2023

Environmental Measurement Instruments | sperscientific.com



Digital Turbidity Meter

Digital Chlorine Meter
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Environmental Measurement Instruments

January 1, 2023

Dear Customer,

Each year we select a different environment to illustrate our catalog. This year we chose to highlight the beauty of the Everglades; a 1.5-million-acre wetlands preserve on the southern tip of the state of Florida.

As always, you will find our latest products on the back cover with full details inside and on www.sperdirect.com.

We at Sper look forward to doing business with you and wish you great health and happiness in 2023.

Sincerely,

Your Sper Scientific Team

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# **Water Quality Meters**

6 Conductivity / TDS / Salinity

8 Dissolved Oxygen

9 pH/ORP

17 Water Quality - Multi-Parameter

# Large Display Salinity Pen/Conductivity Pen



#### Easy to carry and simple to operate

Highly stable and accurate readings with large LCD display. Designed for simple one-hand operation. Simultaneously displays the parameter being measured and temperature in °C or °F. Features automatic temperature compensation, 2-pt. calibration, auto power off, hold function, and a low battery indicator. The case is IP65 waterproof, and will float if accidentally dropped into the water. Comes with 4 button-cell batteries and a built-in probe with protective cap. EPA Equivalency Method: 120.1

DIM:  $6\frac{1}{2}$ " ×  $1\frac{1}{2}$ " ×  $1\frac{1}{2}$ " (165 × 38 × 38 mm). WEIGHT: 2 oz (57 g).

No.	Description
850036	Large Display Salinity Pen
850037	Large Display Condutivity Pen
	Scan this QR code to view our

product demo.

	Range	Resolution	Accuracy	
Salinity Pen 850036	0 to 10 ppt 10 to 70 ppt	0.01 ppt 0.1 ppt	1% FS + 1 d	
	0 to 1999 μS 0 to 19.99 mS	1 μS 0.01 mS	1% F5 + 1 d	
Temperature (both models)	-32 to 122°F -0 to 50°C	0.1°	±2°F ±1°C	

# SPER SCIENTIFIC

#### **Pure Water Meter**



#### Useful in industrial water testing Sophisticated features at a reasonable price

Measures conductivity (in a wide range of 0.1  $\mu S$  to 199 mS), salinity, TDS (total dissolved solids), and temperature. Determine water conditions in boilers, coolers, water conditioning, waste water, photography, environmental testing, aquariums, labs, industrial and quality control. The large LCD shows conductivity, TDS or salinity in large digits with time, date, and temperature (in °C or °F) shown simultaneously on the lower display. Scroll 99 data points directly on the LCD with time stamps, min/max/avg readings. Also, features hold, manual or auto range, and ATC (automatic temperature compensation). Comes in a hard carrying case complete with built in RS232 and DC9V ports, detachable probe with  $3\frac{1}{2}$ -ft cord, and 4 AAA batteries. Uses optional AC Adapter (840027). EPA Equivalency Method: 120.1

DIM:  $6\frac{3}{4}$ " ×  $2\frac{3}{4}$ " ×  $1\frac{1}{4}$ " (171 × 70 × 32 mm). WEIGHT: 6.5 oz (185 g).

No.	Description
850038	Conductivity / TDS / Salinity Meter
850038P	Replacement Conductivity Probe
840052	Data Acquisition Software
840027	AC Adapter
840054	USB Cable
840089	Rubber Holster
840090	Water Resistant Instrument Pouch
840093	Field Tripod
	GLP GMP C E ROHS COmpliant

	Range	Resolution	Accuracy	
Conductivity	0 to 19.9 μS/cm 0 to 199.9 μS/cm 0 to 1999 μS/cm	0.01 μS/cm 0.1 μS/cm 1 μS/cm	±1% FS + 1 d	
Conductivity	0 to 19.99 mS/cm 0 to 199.9 mS/cm	0.01 mS/cm 0.1mS/cm		
TDS	0 to 19.99 ppm 0 to 199.9 ppm 0 to 1999 ppm	0.01ppm 0.1 ppm 1ppm	11/013 + 10	
	0 to 19.99 ppt 0 to 199.9 ppt	0.01ppt 0.1ppt		
Salinity	2 to 42 ppt	For conductivity and TDS reference only		
Temperature	32 to 176°F 0 to 80°C	0.1°	±1°F < 122°F ±2°F > 122°F ±0.6°C<50°C ±1.0°C>50°C	

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# Benchtop Conductivity / TDS / Salinity Meter

Rugged housing with large LCD displaying the parameter being measured along with time, date and temperature (°F or °C)

Operates on AC voltage (no batteries). Comes ready to use with ATC conductivity electrode, benchtop probe holder, AC adaptor, computer cable and software. EPA Equivalency Method: 120.1

- Automatic or manual temperature compensation
- Automatic or manual ranging
- Digital and analog outputs
- Min/Max and 99 data points
- Data Hold
- 5 calibration points for Conductivity and TDS (total dissolved solids) and 2 for Salinity
- Electrode status indication



DIM:  $8\frac{1}{2}$ " × 7" ×  $2\frac{1}{4}$ " (216 × 178 × 57 mm). DIM WITH HOLDER ARM: 10" × 8" × 9" (254 × 203 × 229 mm). WEIGHT: 18.7 oz (530 g).

No.	Description
860032	Benchtop Conductivity / TDS / Salinity Meter
850038P	Replacement Conductivity Probe
840052	Data Acquisition Software
840054	USB Cable
860030H	Benchtop Probe Holder Replacement
AMMe.	<u> </u>











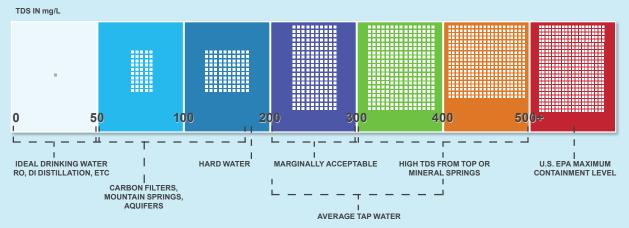




	Range	Resolution	Accuracy	
Conductivity	0 to 19.9 μS/cm 0 to 199.9 μS/cm 0 to 1999 μS/cm	0.01 μS/cm 0.1 μS/cm 1 μS/cm		
	0 to 19.99 mS/cm 0 to 199.9 mS/cm	0.01 mS/cm 0.1 mS/cm	±1% FS + 1 d	
TDS	0 to 19.99 ppm 0 to 199.9 ppm 0 to 1999 ppm	0.01 ppm 0.1 ppm 1 ppm		
	0 to 19.99 ppt 0 to 199.9 ppt	0.01 ppt 0.1 ppt		
Salinity	0 to 11.38 ppt 0 to 80 ppt	0.01 ppt 0.1 ppt	1% FS + 1 d	
Temperature	23 to 176°F -5 to 80°C	0.1°	±0.9°F ±0.5°C	

#### WHAT ARE TOTAL DISSOLVED SOLIDS?

Total dissolved solids (TDS) combine the sum of all ion particles that are smaller than 2 microns (0.0002 cm). This includes all of the disassociated electrolytes that make up salinity concentrations, as well as other compounds such as dissolved organic matter. In "clean" water, TDS is approximately equal to salinity. In wastewater or polluted areas, TDS can include organic solutes (such as hydrocarbons and urea) in addition to the salt ions. At most, freshwater can have 2000 mg/L of total dissolved solids, and most sources should have much less than that.



The EPA, USPHS and AWWA recommend an upper limit of 500 mg/L TDS, though this is exceeded in some regions with little ill effect

# **Dissolved Oxygen Pen**



#### Easy to carry, simple to calibrate and use Sufficient for many surface dissolved oxygen measurements

Measures dissolved oxygen to determine water quality in environmental testing, labs, industrial and municipal waste water, aquariums and fish hatcheries. Designed for simple one-hand operation with automatic temperature compensation and calibration to air.

The polarographic probe has a built in temperature sensor and easy-to-replace screw-on probe heads. Simultaneously displays dissolved oxygen and temperature readings. Also, holds readings and recalls minimum and maximum. IP65 waterproof. Comes ready to use in a soft carrying case with belt loop, two spare probe heads, electrolyte and 4 AAA batteries. EPA Equivalency Method: 360.1

DIM:  $7\frac{3}{4}$ " ×  $1\frac{1}{2}$ " ×  $1\frac{1}{2}$ " (197 × 38 × 38 mm). Weight: 4.1 oz (116 g).

