Featuring products from quality manufacturers, including:

THERMCO PRODUCTS, INC

Be sure. testo

Cooper ATKINS

MADGE TECH
WE BUILD DATA LOGGERS

ANDERSON-NEGELE

PROGESPLUS

TEL-TRU MANUFACTURING CO.

SP SCIENCEWARE
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Temperature Monitoring Products

Meet regulatory requirements with accurate temperature readings for a variety of applications.

Thermco® Flip Probe Digital Thermometers

Reasonably priced digital pocket thermometer offers all the important characteristics of a more expensive model with a one second temperature sensing time. Has an accuracy of ±1°C, is Fahrenheit and Celsius interchangeable, and includes a NIST Certificate of Accuracy.

Stock #	Range	Probe Length
511-3500	-58° to 302°F (-50° to 300°C)	5-⅛"

Thermco® Thermojack Thermometers

Pocket-sized digital thermometer with the incredible accuracy of 0.5°C. Comes with an economical flip out probe, and is Fahrenheit and Celsius interchangeable. View our most popular options below:

Stock #	Range	Probe Length	Certificate
Thermojack Flip			
511-3501	-40° to 482°F (-40° to 250°C)	2.875"	NIST Certificate of Accuracy
Thermojack Pro, IP65			
511-3601	-50° to 350°F (-58° to 177°C)	4.5"	NIST Certificate of Accuracy
511-3602	-50° to 350°F (-58° to 177°C)	4.5"	NIST Certificate of Accuracy with 1 temperature point of choice

Testo Folding Digital Thermometers

One of the smallest food thermometers around in its class—simply unfold and measure. These folding thermometers offer important advantages to suit your food application for both core temperature and spot check measurements.

• Super rugged designs built for extreme use.
• HACCP compliant and certified to EN13485.
• NIST Traceable Calibration Certificate available for additional purchase.
• Model 104 has color-coded adhesive tabs to prevent cross-contamination and a rubber-coated anti-slip surface.
• 2-Year warranty.

Stock #	Range	Accuracy	C/F	Water Rating	Overall Length	Probe Length
Model 103						
659-3103	-22° to 428°F (-30° to 220°C)	±0.9°F (±0.5°C)	Interchangeable	IP55	4.5"	3"
Model 104						
659-3104	-58° to 482°F (-50° to 250°C)	±1.8°F (±1°C)	Interchangeable	IP65	6.4"	4"

Cooper Atkins® Digital Pocket Thermometers

Digital Pocket thermometers offer automatic shut off, 500 hours battery life, and have an IPX7 waterproof rating. Each thermometer is accurate for life and is NSF certified.

Stock #	Range	Accuracy	Probe Length	Certificate
Digital Pen Style Pocket Test				
047-3991	-40° to 392°F (-40° to 200°C)	±2.0°F (±1.0°C)	2.75", SS probe w/ reduced tip, probe cover	NIST Certificate of Accuracy
Digital Pocket Test with Alarm				
047-3025	-40° to 450°F -40° to 232°C	±2.0°F (±1.0°C)	4.75", SS probe w/ reduced tip, probe cover	NIST Certificate of Accuracy

047-3991

047-3025

Bi-Metal Pocket

Features a red protective sheath with antimicrobial additive to avoid bacteria growth. Adjustment tool and pocket clip provided. NSF certified.

Stock #	Range	Accuracy	Probe Length	Certificate
047-3030	0° to 220°F	±2.0°F	5", SS probe	Calibrated in field

047-3030

Thermco® Digital Pasteurization Thermometers—PMO Compliant

Ideal for measuring operations in which high accuracy is imperative or the possibility of online documentation via PC is desired.

- Minimum, maximum, and average temperature capabilities.
- Includes temperature probe.
- ±0.03°C accuracy to 199.9°C, exceeding the ±0.05°C PMO requirement.
- Password protection for calibration function.
- PMO thermometer service cases (511-3007) available, sold separately.

Stock #	Range	C/F	Probe Length
511-3655	-328° to 932°F	Fahrenheit Only	6"
511-3650	-328° to 1,500°F	Fahrenheit Only	12"
511-3785	-200° to 850°C	Celsius Only	6"
511-3780	-200° to 850°C	Celsius Only	12"

Anderson "DTG" Digital Temperature Gauges

Eliminate potentially hazardous and difficult to read mercury in glass thermometers. Designed for retort applications, and pre-calibrated to NIST traceable temperature standards. In compliance with the Code of Federal Regulations governing the food industry, the DGT is ready to be put into service upon receipt.

Stock #	Process Connection
033-1915	1-½" Sanitary Clamp
033-1920	2" Sanitary Clamp
033-1925	2-½" Sanitary Clamp
033-1930	3" Sanitary Clamp
033-1950	9-⅛" Projectile Well

Tel-Tru® Digi-Tel Thermometers

Thermometers from Tel-Tru combine the easy, quick visual reference feature of a local indicator and the precision readout of a digital thermometer. Available in sanitary and industrial direct or remote mount styles offering a wide range of configurations.

- NIST traceable factory calibration.
- Temperature range: -75° to 750°F or -60° to 400°C.
- Accuracy: ±0.5°F from 32° to 300°F.
- Pre-configured to °F or °C.
- Poly Carbon lens.
- 316 SS housing and stem
- Stem lengths 2-½ to 24".
- ½" NPT standard connect with many available options in back, bottom and adjustable angle.

Stock #	C/F	Dial	Probe Length	Stock #	C/F	Dial	Probe Length
2" Tri-Clamp, Back Connect				2" Tri-Clamp, Adjustable Angle			
657-7441	F	5"	2.6"	657-7440	F	5"	2.5"

Need something for a custom application? Configure one of our Sani-Flow™, Nelson-Jameson Digital Thermometers:

How to Order Nelson-Jameson Sanitary Digital Thermometer

1 Select **SERIES:**
DT - 3-½" Sanitary Digital Thermometer

2 Specify **SIZE:**
Available in ½", ¾", 1-½", 2" 2-½", or 3"

3 Choose **CONNECTION:**
U - Tri-Clamp
I - Cherry-Burrell male I-line
H - G&H male H-line
Q - Cherry-Burrell Q-line
K - APC "K" Clamp
PW - Projectile well with ¼" x 18 UNEF captive nut—specify stem length
N - NPT (specify stem length)
OF - No fitting

4 Select **MOUNT:**
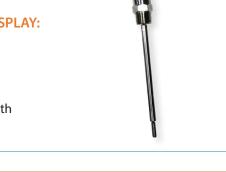BT - Bottom Mount
RT - Right Mount
LF - Left Side Mount
TP - Top Mount
BK - Back Mount

5 Choose **DISPLAY:**
DF - °F
DC - °C

Thermco® Digital Thermometers

We have a wide variety of options and most popular styles of Thermco Stem Thermometers suitable for various operations and laboratories. Our thermometers have accuracy of ±1.8°F (±1.0°C), are Fahrenheit and Celsius interchangeable, and come with a NIST Certificate of Accuracy.

