |  |  |
| 9369 | 9391 | 14057 | 14235 | 14240 | 14245 |
| AquaTuff Wall Bracket | Storage Wire Wall Rack | Soft Carrying Case | Medium Hard Carrying Case | Small Hard Carrying Case | Large Hard Carry Case |
| 4-5/16" x 2-7/8" x 1-1/2" (110mm x 73mm x 38mm) | 10.5" x 3 x 4.5" (267 mm x 76 mm x 114 mm) | 9" x 3.5" x 2" | 8" x 12" x 3" (203 mm x 305 mm x 76 mm) | 6" x 8.5" x 2.5 | 12" x 17" x 3" (304 mm x 431 mm x 76 mm) |
| ABS plastic | Cold-rolled steel frame and ABS plastic cup | Soft Vinyl | ABS plastic | ABS plastic | ABS plastic |

Accessories

| | | | | |
|--|---|---|--|---|
|  |  |  |  |  |
| PD1389-52 | 9150 | 9325 | 9351 | 9366 |
| Female Connector | Boxed Probe Wipes | ValCup Thermometer Validation Cup | .15" Diameter Pan/Vessel Clip | .25" Diameter Pan/Vessel Clip |

CARE & CLEANING

Properly cleaning your Cooper-Atkins instrument ensures quality performance and extends the life of your product.

General Instrument Care Guidelines

Do not clean with abrasives or solvents, use only mild detergents. Avoid contact with corrosive materials such as alcohol or other caustic cleaning agents. Wipe with a soft damp cloth to avoid scratching. If the unit is not waterproof, do not submerge or use excessive liquids when cleaning. Refer to our website for product specifications and waterproof ratings. Avoid exposing the instrument to severe shock. Be sure to utilize the supplied carrying case, storage pouch or wall-mount bracket. This provides a safe storage area and prevents build up of dust. After the instrument is cleaned and sanitized, dry and store. Do not use or store in excessively hot or cold areas.



Infrared Thermometers

Do not allow water or soap to get inside the instrument or on the lens. Avoid splashes and spills and do not submerge. The sensor lens is the most delicate part of the instrument and should be kept clean. Care should be taken when cleaning the lens. To remove particles from the lens, either wipe with a soft damp cloth, cotton swab with medical alcohol (on lens only), or use low pressure, compressed air. Do not use solvents to clean the lens as this may cause damage. Allow the lens to fully dry before using.

Thermocouple / Thermistor Insertion Probes & Digital / Bi-Metal Thermometers

To avoid cross-contamination, always clean thermometer stems thoroughly before and after each use. Do not allow the probe tip to remain in sanitizing solution for an extended period of time. Remove stubborn grease from the stem with a scouring pad or fine steel wool. Cooper-Atkins probe wipes help meet HACCP guidelines and are an ideal way of cleaning and sanitizing probe shafts between temperature checks. Avoid exposing the probe / thermometer to extreme temperatures.



Battery Replacement

If there is no display when the thermometer is turned on, check the condition of the batteries. Also check that the battery terminals are clean and batteries are properly installed. If batteries show signs of corrosion, remove immediately and replace. Refer to the product Operating Instructions or User Guide and Instrument Warranty booklet for battery installation and replacement guidelines. Always wash, rinse and sanitize these products.

Anti-Microbial Additive

The anti-microbial additive used in specified instrument housings, thermometer sheaths and timers, inhibits the growth of bacteria on the unit. However, it does not protect users or others against food bacteria.

For further information or questions on caring for your Cooper-Atkins products contact customer service at: info@cooper-atkins.com

VALIDATION & CALIBRATION

Using accurately calibrated thermometers is an essential component of any basic HACCP plan. Cooper-Atkins believes that every foodservice professional should implement validation testing into their regular routine to ensure their thermometers are accurate.

FACT OR FICTION?

Thermometer calibration is an FDA requirement.

FACT: Regular calibration of the device is an important practice and a provision of the Food Code. While calibration is a requirement, there are many misconceptions about the meaning of calibration. True calibration is a formal comparison of an item to a known standard of higher accuracy and is conducted within a controlled environment.

Validation, which many people think of as calibration, is the confirmation that your thermometers are accurate to within acceptable tolerances. It is a quick and easy comparison of a thermometer against a single temperature point, such as an ice bath, and can be performed onsite in your facility.

Requiring calibration does not mean adjusting the calibration settings.

FACT OR FICTION?

An appropriate foodservice thermometer must be adjustable in the field in order to meet calibration requirements.

FICTION: Against popular belief, adjusting a thermometer's accuracy is not a requirement. Some digital thermometers include an adjustment feature, often referred to as a calibration button, that allows a user to reset the accuracy that eliminates any error in the instrument that may have developed over time.