No.	Description
850045	Dissolved Oxygen Pen
850089	Replacement Heads with diaphragms for DO Probe
840044	Replacement DO Electrolyte

	Range	Resolution	Accuracy
DO	0 to 20.0 mg/L	0.1 mg/L	±0.4 mg/L
O <sub>2</sub> % in Air (for calibration ref.)	0 to 100.0% O <sub>2</sub>	0.1% O <sub>2</sub>	±0.7% O <sub>2</sub>
Temperature	32 to 122°F 0 to 50°C	0.1°	±1.5°F ±0.8°C











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# **Dissolved Oxygen Meter Kit**



#### Reliable DO readings at a reasonable price.

Measures dissolved oxygen to determine water quality in environmental testing, labs, industrial and municipal waste water, aquariums and fish hatcheries. The back-lit display simultaneously displays dissolved oxygen (in % or mg/L) and temperature readings (in °C or °F). Automatic temperature compensation as well as manual compensation for salinity and altitude (all factors affecting DO readings). Features simple calibration to air. DO probe heads include built in membranes and screw on and

off for easy replacement. Also, functions as a pH, ORP, Conductivity, TDS or Salinity meter when used with the optional probes. Comes in a hard shell, foam lined carrying case complete

with DO probe, 2 spare probe heads, electrolyte, instructions and a 9V battery. EPA Equivalency

Method: 360.1

Meter Dim:  $7" \times 23/4" \times 11/4"$  $(177 \times 68 \times 45 \text{ mm}).$ METER WEIGHT: 16 oz (489 g). kit dim:  $11" \times 9\frac{1}{2}" \times 2"$  $(279 \times 241 \times 51 \text{ mm}).$ 

No.	Description
850081DOK	Dissolved Oxygen Meter Kit
850081DO	Replacement ATC DO Probe
850089	Replacement Heads with diaphragms for DO Probe
840044	Replacement DO Electrolyte
840090	Water Resistant Instrument Pouch

	Range	Resolution	Accuracy
DO	0 to 20 mg/L		±0.4
O <sub>2</sub> in Air	0 to 100.0%	0.1	±0.7
Temperature	32 to 122°F 0 to 50°C	0.1	±1.5°F ±0.8°C











Field Tripod

840093

## Large Display pH Pens

#### Easy to carry, simple to operate and sufficient for most field pH tests

Highly stable and accurate readings with a large LCD display. Designed for simple one-hand operation. Automatically calibrates to pH 4, 7, 10 buffers and can be adjusted to recognize nonstandard buffers as well. Features hold function, and auto power off with low battery indicator.

The case is IP65 waterproof, and will float if accidentally dropped into the water. Comes with 4 button-cell batteries and a built-in electrode kept moist with a protective cap.

DIM:  $6\frac{1}{2}$ " ×  $1\frac{1}{2}$ " ×  $1\frac{1}{2}$ " ( $165 \times 38 \times 38$  mm). WEIGHT: 2.3 oz (65 g).

850050	850051	850052
2 to 12 pH	0 to 14 pH	0 to 14 pH
0.1 pH	0.1 pH	0.01 pH
±0.3 pH	±0.2 pH	±0.05 pH
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
	✓	✓
	✓	✓
Floats		
	2 to 12 pH 0.1 pH ±0.3 pH ✓ ✓	2 to 12 pH









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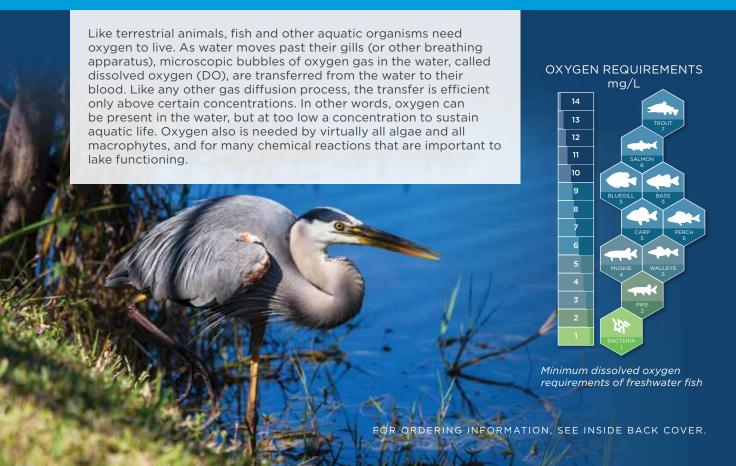






No.	Description
850050	Large Display pH Pen
850051	Large Display ATC pH Pen
850052	Large Display ATC 0.01 pH Pen
860008	pH 4, 3 bottles, 40 mL ea.
860009	pH 7, 3 bottles, 40 mL ea.
860010	pH 10, 3 bottles, 40 mL ea.
860011	Deionized Water, 3 bottles, 40 mL ea.
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.

#### **DISSOLVED OXYGEN - WHY IS IT IMPORTANT?**





#### 3 new models now available:

- Glass probe EPA compliant for labs and wine.
- Penetration probe for food & soil.
- Flat Tip probe for meat, leather, paper, skin and other surface pH measurements.

#### Fits standard test tubes 16 x 50mm or larger.

Highly stable and accurate readings shown on a large LCD display. Designed for simple one-hand operation. Automatically calibrates to pH 4, 7 and 10 buffers and can be adjusted to recognize some other non-standard buffers as well. Features hold function, and auto power off with low battery indicator. The case is IP65 waterproof, and will float if accidentally dropped into the water. Comes with 2 button-cell batteries and a built-in electrode kept moist with a protective cap and included solution.

DIM:  $9" \times 1\%" \times 1"$  (225 × 35 × 20 mm). WEIGHT: 2.3 oz (66 g).











Model:	850062	850063	850065	850066	850067
Tip	General	General Purpose		Flat	Penetration
Range	0 to 14	0 to 14	0 to 14	2 to 12	2 to 12
Resolution	0.01	0.01	0.01	0.01	0.01
Accuracy	±0.2 pH	±0.1 pH	±0.1 pH	±0.1 pH	±0.1 pH
Auto 3 pt Calibration	✓	✓	✓	✓	✓
IP65 Waterproof	✓	✓	✓	✓	✓
Indicates Low Battery	✓	✓	✓	✓	✓
Auto Power Off	✓	✓	✓	✓	✓
Auto Buffer Recognition	✓	✓	✓	✓	✓
Hold	✓	✓	✓	✓	✓
Auto Temp Compensation		✓	✓	✓	✓
°C & °F Display		✓	✓	✓	✓
Probe Length	51/8" × 1/2" (1	30 × 12 mm)	5 ½"× ½" (132 × 12 mm)	5" × ½" (125 × 12 mm)	5 5/16"× ½" (134 × 12 mm)

No.	Description
850062	Test Tube pH Pen
850063	Test Tube ATC pH Pen
850065	Test Tube pH Pen Glass
850066	Test Tube pH Pen Flat
850067	Test Tube pH Pen Penetration
860008	pH 4, 3 bottles, 40 ml Each
860009	pH 7, 3 bottles, 40 ml Each
860010	pH 10, 3 bottles, 40 ml Each
860011	Deionized Water, 3 bottles, 40 ml Each
860012	pH Buffer Set, pH 4, pH 7, pH 10, 40 ml Each
shift.	

10

## **Basic pH Meter**

#### Simple to operate and sufficient for many field and lab pH tests

Large 7/8" high digits and lightweight design make this pH meter ideal for both field and lab applications. Simple to operate and works with any electrode with a BNC connector. Measures the full 0 to 14 pH range with a high 0.01 pH resolution. Features 2-pt. calibration, hold function, fold-out easel back and a tripod screw. Comes with a 9V battery, calibration tool, and full instructions. PROBE NOT INCLUDED.

dim:  $8" \times 2\%" \times 1"$  (203 × 70 × 25 mm). Weight: 7.2 oz (204 g).

#### Basic pH Meter Kit

Includes everything necessary for immediate field use: Basic pH Meter 840087, epoxy body, sealed reference combination electrode with a BNC connector and a 2½-ft cable, pH buffers 4 and 7, deionized water, instructions, 9V battery, and hard carrying case.

KIT DIM:  $11" \times 9\frac{1}{2}" \times 2" (279 \times 241 \times 51 \text{ mm}).$ 

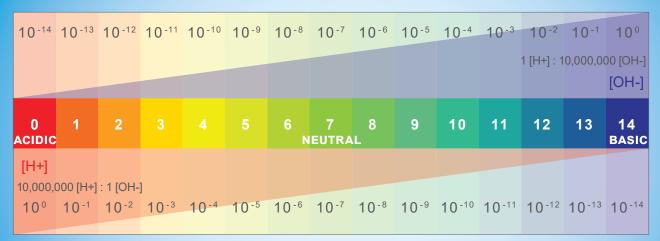
No.	Description	
840087	Basic pH Meter	
840088	Basic pH Meter Kit	
840016	Replacement pH Probe	
840049	Spear Tip pH Probe	
840051	Flat Surface pH Probe	
860008	pH 4, 3 bottles, 40 mL ea.	
860009	pH 7, 3 bottles, 40 mL ea.	
860010	pH 10, 3 bottles, 40 mL ea.	
860011	Deionized Water, 3 bottles, 40 mL ea.	
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.	
840090	Water Resistant Instrument Pouch	
840093	Field Tripod	



Range	Resolution	Accuracy
0 to 14 pH	0.01 pH	±0.07 pH (pH 5 to 9) ±0.2 pH (<5 pH, >9 pH) Meter only, after calibration and Including error



#### THE pH SCALE



The logarithmic scale of pH means that as pH increases, the H+ concentration will decrease by a power of 10. Thus at a pH of 0, H+ has a concentration of 1 M. At a pH of 7, this decreases to 0.0000001 M. At a pH of 14, there is only 0.000000000001 M H+.

