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Thermocouple Instruments

Measuring Success Since 1885









Foodservice Catalog

AquaTuff™ Thermocouple Instruments

Cooper-Atkins' line of hand-held thermocouple instruments continues the proud heritage of products designed and manufactured in an ISO 9001:2008 registered facility in the U.S.A. The powerful microprocessor in the Cooper-Atkins thermocouple instruments delivers speed and reliability with a unique memory that stores the calibration settings and will virtually never need recalibration. The AquaTuff™ Series Thermocouple Instruments are highly accurate, NIST certified and most importantly, as the AquaTuff™ name implies, extremely durable and IPX7 waterproof rated for even greater reliability in harsh environments. The non-Wrap and Stow enclosure design allows for maximum versatility, and can be used with any type K thermocouple probe.

IPX7 Waterproof

The AquaTuff™ instruments are IPX7 waterproof rated and durable for harsh environments. An IPX7 level reading means the instrument can be submerged in 1 meter of water for 30 minutes without water damage.

	35100-K	35200-K
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
Resolution:	0.1°	0.1° / 1° selectable
Housing:	ABS Plastic	ABS Plastic
Hold:	No	Yes
Backlight:	No	Yes
Waterproof:	Yes	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 Listings:	   	   
Warranty:	5 Year	5 Year

35100-K
AquaTuff™
Thermocouple Instrument



Easy twist-open
battery hatch



35200-K
AquaTuff™
Thermocouple Instrument



The non-Wrap&Stow enclosed design instruments are compatible with any Type K thermocouple probe for maximum versatility.

























93970-K
AquaTuff™ Kit
35200-K Instrument
50012-K Surface Angled Bell Probe
50306-K Air / Oven Probe
50335-K Needle Probe
14235 Medium Case
• Weight: 2 lb / 907 g



AquaTuff™ Wrap&Stow™ Thermocouple Instruments

Wrap&Stow™ designs are available with a unique cable storage channel and the probe is stored safely along the side of the unit housing. The Wrap&Stow™ probe is factory calibrated to the instrument for a higher degree of total system accuracy.

	35132 / N	35135	35140 / N	35232 / N	35235	35240 / N	35340
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	-100° to 500°F -73° to 260°C	-100° to 500°F -73° to 260°C
Accuracy:	±0.9F° / ±0.5C° total system accuracy	±0.9F°* ±0.5C°*	±0.9F° / ±0.5C° total system accuracy	±0.9F° / ±0.5C° total system accuracy	±0.9F°* ±0.5C°*	±0.9F° / ±0.5C° total system accuracy	±0.9F° / ±0.5C° total system accuracy
Resolution:	0.1°	0.1°	0.1°	0.1° / 1° selectable	0.1° / 1° selectable	0.1° / 1° selectable	0.1°
Housing:	ABS Plastic	ABS Plastic	ABS Plastic	ABS Plastic	ABS Plastic	ABS Plastic	ABS Plastic
Hold:	No	No	No	Yes	Yes	Yes	No
Backlight:	No	No	No	Yes	Yes	Yes	No
Waterproof:	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power:	(2) 1.5V AAA	(2) 1.5V AAA	(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	1800 hours	1800 hours
Auto Of :	10 min.	10 min.	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	7 oz / 199 g	7 oz / 199 g
Regulatory Listings:	35132   35132-N  	 	35140   35140-N  	35232   35232-N  	 	35240   35240-N  	 
Warranty:	5 Year	5 Year	5 Year	5 Year	5 Year	5 Year	5 Year

* Accuracy spec for instrument only. Surface probe temperature error for f at, clean oiled surfaces with 2 lb (1kg) pressure are typically within +3F° (+1.5C°) and -6F° (-3.5C°) without thermostat cycling.



35132
AquaTuf™ Wrap&Stow™
Thermocouple Instrument
with DuraNeedle Probe



Wrap&Stow™ probes
can be replaced
at your location.

35340 Instrument with ITS™ and Memory Storage

The Intelligent Temperature Stabilization (ITS™) feature prevents the temperature from being displayed until the absolute f nal stabilized temperature is reached. While in the ITS mode, you have the option of recording the stabilized temperature into the 35340's memory. The memory can store up to 250 readings, which can then be reviewed by scrolling up or down.