511-3108

511-3340

511-3400

Long Stem Digital Thermometers

Stock #	Range	Probe Length
511-3108	-58° to 392°F (-50° to 200°C)	8", SS probe
195-3051	-58° to 572°F (50° to 300°C)	8", SS probe

T-Handle Digital Thermometers

Stock #	Range	Probe Length
511-3320	-58° to 302°F (-50° to 150°C)	5", SS probe w/ probe cover
511-3340	-58° to 302°F (-50° to 150°C)	5", SS probe w/ probe cover, pocket clip

Digital Pocket Thermometers

Stock #	Range	Probe Length	Thermometer Head
511-3400	-58° to 572°F (-50° to 300°C)	5", SS probe w/ probe cover	1-¾" Dia
511-3300	-58° to 302°F (-50° to 150°C)	5", SS probe w/ probe cover	--
511-3600	-58° to 302°F (-50° to 150°C)	4.5", SS probe w/ probe cover	1-½" Dia

NIST Traceable Calibration Certificate Vs. Certificate of Accuracy.
Do you know the Difference?

NIST Traceable Calibration Certificate

Certified reference thermometers come with a NIST traceable calibration certificate. These thermometers are known as certified dairy thermometers, factory certified laboratory thermometers or high precision digital certified thermometers. Each thermometer is used as the official temperature monitoring device for verification and calibration procedures in the laboratory or throughout the food manufacturing process.

Whether choosing from the popular spirit-filled certified glass thermometers or a digital certified thermocouple thermometer, each are carefully calibrated and inspected at the manufacturer to ensure they conform to exact specifications against the NIST traceable reference standards. Standards have been certified by an ISO/IEC 17025 accredited calibration laboratory.

Our most popular reference thermometers are certified at several common critical temperature points. As a general guideline for good laboratory and manufacturing practices, thermometers should be recertified on an annual basis. We provide custom thermometer calibrations and recalibration services by working directly with the manufacturer.

"The calibration services of the National Institute of Standards and Technology (NIST) are designed to help the makers and users of precision instruments achieve the highest possible levels of measurement quality and productivity". *Referenced from nist.gov.*

NIST Certificate of Accuracy

Thermometers used in quality control applications throughout the laboratory or the food manufacturing process are used in areas such as refrigerators, freezers, incubators, walk-in coolers, block heaters or ovens come with a certificate of accuracy. These types of thermometers come individually serialized, are checked for physical integrity and any malfunctions before determined suitable for calibration. They are checked against a standard test method and NIST traceable calibration equipment for accuracy. These certificates are good for one year but then due to general guidelines for good laboratory and manufacturing practices, the thermometer is recertified in-house against the laboratories certified reference thermometer.

36036 Platinum RTD Thermometer

Popular splash proof digital instrument that utilizes thin-film platinum RTD probe sensor technology. Fahrenheit and Celsius interchangeable.

- NIST Traceable Calibration Certificate not included.
- If a NIST Traceable Calibration Certificate is required, order 047-3048 and 047-3638, both sold separately on pages 2, 6, 15, and 16.
- Permanently attached probe with silicone coated wire.

Stock #	Range	Accuracy	Type	Probe Length
047-3037	-76° to 500°F (-60° to 260°C)	±0.5°F (±0.5°C)	K	4" Stem, 3' Cable

Cooper Atkins™ Thermocouple Thermometers & Probes

Highly accurate, instantaneous, and rugged digital thermometers. Their ergonomic design allows for measuring all applications encountered in the food production process or in a laboratory setting. Thermocouples are available in a variety of probe options. There are attached probes, where a simple decision can be made; or detachable probe options, which better suit the needs of each individualized operation. NIST Traceable Calibration Certificates are available for an additional charge. Includes a 5-year warranty on instruments and a 1-year warranty on probes.

Aquatuff™ 350 Series Thermocouple Thermometers

Aquatuff offers two waterproof digital thermometer options. Both are Type K thermometers, and offer great accuracy of ±0.5°F (±0.5°C). Ergonomically compatible to fit in the palm of your hand. They are best used in the harshest environments in the food processing environment or in the industrial kitchen. NIST Calibration Certificate not included.
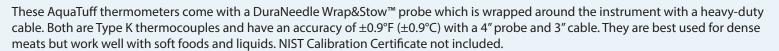
35100 AquaTuff™ Waterproof Digital Thermometer

- IPX7 Waterproof Rated.
- Choose any Type K probe with a standard mini-connector.
- If a NIST Traceable Calibration Certificate is required, order 047-3051 and 047-3052.

Stock #	Range
047-3015	-100° to 999°F (-73° to 537°C)

047-3015

35200 AquaTuff™ Waterproof Digital Thermometer

- IPX7 Waterproof Rated and ABS Housing.
- Choose any Type K probe with a standard mini-connector.
- If a NIST Traceable Calibration Certificate is required, please contact us.

Stock #	Range	Probe Length
047-3016	-100° to 999°F (-73° to 537°C)	4" Stem, 3' Cable

047-3016

These AquaTuff thermometers come with a DuraNeedle Wrap&Stow™ probe which is wrapped around the instrument with a heavy-duty cable. Both are Type K thermocouples and have an accuracy of ±0.9°F (±0.9°C) with a 4" probe and 3" cable. They are best used for dense meats but work well with soft foods and liquids. NIST Calibration Certificate not included.

35132 AquaTuff™ Wrap & Stow™ Digital Thermometer

- IPX7 Waterproof Rated.
- DuraNeedle probes can be replaced in the field with no need for recalibration.
- If a NIST Traceable Calibration Certificate is required, order 047-3038 and 047-3039, both sold separately.