# Portable Residual Chlorine Analyzer



Small in size, light in weight, easy to carry and suitable for both lab and field use.

- Pre-stored standard curve
- Economic and environmental protection
- Portable and easy to carry
- IP65 protection level
- Good optical stability
- Intuitive and simple operation
- Includes 25 individual 5ml DPD Residual Chlorine reagents

This instrument adopts the DPD photometric method, which is specially used to determine the concentration of residual chlorine in water samples. A large number of experiments have proved that this method is simple and quick to operate and has high sensitivity.

DIM:  $5" \times 234" \times 1\%"$  (128 × 70 × 48 mm). WEIGHT: 6.6 oz (188 g with battery).



Model:	LH-C10F	
Measuring range	0.10-10.00mg/L	
Light	LED	
Wavelength	520nm	
Repeatability	<1.0mg/L,error≤±0.05mg/L ≥1.0mg/L, error≤±5%	
Principle	DPD Method	
Battery Life	More than 24 hours (no shutdown)	



# Portable Digital Chlorine Meter with Large LCD Display

Compact, battery operated meter is easily portable for field or lab use.

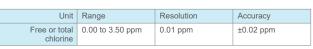
Follows EPA method 330.5 for waste water, and standard method 4500-CI G for drinking water.

Features push button automatic 3-point calibration, hold and min-max recall. Perfect for testing swimming pools, municipal water, food and beverage water or other aqueous solutions where fluid clarity is important. Measures the free and total chlorine (CL) in the 0.00 to 3.50 ppm ( mg/L ) range. Measuring method is an adaptation of the USEPA Method 330.5 for waste water and Standard Method 4500-Cl G for drinking water.

- Splash-proof front panel
- Advanced microprocessor assures maximum possible accuracy
- Battery operated for field or on-site use
- Data hold function freezes the desired value on display
- Records Maximum and Minimum readings with recall
- Includes 1.00 ppm free standard solution and 1.00 ppm total standard solution
- Auto shut-off function

DIM: 6½" x 3" x 2½" (165 x 75 x 65 mm). WEIGHT: 11 oz (310 g).











# Advanced pH Meter



#### Benchtop level analysis in the field

Reads either pH (in 0.01 resolution) or mV in large digits, with time, date, and temperature (in °C or °F) shown simultaneously on the lower display. Also, indicates stable reading, low battery and displays calibration data. Scroll 99 data points with time stamps and min/max readings directly on the backlit LCD. Features hold, up to 5 point calibration, N.I.S.T. buffer recognition, manual or automatic temperature compensation, and a USB port. Comes with 4 AAA batteries. Uses optional AC Adapter (840027). Will accept any pH or ORP probe with a BNC connector.

DIM:  $7" \times 23/4" \times 11/4" (178 \times 70 \times 32 \text{ mm}).$ WEIGHT: 6.5 oz (184 g).

#### Advanced pH Kit

Advanced pH Meter 850055 in a hard carrying case complete with a detachable temperature compensated pH probe with 3½-ft cable; pH buffers 4, 7, 10 and distilled water.

KIT DIM:  $14" \times 9" \times 23/4" (356 \times 229 \times 70 \text{ mm}).$ 

	Range	Resolution	Accuracy
рН	0 to 14 pH	0.01 pH	±0.02 pH
mV	-499 to 499 mV	±0.1 mV	±0.2 mV (-199.9 to 199.9 mV) otherwise ±2 mV
ORP	-199.9 to 199.9 mV	(-199.9 to 199.9 mV) otherwise ±1 mV	
Temperature	23 to 176°F -5 to 80°C	0.1°	± 2°F ± 1°C















No.	Description
850055	Advanced pH Meter
850056	Advanced pH Meter Kit
850059P	Replacement ATC pH Probe
840016	pH Probe
840049	Spear Tip pH Probe
840051	Flat Surface pH Probe
850088	ORP Probe
840027	AC Adaptor
840052	Data Acquisition Software
840054	USB Cable
860008	pH 4, 3 bottles, 40 mL ea.
860009	pH 7, 3 bottles, 40 mL ea.
860010	pH 10, 3 bottles, 40 mL ea.
860011	Deionized Water, 3 bottles, 40 mL ea.
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.
840089	Rubber Holster
840090	Water Resistant Instrument Pouch
840093	Field Tripod
840094	RS232 to USB Adaptor Cable

#### WHAT IS pH AND HOW IS IT CALIBRATED?

pH measures the acidity/alkalinity of a solution on a scale of 1 to 14 pH, with 1 being the most acidic and 14 being the most alkaline or basic, pH is a common measure of water quality used in environmental testing, food & beverages, cosmetics, pharmaceuticals and other fields.



#### Calibration

All pH probes drift and should therefore be calibrated prior to any series of readings. Fortunately, calibration is a simple process that uses standard pH buffer solutions. The user simply brackets the point he expects to measure by calibrating to buffer solutions above and below that point. For example, if expecting a reading of about pH 6, one would first

calibrate the meter by placing the probe in a buffer of pH 7, and then pH 4. Many meters offer automatic buffer recognition, which recognizes and calibrates to the buffer solution with the push of a button.

#### Records data onto removable SD Cards

Reads pH and temperature. ORP readings are available with the optional probe. Records data onto standard SD memory cards (like a digital camera). When full, simply exchange SD cards for unlimited data storage. The removable SD card is easy to transport and insert into a computer's memory card slot or SD card reader. Uploads pre-formatted data to Excel, without the need for additional software and cables. Additional SD cards are readily available in a variety of memory sizes. Each data set includes pH, temperature, time and date. Features ATC (automatic temperature compensation) or manual temperature adjustment, automatic calibration recognition, min/max, auto power off, low battery indicator and hold function. This well-made unit is extremely accurate with fast response times and includes a fold-out easel back and a large easy-to-read backlit LCD. Comes ready to use in a soft carrying case with 6 AA batteries, instruction manual and an SD card. Uses optional USB Power Cable (840058) or AC Adapter (840097). ATC temperature probe (840038) available as an optional accessory. Will accept any pH or ORP probe with a BNC connector. PROBE NOT INCLUDED.

DIM:  $7" \times 23/4" \times 13/4"$  (178 × 70 × 44 mm). WEIGHT: 1 lb. (0.45 kg).

#### pH SD Card Logger Kit

Everything necessary for immediate field use: pH SD Card logger 850060; sealed epoxy body reference combination electrode with a BNC connector and a 21/2-ft cable; ATC temperature probe; pH buffers 4, 7, 10 and deionized water; batteries and instructions. All components are contained in a slim but protective hard-shell, foam-lined case.

KIT DIM:  $11" \times 9\frac{1}{2}" \times 2" (279 \times 241 \times 51 \text{ mm}).$ 

No.	Description
850060	pH SD Card Logger
850061	pH SD Card Logger Kit
840038	Replacement ATC Temperature Probe
840016	pH Probe
840049	Spear Tip pH Probe
840051	Flat Surface pH Probe
840059	8GB Secure Digital Card
850088	ORP Probe
840058	USB Power Cable
840097	AC Adapter
860008	pH 4, 3 bottles, 40 mL ea.
860009	pH 7, 3 bottles, 40 mL ea.
860010	pH 10, 3 bottles, 40 mL ea.
860011	Deionized Water, 3 bottles, 40 mL ea.
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.
840090	Water Resistant Instrument Pouch
840093	Field Tripod



	Range	Resolution	Accuracy
рН	0 to 14 pH	0.01 pH	± 0.04 pH
mV	-1999 to 1999 mV	4>/	1 O E0/ "da 1 O d
ORP	-0 to 1999 mV	1 mV	± 0.5%rdg + 2 d

















#### Large Display ORP Pen

Accuracy

±4 mV



#### Easy to carry, simple to operate

For ORP (Oxygen Reduction Potential) measurement in water treatment, disinfection and labs. Highly stable and accurate readings with a large LCD display. Designed for simple one-hand operation. Features auto power off, hold function, and a low battery indicator. The case is IP65 waterproof, and will float if accidentally dropped into the water. Comes with 4 button-cell batteries and a built-in probe with protective cap.