While this may sound like a useful feature, if the conditions are not controlled accurately, it could introduce more error at critical test temperatures! For example, say the actual temperature a thermometer is measuring is 36°F, but assumed to be 32°F (i.e. due to an improperly made ice bath) and is then adjusted to display 32°F. When this thermometer is used again and takes a reading of 40°F, the true temperature of the item being measured is really 44°F! When no "field" adjustment of calibration settings is introduced, you eliminate the risk of introducing error into the instrument.

FACT OR FICTION?

Using the ice bath method is an effective way to quickly validate the accuracy of your thermometers.

FACT: When validating thermometers, it is usually by means of a single test point such as an ice bath (32°F) and is a confirmation that the instrument is accurate within acceptable tolerances. When creating a proper ice bath, use crushed, not cubed ice and just enough water to displace the air that may be present between the ice chips. Tests show that using cubed ice can result in an ice bath with a baseline temperature higher than 32°F, which may result in a false reading.

While validation is a useful and important activity, it should not replace regularly scheduled calibration.

Cooper-Atkins' ValCup™ was designed to accurately validate all types of thermometers quickly and easily. Just follow the simple directions printed on the cup and insert your thermometer for fast results.



CHOOSING THE RIGHT THERMOMETER

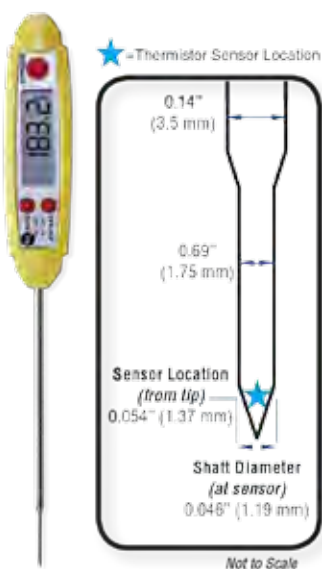
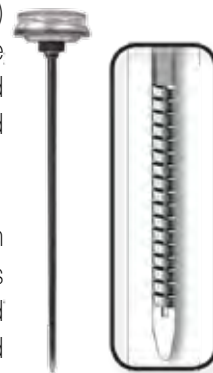
In a food safety system, temperature and time are the two most important in preventing bacterial growth in foods. Using the correct tools becomes an

Different sensor technologies are available that are within the recommended mechanical/bimetal types. Digitals yield a faster response and provide greater

When choosing a thermometer, the following points should be considered:

Bimetal. If you cut open a bimetal thermometer stem lengthwise, you would see a coil (about 2" in length) that senses the temperature. To register an accurate temperature, the entire coil must be exposed to the heat or cold source. Some thermometers have a dimple on the stem as a guide for insertion depth, and should not be used for thin product, like burger patties. The 0.14" (3.5 mm) diameter of the stem could leave an unsightly hole in some foods.

The coil expands (unwinds) or contracts (winds tighter) with change in temperature, turning the pointer on the dial, which could take up to 20 seconds to stabilize. The accuracy can be affected by shakes, drops and exposure to extreme hot and cold temperatures, so they are designed with a nut that can be turned to adjust the pointer. Even with its magnifying lens, a bimetal thermometer can be difficult to read and accurately assess where the pointer sits. Each tick mark, if viewed from the slightest angle, could throw the interpretation of the reading off by 1°, 2° or even 10°.



Thermistor Thermometers. Thermistors are a bead type ceramic-semiconductor-thermal resistor whose resistance varies with temperature. This bead is potted in a high-thermal conductive epoxy within the tip for a quick, <6 second response time. Thermistors are highly accurate within the regulatory temperature range and are ideal for use as compliance tools.

Cooper-Atkins AFL digital thermometers' tip diameter is 0.046" (1.19 mm) where the thermistor sensor is located, which is well within the recommended guidelines. Some digitals have tips soldered with alloys to achieve a thinner diameter stem, but this can lead to corrosion and possible breakage - leaving the tip in your food. Cooper-Atkins' NSF digital thermometers are laser welded of appropriate material to ensure maximum durability.

With a large digital display and tenth degree resolution there can be no assumptions made or judgement calls about the temperature reading. There are handheld thermistor instruments with interchangeable probes available, but the development of small chip technology also allows for pocket-size housing. A digital thermometer has factory calibrations set in its memory chip that cannot be affected by physical impact.

Thermocouple Thermometers. A thermocouple measures voltage produced at the junction of two fine wire conductors located in the tip of the probe. Typically smaller and more robust than a potted thermistor, a thermocouple probe with a welded tip offers a rapid response of 2 to 5 seconds within a much broader temperature range.

The small junction size enables it to fit in the narrowest of probe shafts. The FDA recommends the use of a thermocouple device for determining the temperature of thin foods such as hamburger patties, pork chops, and chicken breasts. Cooper-Atkins' extensive line of probes offer multiple options that fall within these guidelines.

