



Cooper
ATKINS®

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TECHNICAL PRODUCTS

Infrared / Laser Thermometers

Measuring Success Since 1885

Foodservice Catalog

Infrared Thermometers

Non-contact Infrared thermometers provide an immediate **surface** temperature. Simply point the infrared (some available with a visible laser) directly at an area to obtain its temperature. Infrared thermometers are perfect for measuring items in display cases, salad bars, and buffets without obstructing the food or cross-contamination. They are also ideal for checking moving machinery, pipes, wires, and overhead equipment in any kitchen or cafeteria.



481
DualTemp2 Infrared with RTD Probe



462
Slim-line Infrared

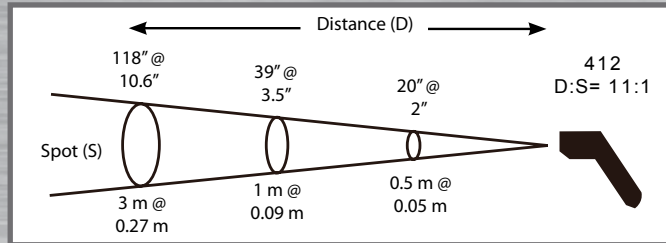


412
Gun Style Infrared

Models 480 and 481 come with an insertion probe to obtain internal food temperatures. Model 412 accepts any Type K thermocouple probe

D:S (Distance to Spot Ratio)

The further away from the object, the larger the surface area measured. Optical resolution is expressed as a ratio of the distance to the resolution spot divided by the diameter of the spot.



	412	462	470	480	481
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	-27° to 428°F -33° to 220°C	Infrared -27° to 428°F / -33° to 220°C Probe -67° to 626°F / -55° to 330°C	Infrared -40° to 536°F / -40° to 280°C Probe -40° to 392°F / -40° to 200°C
Accuracy - Infrared	Infrared ±4°F / ±2°C, or 2% whichever is greater	Infrared 32° to 150°F (0° to 65°C): ±2°F (1°C) <32° (0°C): ±2°F (1°C) ±0.1° of reading >150°F (65°C): ±1.5% of reading	Infrared ±3.6°F / ±2°C or 2% whichever is greater	Infrared ±4°F / ±2°C or 2% whichever is greater	Infrared <150°F (65°C): ±2°F (±1°C) >150°F (65°C): 1.5% of reading
Accuracy - Probe:	Thermocouple Jack ±2°F / ±1°C, or 1% whichever is greater	-	-	Thermocouple Probe ±2°F / ±1°C or 1% whichever is greater	RTD Probe 23° to 150°F (-5° to 65°C): ±1°F (0.5°C) <23°F (-5°C): ±2°F (1°C) >150°F (65°C): ±2°F (1°C) or 1.5% of reading
Resolution:	0.1°F / 0.1°C 1°F / °C above 200°F	0.1°F 1°F above 230°F / 110°C	0.1°F / 0.1°C 1°F above 200°F	0.1°F / 0.1°C 1°F above 200°F	0.1°
Ambient Operating Range:	32° to 122°F 0° to 50°C	32° to 122°F 0° to 50°C	32° to 122°F 0° to 50°C	32° to 122°F 0° to 50°C	32° to 122°F 0° to 50°C
Laser:	Single Dot	Single Dot	-	-	Illumination Beam
Distance to Spot (D:S):	12:1	6:1	1:1	1:1	3:1
Emmissivity:	0.95 default Adjustable from 0.10 to 1.0	Preset at 0.97	Preset at 0.95	0.95 Default, Adjustable from 0.10 to 1.0	Preset at 0.97
Power:	(2) 1.5V AAA	(1) 9V battery	(1) #CR2032	(1) #CR2032	(1) 9V battery
Battery Life:	180 Hours Typical 140 Hours Minimum	12 Hours	40 Hours Typical 30 Hours Minimum	40 Hours Typical 30 Hours Minimum	100 Hours
Auto Off :	60 sec.	7 sec.	15 sec.	15 sec.	20 sec.
Weight:	6 oz / 170 g	5 oz / 142 g	1 oz / 28 g	2.5 oz / 72 g	6 oz / 170 g
Regulatory Listings:	CE RoHS	CE RoHS	CE RoHS	CE RoHS	NSF CE RoHS
Warranty:	1 Year	1 Year	1 Year	1 Year	1 Year