-999 to 999 mV

DIM:  $6\frac{1}{2}$ " ×  $1\frac{1}{2}$ " ×  $1\frac{1}{2}$ " (165 × 38 × 38 mm). WEIGHT: 2 oz (57 g).

No.	Description
850053	Large Display ORP Pen
SHIP OF THE PARTY	



# Benchtop pH/mV Meter

Resolution

Rugged housing with large LCD displaying the parameter being measured together with time, date and temperature (in °C or °F)

- Automatic or manual temperature compensation
- Automatic or manual ranging
- N.I.ST. buffer recognition
- Digital and analog outputs
- Min/Max and 99 data points
- Data Hold
- 5 calibration points
- Electrode status indication

Operates on AC voltage (no batteries). Comes ready to use with ATC pH electrode, benchtop probe holder, AC adaptor, computer cable and software. Also, accepts any pH or ORP probe with a standard BNC connector. EPA Equivalency Method: Alpha Method 2580.1992

DIM:  $8\frac{1}{2}$ "  $\times$  7"  $\times$  2 $\frac{1}{4}$ " (216  $\times$  178  $\times$  57 mm). DIM WITH HOLDER ARM: 10"  $\times$  8"  $\times$  9" (254  $\times$  203  $\times$  229 mm). WEIGHT: 18.7 oz (530 g).

	Range	Resolution	Accuracy
рН	0 to 14 pH	0.01 pH	±0.02 pH
mV/ORP	-999.9 to 999.9 mV	0.1 mV (-199.9 to 199.9) otherwise 1 mV	±0.2 mV (-199.9 to 199.9) otherwise ±2 mV
Temperature	-23 to 176°F -5 to 80°C	0.1°	±0.9°F ±0.5°C















No.	Description
860031	Benchtop pH/mV Meter
850059P	Replacement ATC pH Probe
840052	Data Acquisition Software
840016	pH Probe
840049	Spear Tip pH Probe
840051	Flat Surface pH Probe
850088	ORP Probe
840054	USB Cable
860030H	Benchtop Probe Holder Replacement
860008	pH 4, 3 bottles, 40 mL ea.
860009	pH 7, 3 bottles, 40 mL ea.
860010	pH 10, 3 bottles, 40 mL ea.
860011	Deionized Water, 3 bottles, 40 mL ea.
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.

## **Water Quality Meter**

#### Interchangeable probes

Using interchangeable, plug and play probes, this versatile meter reads pH, mV, ORP, conductivity, salinity, TDS, DO and temperature. Order probes only for required parameters, and add additional probes in the future. The back-lit display simultaneously reads temperature in user selectable °C & °F. All measurements are automatically temperature compensated and DO measurements can be compensated for salinity and altitude as well. Automatic calibration recognition of pH buffers 4, 7 and 10. Also, features auto power off, hold, min/max, fold-out easel back and a tripod screw. Comes with 9V battery and hard-shell, foam-lined carrying case with room for one or two probes. PROBES NOT INCLUDED. EPA Equivalency Method: 360.1 and Alpha Method 2580.1992.

DIM:  $7" \times 2^{3}4" \times 2"$  (177 × 68 × 45 mm). WEIGHT: 16 oz (489 g).

#### Water Quality Meter pH Kit

Includes everything needed for immediate field use as a pH meter: Water Quality Meter 850081, pH Probe 840016; ATC Temperature Probe 840038; instructions, pH buffers 4, 7 & 10, deionized water; and a 9V battery. All of these are contained in a hard-shell, foam-lined carrying case. EPA Equivalency Method: 360.1 and Alpha Method 2580.1992.

KIT DIM:  $11" \times 9\frac{1}{2}" \times 2" (279 \times 241 \times 51 \text{ mm}).$ 





No.	Description
850081	Water Quality Meter
850086	Water Quality Meter pH Kit
840016	Replacement pH Probe
840038	Replacement ATC Temperature Probe
840049	Spear Tip pH Probe
840051	Flat Surface pH probe
850088	ORP Probe
850081C/TD	Conductivity/TDS Probe
850081C/SG	Pt Glass Low Conductivity Probe
850081DO	ATC Dissolved Oxygen Probe
850089	Replacement Heads with diaphragms for DO Probe
840044	Replacement DO Electrolyte
860008	pH 4, 3 bottles, 40 mL ea.
860009	pH 7, 3 bottles, 40 mL ea.
860010	pH 10, 3 bottles, 40 mL ea.
860011	Deionized Water, 3 bottles, 40 mL ea.
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.
840090	Water Resistant Instrument Pouch
840093	Field Tripod
, Mark (6)	









Specs for meter only, probe specs may vary		Range	Resolution	Accuracy
pH Probe 840016 (BNC connector)		0 to 14 pH		
Spear Tip pH Probe 840049 (for non-liquid measurement, BNC connector)	рН		0.01 pH	± 0.04 pH
10		1 to 13 pH		
Flat Surface pH Probe 840051 (BNC connector)				
ORP Probe 850088 (BNC connector)	mV	0 to 1999 mV	1 mV	±(0.5% FS + 2 d)
ATC Temp. Probe 840038 (for use with pH)	°F	32 to 140°F	0.1°	±1.5°F
	°C	0 to 60°C	0.1	±0.8°C
ATC Conductivity	μS	0 to 200 μS	0.1 µS	
ATC Conductivity/ TDS/Salinity Probe 850081C/TD	mS	0.2 to 2.000 mS 2 to 20 mS 20 to 200 mS	0.001 mS 0.01 mS 0.1 mS	±(2% FS + 1 d)
-3-	PPM	0 to 132 ppm 132 to 1,320 ppm 1,320 to 13,200 ppm 13,200 to 132,000 ppm	0.1 ppm 1 ppm 10 ppm 100 ppm	1 (2701 0 1 1 4)
	% Salinity	0 to 12%	0.01%	0.5%
Pt Glass Low Conductivity Probe 850081C/SG	μS	0 to 200 μS	0.1 μS	±(2% FS + 1 d)
ATC DO Probe	DO	0 to 20 mg/L		±0.4 mg/L
850081DO	O <sub>2</sub> in Air	0 to 100.0%	1	±0.7%
	°F	32 to 122°F	0.1	±1.5°F

# **Turbidity Meter**



An important measure of water quality in environmental testing, wastewater, petrochemical, beverage industry, and electroplating.

Compact, battery operated turbidity meter is easily portable for use in the field or lab. The meter displays turbidity uses the internationally recognized Nephelometric Turbidity Unit of measure (NTU), used in many industries including the beverage, water quality, biological growth and chemical manufacturing industries.

The Meter displays the turbidity level of aqueous solutions on a large, bright LCD screen. The meter can measure numerous different types of aqueous solutions and offers an automatic, push-button 2-point self-

calibration feature that can be performed in under a minute. Features include autoranging and min-max recall.

Comes ready to use in a hard, foam lined carrying case with 0 NTU and 100 NTU calibration solutions, 2 sample cell bottles, distilled water, cleaning cloth, instruction manual and 6 AAA batteries. Additional calibration solution is also available.

DIM:  $6\frac{1}{2}$ " × 3" ×  $2\frac{1}{2}$ " (165 × 75 × 65 mm). WEIGHT: 5 lb (2268 g).

No.	Description
860040	Turbidity Meter
LUTU-100NTU	Turbidity Calibration Solution 100NTU
LUTU-ONTU	Turbidity Calibration Solution 0 NTU
LUTU-CELL	Turbidity Sample Cell

	Range	Resolution	Accuracy
Turbidity	0 to 49.99 NTU	0.01 NTU	±5% RDG or 0.5 NTU whichever is greater
	50 to 1000 NTU	1 NTU	±5% RDG or 5 NTU whichever is greater
Operating Temperature & Humidity	520nm		
Power Supply	<1.0mg/L,error≤±0.05mg/L ≥1.0mg/L, error≤±5%		
Battery Life	DPD Method		





# Low Range/High Precision Turbidity Meter

#### Measures Total Suspended Solids from 0-20 NTU.

The portable turbidity/total suspended solids analyzer combines the scattered light and transmitted light methods, and uses a near-infrared light source to eliminate chromaticity interference. Two detectors, 90° and 180°, are set in the instrument. The 180° detector receives the transmitted light and the 90° detector receives the scattered light. The unit then measures the ratio of the intensity of scattered light and transmitted light, and calculates the concentration of suspended solids and turbidity in the sample.