The best units available have a total-system-accuracy, or TSA (the accuracy of the probe and instrument combined) of $\pm 0.9^{\circ}\text{F}$ ($\pm 0.5^{\circ}\text{C}$). Even the more economical systems have a TSA of $\pm 2^{\circ}\text{F}$ ($\pm 1^{\circ}\text{C}$), and are within the recommended guidelines.



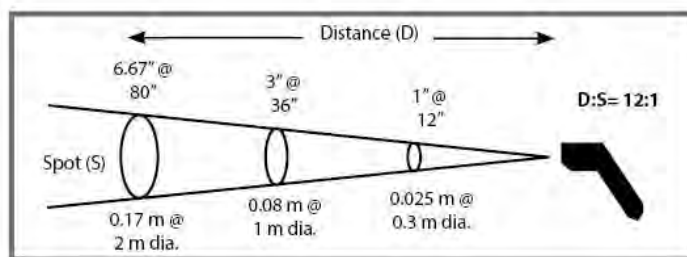
components in preventing foodborne illness. Proper cooking, storing, holding and monitoring of temperatures is vital essential component of your food safety plan.

guidelines for the foodservice temperature range. Electronic/digital thermometers tend to be preferred over the older overall accuracy with little to no drift out of calibration, so are less likely to give variable readings.

temperature range and resolution, the sensing element & insertion point, accuracy and calibration.

Infrared Thermometers. Non-contact infrared thermometers measure surface temperatures. The further away you are from the object, the larger the surface area is being measured. This optical resolution is expressed as a ratio of the distance to the diameter of the spot. An infrared thermometer collects the energy from a circular measurement spot and focuses it on the detector which converts the energy to an electrical signal that can be displayed in units of temperature after being compensated for ambient temperature variation.

When an infrared thermometer measures surface temperatures, it can potentially sense all three types of energy; therefore, the instrument must be adjusted to read only emitted energy. Some infrared thermometers allow you to change the emissivity in the unit. Others have a fixed, pre-set emissivity. Cooper-Atkins Infrared Thermometers are set at 0.95 or .97, which is the emissivity value for most organic materials and painted or oxidized surfaces. When measuring shiny surfaces such as aluminum or stainless steel, the reflectivity of the surface may skew the reading of an infrared thermometer. If needed, coat the shiny surface with a non-stick cooking spray prior to taking the reading.



Data Loggers. Temperature logging devices collect temperature data while sensitive inventory is in transit. Typically used in stationary equipment and meal delivery carts, these small battery operated data loggers document environmental data. When the shipment arrives at its destination, the data logger is connected to a PC to view the data to ensure proper temperatures were maintained throughout transit, allowing the recipient to accept or reject the delivery.

Automated Handheld Devices. Portable handheld devices combine sophisticated software with a traditional thermocouple instrument to collect, track, and store food temperature data. Some models also allow users to walk through procedural checklists, helping to ensure key tasks are completed consistently. These portable hand-held devices make adhering to HACCP guidelines less cumbersome. When a temperature or checklist item is out of the user designated range, many of today's models prompt users to take corrective action, all of which is documented for later viewing and analysis via the accompanying software.











Wireless Equipment Monitoring. Wireless monitoring systems protect inventory and help ensure equipment is working correctly by automatically measuring critical metrics, such as temperature and humidity. Equipment including walk-ins, freezers, dish machines, hot-holding boxes, and dry storage rooms, can all be monitored to ensure food quality and safety. If readings fall outside of preset limits, notifications can be sent to the appropriate people. This type of technology is a great investment that ensures food is kept at safe temperatures, and will prevent costly food spoilage due to equipment failure.

PROBE INFORMATION

Thermocouple Types: The probe thermocouple Type (J, K, or T) must match that of the thermocouple instrument. Specifications shown in this catalog are for thermocouple Type K models. Probes are also available in thermocouple types J and T (as indicated in the probe tables). In some cases, the upper temperature limits for types J and T may differ from that shown in the catalog. For availability or specifications please contact Customer Service at: 800.835.5011 or 860.347.2256.