35340
AquaTuf™ Wrap&Stow™ ITS™
Thermocouple Instrument
with MicroNeedle™ Probe



35235
AquaTuf™ Wrap&Stow™
Thermocouple Instrument
with Surface Probe



9369
Wall-Mount Bracket
for 350 Series

EconoTemp™ Thermocouple Instruments & Kits



32311-K
EconoTemp™

	32311-K	32322-K
Temperature Range:	-40° to 500°F -40° to 260°C	-40° to 1000°F -40° to 538°C
Accuracy:	±2F° ±1C°	±1.0F° ±0.5C°
Resolution:	1°	0.1° up to 495°F / 257°C
Housing:	ABS	ABS
Hold:	No	No
Backlight:	No	No
Waterproof:	No	No
Power:	(3) 1.5V AAA	(3) 1.5V AAA
Battery Life:	4500 hours	1500 hours
Auto Of :	10 min.	10 min.
Weight:	6 oz / 170 g	6 oz / 170 g
Regulatory Listings:	UL CE RoHS	CE RoHS
Warranty:	Five Year	Five Year

32322-K
EconoTemp™ Plus
With an expanded temperature range and tenth degree resolution.

Removable rubber boot provides superior impact resistance. Withstands multiple drops from six feet onto a cement floor.



93230-K
EconoTemp™ Combo Pack
32311-K Thermocouple Instrument
50336-K Needle Probe
9368 Wall Mount Bracket
• Weight: 8 oz / 227 g

94020-K
EconoTemp™ Single Handed Combo Pack
32311-K Thermocouple Instrument
50337-K Direct Connect DuraNeedle Probe
9368 Wall Mount Bracket
• Weight: 6.5 oz / 184 g

NEW



50337-K
DuraNeedle™ Direct Connect Probe

**Direct Connect
Probe Allows for
Single-handed
Operation!**

EconoTemp™ Thermocouple Instruments & Kits

The EconoTemp™ is an ideal transitional instrument from the digital pocket test. It has greater speed and flexibility with interchangeable probes. A higher degree of accuracy is achieved in an affordable instrument. Food Safety Kits include instruments and probes recommended by foodservice professionals and can also be assembled to order. Let us build a kit for you!



93237-K
32311-K Instrument
31901-K Needle Probe
31905-K Air Probe
31907-K Surface Probe
9368 Wall-Mount Bracket
14240 Small case
• Weight: 1 lb 4 oz / 567 g



93233-K
32311-K Instrument,
50012-K Surface Angled Bell Probe
50306-K Oven / Freezer Probe
50336-K DuraNeedle Probe
9368 Wall-Mount Bracket
14235 Medium Case
• Weight: 2 lb 3 oz / 851 g

Insertion / Needle Probes	50207-K	50337-K
Description	MicroNeedle™ Probe Chisel Tip	DuraNeedle™ Probe
Temperature Range:	-100° to 500°F -73° to 260°C	-100° to 500°F -73° to 260°C
Max Tip Temperature:	500°F / 260°C	500°F / 260°C
Response Time (in liquid):	1 second	1 second
Shaft Length:	3.75" / 95 mm	4" / 102 mm
Cable Length Max Extended:	Direct Connect No Cable	Direct Connect No Cable
Weight:	.5 oz / 14 g	.5 oz / 14 g
Warranty:	1 Year	1 Year



Carry / Storage Cases:
14057 Soft (zippered) pouch 9" x 3.5" x 2"
14235 Medium case 12" x 8" x 3"
14240 Small case 6" x 8.5" x 2.5"
14245-1 Large case 17" x 12" x 3"
9339 Nylon Pouch/Velcro Flap 8.5" x 3.5" x 1"



9368
Wall-Mount Bracket
for EconoTemp™
323 Series

Five Year Instrument Warranty

Any instrument which proves to be defective in material or workmanship within five years of original purchase will be repaired or replaced without charge upon receipt. This Limited Warranty does not cover damage in shipment or failure caused by tampering, obvious carelessness or abuse, and is the purchaser's sole remedy.



Warranty Program

Cooper-Atkins Thermocouple Instruments and Probes are covered by the industry's leading Warranty Program. This program, combined with Cooper-Atkins' 125+ years of foodservice experience assures your instrument will provide many years of reliable service as it is specifically designed to withstand the rigors of a foodservice operation. Please refer to the Thermocouple Warranty Program document #67-736.



Cooper
ATKINS

**PERFORMANCE
THAT LASTS**

**HVAC/R
OEM
INDUSTRIAL**

The advertisement features a background image of a large, modern building with a glass facade. In the foreground, there are several pieces of equipment: a large blue and yellow unit, a smaller blue unit with a digital display, a black handheld device, and a red and black unit. The text 'PERFORMANCE THAT LASTS' is written in large, bold, red letters across the middle of the image.

Thermocouple Probe Catalog

Cooper
ATKINS

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COOPER-ATKINS Enterprises
125
YEARS
1890-2015

New Atkins
New! Reusable Thermocouple Probes 2015



Many complex circuit designs that are calculated in the space of minutes that a customer has become a thing of the past. We are so committed to ensuring the accuracy of our products that we guarantee it.



