

Cooper

ATKINS



HVAC/R • OEM • INDUSTRIAL

PERFORMANCE
THAT LASTS



Cooper-Atkins Corporation

The inventor of the first bimetal oven thermometer, David G. Cooper, founded [The Cooper Thermometer Company](#) in 1885. Since that time, [Cooper-Atkins](#) has built a solid reputation as a manufacturer and provider of quality temperature, time and humidity instruments.

During the 1960's, the [Cooper Thermometer Company](#) expanded its brand with the development of three cooking lines. The acquisition of the [Croydon Thermometer Company](#) further expanded the consumer product line into weather instruments. Two separate marketing groups were established for the consumer and industrial markets to advance these new product lines.

In 1984, The [Cooper Thermometer Company](#) purchased the [Industrial Division of \(Electro-Therm\) Electromedics](#) in Englewood, Colorado. This acquisition immediately launched Cooper into the Digital Thermometer business and the company officially became [Cooper Instrument Corporation](#).

In 2001, [Cooper Instrument](#) acquired [Atkins Technical](#), the leader in thermocouple technology, who responsibly serves 19 of the top 25 restaurant chains. In 2002, [KTG, Inc.](#), was acquired, a developer of wireless solutions including temperature monitoring, food safety, handheld PDA applications including inspections and training, and innovative software solutions. Now, as [Cooper-Atkins Corporation](#), we are meeting customers' needs with the most comprehensive line of measurement solutions.

For over 120 years [Cooper-Atkins](#) has been a leading manufacturer of environment solutions and innovative food safety. We have global reach, and are a trusted resource for reliable, high-quality instruments and expert advice. As the company continues to meet the needs of its customers, it will do so by not only remaining focused on the education and promotion of important industry issues, but by the dedication of providing the highest level of customer service and satisfaction!

For the latest updates and specifications, please go to www.cooper-atkins.com or look for special website listings throughout this catalog.

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New Products



MFM300-Kit4
Deluxe Kit
See Page 7



5400
MFM Anemometer /
Airflow Probe
See Page 6



MFM300
Multi-Function
Instrument
See Page 4



TFS4
Timer
See Page 28



Dual Temp 480
Infrared and
Probe
Thermometer
See Page 27

412 Gun-Style
Infrared with Laser
and Thermocouple
Jack
See Page 27



40051
Cordless
Pipe Clamp
See Page 8



TW3
Waterproof
Digital Timer
See Page 29



32322
EconoTemp
PLUS
Thermocouple
See Page 15



Write-Temp™
Ball-Point Pen
& Bi-Metal
Thermometer
See Page 20



Super Value Twin2Pack
Two 25HP-01
Refrigerator/
Freezer/Dry
Storage
Thermometers
See Page 29



Super Value Twin2Pack
Two 335
Refrigerator &
Freezer
Thermometers
See Page 29



Super Value Combo4Pack
Two 1246-02
Instant Read
Thermometers
& Two 25HP-01
Thermometers
See Page 29



Super Value Twin2Pack
Two 1246-02
Instant Read
Thermometers
See Page 20



MFM300 Multi-Function Instrument™



Lighten your load and increase your capabilities by using the MFM300. It's your choice . . . use the following separate instruments and tools:

- Digital Thermometers
- Anemometers
- Sling Psychrometers
- Data Loggers
- Gauge Sets
- P-T Charts
- Psychrometric Charts

Or just use one . . . the MFM300!

The MFM300 has the ability to measure, calculate and display the following:

- Temperature - 3 Zones
 - Delta T
 - Min, Max and Average
- Pressure
- Superheat & Sub-Cooling
- Psychometrics
- Airflow
- Data Logging
- Upgradeable

The MFM300 is designed as a modular, upgradeable and expandable system, allowing the user to add as needed:

- Probes
- Features
- Capabilities

Eliminates Cost!



Technician measures with one instrument, the MFM300



Use the MFM300 to calculate - in no time





The MFM300's Universal Jack system allows you to add the functions you need - when you need them.

- Three Temperature Jacks (T1, T2, & T3)
- Two Universal Inputs (U1 & U2)
- Instrument instantly recognizes all probes and accessories . . . no setup required.

Basic Kit Contains:

- Model MFM300 Multi-Function Expandable Instrument
- Model 1075 Puncture Probe
- Model 4011 Surface Probe With 8" Velcro Strap
- Hard Carrying Case
- Carrying Case Strap

For additional kits, see Page 7 for more information.



The MFM300 heavy duty case has enough storage for all your probes. An adjustable shoulder strap allows for hands-free portability while climbing ladders!

MFM300 Specifications:

Temperature

Temperature Measurement Range: -58 to 302°F / -50 to 150°C
 Accuracy: ±0.3°F/0.2°C or ±0.5% of Reading whichever is greater
 Temperature Display Resolution: 0.1 Degree

Humidity

Relative Humidity Measurement Range: 0% to 99% RH
 Accuracy: ±2% RH
 Relative Humidity Display Resolution: 1% RH
 Dry-bulb Measurement Range: -40 to 185°F / -40 to 85°C
 Accuracy: ±0.5°F/0.3°C
 Dry-bulb Display Resolution: 0.1 Degree

Pressure

0 to 500 PSI Accuracy: ±1% Full-Scale
 0 to 1000 PSI Accuracy: ±1% Full-Scale

Air Flow

Temperature Range: 32 to 150°F / 0 to 65°C
 Accuracy: ±2°F / 1°C
 Velocity: 100 to 6,000 FPM / 0.5 to 30 MPS
 ±3% of Reading, +0.5% FS at 77°F / 25°C
 Resolution: 1 FPM / 0.01MPS

Refrigerants

P/T Data for 15 refrigerants already installed: R-11, R-12, R-22, R-123, R-134A, R-401A, R-401B, R-402A, R-402B, R-404A, R-408A, R-409A, R-410A, R-502, R-507

MFM300

Ambient Operating Conditions: 32 to 120°F / 0 to 50°C
 10% to 90% RH
 Non-condensing

Power

Power Source: 4 - AA Alkaline Batteries (Included)
 Battery Life: 100 Hours Minimum

Warranty

Instrument: Warranty 2 years (Extended warranty is available)
 Probes: 1 year warranty



MFM300 Accessories

The MFM300 Universal Jack System allows you to add the functions you need when you need them!

Add or Change Refrigerants: P-T data is programmed in the MFM300's memory for 15 of the most popular refrigerants. You can add P-T data for up to 5 additional refrigerants (R-23, R-124, R-407C, R-414B, and R-508B) by using our Refrigerant Update Tag (Model RU300, requires GL300) or by visiting www.cooper-atkins.com.

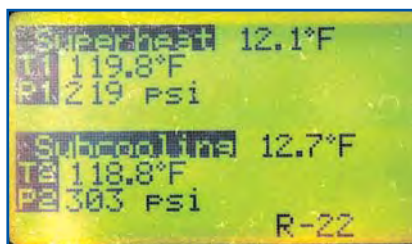


Model RU300

Calculate Superheat/Sub-Cooling:

Easily calculate superheat / sub-cooling with only a temperature probe attached to the refrigeration system.

The pressure value (from a manifold gauge) can be manually entered and the resulting superheat / sub-cooling value will be displayed.



Measure Pressure and View Real Time Superheat / Sub-cooling Values:

The MFM300 replaces your manifold gauge set for dynamic pressure measurement.

Choose from 500 PSI (Model 5250) or 1000 PSI (Model 5200) Pressure Probes. Connect the pressure probe to either universal jack and the MFM300 will display the pressure measurement.



Model 5200/5250



Measure Relative Humidity & Dry-Bulb Temperature:

The MFM300 will display the relative humidity and dry-bulb temperature measurements when the humidity probe (Model 5029) is connected to either universal jack.



Model 5029

Display Psychometrics: Press the PSYC button and Psychometrics are calculated from the current relative humidity and dry-bulb measurements. Requires at least one relative humidity probe

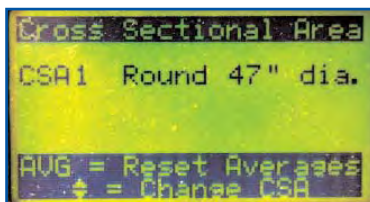
(Model 5029). Psychrometric values displayed are: enthalpy, specific humidity, wet bulb, dry bulb, % RH and dew point.



Measure CFM, CMS, FPM, and MPS: Airflow and temperature can be measured by using the Thermo-Anemometer (Model 5400) connected to either universal jack.



Model 5400



Log Temperature Data:

Use Data Logging Kit (Model GL300) to view temperature data on the MFM300. Download to your PC via the computer connection cable (Model 9360).



Model GL300
Data Logging Kit

Safely and Efficiently Connect Pressure Probes

to System: Choose from 500 PSI (Model 9355) and 1000 PSI (Model 9350) Pressure Hose Kits. These convenient kits include a 12" (304.8 mm) x 1/4" (6.35 mm) charging hose, access control valve, and a SAE flare tee. Charge while monitoring system pressure.