PROBE CABLE STYLES

| | |
|---|--|
|  | Flexible Cable with PVC Jacket: PVC insulation on primaries and outer jacket. PVC offers good abrasion and chemical resistance. |
|  | Coiled Retractable Cable: Polyurethane outer jacket. PFA insulation on primaries. Polyurethane offers excellent abrasion resistance and good chemical resistance. |
|  | Flexible Cable with FEP Jacket: FEP insulation on primaries and outer jacket. FEP offers excellent abrasion and chemical resistance. |
|  | Flexible Cable with Fluoroelastomer Jacket: Custom, patented Cooper-Atkins cable with Aramid fillers and metal braid for strength. Fluoroelastomer offers outstanding abrasion and chemical resistance. Connector design for use of Wrap&Stow™ Thermocouple Instruments. |
|  | Flexible Armored Cable: FEP-jacketed cable protected by flexible, stainless steel, armored hose. The armored hose protects the cable and offers outstanding abrasion, cut and chemical resistance. |
|  | Flexible Cable with Silicone Jacket: Silicone outer-jacketed cable with Aramid fillers. Silicone offers good abrasion and chemical resistance. |
|  | Flexible Cable with Woven Stainless Steel Overbraid: Polyimide film insulation on primaries and outer jacket. Cable protected by stainless steel overbraid. Offers outstanding abrasion and cut resistance and good chemical resistance. |
|  | Flexible Cable with Fiberglass Jacket: Woven fiberglass insulation with a resin coating on primaries and outer jacket. Excellent for high temperature applications. Not recommended for abrasive, high-flex or foodservice applications. |

Type K



Type J



Type T



Accuracy Tolerances for Standard Thermocouples (A.N.S.I. MC 96.1 - 1982)

Type K Thermocouples

Above 32°F or 0°C: $\pm 0.75\%$ of reading (or $\pm 4^\circ\text{F}$ (2.2°C) whichever is greater) to 2,282°F ($1,250^\circ\text{C}$)

Below 32°F (0°C): $\pm 2.0\%$ of reading (or $\pm 4^\circ\text{F}$ (2.2°C) if greater) to -328°F (-200°C)

Type J Thermocouples

Above 32°F or 0°C: $\pm 0.75\%$ of reading (or $\pm 4^\circ\text{F}$ (2.2°C) whichever is greater) to 1,382°F (750°C)

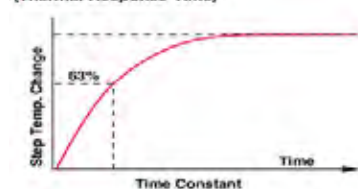
Below 32°F (0°C): No A.N.S.I. specification.

Type T Thermocouples

Above 32°F or 0°C: $\pm 0.75\%$ of reading (or $\pm 1.8^\circ\text{F}$ (1.0°C) whichever is greater) to 662°F (350°C)

Below 32°F (0°C): $\pm 1.5\%$ of reading (or $\pm 1.8^\circ\text{F}$ (1.0°C) if greater) to -328°F (-200°C)

Time Constant
(Thermal Response Time)



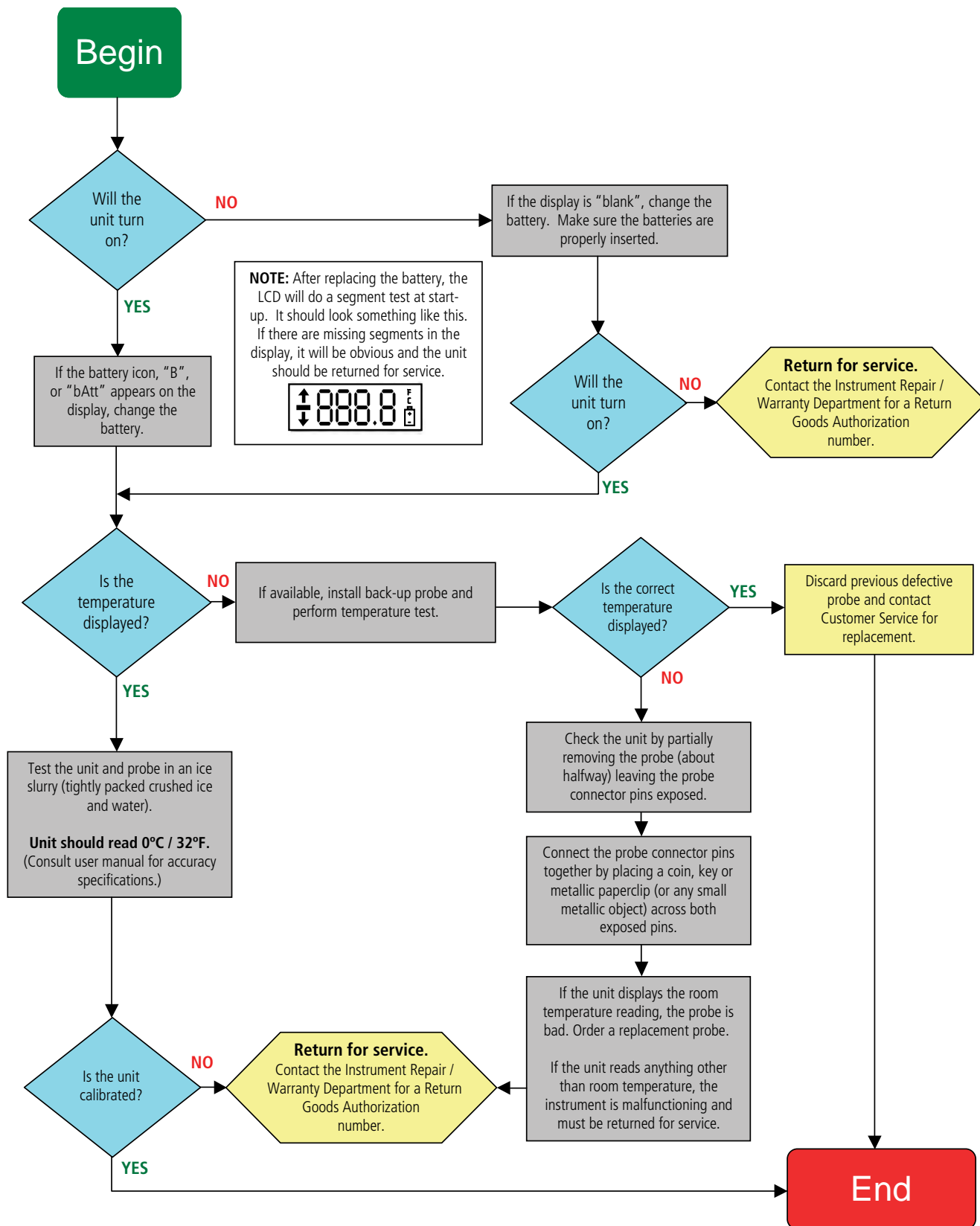
The response time of a thermocouple probe temperature can be graphed as an exponential function. One time constant is defined as the time required to reach 63.2% of the temperature change, two time constants is 86.5% and three is 95% of the temperature change. At Cooper-Atkins, the response time is stated at three time constants of the temperature change. Response times are intended as a general guideline and can differ in actual usage conditions. All testing done at the factory is under controlled conditions.