Cooper ATKIN'S®

PROTECTING FOOD THROUGH THE PROCESS

CHOOSING THE APPROPRIATE THERMOCOOLING

Temperature and time in a food safety system are the two most important components in preventing foodborne illness. Proper cooking, storage, holding and monitoring of temperature is vital in preventing bacterial growth.

Cooper Atkins Commercial provides a full line of professional refrigeration systems and products, to assist in serving safe food.

Many of our thermometers also incorporate HACCP guidelines and temperature ranges as a quick reference.

All potentially hazardous foods should be prepared so that they spend less than 1 hour in the bacterial temperature danger zone. First cook temperatures, 41° to 130° F (5° C to 55° C), should never be generated by air assessment or touching, always tested with a thermometer.

For accurate real-time readings, test temperature in geometric center (which is usually the thickest part) of the food product.

Thawing: The 1st step in the preparation of frozen foods is thawing. Holding under potting running water at 180°F (82°C) is acceptable. Microwave drying if a food is immediately transferred to cooking facility.

Holding: Hot foods should be held at 130°F (50°C) or above. Cold foods should be held at 41°F (5°C) or below. Always use thermometers to check and hold the equipment. Reheating on the thermostat of warming or holding equipment isn't enough. Temperatures should be checked at 2 hr intervals with a thermometer or stem test thermometer.

Cooling: Internal food temperatures must be brought below 41°F (5°C) within 4 hours. The CoolIt-Roller™ TML-4 is perfect for monitoring food cooling patterns to ensure HACCP compliance.

Acceptable Equipment Temperature Ranges:
Refrigerator: 38°F (3°C) or lower
Freezer: 0°F (-17.7°C) or lower
Any Storage: 20°F (-6.6°C) or lower (with low humidity) adequate ventilation
Dish Washes: 180°F (82°C)

Check your local regulations on all required temperatures, as they may vary.

If you prefer faster reading and a broader range than a mechanical B-test meter stem thermometer, the **DIGIMON Digital Probe Test** is your best choice. It is more dependable than the A-B test. With self-storing probe, no voltage display, and self-adjustment of calibration settings has become a thing of the past. And no risk of introducing error into the instrument.

If you have used a digital pocket test, but are looking for more versatility, thermocouples are instruments and favored due to their capability for a wider range of temperatures and quick responses. The **TC-311 Exonact™** Thermocouple Instrument with Customized Probe Model (SS230C) is the perfect entry level instrument.

The **AspaTut™ 360 Series** Thermocouple Instruments also support thermocouples for applications requiring probes for wide variety of applications and they are IPX7 waterproof rated.

Temp iTag™ by Cooper Atkins, Inc. is a Wireless Temperature & Humidity Monitoring System that eliminates the time and expense of manual thermocouple collecting.

The **InCell-PDA™** Pocket PC-based software application can be downloaded in conjunction with a handheld PDA or laptop computer and any paper form and converted to it as an electronic document.

Contributed By:

TEMP PDA

IDENTIFYING CRITICAL CONTROL POINTS

```

graph TD
    Thawing --> Cooling
    Cooling --> Storing
    Storing --> PreparingCooking[Preparing / Cooking]
    PreparingCooking --> Thawing
        
```

Cooling	Storing	Preparing / Cooking
Reheating	Cooling	No Holding

HACCP Guidelines

- Identify potential hazard points in recipes and describe preventive measures.
- Specify the critical control points in the process and establish a flow chart.
- Establish standards that must be met at each critical control point.
- Monitor critical control points and determine whether action is being met.
- Implement corrective actions to eliminate the hazard immediately.
- Keep records and record keeping process that documents the HACCP program.
- Establish procedures for verification that the HACCP system is working correctly.

It is important that all test thermometers are assembled, before and after each use, to prevent cross-contamination. Probe Wipes clean and sanitize thermometer probes quickly.

Cool Storage Shelf Life

Food Item	Safe Days	Safe Weeks	Safe Months
Beef Steak	3 to 5 days	-	-
Beef Roast	3 to 5 days	-	-
Ground Beef - Well Done	1 to 2 days	3 to 4 months	-
Ham	1 to 2 days	3 to 4 months	-
Variety Meats	1 to 2 days	3 to 4 months	-
Mashed Potatoes	1 to 2 days	3 to 4 months	-
Fried/Fat-Free Meat	1 to 2 days	4 to 6 weeks	-
Meatballs	1 to 2 days	3 to 4 months	-
Meat, shell	1 to 2 days	2 to 4 weeks	-
Negative	1 to 2 days	3 to 4 months	-
Eggs	7 days	-	-
Milk	5 to 7 days	-	-