Model 9355

Expand Your System: No one wants to waste time or money on a system that soon will become outdated. This instrument will not become obsolete! Cooper-Atkins will constantly be adding new accessories and / or upgrades to the MFM300 System.

Download both MFM300 updates and new refrigerants from www.cooper-atkins.com: Transfer to the MFM300 via your PC and the Computer Connection Cable (Model 9360).

• MFM300 Toolbox - a PC program used to:

- Upgrade your instrument
- Add refrigerants
- View Data Logger information

Go to www.cooper-atkins.com to download MFM300 Toolbox.



Model 9360 Shown
(USB Version Available Soon)

MFM300 Kits



Each kit contains the following:

- MFM300 Multi-Function Expandable Instrument
- General Purpose Probe (Model 1075)
- Pipe Strap Probe (Model 4011)
- Heavy-duty carrying case with detachable shoulder strap

Air Conditioning (MFM300-KIT1)

- Assists in determining system efficiency
- Instantly displays Psychometrics
- Perform basic air balancing
- Also includes:
 - Vane CFM Thermo-Anemometer (Model 5400)
 - Humidity Probe (Model 5029)

General Purpose HVAC/R (MFM300-KIT2)

- Expands MFM300 capability to include humidity and psychrometric readings
- Instantaneously calculates superheat / sub-cooling as pressure and temperature change
- Speed & accuracy improved greatly over traditional analog gauge sets
- Also includes:
 - 1000 PSI Pressure Probe (Model 5200)
 - Humidity Probe (Model 5029)

Real-time Superheat/Sub-Cooling (MFM300-KIT3)

- Eliminates manual input of pressure readings
- Superheat / Sub-cooling instantaneously calculated as pressure and temperatures change
- Compatible with all common refrigerants (Additional refrigerants available)
- Also includes:
 - 500 PSI Pressure Probe (Model 5250)
 - 1000 PSI Pressure Probe (Model 5200)

Deluxe (MFM300-KIT4)

- Maximize the capabilities of the MFM300 and get it all!
- Also includes:
 - Vane CFM Thermo-Anemometer (Model 5400)
 - 500 PSI Pressure Probe (Model 5250)
 - 1000 PSI Pressure Probe (Model 5200)
 - Humidity Probe (Model 5029)

MFM300-Kit 4



www.cooper-atkins.com

Thermistor Temperature Instruments

SH66A Series - For applications where multiple temperature measurements need to be taken, this is the instrument to use.

Measure suction and liquid line temperatures simultaneously, temperatures across condensing coils, evaporator coils, as well as the ambient temperature, all at the same time! The Constant Scan feature records the min/max temperature from three probes allowing the technician to monitor critical temperatures remotely while completing other tasks.

SH66A includes: (1) Model 1075 General Purpose Puncture Probe, (1) Model 2010 Air Probe, (1) Model 4011 Pipe Strap Probe.

SH66AC includes: (1) Model 1075 General Purpose Puncture Probe, (1) Model 2010 Air Probe, (1) Model 4011 Pipe Strap Probe and is °C prominent.

- 3-Zone
- Scan mode
- Min/Max memory
- Auto shut-off with override

TM99A, TC100A Series -

For those applications where only one temperature is read at a time, this series of single zone temperature meters is an industry standard. Choose from the basic Model TM99A, the UL approved Model TM99A-UL or the rechargeable Model TC100A.

TM99A includes:

(1) Model 1075 General Purpose Puncture Probe and hard carrying/storage case.

TM99AC includes:

(1) Model 1075 General Purpose Puncture Probe, hard carrying/storage case and is °C prominent.

TM99A-UL includes: (1) Model 1075 General Purpose Puncture Probe, hard carrying/storage case, UL approved (Class 1, Groups C & D), and temperature code T3C.

TC100A includes: (1) Model 1075 General Purpose Puncture Probe, hard carrying/storage case, NiCad battery, and battery charger.

- Single zone
- Min/Max memory
- Hold button
- Auto shut-off



SH44A Series -

The SH44A is an economical alternative with the durability of Model SH66A. This dual-zone unit allows for accurate temperature measurement of two areas at once.

SH44A includes:

(1) Model 1075 General Purpose Puncture Probe and (1) Model 4011 Pipe Strap Probe.

SH44AC includes: (1) Model 1075 General Purpose Puncture Probe, (1) Model 4011 Pipe Strap Probe and is °C prominent.

- Dual zone
- Min/Max memory
- Scan mode
- Auto shut-off



4005I - Cordless Pipe Clamp Temperature Instrument with 2.5" Retractable General Purpose Probe.

- Single-Handed Use
- Spring-Loaded to Ensure Repeatability
- Auto Shut-off after 5 Minutes of Non-use
- Mode Button: Hold, Max & Min
- Response Time - Puncture Probe: 20 Seconds in 32°F Bath (95% of final reading)
- Response Time - Pipe Clamp Probe: 90 Seconds on 140°F Pipe (95% of final reading)
- Includes Belt Pouch



Nylon Belt Pouch included



Thermistor Temperature Instruments & Specifications



T158 - Oval Panel Thermometer

Temperature Only Unit with Thermistor Probe

Features

- Wall or Desk Mount
- °F/°C Selectable
- (Outdoor) Temperature Range: -58 to 158°F (-50 to 70°C)
- (Indoor) Temperature Range: 32 to 122°F (0 to 50°C)
- Temperature Accuracy: ±2°F/±1°C
- Cord Length: 120"/304 cm
- Battery: 1 Alkaline 1.5V, AAA
- Warranty: 1 Year



IO70 - Digital Indoor/Outdoor

Wall Thermometer

- Hard-wired Sensor
- Min/Max Memory
- Thermistor Sensor
- Large 1-3/8" x 1-5/8" LCD
- (Outdoor) Temperature Range: -58 to 158°F (-50 to 70°C)
- (Indoor) Temperature Range: 32 to 122°F (0 to 50°C)
- Accuracy: ±2°F/1°C or 2% of Reading
- Sensor Length: 10'
- Weight: 5.5 oz
- Power: (1) 1.5V AAA
- Warranty: 1 Year

	MODELS				
	SH44A SH44AC	SH66A SH66AC	TC100A	TM99A TM99AC TM99A-UL	4005I
Temperature Range	-40° to 300°F -40° to 150°C	-40° to 300°F -40° to 150°C	-40° to 300°F -40° to 150°C	-40° to 300°F -40° to 150°C	-20° to 300°F -29° to 150°C
Temperature Accuracy	±0.3°F/0.2°C or ±0.5% Rdg, whichever is greater	±0.3°F/0.2°C or ±0.5% Rdg, whichever is greater	±0.3°F/0.2°C or ±0.5% Rdg, whichever is greater	±0.3°F/0.2°C or ±0.5% Rdg, whichever is greater	Clamp ±3°F/2°C from 14° to 212°F -10° to 100°C Probe ±3°F/2°C from -20° to 300°F -29° to 150°C
Ambient Temp. Range	0° to 130°F max	0° to 130°F max	0° to 130°F max	0° to 130°F max	0° to 120°F
Resolution	0.1°F/°C	0.1°F/°C	0.1°F/°C	0.1°F/°C	0.1°F/°C
Display	4 digit .5" LCD	4 digit .5" LCD	4 digit .5" LCD	4 digit .5" LCD	3 digit .25" LCD
Backlight	•	•	•	•	
INDICATIONS					
LO	•	•	•	•	
HI	•	•	•	•	
°F	•	•	•	•	•
°C	•	•	•	•	•
Zones	2	3	1	1	1
CL	•	•	•	•	
SCAN	•	•			
Case Material	Polyethylene	Polyethylene	Polyethylene	Polyethylene	Polyamide
Case Dimensions	9.5" x 6.5" x 3.5"	9.5" x 6.5" x 3.5"	7" x 3" x 1"	7" x 3" x 1"	6.7" x 4.1" x 0.92"
Weight	1.55 lbs	1.55 lbs	1.27 lbs	1.27 lbs	0.315 lbs
Power	(1) 9V Alkaline	(1) 9V Alkaline	(1) 9V Nicad	(1) 9V Alkaline	(1) Button Cell LR44 or AG13
Battery Life	90 hours	90 hours	90 hours	90 hours	90 hours
Calibration	Factory Calibrated	Factory Calibrated	Factory Calibrated	Factory Calibrated	Factory Calibrated
Warranty	1 Year	1 Year	1 Year	1 Year	1 Year

Humidity / Temperature Instruments

SRH77A Series -

Where temperature and relative humidity readings are important, **Model SRH77A is the expert's choice.** Whether it be HVAC/R applications, storage management, computer room monitoring or troubleshooting, you will find this to be an accurate and fast service tool. The bright blue rugged carry case makes this tool easy to find when on location or in the back of a service truck.



SRH77A includes:

- Model 1075 General Purpose Puncture Probe
- Model 4011 Pipe Strap Probe
- Model 5028 Humidity Probe

SRH77AC includes all the above probes and is °C prominent.

Features include a backlight display for dark environments, sealed keypad which protects the instrument from spills and dust, and a battery eliminator jack.