Features a bright, high definition LCD full color display, and multi-power mode for battery and USB powered operation. The near-infrared LED light source is IS7027 compliant, and the unit offers IP65 protection suitable for field use. Built-in lens, filter and high precision optical path provides stable and accurate results

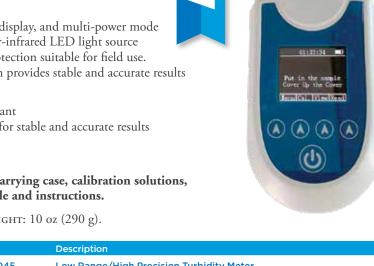
- HD LCD screen with full color display
- Near-infrared LED light source IS7027 compliant
- Built-in lens, filter, high precision optical path for stable and accurate results
- IP65 protection for field use
- Multi-power mode battery and USB power

Complete kit includes: Turbidity meter, hard carrying case, calibration solutions, adjustment tools and cleaning brush, USB cable and instructions.

No.

DIM:  $6.7" \times 1.8" \times 1.7" (170 \times 72 \times 44 \text{ mm})$ . WEIGHT: 10 oz (290 g).





860045 Low Range	e/High Precision Turbidity Meter
Measurement Range	0 to 20 NTU
Accuracy	+/- 0.1 NTU or +/-5% NTU
Repeatability	<10NTU, ≦±0.1NTU; >10NTU, ≦±1%
Calibration	4-point calibration
Battery Life	DPD Method
Zero Drift	≦±0.3%FS/30min
Operating Temperature	41°F to 104°F (5° to 40°C)
Storage Temperature	14°F to 131°F (-10° to 55°C)
Humidity	0-80% RH



# **Benchtop Water Quality Meter**

#### Reads pH, mV, conductivity, TDS (total dissolved solids), salinity and temperature

Rugged housing with large LCD displaying the parameter being measured together with time, date and temperature (in °C or °F).

- Automatic or manual temperature compensation
- Automatic or manual ranging
- N.I.S.T. buffer recognition
- Digital and analog outputs
- Min/Max and 99 data points
- Data Hold
- 5 calibration points
- Electrode status indication



Operates on AC voltage (no batteries). Comes ready to use with conductivity and pH electrodes, benchtop probe holder, AC adaptor, computer cable, and software. Also, accepts any pH or ORP probe with a standard BNC connector. EPA Equivalency Method: 120.1 and Alpha Method 2580.1992.

DIM:  $8\frac{1}{2}$ " × 7" ×  $2\frac{1}{4}$ " (216 × 178 × 57 mm). DIM WITH HOLDER ARM: 10" × 8" × 9" (254 × 203 × 229 mm). WEIGHT: 18.7 oz (530 g).

	Range	Resolution	Accuracy
рН	0 to 14 pH	0.01 pH	±0.02 pH
ORP (with optional probe)	-1999 to +1999 mV	0.1 mV (-199.9 to +199.9) otherwise 1 mV	±0.2 mV (-199.9 to +199.9) otherwise ±2 mV
Conductivity	0 to 19.9 μS/cm 0 to 199.9 μS/cm 0 to 1999 μS/cm	0.01 μS/cm 0.1 μS/cm 1 μS/cm	
	0 to 19.99 mS/cm 0 to 199.9 mS/cm	0.01 mS/cm 0.1 mS/cm	140/ EQ 14 dimit
TDS	0 to 19.99 ppm 0 to 199.9 ppm 0 to 1999 ppm	0.01 ppm 0.1 ppm 1 ppm	±1% FS + 1 digit
	0 to 19.99 ppt 0 to 199.9 ppt	0.01 ppt 0.1 ppt	
Salinity	0 to 11.38 ppt 0 to 80 ppt	0.01 ppt 0.1 ppt	1% FS + 1 digit
Temperature	23 to 176°F -5 to 80°C	0.1	±0.9°F ±0.5°C









0.1		±0.5°C
313	Scan this QR code to view product dem	our

No.	Description
860033	Benchtop Water Quality Meter
850038P	Replacement Conductivity Probe
850059P	Replacement ATC pH Probe
840016	pH Probe
840049	Spear Tip pH Probe
840051	Flat Surface pH Probe
850088	ORP Probe
840054	USB Cable
860030H	Benchtop Probe Holder Replacement
860008	pH 4, 3 bottles, 40 mL ea.
860009	pH 7, 3 bottles, 40 mL ea.
860010	pH 10, 3 bottles, 40 mL ea.
860011	Deionized Water, 3 bottles, 40 mL ea.
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.

#### **SALINITY & CONDUCTIVITY IN WATER**

Water Type	Salinity (g/L)
Sea Water	33 to 37
Salton Sea	46
Mono Lake	90

Water Source	Conductivity (umhos/cm)
Distilled Water	0.5 to 3
Melted Snow	2 to 42
Tap Water	50 to 800
Potable Water	30 to 1500
Freshwater Streams	100 to 2000
Industrial Wastewater	10000
Seawater	55000

20

# Combination Water Meter Kit (DO, Conductivity, pH, Temperature)

# Measures Dissolved Oxygen, pH, Conductivity, TDS, Salinity or Temperature Using Different Probes.

This kit includes includes one conductivity/salinity probe. Additional probes (optional) also allow it to operate as a highly accurate pH meter, conductivity meter, TDS meter, Salinity meter or DO meter as desired.

Probes change are easily changed and include specially designed guards to prevent tip damage. This meter is the ideal tool for numerous professional water testing applications including: aquaculture, laboratories, swimming pools, spas and water treatment facilities.

- Large, backlit LCD can display multiple parameters including: pH, Conductivity, TDS, Salinity, Dissolved Oxygen, Temperature (using different probes)
- Displayed parameter is determined by probe type
- Green backlight for dark environment
- Fast measuring of Dissolved Oxygen value
- Accurate, replaceable probes with safety caps
- Auto ranging conductivity measurement and temperature compensation (ATC)
- 99 points memories w/recall function
- Multiple points calibration: 3 points for pH, 1 point for DO, 4 points for conductivity
- Manually altitude and salinity compensation function for DO measurement
- Temperature unit °C/°F is switchable

No.	Description
850048CSK	Combination Water Meter Kit with Conductivity/Salinity Probe
850048PHK	Combination Water Meter Kit with pH Probe
850048DOK	Combination Water Meter Kit with Dissolved Oxygen Probe

	Measuring Range	Resolution	Accuracy
рН	2.00~12.00	0.01	±0.1
Conductivity	0 to 19.9 μS/cm 0 to 199.9 μS/cm 0 to 1999 μS/cm	0.1 us/cm, 1 us/cm, 0.01ms/cm, 0.1 ms/cm	±1% of F.S ±1 digit
TDS	0~199.9*f, 0~1999*f ppm 0~19.99*f, 0~150.0*f ppt (f is TDS factor)	±1% of F.S ±1 digit	0.1, 1ppm, 0.01, 0.1ppt
TDS Factor	0.30~1.00		
Salinity	0~10.00 ppt, 0~42.0 ppt (SEA Water)	0.01 ppt, 0.1 ppt	±1% of F.S ±1 digit
D.O.	0.0~199.9% (0.0~30.0 mg/L)	0.1	±3% of F.S ±1 digit
Temperature	-5~60.0°	0.1	±0.5°

















# **Environmental Quality Meters**

24 Anemometers

29 Heat Stress

32 Indoor Air Quality

36 Light

**41** Moisture

**42** RF / EMF

**43** Sound

52 Temperature / RH

SPER



#### Wirelessly display, log, and transfer readings

Sper Scientific's Bluetooth® Anemometer Meter is small, light, and simple to use. Simultaneously displays air temperature in °C or °F, and air velocity in 5 units of measure, on the meter's large 1-1/2" high backlit display. Features minimum and maximum hold (peak), data hold and moving average functions. The meter offers the convenience of Bluetooth® for wireless communication. Free iOS and Android Apps record every data point with time and overall Min/Max Average. Results can

also be remotely viewed on your smartphone in real time, saved and exported. This enables the meter to be used as a remote wireless probe and as a datalogger. Comes ready to use with instructions, tripod screw, and a 9V battery.

DIM: METER:  $(213 \times 54 \times 36 \text{ mm})$ . WEIGHT: 6 oz. (172 g).

No.	Description
850020	Bluetooth Anemometer
840093	Field Tripod
850020V	Replacement Vane











	Range	Resolution	Accuracy
Airspeed m/s	1.10 to 25	0.01	±3% rdg + 0.30 m/s
Airspeed km/h	4.0 to 90	0.1	±3% rdg + 1.0 km/h
Airspeed ft/min	220 to 4920	1	±3% rdg + 40 ft/min
Airspeed mph	2.5 to 56.0	0.1	±3% rdg + 0.4 MPH
Airspeed knots	2.2 to 48.0	0.1	±3% rdg + 0.4 knots
Temperature °F	14 to 140	0.1	±2°F
Temperature °C	-10 to 60	0.1	±1°C
Dimensions	6 oz (172 g)		
Weight	(213 x 54 x 36 mm)		

# **SPER** SCIENTIFIC

# **Environmental Quality SD Card Logger**

#### Records air speed, air temperature, relative humidity, light and thermocouple temperature onto removable SD cards.

Features a 4-parameter environmental probe and also accepts standard type K or J thermocouple probes. Records data onto standard SD memory cards. The removable SD card is easy to transport and insert into a computer's memory card slot or SD card reader. Uploads pre-formatted data to Excel, without the need for additional software and cables. Each data set includes the parameter being measured, time and date. Features min/max, auto power off, low battery indicator and hold function. Also reads thermocouple temperature with optional probes. Extremely accurate with fast response times, includes a fold-out tripod and large, easy-to-read backlit LCD. Comes ready to use in a soft carrying case complete with a detachable probe, 6 AA batteries, instruction manual and an SD card. Uses optional USB Power Cable (840058) or AC Adapter (840097) N.I.S.T. traceable certificate of compliance available (for Air Temperature & RH only).