Probes with special limits of error cables are available for quote to high volume users. Avoid damage by not over-stretching or kinking the probe cables. Detach probe from the instrument by holding the plug firmly; do not pull plug out by the cable or damage may result.

THERMOCOUPLE TROUBLE- SHOOTING

THERMOCOUPLE INSTRUMENT TROUBLESHOOTING GUIDE

Follow these steps to troubleshoot your thermocouple issue.



SERVICE & SUPPORT

When you purchase from Cooper-Atkins, you are receiving the highest quality products available and the best overall value for your investment. The quality, features and benefits built into our instruments offer you the protection of knowing a critical piece of your food safety plan is highly reliable and guaranteed.

Hardware Support

When you call our Technical Service Centers, a representative will attempt to isolate the problem over the phone. If they are unable to isolate the problem, you will be asked to return the product for further inspection.

In this case:

- You will be given a Return Goods Authorization (RGA) number.
- You will be asked to send the item(s) to our Service Center for evaluation by our Technical Service Specialists.
- The item(s) will be serviced, and if the problem is covered under our warranty terms, the item will be repaired/replaced in 3-5 business days and returned to you, free of charge. If the problem is not covered by our warranty terms, the Cooper-Atkins Instrument Repair/Warranty Department will call you within 3-5 days of receipt of your instrument to offer the option of repair at the repair price, or ordering a new unit at a discounted price. Based upon your approval, Cooper-Atkins will ship the repaired or replacement items and/or probes to you.

COOPER-ATKINS WARRANTY DEPARTMENT
Phone support is available **7 days a week on 01793 538308**

service@mcstechproducts.co.uk

Return Address
CA Service Dept
MCS Technical Products Ltd
Building 2, Westmead Ind Est
Westmead Drive
Swindon, SN5 7YT

Software Support

We know how important both after-sale and ongoing factory support is to the successful implementation of a complete temperature monitoring program. That is why we utilize only our staff to install, train and support all of our customers. Our I-Care Support Team has been developed to provide the highest level of customer service.

CONTACT INFO
MCS Technical Products Ltd
7 day service number 01793 538308
service@mcstechproducts.co.uk

THERMOCOUPLE AND PROBE WARRANTY

Atkins' Thermocouple Instruments and Probes are covered by the industry's leading Warranty program. This Warranty program, combined with Cooper-Atkins' 128+ years of equipment experience, assures your instrument will provide many years of reliable service as it is specifically designed to withstand the rigors of a foodservice application.

THERMOCOUPLE WARRANTY

Your Thermocouple Instrument has a 5-year warranty against manufacturing or material defect.

For the AquaTuff™ Instruments you can identify the date of manufacture by the serial number located on the back of all models. For the EconoTemp™ models, the serial number is located inside the battery compartment.

Your Thermocouple Instrument has a 9-digit code, followed by the model number. The first two digits represent the month of manufacture, the second two digits represent the day of manufacture, and the third two digits are the year of manufacture.