Infrared Thermometers

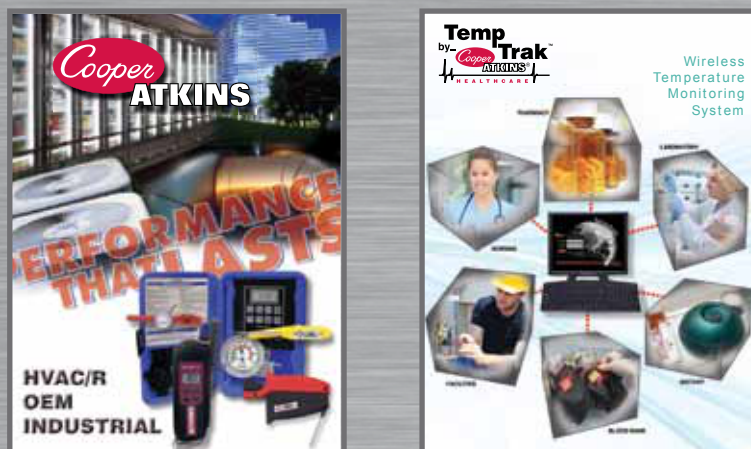


470
Mini Infrared
Thermometer



480
DualTemp™ Infrared
with Laser &
Thermocouple Probe

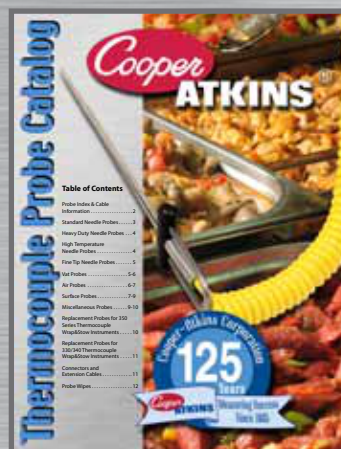
Additional Available Materials



67-848
Industrial Catalog



67-1040
Healthcare Catalog



67-800
Thermocouple Probe Catalog



67-909
Accurate for Life Brochure

Cooper Atkins

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

Cooper Atkins Corporation provides a full line of professional temperature instruments and products, to assist in serving safe food.

Many of our thermometer dials incorporate HACCP guidelines and temperature ranges as a quick reference.

IDENTIFYING CRITICAL CONTROL POINTS

Receiving → Storing → Preparing/Cooking → Serving/Holding

HACCP Guidelines

1. Identify potentially hazardous foods in recipes and describe prescriptive measures.
2. Specify all the critical control points in the process and establish a log chart.
3. Establish standards that must be met at each critical control point.
4. Monitor critical control points and determine whether criticality is being met.
5. Establish corrective actions to eliminate the hazard immediately.
6. Set up an effective record keeping process that documents the HACCP system.
7. Establish procedures for verification that the HACCP system is working correctly.

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

PROTECTING FOOD THROUGH THE PROCESS

All potentially hazardous foods should be prepared so that they spend less than 4 hours in the bacterial temperature danger zone. Final cooking temperature, 41° to 135°F (5° to 57°C), should never be bypassed by visual assessment or touching, always test with a thermometer.

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

Thawing - The first step in the preparation of frozen foods. Acceptable methods:

- Holding under potable running water at or below 70°F (21°C) for no more than 2 hours.
- Microwaving (only if food is immediately transferred to cooking facility).

Holding - Hot foods should be held at 135°F (57°C) or above. Cold foods should be held at 41°F (5°C) or below. Always use thermometers to check the food temperature. Relying on the thermostat of warming or holding equipment is not enough. Temperatures should be checked at 2-hour intervals with a thermometer or stem test thermometer.

Cooling - Internal food temperature must be brought below 41°F (5°C) within 4 hours. The Cook-to-Rest™ TMA1, is perfect for monitoring food cooling practices to ensure HACCP compliance.

Acceptable Equipment Temperatures:

- Refrigerator: 38°F (3°C) or lower
- Freezer: 0°F (-17°C) or lower
- Dry Storage: 70°F (21°C) or lower with low humidity/adequate ventilation
- Dish Washing: Rinse Temp: 180°F (82°C)

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

Cold Storage Shelf Life

Food Item	Refrigerator	Freezer
Ground Beef	3 to 4 days	6 to 12 months
Ground Pork	3 to 4 days	6 to 12 months
Ground Lamb	3 to 4 days	6 to 12 months
Ground Veal	3 to 4 days	6 to 12 months
Ground Chicken	3 to 4 days	6 to 12 months
Ground Turkey	3 to 4 days	6 to 12 months
Ground Fish	3 to 4 days	6 to 12 months
Ground Shellfish	3 to 4 days	6 to 12 months
Ground Poultry	3 to 4 days	6 to 12 months
Ground Eggs	3 to 4 days	6 to 12 months
Ground Nuts	3 to 4 days	6 to 12 months
Ground Seeds	3 to 4 days	6 to 12 months
Ground Grains	3 to 4 days	6 to 12 months
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