Stock #	Range
047-3034	-100° to 500°F (-73° to 260°C)

35232 AquaTuff™ Wrap & Stow™ Digital Thermometer

- IPX7 Waterproof Rated and ABS Housing.
- Probe is calibrated with instrument for Total System Accuracy.
- Replacement probe (047-3032) sold separately.
- If a NIST Traceable Calibration Certificate is required, order 047-3639, sold separately.

Stock #	Range
047-3060	-100° to 500°F (-73° to 260°C)

047-3060

Testo 110 Digital Thermocouple Thermometer

Provides accurate, reliable and affordable measurements for all food monitoring areas of your operation. Probes are sold separately.

- Extremely accurate in very low temperature ranges such as cold storage rooms, warehouses and outdoors due to NTC technology.
- Large, two-line display with on-site printing options.
- One-channel, HACCP Compliant.
- NIST Traceable Calibration Certificate available for additional charge.

Be sure. *testo*

Stock #	Range	Accuracy
659-1106	-58° to 302°F (-50° to 150°C)	±0.4°F (±0.2°C)

Testo 108-1 Waterproof Food Thermometer and Probe

Sleek and compact, yet rugged. This HACCP compliant food thermometer and probe is suitable for a variety of environments but will withstand the toughest of environments such as the milk intake, production or sanitation rooms.

- Waterproof IP67.
- Durable 2-prong probe connection.
- 5' Heat and chemical resistant Teflon™ cable.

Be sure. *testo*

Stock #	Range
108-1 Thermometer	
659-3106	-58° to 572°F (-50° to 300°C)
Heat and Chemical Resistant Probe	
659-3107	-58° to 662°F (-50° to 350°C)

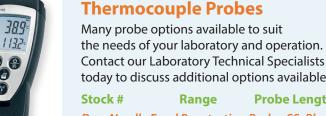## Testo 925 Digital Thermocouple Thermometer

Provides maximum versatility in food processing applications. Features a backlit display and hold feature, along with user-adjustable audible alarm sounds if set min/max limits are exceeded. Measurements as well as min/max values with time/date can be printed on-site with optional Testo printer.

- One-channel with corded or wireless probe capabilities.
- Large, two-line display with on-site printing options.
- NIST Traceable Calibration Certificate available for additional charge.

Be sure. *testo*

Stock #	Range	Accuracy	Type
659-3560	-58° to 1832°F (-50° to 1000°C)	±0.9°F (±0.5°C)	K

Cooper Atkins Thermocouple Probes

Many probe options available to suit the needs of your laboratory and operation. Contact our Laboratory Technical Specialists today to discuss additional options available.

Cooper **ATKINS**

Stock #	Range	Probe Length	Pairs with
DuraNeedle Food Penetration Probe, SS, Plastic Handle			
047-3032	-100° to 500°F (-73° to 260°C)	4" Stem, 3' Cable	047-3060
Fry Vat Probe, Type K, J or T, SS			
047-3072	-40° to 400°F (-40° to 205°C)	8" Stem, 3' Cable	Any Type K, J, or T Thermocouple
DuraNeedle Food Penetration Probe, SS, Plastic Handle, Fast Response, Type K			
047-3003	-100° to 500°F (-73° to 260°C)	4" Stem, 3' Cable	Type K Thermocouple only
DuraNeedle Food Penetration Probe, SS, General Purpose			
047-3336	-40° to 500°F (-40° to 260°C)	6" Stem, 4' Cable	Any Type K, J, or T Thermocouple
Armored Meat Probe, Designed For Meat And Food Processors			
047-3014	-40° to 400°F (-40° to 205°C)	3.8" Stem, 10' SS Cable	Type K Thermocouple only
General Purpose, Needle Food Probe			
047-3079	-40° to 500°F (-40° to 260°C)	4.5" Stem, 4' Coiled Cable	Any Type K, J, or T Thermocouple
Surface Food Probe, Swiveling Bell Sensor			
047-3068	-40° to 500°F (-40° to 260°C)	4.5" Stem, 4' Cable	Any Type K, J, or T Thermocouple

659-3211
659-3293
659-3292
659-3026

Testo Thermometer Probes

Be sure. *testo*

Many additional probe options available if needed. Contact our Laboratory Technical Specialists today for more information.

Stock #	Range	Response Time	Probe Length	Pairs With
Food Penetration Probe, SS Handle, NTC Temp Sensor				
659-3211	-50° to 150°C	8 seconds	4.9"	659-1106
Food Penetration Probe, Waterproof, Type K, Plastic Handle				
659-3293	-60° to 400°C	7 seconds	4.5"	659-3560
Food Penetration Probe, Waterproof, Type K, SS Handle				
659-3292	-60° to 400°C	7 seconds	4.9"	659-3560
Food Penetration Probe, Waterproof, Type K, Needle Tip				
659-3026	-60° to 250°C	1 second	5.9"	659-3560

NELSON JAMESON INC.

1-800-826-8302 • **nelsonjameson.com**

Ideal for the verification of critical temperatures in freezers, refrigerators, incubators, block heaters and ovens. These thermometers come with min/max temperature memory features and audible alarm settings. Available with a 30 mL or 60 mL plastic bottle with options of a glass spirit-filled or digital display thermometer. View our most popular options available below:

Thermco® Triple Digit Bottle Thermometer

- Includes a NIST Traceable Calibration Certificate with 1 customizable temperature point.
- Displays current, minimum and maximum temperatures.
- Double magnets on bottles.
- Individually serialized.
- Includes 9' sensor cable.

THERMCO PRODUCTS, INC

Stock #	Chamber	Range	Accuracy	Insulating Liquid
511-3895	Freezer	-58° to 158°F (-50° to 70°C)	±0.5°C	30 mL Bio-safe Glycol/Water
511-3896	Refrigerator	-58° to 158°F (-50° to 70°C)	±0.5°C	30 mL Bio-safe Glycol/Water
511-3897	Incubator	-58° to 158°F (-50° to 70°C)	±0.5°C	30 mL Bio-safe Glycol/Water
511-3898	Dry Bath	-58° to 158°F (-50° to 70°C)	±0.5°C	30 mL Sand

Thermco® Digital Certified Bottle Thermometer

- Accuracy of ±0.5°C.
- Comes with a 30 mL bottle of Bio-safe Glycol/Water solution.
- Dry bath comes in 1 mL Mineral Oil.