DIM: METER:  $7" \times 234" \times 134"$  (178 × 70 × 44 mm). WEIGHT: 1 lb. (0.45 kg).

	Range	Resolution	Accuracy
Ambient °F	32 to 122°F	0.1	±1.5°F
Ambient °C	0 to 50°C		±0.8°C
Type K °F	-58 to 2372°F		±(0.4% + 1.8°F)
Type K °C	-50 to 1300°C		±(0.4% + 1°C)
Type J °F	-58 to 2192°F		±(0.4% + 1.8°F)
Type J °C	-50 to 1200°C		±(0.4% + 1°C)
RH	0 to 95%		≥ 70% RH: ±(3%rdg + 1% RH) < 70% RH: ± 3% RH
Airspeed m/s	0.4 to 25.0		±(0.2% + 0.2 m/s) FS
Airspeed km/h	1.4 to 90.0		±(0.2% + 0.8 km/h) FS
Airspeed mile/h	0.9 to 55.9		±(0.2% + 0.4 mph) FS
Airspeed knots	0.8 to 48.6		±(0.2% + 0.4 knots) FS
Airspeed ft/min	80 to 4930	1	±(0.2% + 40 fpm) FS
Lux	0 to 20,000		±(5% + 8D)
Foot Candle	0 to 1,860	0.1	

No.	Description
850071	Environmental Quality SD Card Logger
850071C	Environmental Quality SD Card Logger Certified
840058	USB Power Cable
840097	AC Adapter
840059	SD Card
840090	Water Resistant Instrument Pouch
840093	Field Tripod
800060-97	Type K/J Thermocouple Probes
AMM.	T 244



















#### Hot Wire SD Card Logger & Vane Anemometer SD Card Logger

Reads air velocity and temperature, and functions as a type K or J thermometer. Records data onto standard SD memory cards. When full, simply exchange SD cards for unlimited data storage. The removable SD card is easy to transport and insert into a computer's memory card slot or SD card reader. Uploads pre-formatted data to Excel, without the need for additional software and cables. Each data set includes airspeed, air temperature, time and date. Features min/max, auto power off, low battery indicator and hold function. Also reads thermocouple temperature with optional probes. This well-made unit is extremely accurate with fast response times and includes a fold-out tripod and large, easy-to-read backlit LCD. Comes ready to use in a soft carrying case complete with a detachable probe, 6 AA batteries, instruction manual, and an SD card. Uses optional USB Power Cable (840058) or AC Adapter (840097).

DIM:  $7" \times 234" \times 134"$  (178 × 70 × 44 mm).

WEIGHT: 1 lb. (0.45 kg).

No.	Description
850023	Anemometer SD Card Logger
850024	Hot Wire Anemometer SD Card Logger
800060-97	Type K/J Thermocouple Probes
840058	USB Power Cable
840097	AC Adapter
840059	SD Card
840090	Water Resistant Instrument Pouch
840093	Field Tripod
	(S) ( C   )   = A



















850023 - Vane Anemometer			
	Range	Resolution	Accuracy
Ft/min	79 to 6890	1	± (2%rdg +40 FPM)
Km/h	1.4 to 126	0.1	± (2%rdg +0.8 Km/h)
mph	0.9 to 78.3		± (2%rdg +0.4 mph)
Knots	0.8 to 68		± (2%rdg +0.4 Knots)
m/s	0.4 to 30		± (2%rdg +0.2 m/s)
Type K °F	-58 to 2372°F		± (0.4% FS + 1.8°F)
Type K °C	-50 to 1300°C		± (0.4% FS + 1°C)
Type J °F	-58 to 2192°F		
Type J °C	-50 to 1200°C		

850024 - Hotwire Anemometer			
	Range	Resolution	Accuracy
Ft/min	40 to 3940	1	±(1% FS +20 FPM)
Km/h	0.4 to 38.8	0.01 to 0.1	±(1% FS +0.2 Knots)
mph	0.2 to 25.0		±(1% FS +0.1 m/s)
Knots	0.7 to 72.0		±(1% FS +0.3 Km/h)
m/s	0.2 to 25.0		±(1% FS + 0.1 m/s)
Type K °F	-58 to 2372°F	0.1	±(0.4% FS + 1.8°F)
Type K °C	-50 to 1300°C		±(0.4% FS + 1°C)
Type J °F	-58 to 2012°F		
Type J °C	-50 to 1100°C		
Air Temperature °F	32 to 122°F		1.5°F
Air Temperature °C	0 to 50°C		0.8°C



#### Monitor up to 12 environmental parameters with one tiny instrument

Light weight, tiny size with simple, one-hand, operation. All units read air speed in addition to the wide selection of environmental parameters listed below. Will sense airflow as low as 0.4 m/s. Replaceable snap-in anemometer vane. All models feature min/ max, hold, a backlight, and come complete with a wrist strap, carry pouch, and button cell battery. Model 850027 accurately measures liquid and solid temperatures using the optional Pt 1000 temperature probe.

DIM:  $4\frac{3}{4}$ " ×  $1\frac{3}{4}$ " × 78" (120 × 44 × 21mm). WEIGHT: 2.2 oz (65 g).

No.	Description
850025	Basic Mini Environmental Quality Meter
850026	Intermediate Mini Environmental Quality Meter
850027	Advanced Mini Environmental Quality Meter
850025V	Replacement Vane
850027P	Pt 1000 Temperature Probe

	Range	Resolution	Accuracy	850025	850026	850027
Wind Speed	80 to 3937 ft/min 0.4 to 20.0 m/s 1.4 to 72.0 km/h 0.9 to 44.7 mile/h 0.8 to 38.8 knots	1 ft/min 0.1 m/s 0.1 km/h 0.1 MPH 0.1 knots	<20 m/s: ±3% FS >20 m/s: ±4% FS	<b>✓</b>	<b>√</b>	<b>✓</b>
Air Temperature	32 to 122°F 0 to 50°C	0.1°F/C	±2.5°F ±1.2°C	✓	✓	✓
RH	10 to 95% RH	0.1% RH	<70% RH: ±4% RH ≥70% RH: ±(4%rdg +1.2% RH)	<b>✓</b>	✓	✓
Air Volume	0.024 to 36000 CMM 0.847 to 1271300 CFM	0.001 / 0.01 / 0.1 / 1 0.001 / 0.01 / 0.1 / 1 / 10 (x10) / 100 (x100)			<b>√</b>	<b>✓</b>
Wind Chill Temperature	15.0 to 112.0°F -0.4 to 44.2°C		±3.6°F ±2.0°C		✓	<b>√</b>
Heat Stress Index	32 to 212°F 0 to 100°C		±3.6°F ±2.0°C		$\checkmark$	<b>✓</b>
Dew Point	-13.5 to 120.0°F -25.3 to 49.0°C	0.1°F/C	Calculate from the humidity/temperature value		✓	✓
Wet Bulb	22.2 to 120°F -5.4 to 49.0°C		Calculate from the humidity/temperature value		✓	✓
PT 1000 ohm Probe (optional)			±2.5°F ±1.2°C			<b>√</b>
Barometric Pressure	10.0 to 999.9 hPa 1000 to 1100 hPa 7.5 to 825.0 mmHg 0.29 to 32.84 inHg	0.1 hPa 1 hPa 0.1 mmHg 0.01 inHg	±1.5 hPa ±2 hPa ±1.2 mmHg ±0.05 inHg			<b>✓</b>
Altitude	-6000 to 30000 ft -2000 to 90000 m	1 ft 1 m	±50 ft ±15 m			<b>√</b>
Visible Light	0 to 2200 Lux 1800 to 20000 Lux 0 to 204.0 FC 170 to 1860 FC	1 Lux 10 Lux 0.1 FC 1 FC	±5%rdg ±8DGT			<b>✓</b>









Scan this QR code to view our product demo.