- 3-zone.
- Min/Max memory
- Scan mode
- Auto shut-off after 15 minutes of non-use or continuous ON mode
- Temperature differential between zones 1 and 2
- %RH and wet bulb
- Switchable °F/°C

SRH122 – Digital Psychrometer, no more water, no more twirling, and no more charts! It gives fast, accurate measurement of wet bulb, dew point, temperature, and humidity.



- Displays: wet-bulb, dew point, temperature, and humidity
- Min/Max memory
- Data hold
- Auto shut-off after 20 minutes of non-use
- Switchable °F/°C



9349 - Optional Nylon Belt Pouch Used on SRH122 & DRH122

DRH122 – Measure and display environment temperatures and humidity readings in a matter of seconds with this compact Thermo-Hygrometer Pen. Designed for simplicity and one-handed operation.



- Displays: Temperature and Humidity
- Min/Max memory
- Switchable °F/°C

TRH122M - Mini Thermistor Temperature/Humidity Instrument



- Measures temperature and %RH
- Accurate internal sensors
- Switchable °F/°C
- Min/Max memory feature



Humidity / Temperature Instruments & Specifications

TRH158 - Temperature & Humidity Unit with Built-in Sensor



Features

- Wall or Desk Mount
- °F/°C Selectable

Specifications TRH158 Oval Panel Thermometers

- Temperature Range: -58 to 158°F (-50 to 70°C)
- Temperature Accuracy: ±2°F/±1°C
- Humidity Range: 25% to 90% RH
- Humidity Accuracy: ±5% RH
- Sensor: Thermistor
- Battery: 1 Alkaline 1.5v, AAA

TRH158-1

Temperature & Humidity Unit with Thermistor Temperature/Humidity Probe for Indoor / Outdoor Applications



Features

- Wall or Desk Mount
- °F/°C Selectable

Specifications TRH158-1 Oval Panel Thermometers

- Temperature Range: -58 to 158°F (-50 to 70°C)
- Temperature Accuracy: ±2°F/±1°C
- Humidity Range: 25% to 90% RH
- Humidity Accuracy: ±5% RH
- Sensor: Thermistor
- Cord Length: 120"/304 cm
- Battery: 1 Alkaline 1.5v, AAA

	MODELS			
	SRH77A SRH77AC	SRH122	DRH122	TRH122M
Thermistor	•	•	•	•
Temperature Range	-40° to 300°F -40° to 150°C	-4° to 122°F -20° to 50°C	14° to 122°F -10° to 50°C	14° to 122°F -10° to 50°C
Temperature Accuracy	±.3°F/.2°C ±.5% Rdg or whichever is greater	±1.8°F°/1.0°C	±2°F/1.0°C	±1.8°F/1.0°C
Ambient Temp. Range	0° to 130°F max	-4° to 122°F max	14° to 122°F max	14° to 122°F max
Resolution	0.1°F/°C, 1% RH	0.1°F/°C, 0.1% RH	0.1°F/°C, 1% RH	0.1°F/°C, 1% RH
Humidity Range	10 to 95% RH	0 to 100% RH	20 to 90% RH	10 to 99% RH
Humidity Accuracy	±2% from 20 to 80% RH ±3% below 20% and above 80% RH	±3% from 10 to 90% RH ±4% below 10% and above 90% RH	±5% from 40 to 80% RH ±7% below 40% and above 80% RH	±5% from 25 to 95% RH ±7% below 25% and above 95% RH
Ambient Humidity Range	10 to 95% RH, 90% non-condensing	0 to 100% RH	10 to 95% RH	10 to 100% RH
Display	4 digit, .5" LCD	6.5 x 9 mm LCD	.25" LCD	Dual 11 mm LCD
Backlight	•			

INDICATIONS				
LO	•			
HI	•			
LO-P	•			
°F	•	•	•	•
°C	•	•	•	•
1, 2 or 3	•			
CL	•			
SCAN	•			
%RH	•	•	•	•
Case Material	Polyethylene Carry Case	ABS	ABS	ABS
Case Dimensions	9.5" x 6.5" x 3.5"	6.88" x 1.5" x 0.9"	5.94" x .79" x .67"	4.35" x 2.77" x .75"
Weight	1.9 lbs	2.5 oz	0.8 oz	2.9 oz
Power	(1) 9V Alkaline	(1) 3V CR2032	(1) 1.5V LR44	(1) 1.5V AAA
Battery Life	90 hours	100 hours	1 year	1 year
Calibration	Factory Calibrated	Factory Calibrated	Factory Calibrated	Factory Calibrated
Warranty	1 Year	1 Year	1 Year	1 Year

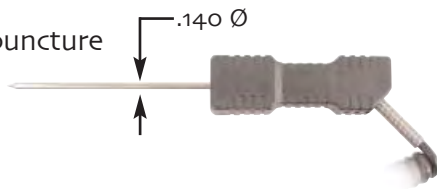
Thermistor Probes

All Thermistor Probes are interchangeable with all Cooper-Atkins Thermistor Instruments.

Don't see what you need? We build probes to order. Go to: www.cooper-atkins.com/customprobes.html

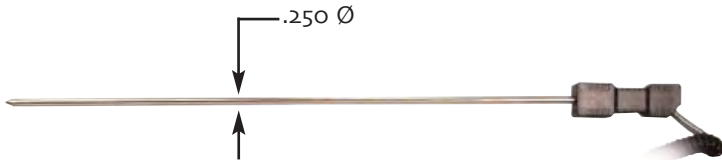
1013

Meat packing puncture probe



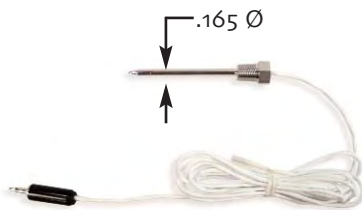
1014

17" puncture probe with heavy-duty cord



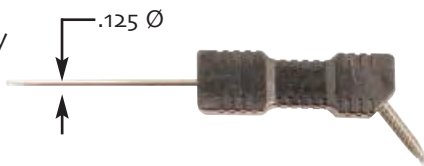
1030

Screw-in probe with 1/8" NPT fitting



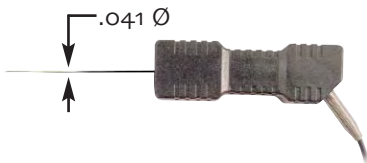
1050

Blunt tip veterinary probe



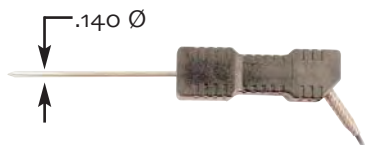
1052

Needle probe



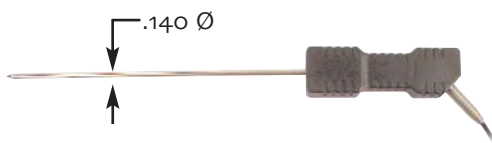
1075

General purpose puncture probe



1078

7.25" puncture probe



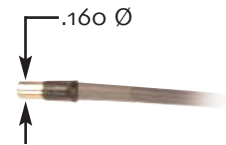
2007

Blunt tip waterproof probe



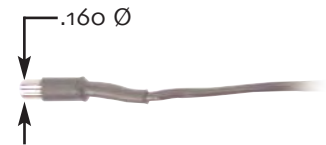
2010

Air probe



2015

Panel meter pigtail lead air/surface probe



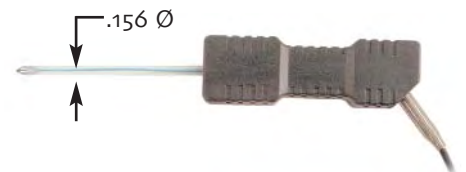
2020

Panel meter pigtail lead 4.75" air/surface probe



3010

Plastic shaft probe with aluminum tip



4005

Pipe clamp probe



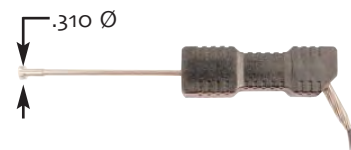
4011

Pipe strap probe



4040

Fast surface contact probe

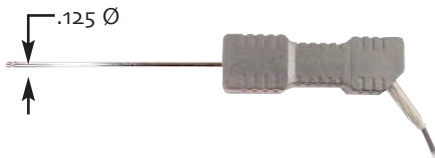


Thermistor Probe Specifications

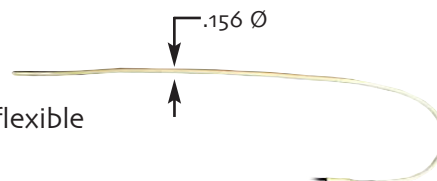
MODELS											
	1013	1014	1030	1050	1052	1075	1078	2007	2010	2015	2020
Temperature Range	-40° to 300°F -40° to 149°C	-40° to 300°F -40° to 149°C	-40° to 300°F -40° to 149°C	-40° to 300°F -40° to 149°C	-40° to 300°F -40° to 149°C	-40° to 300°F -40° to 149°C	-40° to 300°F -40° to 149°C	-40° to 300°F -40° to 149°C	-40° to 200°F -40° to 93°C	-40° to 200°F -40° to 93°C	-40° to 300°F -40° to 149°C
Max Tip Temp	300°F/149°C	300°F/149°C	300°F/149°C	300°F/149°C	300°F/149°C	300°F/149°C	300°F/149°C	300°F/149°C	200°F/93°C	200°F/93°C	300°F/149°C
Max Cord Temp	200°F/93°C	200°F/93°C	400°F/204°C	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C	400°F/204°C	200°F/93°C	200°F/93°C	400°F/204°C
Response Time	6 seconds	100 seconds	20 seconds	6 seconds	4 seconds	6 seconds	6 seconds	18 seconds	20 seconds	20 seconds	6 seconds
Shaft Length	4"	17"	2.5"	3.4"	2.9"	4"	7.25"	4"	0.5"	0.5"	4"
Cord Length	6' polyurethane uncoiled	6' polyurethane uncoiled	6' teflon straight cord	6' polyurethane uncoiled	6' polyurethane uncoiled	6' polyurethane uncoiled	6' polyurethane uncoiled	10' teflon straight cord	12' polyurethane straight cord	12' PVC straight cord	4' teflon straight cord
Warranty	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year