THERMCO PRODUCTS, INC

Stock #	Chamber	Range	Certified Points
195-3803	Freezer	-58° to 158°F (-50° to 70°C)	-20°C
195-3804	Refrigerator	-58° to 158°F (-50° to 70°C)	4°C
195-3805	Incubator	-58° to 158°F (-50° to 70°C)	37°C
195-3850	Dry Bath	-58° to 158°F (-50° to 70°C)	37°C

Thermco® Spirit-Filled Certified Bottle Thermometer

- Includes a NIST Certificate of Accuracy.
- Bottles have magnets for wall or door mounting.

THERMCO PRODUCTS, INC

Stock #	Chamber	Range	Divisions	Immersion	Teflon™ Coated	Height	Insulating Liquid
511-3002	Refrigerator	-2° to 10°C	0.1°C	Total	Yes	240 mm	60 mL Bio-Safe Glycol/Water
195-3031	Refrigerator	-5° to 15°C	0.5°C	Total	No	125 mm	30 mL Bio-Safe Glycol/Water
195-3034	Refrigerator	-5° to 15°C	0.5°C	Total	Yes	125 mm	30 mL Bio-Safe Glycol/Water
511-3310	Incubator	25° to 45°C	0.1°C	Total	Yes	190 mm	60 mL Bio-Safe Glycol/Water
195-3032	Incubator	18° to 50°C	0.5°C	Total	No	135 mm	30 mL Bio-Safe Glycol/Water
195-3035	Incubator	18° to 50°C	0.5°C	Total	Yes	135 mm	30 mL Bio-Safe Glycol/Water
195-3099	Incubator	-30° to 110°C	0.5°C	Total	Yes	160 mm	Sand
195-3033	Freezer	-30° to 0°C	0.5°C	Total	Yes	125 mm	30 mL Bio-Safe Glycol/Water
195-3030	Freezer	-30° to 0°C	0.5°C	Total	No	155 mm	30 mL Bio-Safe Glycol/Water
511-3070	Oven	20° to 130°C	1.0°C	Total	Yes	135 mm	Sand
511-3301	Block Heater	18° to 60°C	0.5°C	1.5"	No	125 mm	1 mL Mineral Oil
511-3040	Block Heater	50° to 110°C	0.5°C	1.5"	No	165 mm	1 mL Mineral Oil
195-3012	Ultra Low Freezer	-90° to 20°C	1.0°C	Total	Yes	145 mm	Sand

Thermco® High Precision PT100 Platinum Digital Certified Thermometers

- Waterproof.
- Minimum, maximum, and average temperature capabilities.
- Temperature hold function.
- Includes temperature probe.

THERMCO PRODUCTS, INC

Stock #	Range	C/F	Resolution	Certified Temperatures
511-3370	-140° to 570°F (-100° to 300°C)	Interchangeable	0.1°C/F	Choose 2 points
511-3388	-140° to 570°F (-100° to 300°C)	Interchangeable	0.1°C/F	-20, 0, 4, 25, 37, 56, 95, and 121°C

Thermco® Maximum-Registering Thermometers

Ideal for where temperatures cannot be continuously observed, as it's mercury-filled and calibrated for total immersion. Record the highest temperature reached and must be shaken down before next use. Be aware of mercury regulations in your state. Check with your appropriate regulatory authority prior to ordering. 195-3024* is factory certified at 121°C.

Stock #	Range	Divisions	Length
237-3010	50° to 300°F	2.0°F	160 mm
195-3548	200° to 500°F	5.0°F	160 mm
449-3027	0° to 220°F	2.0°F	160 mm
449-3006	40° to 300°F	2.0°F	160 mm
449-3021	0° to 200°C	2.0°C	150 mm
449-3026	0° to 260°C	2.0°C	165 mm
195-3014	80° to 135°C	0.5°C	220 mm
195-3024*	80° to 135°C	0.5°C	220 mm

Thermometer Tips and Tricks

• Never store a spirit-filled thermometer horizontally. Always store upright in a case or protective stand.

• If you have a separation in your spirit-filled or mercury thermometer, contact Nelson-Jameson for all your troubleshooting tips and resources to reunite.

• A spirit-filled thermometer is reunited differently than a mercury filled.

• The material filling of a spirit-filled thermometer is all the same when it comes to the color of the material. The color variances are a dye.

• Certified thermometers must be recertified annually.

• Be aware of mercury regulations in your state. Check with your appropriate regulatory authority prior to ordering. We do have many great mercury alternative thermometer options available. Contact us today for assistance in changing out your temperature monitoring products.

• If a mercury-filled thermometer breaks, use a mercury spill kit for safe clean up. Also, report your break and proper disposal to Nelson-Jameson.

Nelson-Jameson has exactly what you need for your Mercury spills!

You should always have a Mercury Collector Kit available.

To collect spilled mercury quickly, just unscrew the lid with the foam pad, and press pad firmly onto the spill. This pressure forces the mercury into the pad. When the lid is screwed back onto the jar, the pad is compressed against the jars freestanding perforated plate, releasing the mercury into the jar bottom. Each container holds 125 mL of mercury. A SDS is not required for the Mercury Collector as there are no chemicals included.

Scienceware®
Mercury Collector

Collect small quantities of spilled mercury quickly and safely with a product ideal for labs and industrial workstations. Constructed of unbreakable polyethylene. Holds 125 mL of mercury. 4.125"Dia x 1.9"H.

Stock #
010-3336

Looking for more Temperature Monitoring Products?

Request a copy of our Buyers Guide Today!