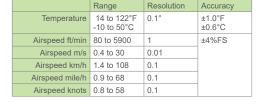


#### Reliable air speed measurement at a reasonable price

Perfect for use in HVAC, environmental studies, hazardous spill clean ups, electrostatic precipitators, and all types of air flow measurements. Based on the principle that a freely turning turbine will rotate at a speed directly proportional to the wind speed. One piece construction with built-in probe. Select readout in any of 5 scales: meters/second, feet per minute, miles per hour, knots, or kilometers per hour. Simultaneously displays temperature in °C or °F. Advanced features include hold,max/min, a USB computer interface, auto power off, low battery indicator, and a large LCD with dual display and audible "beeps" when buttons are pressed. Comes ready to use in a hard carrying case with one 9V battery.

DIM:  $7\frac{1}{4}$ " × 3" ×  $1\frac{3}{4}$ " (184 × 76 × 44 mm). WEIGHT: 7 oz (198 g).

No.	Description
840003	Anemometer/Thermometer
840052	Data Acquisition Software
840054	USB Cable
	_







# Mini Environmental Quality Meter



#### Own the equivalent of 5 meters for the price of any one of them

- Air Speed
- Air Temperature
- RH
- Light
- Thermocouple Temperature

For environmental testing anywhere. Combines an anemometer, hygrometer, thermometer, and a light meter into a single compact unit weighing only 5.3 oz (150 g). Features dual display with low battery and over range indications, touch-tone buttons, min/max, auto power off and hold functions. Comes ready to use with soft carrying case, wrist strap, instructions, and a 9V battery.

DIM:  $6" \times 2\frac{1}{2}" \times 1"$  (152 × 64 × 25 mm). WEIGHT: 5.3 oz (150 g).

No.	Description
850070	Mini Environmental Quality Meter
800060-77	Type K Thermocouple Probes
WHILE.	

	Range	Resolution	Accuracy
Ambient Temperature	32 to 122°F 0 to 50°C		±2.5°F ±1.2°C
Type K Temperature			±(1% + 2°F) ±(1% + 1°C)
RH	10 to 95%	0.1	±6% 30 to 60 RH otherwise ±8%
Airspeed m/s	0.4 to 25.0		
Airspeed km/h	1.4 to 90.0		±(3% + 2 d)
Airspeed mile/h	0.9 to 67.0		
Airspeed knots	0.8 to 48.6		
Airspeed ft/min	80 to 4930	1	±(3% + 20 ft/min)
Lux	0 to 20,000	1	±(5% + 4 d)
Foot Candle	0 to 2,000	0.1	±(3/0 + 4 u)



#### This unique instrument combines the features of an anemometer and a psychrometer

Measures air speed, air volume, BTU (British Thermal Units), air temperature, dew point, wet bulb, and humidity. Also, calculates air volume and BTU capacity. Excellent for HVAC, IAQ and environmental work. Auto ranging with air velocity in m/s or ft/s, air volume in CFM or m³/sec and temperature in °C or °F. Features min/max/avg, hold, auto power off, LCD backlight and a computer interface. The probe detaches for easy replacement and repair. Comes in a hard carrying case complete with a probe, tripod mounting screw and 4 AAA batteries. Uses optional AC Adapter (840027).

DIM:  $7" \times 3" \times 1\frac{1}{2}"$  (178 × 76 × 38 mm). Sensor Head Diameter: 3" (76 mm). WEIGHT: 10 oz (283 g).

No.	Description	
840034	Psychrometer/Anemometer	
840027	AC Adapter	
840052	Data Acquisition Software	
840054	USB Cable	
840089	Rubber Holster	
840090	Water Resistant Instrument Pouch	
840093	Field Tripod	
WHILE.		

	Range	Resolution	Accuracy
Air Volume	0 to 99999 m³/sec 0 to 99999 ft³/min		
Airspeed	0.3 to 35 m/s		±2%rdq +0.2 m/s
Allspeed	1 to 114 ft/s		12 /01 dg +0.2 111/5
Air Temperature	-4 to 140°F -20 to 60°C		±1°F ±0.6°C
RH	0 to 100%	0.1	±3%@10 to 90% RH otherwise ±5%
Dew Point	-90 to 158°F -68 to 70°C		Dewpoint, Wet Bulb,
Wet Bulb	-7.6 to 158°F -22 to 70°C		and Capacity, are calculated values and
Capacity BTU/H	0 to 99999 kW	0.1 (0 to 99.9) 1 (1000 to 99999)	have indirect accuracy.



# **Environmental Quality Meter with Sound**

Resolution Accuracy

#### 5 meters in one

Combines an anemometer, hygrometer, thermometer, sound and light meter into a single hand-held unit. Also, reads any type-K thermocouple probe. Results are displayed on a large dual LCD with low battery and out-of-range indications. Features touch-tone buttons, min/max, auto power off and hold functions. Comes ready to use in a soft carrying case with computer port, instructions, 6 AAA batteries, easel back, and a tripod screw. Uses optional USB Power Cable (840058) or AC Adapter (840097). N.I.S.T. traceable certificate of calibration available for sound only.

DIM:  $934" \times 234" \times 114"$  (248 × 70 × 32 mm). WEIGHT: 12 oz (340 g).

No.	Description
850069	Environmental Quality with Sound
850069C	Environmental Quality with Sound Certified
800060-77	Type-K Thermocouple Probes
840058	USB Power Cable
840097	AC Adapter
850016	2-Pt. Acoustical Calibrator
840091	Sound Meter Windscreen
840093	Field Tripod

Ambient Temperature			±2.5°F ±1.2°C
Type K Temperature	-148 to 2372°F -100 to 1300°C		±(1% + 2°F) ±(1% + 1°C)
RH	10 to 95%	0.1	<70% RH ±4% >70% RH ± (4%rdg + 1.2% RH)
Airspeed m/s	0.4 to 30.0		
Airspeed km/h	1.4 to 108.0		
Airspeed mile/h	0.9 to 67.0		±4% FS
Airspeed knots	0.8 to 58.3		
Airspeed ft/min	80 to 5910	1	
Lux	0 to 2,000 1800 to 20,000	1 10	150/ md = 1 0D
Foot Candle	0 to 204.0 170 to 1860	0.1	±5%rdg + 8D
dB	35 to 130	0.1	23+5°C ±1.5 dB

Range













# **Heat Stress Monitor & Datalogging Monitor**

#### Large display continually monitors temperature, RH and all heat stress indicators:

- TA (Air Temperature)
- Dew Point

• RH

- · Wet Bulb
- Heat Index

Government organizations such as OSHA have set recommended heat stress limits for various activities. Continually monitors all heat stress indicators. Recalls min/max temperature and provides visual alarms for user selectable hi/lo temperature thresholds, (+ RH for model 800034). Datalogging Model 800035 adds an audible temperature alarm, and records up to 32,000 data points that can be downloaded using the USB cable that comes with the unit and free downloadable software. Both models include 4 AAA batteries and stand on a desk-top or wall mount. An AC Adapter (800059)is included with Datalogger 800035 and available as an optional accessory for Monitor 800034.

DIM:  $4\frac{1}{2}$ " ×  $4\frac{1}{4}$ " × 1" (108 × 115 × 25 mm). WEIGHT: 5 oz (141 g).

No.	Description
800035	Datalogging Heat Stress Monitor
800059	AC Adapter

	Range	Resolution	Accuracy
Air Temperature -4 to 121°F -20 to 50°C		0.1°	±1.2°F ±0.6°C
RH	0.0 to 99.9%	0.1%	±3% FS @25°C













code to view our



#### WBGT Heat Stress Meter



#### Measure heat stress in the field

Government organizations such as OSHA have set recommended heat stress limits for various activities. WBGT (Wet Bulb Globe Temperature) provides the most accurate determination of the heat stress index based on the cumulative effect of air temperature, air movement, relative humidity, and radiant heat. WBGT Heat Stress Meter 800036 is a light-weight meter compact enough to carry anywhere to avoid heat exhaustion in public health, sports, military and industrial activities. Highly accurate readings with a typical response time of only 15 seconds. Provides settings for both indoor and outdoor activity and includes an audible alarm, adjustable to your WBGT threshold. Comes with tripod screw and has the ability to connect with a computer with the proper accessories. N.I.S.T. traceable certificate of compliance available (for RH & Air Temperature only).

GLOBE DIAMETER:  $1\frac{1}{2}$ " (38 mm). METER DIM:  $9\frac{3}{4}$ " × 2" ×  $1\frac{1}{4}$ " (248 × 51 × 32 mm). WEIGHT: 4.6 oz (130 g).