MODELS										
	3010	4005	4011	4040	5028	5005	6000	6020	7010	7040
Temperature Range	-40° to 300°F -40° to 149°C	-20° to 300°F -29° to 149°C	-25° to 212°F -32° to 100°C	-40° to 300°F -40° to 149°C	0° to 150°F -18° to 66°C	-40° to 300°F -40° to 149°C	-40° to 200°F -40° to 93°C	-40° to 200°F -40° to 93°C	-40° to 200°F -40° to 93°C	-40° to 200°F -40° to 93°C
Humidity Range	-	-	-	-	10 to 95% RH	-	-	-	-	-
Max Tip Temp	200°F/93°C	N/A	212°F/100°C	300°F/149°C	150°F/66°C	300°F/149°C	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C
Max Cord Temp	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C	200°F/93°C
Response Time	15 seconds	12 seconds	NA	15 seconds	NA	NA	NA	NA	20 seconds	20 seconds
Shaft Length	3"	-	-	3.5"	4.9"	4"	18"	18"	0.5"	0.5"
Cord Length	6' polyurethane	10' TPE uncoiled	12' polyurethane	6' polyurethane uncoiled	6' PVC coiled cord	6' polyurethane	12' PVC straight cord	12' PVC straight cord	6' PVC straight cord	4' PVC straight cord
Warranty	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year

5005
Air probe



6020
Panel meter pigtail lead 18" flexible waterproof thermistor probe



5028
Slim humidity probe



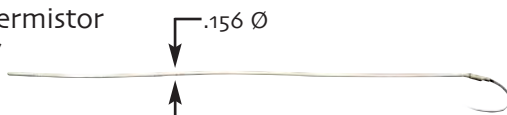
7010
Air/Surface probe with phono plug field assembly



7040
Panel meter pigtail lead 0.5" thermistor air probe



6000
18" flexible thermistor probe with 12' PVC cord



We build dozens of custom probes. Rely on us to manufacture a probe for your specific requirements.



Thermocouple Instruments

VersaTuff™ models are designed to accept all Type K Thermocouples. Instrument can also be configured to accept "J" and "T" Thermocouples. The features are state of the art electronics, manufactured in ISO 9001 : 2000 facility. With over 250 probes to choose from, this line has everything you will need for any application (see a small selection of our probes on pages 16 and 17).

Cooper-Atkins builds dozens of custom thermocouple instruments to meet the unique requirements of our multi-unit partners. Allow us to design one for you. For additional information go to:
www.cooper-atkins.com/thermocouples.html



- VersaTuff Series 386 and 396:**
- -40° to 1832°F / -40° to 1000°C
 - ±0.9°F / ±0.5°C from -40° to 495°F / -40° to 257°C
 - ±0.6% of reading for remainder of range
 - 1 AA Battery - 1000 hours
 - Uses any Type K Thermocouple Probe

- Additional Features of the 396:**
- Backlit LCD
 - Hold button freezes current reading
 - Whole and tenth degree selectable



VersaTuff 386

The AccuTuff™ series with Wrap&Stow™ probe is the right choice when accuracy is your top priority. Total System Accuracy™ ensures this instrument and probe combination will deliver. The probe is calibrated with the instrument to deliver a TRUE ±0.9°F accuracy and requires no additional calibration - ever! The heavy duty patented probe is reinforced with Kevlar® and a stainless steel braid that neatly wraps and stows your choice of 4 probe combinations.

AccuTuff Series Replacement Probes

DuraNeedle Probes are best used to measure insertion and immersion temperatures. They are quick and rugged for dependable performance, and are included in the 33032 and 34032 AccuTuff Kits. To order replacement DuraNeedle probes, use model numbers 53032 and 54032.



MicroNeedle Probes are designed to provide the greatest response with minimal impact on the product, and are included in the 33040 and 34040 AccuTuff Kits. To order replacement MicroNeedle probes, use model numbers 53040 and 54040.



VersaNeedle Probes are best for general use, everything from testing equipment surfaces to insertion and immersion temperatures, and are included in the 33041 and 34041 AccuTuff Kits. To order replacement VersaNeedle probes, use model numbers 53041 and 54041.



Surface Probes are designed for use on any flat surface. Bell self-orients to the surface, giving superior contact and are included in the 33035 and 34035 AccuTuff Kits. To order replacement Surface probes, use model numbers 53035 and 54035.



- AccuTuff Series 330 and 340:**
- -40° to 500°F / -40° to 260°C
 - ±0.9°F / ±0.5°C total system
 - 1 AA Battery - 1000 hours
 - Wrap&Stow probe
 - Water resistant construction

- Additional Features of the 330:**
- Backlit LCD
 - Hold button freezes current reading
 - Whole and tenth degree selectable



AccuTuff 340



Thermocouple Instruments

The **New EconoTemp™ Series** is the highest technology you will find in economy thermometers. Designed with a powerful microprocessor, it delivers speed and reliability and a unique memory which stores the calibration settings and will virtually never need recalibration. A rubber boot protects the ABS plastic housing securely delivering impact ratings not found in other economy models. Both units are CE Marked, have 3 AAA, 1.5v batteries with 4500 hours of battery life for Model 32311 and 1500 hours battery of life for Model 32322. Both thermocouple instruments use any Type K Thermocouple Probe.



Model 32311

32311 EconoTemp

- -40° to 500°F / -40° to 260°C
- ±2°F / ±1°C
- NSF Listed



93230 EconoTemp Combo

pack includes the 32311 Thermocouple with DuraNeedle probe 50336.



Model 32322



32322 EconoTemp Plus

- -40° to 1000°F / -40° to 538°C
- Resolution: 0.1°F from -40.0° to 495.0°F
0.1°C from -40.0° to 257.0°C
±1°F / ±0.5°C and whole degree resolution over remainder of range °F/°C
- ±2°F / ±1°C

For those tough-working environments where you need a durable thermocouple, **TD2000** includes 2 Model 6030MK Bead Probes and wrist strap. Model **TD2000-01** includes 2 Model 6030MK Bead Probes, 1 Puncture Probe 1070MK and wrist strap.

TD2000 & TD2000-01 Thermocouples

- -58° to 2000°F / -50° to 1093°C
- Resolution: 0.1°F / 0.1°C
- ±4°F / ±2°C From -58°F / -50°C to 32°F / 0°C, ±0.3% plus ±4°F / ±2°C from 32°F to 2000°F / 0°C to 1093°C
- Battery, (1) 9V Alkaline, 90 Hours
- Uses Type K Thermocouple Probe

If you are in the market for a durable thermocouple with fast response, then choosing the **AquaTuff FW2000 Series** is a wise decision. Both the **AquaTuff FW2000** and **AquaTuff FW2000MK** are NSF certified, and are waterproof, making them ideally suited for wet, steam-filled environments. The **FW2000** features a hard-wired, quick-response probe, while the **FW2000MK** has a Type K mini-connector, and accepts a wide variety of probe styles. Each unit is: ±1°F / ±0.5°C from -35° to 350°F / -37° to 177°C, ±2°F / ±1°C overall and uses a 9 Volt alkaline battery.