1-800-826-8302 • nelsonjameson.com

Thermco® Blue Spirit-Filled ACCU-SAFE Thermometers

Eliminate the hazards of mercury with these environmentally safe liquid and dye thermometers. They are permanently marked and have a blue liquid against a white background for easy reading. Includes a NIST Certificate of Accuracy.
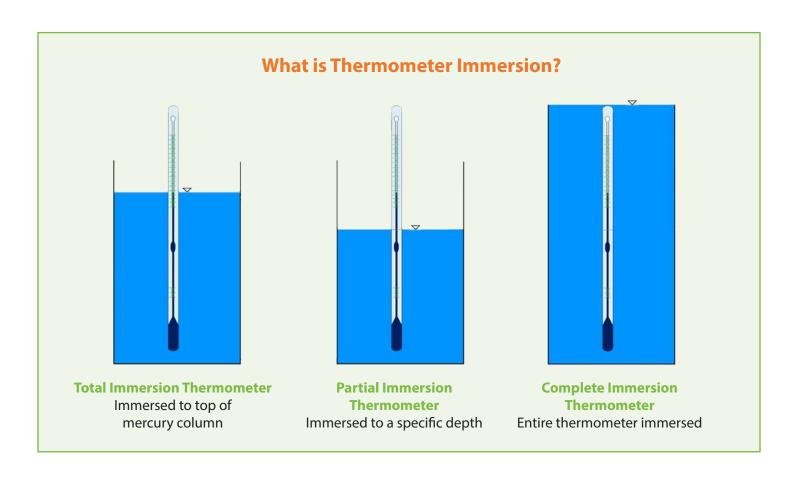
Stock #	Range	Divisions	Immersion	Length
511-3103	-20° to 110°C	1.0°C	76 mm	305 mm
511-3503	-20° to 150°C	1.0°C	76 mm	305 mm
511-3603	-10° to 260°C	1.0°C	76 mm	305 mm
511-3203	0° to 230°F	2.0°F	76 mm	305 mm
511-3053	-1° to 101°C	0.2°C	76 mm	450 mm
511-3153	-1° to 201°C	0.5°C	76 mm	450 mm
511-3230	0° to 230°F	2.0°F	Total	305 mm
511-3050	-10° to 50°C	0.5°C	Total	305 mm

Thermco® Spirit-Filled Thermometers

Designed for block heater and water bath tempering measurements.
These thermometers are individually serialized, and include a NIST Certificate of Accuracy.

Stock #	Range	Divisions	Immersion	Length	Teflon™ Coated
Block Heater Thermometers					
195-3036	24° to 57°C	0.5°C	35 mm	175 mm	Yes
195-3041	24° to 57°C	0.5°C	35 mm	175 mm	No
511-3647	0° to 100°C	0.5°C	35 mm	225 mm	No
Water Bath Thermometer					
195-3055	0° to 100°C	0.5°C	35 mm	255 mm	Yes

What is Thermometer Immersion?

Total Immersion Thermometer
Immersed to top of mercury column

Partial Immersion Thermometer
Immersed to a specific depth

Complete Immersion Thermometer
Entire thermometer immersed

Reference thermometers are used in verification and certification procedures to comply with regulatory agencies, in which extremely critical temperature readings are necessary. They are used when the specifications of the Pasteurized Milk Ordinance (PMO) need to be met, or when the calibration of your routinely used thermometers is required. These thermometers are certified against NIST standards, and come with spirit-filled and digital options.

Thermco® Spirit-Filled Certified Dairy Thermometers

- The most common and cost effective spirit-filled options available.
- Certified at several common critical temperature points.
- Individually serialized, and includes a NIST Traceable Calibration Certificate.
- Coated with fluoro-polymer material and includes a felt-lined storage case.
- Customizable spirit-filled certified temperature points are available upon request.

Stock #	Range	Divisions	Immersion	Length	Certified Temperatures
511-3005	-1° to 101°C	0.1°C	3" (76 mm)	24"	0, 7.2, 32, and 72°C
511-3113	-20° to 110°C	0.5°C	3" (76 mm)	12"	-15, 0, 50, and 100°C
511-3133	-20° to 150°C	0.5°C	3" (76 mm)	12"	0 and 121°C
511-3163	0° to 230°F	0.5°F	3" (76 mm)	15"	32, 45, 90, and 161°F
511-3000	0° to 230°F	0.5°F	3" (76 mm)	15"	32, 45, and 161°F

Thermco® Factory Certified Reference Thermometers

- Certified against NIST standards and traceable to NIST.
- Individually serialized and spirit-filled.
- Certified at temperatures of -15°, 0°, 50° and 100°C.
- Includes a felt-lined storage case.

Stock #	Range	Divisions	Immersion	Length	Teflon™ Coated
511-3113	-20° to 110°C	0.5°C	3" (76 mm)	12"	Yes
511-3068	-20° to 110°C	0.5°C	3" (76 mm)	12"	No

Dart Digital Reference Thermometers

Precise and accurate, this is the only digital thermometer available today that complies with the applicable provisions of the Pasteurized Milk Ordinance (PMO).

- Digital display reads to 0.1°F.
- Degree F/C is user selectable.
- Replaceable sensors and sanitary RTD's (sold separately) have a 2" clamp, 5-½" insertion, and 25' of cable. Other specifications available.

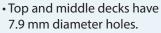| Stock #	Description
033-7089	Thermometer
033-7071	Thermometer Sensor

ANDERSON-NEGELE

Sanitary RTD's

Rugged sensors incorporate a clamp fitting, waterproof housing, and sealed cable in one clean package.

Stock #	Mfg #	Fitting Size	Insertion Length
033-1580	SA110040370105	1-½" Clamp	2-¾"
033-1581	SA110050490105	2" Clamp	3-½"
033-1582	SA110060490105	2-½" Clamp	3-½"
033-1583	SA110621390105	3" Clamp	3-¾"
033-7003	SA110621390105	Projectile Well	9-⅛"

Scienceware® Thermometer Rack

Holds 25 thermometers in a vertical 5 x 5 arrangement. Ideal position to prevent separation which may occur when thermometers are stored improperly.

- Top and middle decks have 7.9 mm diameter holes.
- Bottom deck holes are only 3.2 mm in diameter.
- End plates have handles for easy carrying.
- 5-⅞"L x 8-⅜"W x 9-⅞"H.
- Autoclavable.

Stock #
010-3981

SP SCIENCEWARE
Bel-Art · H-B Instrument · Wilmad-LabGlass

Anderson AJ-300 Recording Controllers

Designed for sanitary fluid processing operations, the AJ-300 is available as a basic recorder or as a recording controller. Washdown friendly, with 12" charts that provide maximum resolution and readability. The simple field or factory programming along with a user-friendly menu make this a premier recorder and controller.