AquaTuff™ Thermocouple Instruments



The AquaTuff Thermocouple Instrument above, serial number 011612049-35100-K, was manufactured on January 16, 2012.

EconoTemp™ Thermocouple Instruments



The EconoTemp Thermocouple Instrument above, serial number 011011020-32311-K, the date of manufacture was January 2011.

PROBE WARRANTY

Your Thermocouple Probe has a 1-year warranty against manufacturing or material defect.

You can identify when your probe was manufactured by the 4-digit serial number. On the coiled retractable cable probes and the direct connect probes, the serial number is located on the label fastened just above the mini-connector. On the Wrap&Stow™ probes, the serial number is located on the underside of the connector below the 2 insertion pins.

The first two digits represent the week and year of manufacture and the second two digits represent the year of manufacture. (For example: serial number 4612 was manufactured in the 46th week of 2012.)

Probe with Coil Cable



Direct Connect Probe



Wrap&Stow Probe



GLOSSARY

C: Celsius (or centigrade) relationship between Centigrade and Fahrenheit can be found by multiplying Celsius degrees by 1.8 and then adding 32. For example 20°C is equal to $(20 \times 1.8) + 32 = 68^{\circ}\text{F}$.

°F: Fahrenheit
 $^{\circ}\text{F} = 1.8 \times ^{\circ}\text{C} + 32$
 inversely
 $^{\circ}\text{C} = (^{\circ}\text{F} - 32) / 1.8$

ABS: Acrylonitrile-Butadiene-Styrene plastic known for its toughness, impact strength, dimensional stability, lightweight, and surface appearance.

Accuracy: The accuracy of a measurement is its closeness to a defined true or reference value.

Ambient: The conditions surrounding the instrument (temperature, humidity, etc.)

Ambient Operating Range: Range in the ambient temperature and Relative Humidity over which the instrument is designed to operate.

Blackbody: A theoretical object that radiates the maximum amounts of energy at a given temperature, and absorbs all the energy incident upon it. (The name blackbody was chosen because the color black is defined as the total absorption of light energy). Used in testing calibration of infrared thermometers.

Boiling Point: The temperature at which a substance in the liquid phase transforms to the gaseous phase; commonly refers to the boiling point of water which is 212°F (100°C) at sea level.

Calibration: Zeroing of an instrument to a known standard.

Calibration Procedure: A procedure that is performed to determine and set the parameters affecting an instruments performance in order to ensure its designed function within prescribed limits.

Capillary: A tube with a small bore connecting the sensor to the meter.

Clear: To restore a device to a prescribed initial state, usually the zero state.

Cold Junction: The point at which thermocouple wires are joined inside the meter.

Contamination: The unintended presence of harmful

substances or micro-organisms in food.

Three contamination types are:

Biological: Bacteria, viruses, parasites, and fungi

Chemical: Pesticides, food additives, cleaning supplies

Physical: Foreign matter such as dirt, broken glass and other objects that get into the food.

Control Point: Temperature at which a system is to be maintained.

Critical Control Point (CCP): A step at which control can be applied and is essential to prevent or eliminate a hazard or to reduce it to an acceptable level.

Cross-contamination: The transfer of harmful substances or disease-causing micro-organisms to food by hands, food-contact surfaces, or cleaning cloths that touch raw food, are not cleaned and sanitized, and then touch ready-to-eat food. Cross contamination can also occur when contaminated food or stored raw food touches or drips fluids on cooked or ready-to-eat food.

Data/Temperature Hold: The ability to freeze the display on any given measurement. Useful in applications where the instrument is not easily read while a measurement is being made.

Delta: Represents the difference between two temperatures: i.e., higher temperature minus lower temperature. Delta is the difference.

Emissivity: At a given wavelength the ratio of the infrared energy radiated by an object at a given temperature to that emitted by a blackbody at the same temperature. The emissivity of a blackbody is unity in all wavelengths.

Environment: The surroundings in which an operation is carried out including the buildings, facilities, stationary and moveable equipment, personnel, raw materials, utensils, ingredients and other materials that are used in the process.

Food Pathogens: Micro-organisms that can cause foodborne disease.

Foodborne Illness: A disease that is carried or transmitted to people by food.

Freezing Point: The temperature at which the substance goes from the liquid phase to the solid phase.

HACCP: Hazard Analysis Critical Control Points, is a quality safety system that focuses on the process of food in an operation to reduce risk.

Hygrometer: An instrument used in measuring humidity.

Ice Point: A comparison of values from a temperature measurement device to a more accurate device, where the medium is at an ice point reference of 32°F (0°).

Ice Slurry: Used in calibrating thermometers, an ice slurry is a glass of crushed ice filled with water. This brings the temperature to 32°F (0°C) for low-end calibration.

Infrared: An area in the electromagnetic spectrum extending beyond red light from 760 nanometers to 1000 microns. It is the form of radiation used for making non-contact temperature measurements.