Model FW2000

AquaTuff FW2000MK

- -100° to 999°F / -73° to 537°C
- Uses any Type K Thermocouple Probe



Model FW2000MK



Models TD2000 & TD2000-01
See page 9 for additional information

AquaTuff FW2000

- Thermocouple
- -100° to 500°F / -73° to 260°C
 - Hard wired probe



Type K Thermocouple Probes



4005MK
Pipe clamp
probe



50209
MicroNeedle probe
with cable



50336
DuraNeedle probe



50306
Air probe for oven or
cooler / freezer with clip



50207
MicroNeedle probe
with no cable



50014
Weighted surface probe



50335
Needle probe
with 4.5" tip



50010
Flat tape probe



50012
Angled surface probe



50318 Ceramic tip surface probe

50101
Heavy duty probe

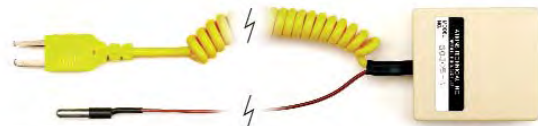


50121
Racing tire probe

50332
Air probe



50069
Moving surface
bow probe



50305
Mountable probe



50208 Vat probe



6030MK Bead probe



50338 Oven economy probe with clip



Type K Thermocouple Probe Specifications

MODELS						
	4005MK	6030MK	50010-K	50012-K	50069-K	50014-K
Temperature Range	-20° to 300°F -29° to 149°C	-100° to 500°F -73° to 260°C	-40° to 400°F -40° to 205°C	500°F/260°C	-40° to 500°F -40° to 260°C	500°F/260°C
Max Tip Temp	NA	500°F/260°C	400°F/205°C	500°F/260°C	500°F/260°C	500°F/260°C
Max Cord Temp	200°F/93°C	500°F/260°C	400°F/205°C	176°F/80°C	221°F/105°C	400°F/205°C
Response Time	2 Seconds	0.5 Seconds	9 Seconds	4 Seconds Oiled Surface	4 Seconds Oiled Surface	2 Seconds Oiled Surface
Shaft Length	-	NA	-	4.5"/114 mm	8"/203 mm	-
Cord Length	120" TEP straight cord	42" teflon straight cord	36" teflon Flexible cable	48" PVC Extended 12" PVC Retracted	36" PVC Jacket Flexible cable	30" Flexible Armored Cable
Warranty	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year

MODELS						
	50101-K	50121-K	50207-K	50208-K	50209-K	50305-K
Temperature Range	-40° to 400°F -40° to 205°C	-40° to 500°F -40° to 260°C	500°F/260°C	400°F/205°C	500°F/260°C	-40° to 400°F -40° to 205°C
Max Tip Temp	400°F/205°C	500°F/260°C	500°F/260°C	400°F/205°C	500°F/260°C	400°F/205°C
Max Cord Temp	400°F/205°C	176°F/80°C	-	NA	176°F/80°C	176°F/80°C
Response Time	4 Seconds Liquids	1 Second Liquids	1 Second Liquids	8 Seconds Liquids	3 Seconds Liquids	24 Seconds Air
Shaft Length	4.25"/108 mm	-	3.75"/95 mm	7.3"/185 mm	3.5"/89 mm	8"/2.4 m
Cord Length	30" Flexible Armored Cable	48" PVC Extended 12" PVC Retracted	-	30" Flexible Armored Cable	48" PVC Extended 12" PVC Retracted	24" PVC Extended 6" PVC Retracted
Warranty	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year

MODELS						
	50306-K	50318-K	50332-K	50335-K	50336-K	50338-K
Temperature Range	600°F/315°C	1202°F/650°C	-40° to 500°F -40° to 260°C	500°F/260°C	500°F/260°C	896°F/480°C
Max Tip Temp	600°F/315°C	1202°F/650°C	500°F/260°C	500°F/260°C	500°F/260°C	896°F/480°C
Max Cord Temp	NA	176°F/80°C	176°F/80°C	176°F/80°C	176°F/80°C	NA
Response Time	1 Second Liquids 10 Seconds Air	1 Second Oiled Surface	5 Seconds Air	4 Seconds Liquids	2 Seconds Liquids	1 Second Liquids 9 Seconds Air
Shaft Length	2.125"/54 mm w/Clip	4"/102 mm	4"/102 mm	4.5"/114 mm	6"/153 mm	-
Cord Length	43" Flexible SS Braid Cable	48" PVC Extended 12" PVC Retracted	48" PVC Extended 12" PVC Retracted	48" PVC Extended 12" PVC Retracted	48" PVC Extended 12" PVC Retracted	48" Flexible Cable w/Clip
Warranty	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year

NOTE: Probes are also available in Type J and Type T configurations.

Accessories

87-430010-1 -

Safely protect your instrument with this hard polyethylene storage case. For use with Models TM99A and TC100A.



9010 -

10' extension cable and

9015 -

50' extension cable, allows to extend leads depending on use and location.

It is recommended that cable lengths do not exceed 1,000' to ensure instrument accuracy. Can be used with any Cooper thermistor probe.

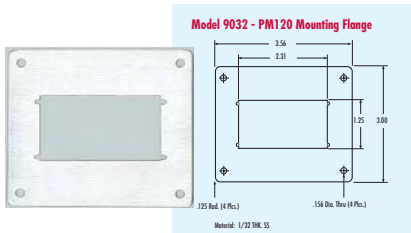


9339 - Soft carry case/holster pouch attaches to your belt and the velcro flap keeps the unit stored safely inside. For use with Models 412, 460, 4005, 4005I, 4005MK, TD2000 and TD2000-01.

9348 - Durable rubber boot designed specifically for the FW2000 series. Features include a velcro strap for securing to your belt. Ribbed backing lessens the shock to the unit if dropped.



9302 - 3.56" x 3" mounting flange is required when mounting Model PM120 in an opening that is larger than the unit itself. It fills the space and securely holds the unit in place.



9150 - Probe Wipes clean and sanitize probes quickly without skin contact. It is not necessary to rinse the probe with water after using Cooper-Atkins probe wipes. Simply air dry and you are ready to test another temperature. Packaged in a box of 200, each wipe contains 70% Isopropyl Alcohol.



GL Series – Water-Resistant Mini Data Loggers

- Monitors both time and temperature
- Records at specific intervals from 1 minute to 4 hours
- Mounting bracket with adhesive backing
- Stainless steel bead chain, to hang from racks or hooks
- Long-life battery



GL100 includes:

(2) two mini data loggers, (2) two mounts, reader and software

GL100-02 includes:

(2) two mini data loggers, (2) two mounts

GL100 – Water-Resistant Mini Data Loggers

Temperature Range:	-40° to 185°F (-40° to 85°C) ± 2°F from -4° to 158°F/± 1°C from -20° to 70°C
Clock Accuracy:	± 2 minutes per month
Overall Tag Dimension:	2" x 2-5/8"
Records:	2,048
PC Requirements:	Windows 95 or higher, Minimum of 10MB of free hard drive space and CD-Rom (will not work on Macintosh computers)
Warranty:	1 Year



Digital Pocket Test & Specifications

From laboratories to the service repairman, these fast response digital pocket thermometers will simplify any user's job. Cooper-Atkins offers a wide range of fast response **Digital Pocket Tests**, with 0.1° resolution on easy to read 0.25" / 6.4 mm high LCD displays and a 5" / 127 mm stem length. Thermistor sensors are located in the probe tip for quick, response time and accurate readings. A Thermistor is a semiconductor device whose resistance changes with the temperature.



DFP450W

- Waterproof
- Field calibratable
- Max temperature hold
- Auto shut-off
- °F/°C switchable
- Lifetime warranty

DPP400W Waterproof Pen Style



- Auto shut-off
- °F/°C switchable
- Max, Min and Hold temperature
- Waterproof

	MODELS					
	DFP450W	DPP400W	DT300	DPS300 Series	QC450	TTM41
Temperature Range	-40° to 450°F -40° to 232°C	-40° to 392°F -40° to 200°C	-40° to 302°F -40° to 150°C	DPS300: -58° to 302°F DPS300C: -50° to 150°C	-40° to 450°F	-4° to 302°F -20° to 150°C
Accuracy	±2°F/1°C	±2°F/1°C from 14° to 212°F (-10° to 100°C) ±3°F (1.5°C) all other ranges	±2°F/1°C from -10° to 212°F (-23° to 100°C) ±4°F/2°C all other ranges	±1.8°F/1°C from 0° to 160°F (-18° to 71°C) ±3.6°F/2°C all other ranges	±2°F	±2°F/1°C from -4° to 212°F (-20° to 100°C) ±3°F/2°C all other ranges
Display	.25" LCD	.25" LCD	.25" LCD	.25" LCD	.25" LCD	1" LCD
Stem Length	4.625"	2.75"	4.625"	5"	4"	15"
Resolution	0.1°F/°C	0.1°F from -40 - 199°F, 1°F from 200 - 392°F, 0.1°C throughout the entire range	0.1°F/°C	0.1°F/°C	0.1°F	0.1°F/°C
Power	(1) 1.5V #392	(1) 1.5V #A76	(1) 1.5V #A76	(1) 1.5V #A76	(1) 1.5V #AAA	(1) 1.5V #LR44
Auto Shut-Off	After 10 min. of non-use	After 5 min. of non-use	N/A	N/A	After 50 min. of non-use	N/A
Weight	0.7 OZ	0.9 OZ	0.7 OZ	0.8 OZ	3.3 OZ	1.9 OZ
Regulatory Listings	NSF	NSF	N/A	N/A	N/A	NSF & CE
Warranty	Lifetime	1 Year	1 Year	1 Year	1 Year	1 Year

Coolit-Rite™ TTM41



- Monitors Cooling
- Waterproof
- 15" Stainless Steel Stem with minimal depth indicator
- Adjustable Vessel Clip
- Min/Max temperature hold
- °F/°C switchable
- Loud Alarm (90 decibels)
- 1 Year warranty



DT300 - Oval Style

- On/Off switch
- °F/°C switchable



DPS300 and DPS300C Swivel Head Style

- Swivel head - turns 30°, 60° or 90°
- DPS300 - °F only; DPS300C - °C only



QC450 - Harsh Environment

- -40° to 450°F
- ±2°F
- 1.5 Volt Battery
- Automatic Shut-off



Bi-Metal Stem Test Thermometers

The Bi-Metal Stem Test pocket thermometer is an economical, quick and easy way to monitor temperatures with excellent repeatability, refer to the top of page 21 for specifications

CT180 / CT220 Series -

Light up your pocket with a Neon Thermometer - Choose from 2 Temperature Ranges and 3 Bright Colors!