Note: while recorder range and rotation is field programmable, please specify when ordering or 0° to 100°, 24-hour will be shipped. Order RTD's separately. Options: Recording controller with outputs, auxiliary inputs, event pen, sealable chart plate 115/230V AC.

Stock #	Mfg #	Description
Recorders		
033-7066	AJ31000010002100	Single Pen Recorder, 115 V AC
033-7065	AJ31100010002100	Two Pen Recorder, 115 V AC
Recording Controllers		
033-1706	AJ32100110002100	Two Pen Recorder, 115 V AC
033-1705	AJ31140010002100	Two Pen Recorder, 4 Relay

Anderson AV-9900 HTST Recorder Controller

Designed for use in continuous pasteurization, including Ultra High Temperature (UHT) and aseptic ranges. Meets all of the requirements as outlined in the Pasteurized Milk Ordinance (PMO). Multiple inputs allow for recording and control of hot product, cold product, flow and hot water functions. All critical recording is able to be done with the same instrument, allowing for synchronization of event pens, as well as meter based timing functions. Additional features include self printing charts, dual element product probe and configuration to fit your specific needs.
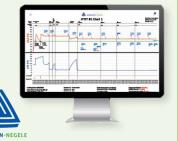
Stock #	Mfg #	Packaging
Chart Recorder		
033-1004	AV9901220200133AH	--
AV9900 Charts		
033-7112	002-154-01	100/bx

Anderson-Negele is Developing a Solution to Review and Approve Charts Remotely!

- Creates digital legal records that meets PMO requirement.
- Allows digital annotation and sign-off.
- Allows remote review and sign-off.
- Allows secure storage and easy access to legal records.

Contact Nelson-Jameson for additional information and demo opportunities.

How to Order Anderson AV-900 Recorders

1 Specify **TYPE:**
Recorder/Controller
Recorder Only

2 Choose **PENS & COLORS:**
1 - one trend pen, one color*
2 - two trend pens, two colors*
3 - three trend pens, three colors*
4 - four trend pens, four colors
5 - one trend pen, four colors
6 - two trend pens, four colors
7 - three trend pens, four colors
Note: Pens/colors are added to the instrument in the following order: Red, then green, then blue, and then black

3 Specify **UNIVERSAL INPUTS:**
Tell us how many inputs you'd like (1 to 8 inputs available)

4 Choose **RELAY OUTPUTS:**
Two, four, six, eight relay outputs available. Or specify none.

5 Select **4-20 MA OUTPUTS:**
0 - none
3 - one 4-20 mA output (isolated)
4 - two 4-20 mA outputs (isolated)
5 - three 4-20 mA outputs (isolated)
6 - four 4-20 mA outputs (isolated)

6 Specify **24 V TRANSMITTER POWER SUPPLY:**
One to four supplies available, or specify none.

7 Choose **MATH/TOTALIZER:**
Math
Totalizer
Math and Totalizer
None

Questions? Contact our processing and flow specialists for assistance.

Looking for data logger options for all sorts of applications?
From autoclaves to culture freezers to bottled beverage or anywhere in between, our variety of MadgeTech temperature and pressure data loggers have you covered.

MadgeTech HiTemp 140 Series Data Loggers

Rugged, waterproof and high-precision. These data loggers were built for use in harsh environments which enables it to be used for many applications, including autoclave or pasteurization verification, to dishwasher testing or environmental studies. Can be used to monitor and record data in real time. Comes with a NIST Traceable Calibration Certificate, certified at temperatures 30° and 140°C. Password protection available when necessary.

- 316SS, IP68 Submersible.
- 32,700 Memory readings.
- ISO 17025 compliant.
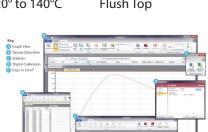- Accuracy of ±0.1°C.
- Sample rate of 1 second to 1440 minutes.

MadgeTech HiTemp Data Logger
- 1-Year battery life.

Stock #	Range	Probe Length
243-3013	-40° to 140°C	1"
243-3000	-40° to 140°C	2"
243-3030	-20° to 140°C	2" Transitional Dia
243-3011	-40° to 140°C	5.25"

MadgeTech HiTemp & Pressure Data Logger
- 0-5 Bars of pressure.
- 2-Year battery life.

Stock #	Range	Probe Length	Certified Temperatures
243-3020	-20° to 140°C	Flush Top	30 and 140°C

MadgeTech HiTemp & Pressure 140 Data Logger Series Software
- Software is required and comes complete with cradle and USB cable.
- Suitable with any of the HiTemp and Pressure Data Loggers.

Stock #	Description
243-3001	Software, Cradle, and USB Cable

Key
- A Graph View
- B Tabular Data View
- C Statistics
- D Digital Calibration
- E Copy to Excel®

MADGETECH — WE BUILD DATA LOGGERS

MadgeTech Ultra-Low Temperature Data Logger

A temperature monitoring solution for applications involving ultra-low temperature recordings. The high accuracy, alarm setting options, and no external probes or wiring make this an ideal fit for dry ice shipments, cold chain monitoring, frozen foods or culture freezers.

- IP64 Splash Resistant.
- ISO 17025 Certified at -80°C and 25°C.
- Required USB cable and docking station sold separately.

Stock #	Range	Probe Length
243-3016	-122.8° to 95°F (-86° to 35°C) 0-95% RH	4"

USB Cable and Docking Station

Stock #	Range	Probe Length
243-3025	--	--

MADGETECH — WE BUILD DATA LOGGERS

MadgeTech MicroTemp

Miniature submersible temperature data logger that measures 2.6" tall, and has a 0.7" diameter. Versatile amongst many industries with applications such as milk pasteurization, the brewing industry or anywhere in between.

- 316SS, IP68 Submersible.
- ISO 17025 Certified at 25°C.
- Software is free but an IFC202 Interface cable is required which communicates between the data logger and the software.
- 1-year battery life.

Stock #	Range
243-3014	-40° to 176°F (-40° to 80°C) 0-100% RH

USB Interface Cable for Micro Series Loggers

Stock #	
243-3018	--

MADGETECH — WE BUILD DATA LOGGERS

Proges Plus Thermo & Hygro Button Temperature Logger

Ideal for any kind of temperature and humidity controls, product tracking, transport or process and HACCP controls. They are small, rugged, can survive any harsh environment and are resistant to dust and water. Suitable for coolers, refrigerators or incubators in the laboratory or production environments. Can be used to monitor and record data in real time.