STG Products

EST 1978

PROFESSIONAL FOODSERVICE KITCHEN PRODUCTS

1. 2297	Espresso / Milk Frothing Thermometer	14. 330	Refrigerator / Freezer Thermometer	27. DT1761	Digital Cooking Thermometer / Timer with Temperature Alarm and Probe
2. 3029H-X	Fry Vial Probe	15. 536	Asbach Cooler Thermometer	28. 323	Meat Thermometer
3. 3029K-X	AquaTuff™ Thermocouple Instrument	16. 335	Glass Tube Refrigerator / Freezer Thermometer	29. 323	Padde-Style Deep Fry / Candy / Jelly Therm
4. TC6	Deep Fry Thermometer	17. 294P	Refrigerator / Freezer Thermometer w/ Temp Alarm	30. 330	Deep Fry / Candy / Jelly Thermometer
5. T1500	24 Hr. Electronic Timer / Clock / Stopwatch	18. DFF450W	Digital Pocket Test Thermometer w/ Temp Alarm	31. T1M60	Long Ring Mechanical Timer
6. T1502	90 Minute Stopwatch / Timer w/ Layard	19. DFF450W	Pad Style Digital Pocket Test Thermometer	32. T1700	Oil Style Digital Pocket Test Thermometer
7. T1502	Probe Wires - Larger Tub 200 Count	20. 5031A-X	Weighted Griddle Probe	33. T1M41	Coil-Ring Monitoring Thermometer
8. T1554	Single Station 90 Hour Digital Timer	21. 248P	Oven Thermometer	34. 228H-6	6" Stem Test Thermometer
9. F134	Single Station 24 Hour Digital Timer	22. 3212	Coil Surface Thermometer	35. 461	Dan Temp's® Infrared Thermometer with IR Probe
10. 9230K-X	EcoTemp™ Thermocouple Instrument with Dual-Beep Probe and Vial Bracket	23. 5265K-X	Patty Probe 60° Angle 3/6" Depth	36. 462	Sim-Line™ Infrared Thermometer
11. 1129LZ2M	Mini Monitor Hydrogen and Volt Bracket	24. T1189	Pocket Test Plug-In Digital Thermometer	37. 412	Gun Style Infrared Thermometer w/ Laser
12. 9230K-X	Mini Monitor Hydrogen and Volt Bracket	25. 30312	Mechanical Pocket Test, 0° - 220°F AquaTuff™ Wap-It-Down™ Thermocouple Instrument with Durable Probe	38. 470	Milk Infrared Thermometer

Cooper-Atkins Corporation • 33 Reeds Gap Road, Middle eed, NJ 07455 U.S.A.
800-835-5011 • 860-347-2256 • Fax: 860-347-5135 • www.cooper-atkins.com • info@cooper-atkins.com

67-1048

FOODSERVICE CRITICAL TEMPERATURE CHART

FOODS are always prepared by facilities that can cause food borne illness. Some foods must be handled by holding.

HEATING

Reheat food to a minimum temperature within 15°F (1°C).

Never reheat food below 160°F (71°C).

COOLING

Refrigerate food within 15°F (1°C).

Keep food from cooking.

Do not leave food at room temperature.

Do not use a food warming setting.

Do not use a holding warmer to heat food.

DANGER ZONE

Temperature 41°F to 137°F.

Do not leave food in this temperature zone.

Do not leave food in this temperature zone.

Do not leave food in this temperature zone.

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POTENTIALLY HAZARDOUS FOODS

Some foods are more likely to grow and cause food borne illness. Examples of these are milk, poultry, eggs, seafood, dairy products, cream, meat, ground, and ground, cooked and the past products.

Use the Temperature Cook to 170°F (77°C) within 2 hours, and 160°F (71°C) in 4 hours (2 hours).

Do not cook and temperature cook.

Use the same in a standard kitchen to heat cooking.

Use the same in a standard kitchen to heat cooking.

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Temperature (°F)	Temperature (°C)	Action / Note
160	71	Reheat food to a minimum temperature within 15°F (1°C). Never reheat food below 160°F (71°C).
170	77	Use the Temperature Cook to 170°F (77°C) within 2 hours, and 160°F (71°C) in 4 hours (2 hours). Do not cook and temperature cook. Use the same in a standard kitchen to heat cooking.
180	82	Use the same in a standard kitchen to heat cooking.
190	88	Use the same in a standard kitchen to heat cooking.
200	93	Use the same in a standard kitchen to heat cooking.
210	99	Use the same in a standard kitchen to heat cooking.
212	100	Use the same in a standard kitchen to heat cooking.
140	60	Refrigerate food within 15°F (1°C). Keep food from cooking. Do not leave food at room temperature. Do not use a food warming setting. Do not use a holding warmer to heat food.
137	58	Do not leave food in this temperature zone.
130	55	Do not leave food in this temperature zone.
120	49	Do not leave food in this temperature zone.
110	43	Do not leave food in this temperature zone.
100	3	

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