- Choose from 2 Temperature Ranges:
CT180 Temperature Range: -40° to 180°F
CT220 Temperature Range: 0° to 220°F

Features

- Accuracy: $\pm 4^\circ\text{F}$
- Water Resistant
- Anti-Roll Plastic Head
- 1" Magnifying Lens
- 5" Stem Length
- Field calibratable
- Black Protective Sheath with Built-in Wrench
- 3 Neon Colors - Green, Yellow & Orange



Write-Temp™ - Ball-Point Pen & Bi-metal Thermometer in One! Innovative 2-in-1 design incorporates a bi-metal 0-220°F pocket test and retractable ball-point pen, housed in a pen sheath with a recalibration wrench.

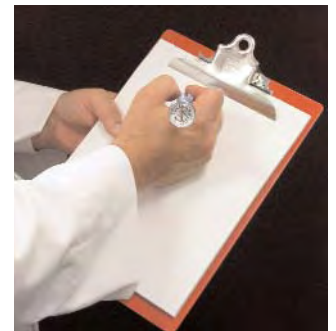
Write-Temp 1246PS-02-8 Features:

- Retractable Blue Ball-Point Pen Shaft
- Recalibration Wrench
- Ribbed Finger Grip for Writing Comfort
- NSF Certified
- 1 Year Warranty



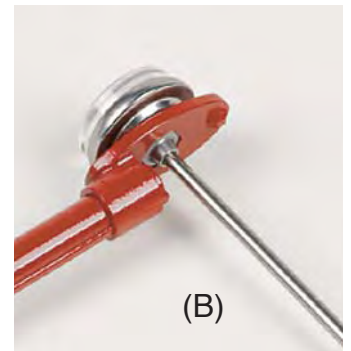
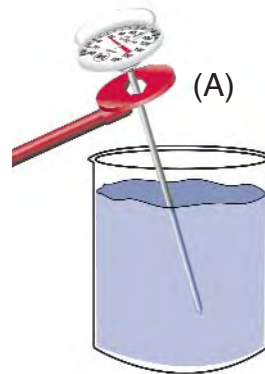
Specifications:

- Temperature Range: 0-220°F
- Accuracy $\pm 2^\circ\text{F}$
- 1" Instant Read Dial
- Easy to Read Magnifying Lens
- Insertion Mark on Stem
- 1246PS-02C-8 Available in °C



Calibration Instructions:

Immerse thermometer stem in mixture of crushed ice and water (A). Use the sheath/calibration tool to hold adjusting nut (B). Turn thermometer head so pointer reads 32°F / 0°C. For scales that start reading above 32°F / 0°C, bring a pan of water to a full rolling boil and adjust so pointer reads 212°F / 100°C.



1246 Series



Super Value Twin2Pack

1246-02-2, Offers two 1246 Bi-metal Stem Test Thermometers in 1 package.
1246-02C-2 available in °C



1246 Features

- Field calibratable
- Red protective sheath includes calibration wrench
- 1" magnifying lens
- 5" stem length
- NSF Certified



2236 Series



2236 Features

- Field calibratable
- Red protective sheath
- 2" lens
- 5" stem length

2238 Series



2238 Features

- Field calibratable
- 2" lens
- 8" stem length
- Vessel clip provided

Refer to the top of page 21 for specifications



Industrial Stem Test Thermometers and Specifications

The 2" dials are printed with large black numerals for ease in viewing. Offered with three temperature ranges and various stem lengths, these thermometers are an excellent choice for a variety of industrial applications.

- Bimetal coil movement and glass lens
- .25" diameter stainless steel stem
- Back flange bezel, chrome plated with (3) .150" diameter mounting holes equally spaced on a 2.9" diameter bolt circle

2225 Series



2245 Series



2255 Series



Bi-Metal Stem Test Thermometer Specs

	MODELS				
	1246-01	1246-02	CT180	CT220	2236-02
Temperature Range	-40° to 180°F	0° to 220°F	-40° to 180°F	0° to 220°F	-40° to 180°F -40° to 80°C
Accuracy	±2°F	±2°F	±4°F	±4°F	±2°F/1°C
Dial	1" dia.	1" dia.	1" dia.	1" dia.	2" dia.
Stem Length	5"	5"	5"	5"	5"
Weight	0.7 oz	0.7 oz	0.7 oz	0.7 oz	1.2 oz
Regulatory Listings	NSF	NSF	N/A	N/A	N/A
Warranty	1 Year	1 Year	1 Year	1 Year	1 Year

	MODELS	
	2238-02	2238-06
Temperature Range	-40° to 180°F -40° to 80°C	0° to 220°F -10° to 100°C
Accuracy	±2°F/1°C	±2°F/1°C
Dial	2" dia.	2" dia.
Stem Length	8"	8"
Weight	1.25 oz	1.25 oz
Regulatory Listings	N/A	NSF
Warranty	1 Year	1 Year

Industrial Stem Thermometer Specs

	MODELS		
	2225 Series	2245 Series	2255 Series
Temperature Range	2225-02: 0° to 220°F 2225-03: -40° to 160°F 2225-05: 200° to 1000°F	2245-02: 0° to 220°F 2245-03: -40° to 160°F	2255-02: 0° to 220°F 2255-03: -40° to 160°F
Accuracy	2225-02: ±2°F 2225-03: ±3°F 2225-05: ±20°F	2245-02: ±2°F 2245-03: ±3°F	2255-02: ±2°F 2255-03: ±3°F
Dial	2" dia	2" dia	2" dia
Stem Length	4"	6"	9"
Weight	2.7 oz	2.9 oz	3.0 oz
Warranty	1 Year	1 Year	1 Year

Remote Reading Panel Thermometers

Get accurate interior temperature readings without opening any doors. Keep the cold air in and hot air out and reduce the times your cooler / freezer door is opened. For additional information go to www.cooper-atkins.com/panel.html

Model SP160 - Digital Solar Panel - when temperature monitoring is essential and space is limited, the SP160 is the ultimate panel thermometer. Not only does the compact size allow the SP160 to fit in most places that other panel thermometers cannot - it does not require any external power sources.

Model SP120 - This solar powered instrument is an attractive alternative in those applications where conventional vapor tension panel thermometers have been used. When the ambient light is not strong enough to power the meter, the 1.5 volt battery automatically turns the unit on.



- Solar/battery powered
- Easy-to-read LCD display



- Unit operates using ambient light (natural, fluorescent and incandescent)
- Solar/battery powered
- Switchable °F/°C

Digital Remote Rectangular Panel Thermometers

PM120 - When mounting space is limited, the digital Model PM120 is an ideal solution. This rectangular mini remote reading thermometer is °F and °C switchable.

PMRH120 - Now monitor both temperature and humidity at once with this new compact remote panel meter.

Features

- Max/Min button/hold down to clear
- On/Off button
- °F/°C button



Features

- Max/Min button
- °F/°C
- Clear button



Front & Back Flange - Digital Remote Panel Thermometers

DM120 Series / DM450 Series - When a cabinet and / or enclosure requires fast and accurate temperature readings, the DM120 and DM450 series are the best choice. With the removable lens, battery replacement is easy.

PM200A Series / PM400K Series - When coolers and cases require constant and accurate temperature readings, the PM200A and PM400K series is your choice.