• Programmable low and high alarm thresholds with temperature parameters.
• A license is required with these buttons but free downloadable software is available.
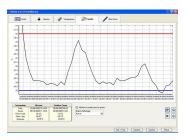• CRF 21 Part 11 Compliant.

PROGESPLUS

Stock #	Range	Accuracy	Sample Rate	Battery Life
Temperature				
250-3100	-40° to 85°C	±1°C	1 to 255-min.	10-yr.
250-3105	-40° to 85°C	±0.5°C	1 second to 273 hours	10-yr.
250-3200	0° to 125°C	±0.5°C	1 second to 273 hours	30-50 Sterilization Cycles
Temperature and Humidity				
250-3300	-20° to 85°C	±0.5°C, ±5% Humidity	1 second to 273 hours	10-yr.

Proges Plus Thermotrack PC License with USB Reader

• Mission your buttons, set sample rate, alarm thresholds and more.
• One click only to get the graph, list of excursions, and list of measurements.
• Save data on your computer/server.
• Print reports, email as PDF, and export to Microsoft® Office Excel.

Stock #	Accommodates
250-3400	1 Thermo/Hygro Button
250-3500	Up to 5 Thermo/Hygro Button
250-3800	Unlimited Thermo/Hygro Button

PROGESPLUS

Upgrades to your license when adding more buttons are available. Contact our Product Specialists for more details.

Trek Tag® NFC Temperature Data Logger

Provides a complete temperature data logging solution! The TrekTag NFC works with an easy to use smartphone application and a convenient cloud platform to bring you reliability and peace of mind. Includes 10 TrekTag Data Loggers and 1 NFC Android tablet.

• Simple activation.
• Cloud storage.
• Strong battery life.
• Food grade adhesive.
• Disposable.
• NFC.
• **Temperature Accuracy:** ±0.5°C Typical; ±1.5°C Max
• **Temperature Range:** -20° to 65°C

g Graphic Controls

Stock #
654-2203

Reliable Data Logging:

Scan the TrekTag® using your android device. Get an instant report on your smartphone. Upload to the cloud to access from anywhere.

Ryan® EZT Strip Chart Recorder

An easy-to-use, reliable and cost-effective choice for temperature monitoring. At the end of the trip the receiver breaks the tamper-proof seal, opens the instrument, and removes the chart of in-transit temperature conditions. Includes individual instrument tracking, and pre-shipment validation testing to NIST standards. Sold by the case. 20/case.

Stock #	Mfg #	Description
149-1305	Z4000-05-020	-20° to 100°F, 5 Day
149-1310	Z4000-10-020	-20° to 100°F, 10 Day
149-1320	Z4000-20-020	-20° to 100°F, 20 Day
149-1340	Z4000-40-020	-20° to 100°F, 40 Day
149-1375	Z4000-75-020	-20° to 100°F, 75 Day

Thermco® Micro-Therm USB Data Logger

Easy temperature monitoring at your fingertips with this small, rugged, waterproof, and dustproof data logger. Great for freezer, refrigerator, incubator or other locations where temperature monitoring is needed. Not intended for autoclaves or culture freezers.

• Connect to a PC to display or download the data.
• Includes software and cradle.
• NIST Traceable Calibration Certificate with one temperature point available for an additional charge.
• Sample rate of 1 per second.

Stock #	Range
511-3615	-40° to 176°F (-40° to 80°C)

Testo Mini Temperature and Humidity Data Loggers

Compact data logger ideal for monitoring temperature measurements in refrigerators, freezers, storage and transport. Provides secure data protection even with a drained battery.

• Large display and alarm capabilities.
• Accuracy of ±0.9° in Fahrenheit, ±0.5° Celcius.
• Sample rate of 1 minute to 24 hours.
• Both options include USB interface.
• NIST Traceable Calibration Certificate available for an additional charge. Comes with three temperature points.
• CFR21 Part 11 Compliant, HACCP Compliant.
• IP65 Waterproof Rating.
• Kits include data logger and USB interface for data transfer.

Be sure. testo

Stock #	Range	RH Range
174T Mini Starter Kit		
659-3561	-22° to 158°F (-30° to 70°C)	--
174H Mini Starter Kit		
659-3566	-4° to 158°F (-20° to 70°C)	0-100%

MadgeTech Wireless Meat Temperature Data Logger

An industry standard for meat processors—suitable for smokehouses, meat storage, ovens, and other cooking processes. Provides users with real-time monitoring, and is available in multiple probe length options. Wireless transceiver and repeater is required (sold separately).

• IP67 Splash proof, and can withstand washdown cycles.
• ISO 17025 Certified at 15°C and 85°C.
• HACCP compliant.
• Includes micro USB cable, and has a 2-year battery life.

Stock #	Range	Probe Length
243-3017	-4° to 212°F (-20° to 100°C) 0-100% RH	1 per second
243-3015	-4° to 212°F (-20° to 100°C) 0-100% RH	1.75" Fast Response

Meat Temperature Data Logger Software Options

Stock #	Description
243-3021	Wireless, Real-Time Transceiver and Repeater, not meant for wet environments
243-3022	Wireless Real-Time Transceiver and Repeater, Rated IP69, suitable for washdown and harsh environments

243-3017   243-3021   243-3022

MADGETECH
WE BUILD DATA LOGGERS

Testo 175T1 Temperature Data Logger

Ideal and reliable with a small footprint for the continuous monitoring of your operation. Suited to monitor air temperature in cold storage, frozen food storage rooms or colder production areas for extended periods of time— this data logger will alert when thresholds have been exceeded.

• Easy to read large display that shows current reading and exceeded measurement limits.
• CFR 21 Part 11 Compliant.
• IP65 Waterproof rating.
• Data logger software is available at no charge but an interface is required for additional purchase.
• Includes data logger, batteries, wall mount, lock, and certificate of conformity.