Infrared Thermometer: An instrument that determines the temperature of an object by means of detecting and quantifying the infrared radiation emitted therefrom.

ISA: Instrument Society of America

J-Type Thermocouple: The two thermocouple wires are made of Iron and Copper-Nickel

K-Type Thermocouple: The two thermocouple wires are made of Nickel Chromium and Nickel Aluminum.

LCD, Liquid Crystal Display: Used on many handheld instruments because of its easy readability and very low power use.

LED, Light Emitting Diode: A semiconductor diode that emits light when voltage is applied.

Maximum Operating Temperature: The maximum temperature at which an instrument or sensor can be safely operated.

Min/Max/Average: Some instruments will record the minimum and maximum temperature and give the average temperature reading based on the min and max.

NIST: National Institute of Standards and Technology, USA

NIST Traceability: Calibration in accordance with and against standards traceable to NIST. Traceability to NIST is a means of ensuring that reference standards remain valid and their calibration remains current.

NSF: National Sanitation Foundation, is best known for its role in the developing of standards and criteria for equipment, products, and services that bear upon health. The NSF mark is widely recognized as a sign that the article to which it is affixed complies with the applicable NSF standard.

Range: The full scale value for a specific instrument setting.

Ready-to-Eat Meat & Poultry Products (RTE): Meat and poultry products that do not require further heating prior to consumption.

Reference Junction: The cold junction in a thermocouple circuit which is held at a stable, known temperature. The standard reference temperature is 32°F (0°C).

Resolution: The smallest unit that can be detected and displayed by a measurement device.

RH: Relative Humidity in % as opposed to absolute humidity which is in ppm. 100% RH means that at hot particular temperature, the air cannot absorb anymore humidity and any additional amount will become water. As the temperature increases, the % RH drops hence allowing more water to be absorbed.

RTD: Resistance Temperature Detectors

Sanitize: Reducing the harmful micro-organisms on a surface to safe levels. It is not a substitute for cleaning. Food-contact surfaces must be cleaned and rinsed before they can be effectively sanitized.

Spirit Filled: A glass tube that uses an alcohol or petroleum liquid inside instead of mercury.

Storage Temperature Range: The ambient temperature range an instrument can survive in non-operating mode and perform within specifications when expected.

Target: The target upon which the temperature is determined in an infrared reading.

Temperature Error: The maximum change in output, at any measured value within the specified range, when the transducer temperature is changed from room temperature to specified temperature extremes.

Thermistor: A semiconductor device whose resistance changes with the temperature.

Thermocouple: Denotes two wires composed of dissimilar metals that are joined together at both ends. When one end is heated, a potential difference is generated that is proportional to the junction temperature.

Thermometer: An instrument that measures temperature.

T-Type Thermocouple: The two thermocouple wires are made of Copper and Copper-Nickel

UL, Underwriters Laboratories: An independent testing agency traceable to the National Bureau of Standards. Tests products for safety and performance.

Validation: the determination of the degree of validity of a measuring device.