DM120



DM450



PM200A



PM400K



Remote Reading Specifications

	MODELS							
	SP160	SP120	PM120	PMRH120	DM120 Series	DM450 Series	PM200A	PM400K
Thermistor	•	•	•	•	•	•	•	Type K Thermocouple
Temperature Range	-58° to 158°F -50° to 70°C	-58° to 158°F -50° to 70°C	-40° to 122°F -40° to 50°C	-12° to 140°F -24.4° to 60°C	DM120/DM120S: -40° to 120°F DM120CS: -40° to 50°C	DM450/DM450S: -40° to 450°F	-40° to 300°F	-40° to 999°F
Humidity Range	-	-	-	10 to 99% RH	-	-	-	-
Temperature Accuracy	±2°F from -4° to 31.9°F ±1°F from 32° to 122°F ±3.6°F below -4° and above 122°F	±3°F/±1.5°C	±1.8°F from -4° to 122°F ±3.6°F below -4°F	±2°F from -12° to 140°F	±2°F from -4° to 77°F, ±4°F below -4°F & above 77°F ±1°C from -20°C to 25°C, ±2°C below -20°C & above 25°C	±2% of reading	±0.3°F or ±0.5% of reading whichever is greater	±2°F or ±2% of reading whichever is greater
Humidity Accuracy	-	-	-	±5% 30 to 75%, with temp. from 32 to 122°F (0 to 50°C)	-	-	-	-
Ambient Temp. Range	0° to 120°F max	0° to 120°F max	0° to 120°F max	0° to 120°F max	0° to 150°F max	0° to 150°F max	40° to 130°F	40° to 130°F
Resolution	0.1°F/°C	0.1°F/°C	0.1°F/°C	0.1°F/°C	0.1°F/°C	0.1°F	0.1°F	1°F
Response Time	10 seconds	10 seconds	30 seconds	30 seconds	10 seconds	10 seconds	N/A	N/A
Display	1.4" x .5" LCD	1.825" x .625" LCD	1.825" x .625" LCD	1.825" x .625" LCD	1.3" x .5" LCD	1.3" x .5" LCD	1.5" x .5" LED	1.5" x .5" LED
Lux Rating	Above 100	Above 100	N/A	N/A	N/A	N/A	N/A	N/A
Lead Length	48"	120"	39"	39"	39"	39"	N/A	N/A
Mounting	Hangs	Hangs	Optional mounting flange (Model 9302)	Optional mounting flange (Model 9302)	DM120/DM120C: Front flange DM120S/ DM120CS: Back flange, surface mount	DM450: Front flange DM450S: Back flange, surface mount	Front flange	Front flange
Indications	NA	NA	NA	NA	Flashing HHH/HI: Shorted probe or above max. temp. Flashing LLL/LO: Open probe or below minimum temperature	Flashing HHH/HI: Shorted probe or above max. temp. Flashing LLL/LO: Open probe or below minimum temperature	LO: Open probe or below minimum temperature HI: Shorted probe or above max. temperature, Lo-P: battery is discharged	NA
Lens	-	-	-	-	2" dia. polycarbonate	2" dia. polycarbonate	-	-
Case Material	-	-	Polycarbonate	Polycarbonate	Stainless steel	Stainless steel	Black Noryl (PPO)	Black Noryl (PPO)
Case Dimensions	4.5" x 1.125" x .625"	2.77" x 2.68" x .68"	2.7" x 1.4" x 1.1"	2.7" x 1.4" x 1.1"	DM120 Series: 2.97" x 1.08" DM120S Series: 3.47" x 1.1"	DM450: 2.97" x 1.08" DM450S: 3.47" x 1.1"	3.75" x 2.7" x 2.05"	3.75" x 2.7" x 2.05"
Weight	3.1 oz	3.0 oz	3.3 oz	3.3 oz	DM120/ DM120C: 3.8 oz DM120S/ DM120CS: 4.6 oz	DM450: 4.4 oz DM450S: 5.2 oz	5.5 oz	5.5 oz
Power	Solar / (1) 1.5V AAA	Solar / (1) 1.5V A76	(1) AA	(1) AA	(1) 1.5V #393	(1) 1.5V #393	12VDC or 115AC	12VDC or 115AC
Warranty	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year

Remote Vapor Tension Panel Thermometers

Used in many HVAC/R applications and offering various temperature ranges, these units are the perfect choice for use in walk-in refrigerators, tanks, refrigerated display cases, holding and speciality cabinets, dairy cases, freezers, floral displays and much more.

- Recalibratable
- Dual scale dial
- 48" capillary (except where noted)
- Nickel/Tin plated bulb and capillary
- Polycarbonate lens/bezel
- Stainless steel cases
- Bright buffed flange (6142, 6812 and 7112 series)

6142 Series



7112 Series



7612-06



6642 Series



8122-01 and 8822-01

- Recalibratable
- Dual scale dial
- 48" / 122 cm capillary
- Nickel/Tin plated bulb and capillary
- Polycarbonate lens/bezel
- Black painted cases

6742-19



8122-01



6812 Series



8822-01



Remote Vapor Tension Panel Thermometers Specifications

	MODELS							
	6142-06	6142-13	6142-20	6142-58	6642-06	6642-12	6742-19	6812-01
Temperature Range	40° to 240°F 10° to 115°C	-40 to 120°F -40 to 50°C	-40° to 60°F -40° to 15°C	-40° to 60°F -40° to 15°C	-40° to 60°F -40° to 15°C	40° to 240°F 10° to 115°C	-40° to 60°F -40° to 15°C	-40° to 60°F -40° to 15°C
Accuracy	±5°F @ 110°F ±3°F @ 200°F	±2°F @ 40°F ±4°F @ 10°F ±5°F @ 110°F	±2°F from 10° to 40°F ±3°F below 10°F and above 40°F	±2°F from 10° to 40°F ±3°F below 10°F and above 40°F	±2°F from 10° to 40°F ±3°F below 10°F and above 40°F	±5°F @ 110°F ±3°F @ 200°F	±2°F from 10° to 40°F ±3°F below 10°F and above 40°F	±2°F from 10° to 40°F ±3°F below 10°F and above 40°F
Dial	2" dia.	2" dia.	2" dia.	2" dia.	2" dia.	2" dia.	2" dia.	2" dia.
Capillary Length	48"	48"	48"	240"	48"	48"	48"	48"
Flange	Front	Front	Front	Front	Strap hanger no flange	Strap hanger no flange	U bracket no flange	Back
Connection	Back	Back	Back	Back	Bottom	Bottom	Back	Back
Mounting	Flush	Flush	Flush	Flush	N/A	N/A	N/A	Surface
Weight	5.2 oz	5.2 oz	4.7 oz	6.8 oz	4.6 oz	5.1 oz	5.6 oz	5.7 oz
Regulatory Listings	NSF	NSF	NSF	N/A	N/A	N/A	NSF	NSF
Warranty	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year

	MODELS						
	6812-02	7112-01	7112-02	7112-05	7612-06	8122-01	8822-01
Temperature Range	-40° to 120°F -40° to 50°C	-40° to 60°F -40° to 15°C	-40° to 120°F -40° to 50°C	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 60°F -40° to 15°C
Accuracy	±2°F @ 40°F ±4°F @ 10°F ±5°F @ 110°F	±2°F from 10° to 40°F ±3°F below 10°F and above 40°F	±2°F @ 40°F ±4°F @ 10°F ±5°F @ 110°F	±5°F @ 110°F ±3°F @ 200°F	±2°F from 10° to 40°F ±3°F below 10°F and above 40°F	±2°F from 10° to 40°F ±3°F below 10°F and above 40°F	±2°F from 10° to 40°F ±3°F below 10°F and above 40°F
Dial	2" dia.	2.5" dia.	2.5" dia.	2.5" dia.	2.5" dia.	3.5" dia.	3.5" dia.
Capillary Length	48"	48"	48"	48"	48"	48"	48"
Flange	Back	Front	Front	Front	Strap Hanger	Front No Flange	Back
Connection	Back	Back	Back	Back	Bottom	Back	Back
Mounting	Surface	Flush	Flush	Flush	N/A	Flush	Surface
Weight	6.2 oz	5.3 oz	5.8 oz	5.8 oz	5.6 oz	9.0 oz	9.0 oz
Regulatory Listings	N/A	NSF	N/A	N/A	N/A	N/A	N/A
Warranty	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year

Storage Wall Thermometers and Specifications

212 Series - Brightly colored, oversized wall thermometers allow easy monitoring of temperatures in critical food-related locations.

- HACCP reference color zoned dial
- Bimetal coil movement
- Large black pointer makes viewing easy



212-146 -
Cooler
Thermometer



212-147 -
Freezer
Thermometer

255 Series - Compact version of the 212 series.

- HACCP reference color zoned dial
- Bimetal coil movement
- Large black pointer makes viewing easy



255-12 -
Freezer
Thermometer



255-13 -
Cooler
Thermometer

Storage/Wall Thermometers Specifications

	MODELS	
	212	255
Temperature Range	212-146 Cooler Therm: 10° to 80°F	255-12 Freezer Therm: -10° to 80°F
	212-147 Freezer Therm: -10° to 80°F	255-13 Cooler Therm: 10° to 80°F
Accuracy	±2°F	±2°F
Dial/Lens	12.5" dia	6" dia
Weight	21 OZ	3.1 OZ
Warranty	1 Year	1 Year



Infrared Thermometers & Specifications



Model 412 Gun-Style Infrared with Laser and Thermocouple Jack-

- Point and shoot with instant results
- LCD display with backlight
- FDA Class II laser may be turned on or off
- Single-point laser
- °F/°C switchable
- 7-second display hold
- High and Low alarms
- Max., min., average, differential temp display
- Two in one function
- Distance to spot 11:1
- Type K Mini plug connector
- Lock mode for continuous monitoring for up to 60 minutes
- Adjustable Emissivity
- Accepts Type K probes
- Optional soft carrying case 9339, see page 18