Be sure. testo

Stock #	Range	Accuracy	Sample Rate
659-3101	-31° to 131°F (-35° to 55°C)	±0.9°F (±0.5°C)	10 seconds to 24 hours

Testo 184 T3 Temperature USB Transport Data Logger with LCD Display

If you are monitoring cold chain transportation, air temperatures of colder production areas or areas associated with the production of products for the pharmaceutical industry, this may be the data logger for you. Features a clear indication of configurable alarm settings, including:

• Suitable for international shipping or where different languages are needed within the production facility.
• GxP, ISO 9001: 2008, FDA 21 CFR Part 11, EN 12830, HACCP International Compliant.
• IP67 Waterproof rating.
• USB downloading capabilities included or NFC interface available for mobile printing at additional purchase.
• On-board electronic calibration certificate eliminates hassles of traceability.
• Includes data logger and adhesive installation pad.

Stock #	Range	Accuracy	Sample Rate
659-3100	-31° to 158°F (-35° to 70°C)	±0.9°F (±0.5°C)	1-min. to 24 hours

Be sure. testo

Testo Saveris 2-T1 Wi-Fi Temperature Data Logger

An easy, versatile and secure solution to your temperature monitoring needs. Reliably measures and records temperature values with an internal NTC sensor over long periods. Automatically transmits data over 2.4GHz WiFi networks. Viewing your data is as simple as registering your data logger on your Testo Cloud account via an Internet connected device such as a tablet, PC, or smartphone.

• Measurements available anywhere, anytime through the Testo Cloud.
• Easy to read large display that shows current reading and exceeded measurement limits.
• CFR 21 Part 11 Compliant.
• IP65 Waterproof rating.
• Data logger software is available at no charge but an interface is required for additional purchase.
• Includes data logger, micro USB cable, wall bracket with lock, batteries, certificate of conformity.

Stock #	Range	Accuracy	Sample Rate—Dependent on Cloud License:
659-3102	-22° to 122°F (-30° to 50°C)	±0.9°F (±0.5°C)	Basic: 15-min. to 24 hours Advanced: 1-min. to 24 hours

Be sure. testo

Using an infrared thermometer (IR) is the safest way to measure surface temperatures of hot, hard-to-reach, electronically energized or moving objects instantaneously. They are widely used throughout many industries and work environments. Accuracy of handheld IR thermometers is primarily determined by the distance-to-spot ratio (D/S Ratio).

Cooper Atkins® Mini Infrared Thermometer

Compact and easy to use, the perfect size to carry in your pocket, on your key ring or with the lanyard for around your neck. Celsius or Fahrenheit interchangeable. Comes with an automatic hold and lock function for long-term monitoring.

• 1:1 Distance-to-Spot Ratio.
• 1-Year warranty.

Stock #	Range	Accuracy
047-3017	-27° to 428°F (-33° to 220°C)	±3.6°F (±2°C)

Cooper ATKINS

Thermco® Waterproof Infrared and Probe Thermometer

All-in-one dual infrared and probe thermometer. One of the best in the food industry that has waterproof specifications. Celsius and Fahrenheit interchangeable. Comes with a Certificate of Accuracy.

• 2.5:1 Distance-to-spot ratio.
• IP65 waterproof rating.

Stock #	Range	Accuracy
DualTemp Pro IR Penetration Probe, HACCP Indicators		
511-3413	-33° to 220°C (-55° to 220°C)	±1°C (±1°C)

THERMCO PRODUCTS, INC.

Infrared Thermometers

Cooper Atkins® Gun Style Infrared Thermometer

One of the most popular and common styles of infrared thermometers, these are an excellent way to take surface temperatures when food surfaces should not be touched or contaminated. Comes with a 1-year warranty.

Stock #	Range	Accuracy	D/S Ratio
047-3422	-76° to 932°F (-60° to 500°C)	±4°F (±2°C)	12:1

Cooper Atkins® Dual Infrared Thermometer and Probe

Perfect all-in-one combination infrared thermometer where steps in the production process require a non-contact temperature reading and another step requires an internal temperature reading of the product. They both come with a 1-year warranty. DualTemp (047-3018) has an IP65 waterproof rating.

Stock #	Range	Accuracy	D/S Ratio
DualTemp2™ with Platinum RTD Probe & HACCP Indicators			
047-3019	-40° to 392°F (-40° to 200°C)	±4°F (±2°C)	3:1 (IR)
DualTemp with Probe, Pocket-Size Design			
047-3018	-27° to 428°F (-33° to 220°C)	±4°F (±2°C)	1:1

Infrared Thermometer Tips and Tricks

• IR Distance to Spot Ratio is the diameter of the area being measured compared to the distance from the target. Example: A Distance to Spot Ratio of 12:1 measures approximately one inch diameter spot when it is 12" from the target. Any measurement outside this ratio may result in an inaccurate temperature reading.

• Keep the lens of your IR thermometer clean and free of scratches. It makes a huge difference on your temperature accuracy.

• IR thermometers aren't meant to be stored in cold environments continuously. Make sure to consider spares to change out of your cold environments every 20 minutes.

Nelson-Jameson, Inc.
2400 East Fifth Street
Marshfield, WI 54449

CHANGE SERVICE REQUESTED

Dial Thermometers

NJ501-20

Nelson-Jameson Bi-Metal Thermometers

Popular throughout the food and dairy industry, bi-metal thermometers are designed to withstand tough treatment and difficult environments while providing superb accuracy and reliability. Additional temperature ranges as well as 5" dials also available!

Dial

Connection

Stem

Stock #	Stem Length	Stock #	Stem Length
2" Dial (0° to 220°F Range)		*3" Dial (0° to 220°F Range)*	
563-2124	4"	563-2025	2-½"
563-2126	6"	563-2027	4"
563-2129	9"	563-2030	6"
563-2132	12"	563-2032	9"
563-2135	15"	563-2050	12"
563-2138	18"	563-2035	15"
563-2144	24"	563-2037	18"
		563-2040	24"
		563-2043	36"

Things to know when ordering your dial and/or digital thermometer from Nelson-Jameson

• What is the preferred dial size?
• What is the preferred temperature range?
• What is the preferred stem length?
• What is the preferred connection type? Threaded, tri-clamp, etc.
• What is the preferred connection size? ½" NTP, 2" tri-clamp, etc.

Questions? Contact our Process and Flow Specialists for assistance!

1-800-826-8302 • nelsonjameson.com