PRODUCT INDEX

| MODEL NO. | PAGE | MODEL NO. | PAGE | MODEL NO. | PAGE | MODEL NO. | PAGE | MODEL NO. | PAGE |
|------------|------|-------------|------|-----------|------|-----------|---------|-------------|---------|
| 10040-K | 53 | 2300 | 41 | 49122-K | 27 | 51337-K | 33 | 9387 | 41 |
| 10045-K | 53 | 2302 | 41 | 49126-K | 27 | 52048-K | 39 | 9391 | 53 |
| 10046-K | 53 | 24HP-01-1 | 3 | 49127-K | 33 | 535-0-8 | 7 | 9393 | 43 & 45 |
| 10051-K | 53 | 255-06-1 | 9 | 49135-K | 27 | 55032 | 25 | 9406 | 19 |
| 10052-K | 53 | 255-14-1 | 9 | 49136-K | 39 | 55035 | 25 | 93970-K | 23 |
| 10185 | 49 | 2560 | 7 | 49138-K | 37 | 55040 | 25 | 94003-K | 23 |
| 10755 | 45 | 25HP-01-1 | 7 | 49140-K | 29 | 6142-06-3 | 11 | 94020-K | 21 |
| 1236-17-1 | 1 | 268-02-8 | 9 | 50001-K | 35 | 6142-13-3 | 11 | DFP450W-0-8 | 15 |
| 1236-70-1 | 3 | 26HP-01-1 | 3 | 50012-K | 35 | 6142-20-3 | 11 | DM120-0-3 | 11 |
| 1246-01-1 | 1 | 31901-K | 27 | 50014-K | 35 | 6142-58-3 | 11 | DM120S-0-3 | 11 |
| 1246-01C-1 | 1 | 31903-K | 37 | 50101-K | 27 | 6642-06-3 | 11 | DM450-0-3 | 13 |
| 1246-02-1 | 1 | 31905-K | 37 | 50143-K | 27 | 6812-02-3 | 11 | DPP400W-0-8 | 15 |
| 1246-02C-1 | 1 | 31907-K | 35 | 50145-K | 27 | 7112-01-3 | 11 | DPP800W | 15 |
| 1246-03-1 | 1 | 3210-08-1-E | 3 | 50200-K | 29 | 7612-06-3 | 11 | DPS300-01-8 | 1 |
| 1246-03C-1 | 1 | 322-01-1 | 3 | 50207-K | 33 | 9150-0-8 | 53 | DT300-0-8 | 1 |
| 14057 | 53 | 323-0-1 | 3 | 50208-K | 29 | 92010-K | 47 | DTT361-01 | 19 |
| 14235 | 53 | 32311-K | 21 | 50209-K | 29 | 93013-K | 21 | FT24-0-3 | 19 |
| 14240 | 53 | 32322-K | 21 | 50210-K | 33 | 93086-K | 23 | GL100 | 41 |
| 14245-1 | 53 | 3270-05-5 | 3 | 50263-K | 29 | 93230-K | 21 | GL100-02 | 41 |
| 15200 | 49 | 329-0-8 | 3 | 50264-K | 29 | 93232-K | 21 | PD1389-10 | 53 |
| 15200-10 | 49 | 330-0-1 | 7 | 50293-K | 29 | 93233-K | 21 | PD1389-52 | 53 |
| 15200-30 | 49 | 335-01-1 | 7 | 50294-K | 29 | 93237-K | 21 | PM120-0-8 | 13 |
| 15220 | 49 | 35100-K | 23 | 50302-K | 37 | 9325 | 53 | PM180-01 | 7 |
| 15230 | 49 | 35132 | 25 | 50305-K | 39 | 9339 | 53 | PM180-02 | 7 |
| 15400 | 49 | 35135 | 25 | 50306-K | 37 | 9345 | 41 | PM180-03 | 7 |
| 15503 | 49 | 35140 | 25 | 50316-K | 31 | 9351 | 53 | PMRH120-0-8 | 13 |
| 15504 | 49 | 35200-K | 23 | 50318-K | 35 | 9364 | 41 | SP120-0-8 | 13 |
| 15505 | 49 | 35232 | 25 | 50319-K | 35 | 9365 | 41 | SP160-01-8 | 13 |
| 15506 | 49 | 35235 | 25 | 50332-K | 37 | 9366 | 53 | SP160-0-8 | 13 |
| 15906 | 49 | 35240 | 25 | 50334-K | 31 | 9368 | 53 | T158-0-8 | 13 |
| 15907 | 49 | 35340 | 25 | 50335-K | 31 | 9369 | 53 | TC6-0-8 | 19 |
| 15201-01 | 49 | 37100 | 43 | 50336-K | 31 | 9370 | 23 | TFS4-0-8 | 19 |
| 20100-K | 48 | 37200 | 45 | 50337-K | 33 | 93710 | 43 | TM60-0-8 | 19 |
| 2013 | 7 | 37500 | 45 | 50360-K | 31 | 9374 | 19 | TRH122M-0-8 | 13 |
| 2113 | 7 | 39032-K | 37 | 50361-K | 31 | 93751 | 45 | TRH158-0-8 | 13 |
| 212-150-8 | 9 | 39035-K | 27 | 50405-K | 33 | 93755 | 45 | TS100-0-8 | 19 |
| 212-158-8 | 9 | 39138-K | 39 | 50415-K | 39 | 9378 | 41 | TTM41-0-8 | 15 |
| 212-159-8 | 9 | 412-0-8 | 17 | 50416-K | 39 | 9381 | 43 & 45 | TTM41-10 | 15 |
| 212-159C-8 | 9 | 462-0-8 | 17 | 50426-K | 31 | 9382 | 43 & 45 | TW3-0-8 | 19 |
| 2200-07-5 | 3 | 470-0-8 | 17 | 50427-K | 31 | 9383 | 43 & 45 | | |
| 2237-04-8 | 3 | 480-0-8 | 17 | 50701-K | 39 | 9384 | 43 | | |
| 2238-14-3 | 3 | 481-0-8 | 17 | 51210-K | 33 | 9386 | 41 | | |

*Accuracy to the
Highest Degree*



**For additional information please contact
your Cooper-Atkins Representative**



MCS Technical Products Ltd
sales@mcstechproducts.co.uk
www.mcstechproducts.co.uk
01793538308

Cooper-Atkins Corporation

33 Reeds Gap Road

Middlefield, CT 06455-0450 USA

860-347-2256 • Fax: 860-347-5135

www.cooper-atkins.com