	MODELS			
	460	470	480	412
Temperature Range	0° to 525°F (-18° to 275°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 -76° to 932°F (-60° to 500°C) Thermocouple -83° to 1999°F (-64° to 1400°C)
Accuracy	±3°F (±2°C) or 2% whichever is greater	±3.6°F (±2°C) or 2% whichever is greater	Infrared ±4°F (±2°C), or 2% whichever is greater Probe ±2°F (±1°C), or 1% whichever is greater	Infrared ±4°F (±2°C), or 2% whichever is greater Thermocouple ±2°F (±1°C), or 1% whichever is greater
Resolution	0.5°F (0.2°C)	0.1°F, 1°F above 200°F	0.1°F (0.1°C), 1°F above 200°F	0.1°F (0.1°C), 1°F/°C above 200°F
Response Time	500m/Sec (95% of reading)	1 Sec (95% of reading)	1 Sec (95% of reading)	1 Sec (90% of reading)
Ambient Operating Range	32° to 120°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	None	None	Single Dot
Relative Humidity	10 to 95% RH non-condensing	10 to 95% RH non-condensing	10 to 95% RH non-condensing	10 to 95% RH non-condensing
Storage Temperature	-4° to 150°F (-20° to 65°C) without battery	-4° to 122°F (-20° to 50°C) without battery	-4° to 122°F (-20° to 50°C) without battery	-4° to 149°F (-15° to 65°C) without battery
Power	(1) 9 volt battery Alkaline or NiCd	(1) Lithium Button cell 3V battery - #CR2032	(1) Lithium Button cell 3V battery - #CR2032	(2) 1.5V AAA
Battery Life	12 Hours	40 Hours Typical 30 Hours Minimum	40 Hours Typical 30 Hours Minimum	180 Hours Typical 140 Hours Minimum
Distance to Spot (D:S)	8:1	1:1	1:1	11:1
Emissivity	Preset at 0.95	Preset at 0.95	0.95 Default, Adjustable from 0.1 to 1.0	Adjustable from 0.1 to 1.0
Weight	8 oz	1.1 oz	2.6 oz	6.3 oz
Dimensions	7.25" x 1.75" x 1.5" (184 x 45 x 38 mm)	2.67" x 1.44" x 0.75" (68 x 36 x 19 mm)	6.20" x 1.68" x 0.95" (157 x 43 x 24 mm)	6.9"x2.8"x1.5" (175 x 72 x 38 mm)
Warranty	1 Year	1 Year	1 Year	1 Year



The **DualTemp 480** Infrared and Probe Thermometer measures both surface and internal temperatures.

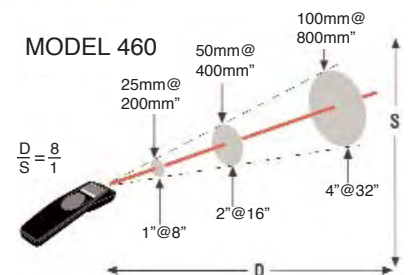
The **480** uses 1 Lithium Button Cell CR2032 battery with 40 hours typical life, 30 hours minimum



The **470 Mini Infrared Non-Contact Thermometer** is easy to use. Just aim at the object, press the button, and read the surface temperature in 1 second or less. The pocket-sized design is very compact and you can use the lanyard to wear it around your neck. Has memory for maximum / minimum values, and lock function for long-term monitoring.



The **460 Infrared Non-Contact Thermometer** is easy to use. Just aim at the object, press the button, and read the surface temperature in 1 second or less.



Timers

TFS4 -

The TFS4 Multi-Station Digital Timer is a high performing and durable choice that has 4 different timer mode stations that can be used independently or simultaneously. Its large 4-station LCD (3"x3") and flashing lights allow for easy viewing. The TFS4 has 4 distinctive alerts with an adjustable volume control that makes it easy to hear from across a large room - making it the ideal timer for noisy work environments.



It features color-coded LED with corresponding color coordinated key pad buttons for each station. Its bright color-coded lights; blue, green, yellow and red, flash when the time has elapsed, at the same time the unit will automatically count up (to 99 hours / 59 minutes) when each timer goes off. Non-skid rubber feet or wall mounting keep the timer secured, and its keypad is grease resistant and splash proof. A one-touch START / STOP button is located at the top of the unit for quick and easy operation.

- Switchable Minutes / Seconds or Hours / Minutes
- Recall mode
- Four 1.5v, "C" size, Extra Heavy Duty batteries included

FT24 -

The FT24 timer has both a visual and audio alarm. The audio alarm has a volume control. The FT24 automatically counts upwards once the time set has elapsed, letting you know how long it has been since the timer went off. A one-touch start/stop button is conveniently located on the top of the unit.



- Volume controlled alarm
- Oversized LCD
- Red light flashes when alarm sounds
- Splash-proof keypad
- Built-in memory for repeat cycle timing
- Measures 7" H x 6" W x 4" D
- Uses 4 "C" size batteries

TS100 - Timer / Stopwatch

has an 18" / 45.7 cm soft nylon cord which allows the timer to be worn around your neck for easy access. A simple 3 button function: Minutes, seconds and stop, can be used for repetitive timing. The recall feature automatically re-sets to the previous time. Comes with a 1.5 volt, G13A micro cell battery.



- Timer/Stopwatch
- 18" nylon neck cord
- Recall feature, returns
- 99 minute, 59 second counter/timer

TM60 - Long-Ring 60 Minute Timer. Sturdy molded case with non-skid feet and easy to read dial.



Features

- One-handed operation
- Bell rings for 7 - 8 seconds
- Easy to read numerals
- Non-skid feet
- Sturdy molded case



Timers - Continued

TC6 - Electronic Timer / Clock / Stopwatch with memory recall and splash-proof case. Comes with an easel stand, clip-on, or magnet mount. A convenient wire hanger is included.

TW3 - Waterproof Digital Timer has programmable Double Time with switchable, Hours:Minutes or Minutes:Seconds, and counts up or down.



- Large, easy-to-read LCD display
- Counts up or down
- 1.5v, AAA alkaline battery included



- Waterproof case can be submerged 1 meter for 1 hour
- Back stand and magnet
- Large, easy-to-read LCD
- Simple 3 Button Operation
- 1.5v, AAA alkaline battery included

Refrigerator / Freezer Thermometers

25HP - Dial Thermometer

- -20° to 80°F / -30° to 30°C
- ±2°F / ±1°C
- Sturdy stainless steel construction
- Includes dry storage range
- Hangs or stands



335 - Horizontal Tube Thermometer

- -40° to 80°F / -40° to 25°C
- ±2°F / ±1°C
- Magnifying lens
- Hangs, stands, or permanently mounts
- 5" / 12.7cm Non-toxic, spirit-filled glass tube
- Stainless Steel casing



Super Value Twin2Pack

25HP-01-2
Offers two 25HP-01 Thermometers in 1 package.
25HP-01C-2
Available in °C.



Super Value Twin2Pack

335-01-2
Offers two 335 Thermometers in 1 package (°F/°C).



Super Value Combo4Pack

CP101-0-8
Offers two 25HP-01 & two 1246-02 Thermometers in 1 package.
CP101-C-8
Available in °C.



330 - Vertical Tube Thermometer

- -40° to 120°F / -40° to 50°C
- ±2°F / ±1°C
- Lightweight design
- Durable plastic casing
- 3" / 7.6 cm Non-toxic, spirit-filled glass tube



535 - Dial Thermometer

- -20° to 120°F / -30° to 50°C
- ±5°F / ±2°C
- 1.5" / 3.8 cm Diameter
- Magnetic back
- Self-adhesive tabs for permanent mounting



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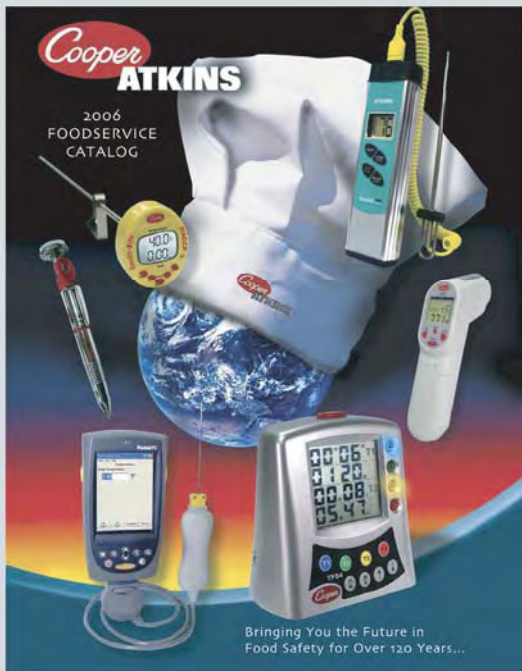
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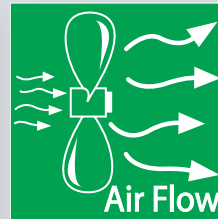
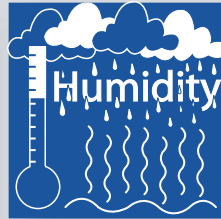
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