No.	Description
800036	WBGT Heat Stress Meter
800036C	WBGT Heat Stress Meter Certified
840052	Data Acquisition Software
840054	USB Cable
840093	Field Tripod

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WBGT	32 to 122°F 0 to 50°C	0.40	±2°C indoor, 3°C outdoor (-15 to 40°C) otherwise ±2.5 indoor, 3.5°C outdoor	
Air Temperature		0.1°	±0.6°C	
Globe Temperature	32 to 176°F 0 to 80°C		±2°C	
RH	0 to 100%	0.1%	±3% (10 to 90%) otherwise ±5%	

Desclution Assumes











#### **WBGT Meter with Color-Coded LCD**



#### Takes the guesswork out of heat stress calculations.

This unique heat stress meter features bright multi-color LCD backlights corresponding to OSHA's heat stress alert levels. This visual alert system is visible only indoors, allowing management and workers to be instantly aware when the heat index enters potentially dangerous zones. These features, combined with the optional audible alarm help to mitigate the risk of heat-related injuries in the workplace. Calculates heat stress values for direct sunlight and shade and displays humidity, maximum and minimum ambient (TA) and black globe (TG) temperatures. Also, indicates low battery and a hold function. Comes complete with clear instructions, integrated tripod screw and 4 AAA batteries. N.I.S.T. traceable certificate of compliance available (for RH & Air Temperature only).

dim: 12" × 3" × 1½" (302 × 75 × 37 mm). Weight: 10.6 oz (300 g)

No.	Description
801038	WBGT Meter with Color-Coded LCD
801038C	WBGT Meter with Color-Coded LCD Certified
840093	Field Tripod

	Range	Resolution	Accuracy
Ambient Air Temperature	0 to 50°C 32 to 122°F	0.1	±0.6°C (1.5°F)
Globe Temperature	0 to 80°C 32 to 176°F	0.1	±1°C @15 to 40°C ±2°C outside this range
RH	5 to 90%	0.1	±4%
WBGT	0 to 50°C 32 to 122°F	0.1	±1°C @15 to 40°C ±2°C outside this range

WBGT	Screen	Workforce Precautions
< 80.0°F < 26.6°C	Gray	Basic heat safety training and planning.
80.1 to 84.9°F 26.7 to 29.3°C	Green 285	Implement precautions and heighten awareness.
85.0 to 87.9°F 29.4 to 31.0°C	Orange	Additional precautions are necessary to protect workers.
88.0 to 89.9°F 31.1 to 32.1°C	Red	Analysis of activity level is necessary to protect workers.
> 90.0°F > 32.2°C	Red Flashing	Triggers even more aggressive protective measures.







Source: Manual of Naval Preventive Medicine (NAVMED P-5010) and OSHA Section 5(a)(1)

#### Records data onto removable SD Cards

Reads relative humidity (RH), air temperature (TA), dew point, wet bulb globe temperature (WBGT) and black globe temperature (TG). Also, captures sample time and date. Records data onto standard SD memory cards (like a digital camera). When full, simply exchange SD cards for unlimited data storage. The removable SD card is easy to transport and insert into a computer's memory card slot or SD card reader. Uploads pre formatted data to Excel, without the need for additional software and cables. Additional SD cards are readily available in a variety of memory sizes. Features an adjustable WBGT audible alarm, min/ max, auto power off, low battery indicator and hold function. This well-made unit is extremely accurate with fast response times, and includes a fold-out tripod and large, easy-to-read backlit LCD. Comes ready to use in a soft carrying case with 6 AA batteries, instruction manual and an SD card. Uses optional USB Power Cable (840058), or AC Adapter (840097). N.I.S.T. traceable certificate of compliance available (for RH & Air Temperature only).

DIM:  $10\frac{3}{4}$ " ×  $2\frac{1}{2}$ " ×  $1\frac{3}{4}$ " (273 × 64 × 44 mm). Globe diameter:  $2\frac{3}{4}$ " (70 mm). WEIGHT: 1 lb. (0.45 kg).

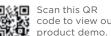
No.	Description
800037	WBGT SD Card Logger
800037C	WBGT SD Card Logger Certified
840058	USB Power Cable
840097	AC Adapter
840059	SD Card
840090	Water Resistant Instrument Pouch
840093	Field Tripod
5	<b>3</b>

	Range	Resolution	Accuracy
WGBT	Indoor / Outdoor: @95% RH 14 to 126°F (0% RH 14 to 93°F)		Indoor: ±1.8°F (59 to 138°F) ±2.7°F (Others) ±1°C (15 to 59°C) ±1.5°C (Others)
	@95%RH -10 to 52°C (@0% RH -10 to 34°C)	0.1	Outdoor: ±2.7°F (59 to 132°F) ±3.6°F (Others) ±1.5°C (15 to 56°C) ±2°C (Others)
Air Temperature	32 to 122°F, -0 to 50°C		± 1.5°F (@15 to 40°C), ±0.8°C
Globe Temperature	14 to 149°F, -10 to 65°C		± 1.1°F (@15 to 40°C), ±0.6°C
RH	5 to 95% RH		≥ 70% RH: ± 3%rdg + 1% RH, <70% RH: ± 3% RH
Dew Point	-13.5 to 120.1°F -25.3 to 48.9°C		The dew point and wet bulb temperature values are calculated
Wet Bulb	@95% RH 14 to 136°F (@0% RH 14 to 77°F) @95% RH -10 to 58°C (@0% RH -10 to 25°C)		automatically using the humidity/air temperature measurement.













#### Easily portable and designed for simple one-hand operation

Reads oxygen in air for environmental studies, IAQ, bio-technology (for oxygen incubators and anaerobic cultivators), food storage and refrigeration, and testing fire alarm and fuel cell systems. The fast, highly reliable, galvanic oxygen sensor is unaffected by acidic gases such as CO<sub>2</sub>. Simultaneously displays O<sub>2</sub> concentration and air temperature in °C or °F. Features hold, min/max, O<sub>2</sub> threshold alarm, a low battery indicator, ATC and auto-power-off. Comes with 4 AAA batteries and a soft carrying case with a belt loop and shoulder strap.

DIM:  $7" \times 1\frac{1}{2}" \times 1\frac{1}{2}" (178 \times 38 \times 38 \text{ mm})$ . Weight: 5.3 oz (150 g).

No.	Descript	ion
800047	Oxygen l	Pen
Thur.	$C \in \mathbb{I}$	

	Range	Resolution	Accuracy
O <sub>2</sub>	0 to 30%	0.1%	± (1% rdg + 0.2% O <sub>2</sub> )
Temperature	32 to 122°F 0 to 50°C	0.1°	± 1.5°F ± 0.8°C

# **SPER** SCIENTIFIC

# **Indoor Air Quality Meter**

#### Monitor indoor air quality in public spaces with potentially high levels of CO<sub>2</sub> (carbon dioxide)

Poor air quality may cause tiredness, inability to concentrate, and even illness (i.e., Sick Building Syndrome). This instrument is ideal for monitoring indoor air quality in crowded public spaces with potentially high levels of CO2 (carbon dioxide) such as offices, factories, classrooms, hospitals and hotels. The same measurement parameters can also be used to test air from HVAC equipment. Backlit simultaneous display of CO2 level, humidity and air temperature, or the user may choose a rotating display of dew point and wet bulb temperature instead of air temperature. Also, calculates TWA (Time Weighted Average) and STEL (Short-Term Exposure Limit). Simple user calibration of CO2 and RH. Features audible CO2 threshold alarms, min/max/avg, hold and a computer interface. NDIR (non-dispersive infrared) technology ensures long-term accuracy, stability and reliability. Comes in a hard carrying case with 4 AA batteries. Uses optional AC Adapter (840027).

DIM:  $8\frac{1}{2}$ " ×  $2\frac{3}{4}$ " ×  $2\frac{1}{4}$ " (216 × 70 × 57 mm). WEIGHT: 9.6 oz (272 g).

No.	Description
800046	Indoor Air Quality Meter
840027	AC Adapter
840052	Data Acquisition Software
840054	USB Cable
840090	Water Resistant Instrument Pouch

	Range	Resolution	Accuracy
Air Temperature	14 to 140°F -10 to 60°C	0.1	0.9°F 0.6°C
RH	0 to 100%		±3% (10 to 90%) ±5% (otherwise)
Dew Point	8 to 140°F -13.3 to 60°C		
Wet Bulb	-100 to 140°F -73.4 to 60°C		
CO <sub>2</sub>	0 to 5000 ppm	1 ppm	±30 ppm + ±5%rdg











158E

4

58aF 58a

CO<sub>5</sub> bbw

# SPER SCIENTIFIC

Visible across a large room. Continually monitors the primary IAQ (Indoor Air Quality) parameters:

- Air Temperature
- RH
- CO<sub>2</sub>

Poor air quality may cause tiredness, inability to concentrate, and even illness (i.e., Sick Building Syndrome). This instrument is ideal for monitoring indoor air quality in crowded public spaces with potentially high levels of CO<sub>2</sub> (carbon dioxide) such as offices, factories, classrooms, hospitals and hotels. Displays readings on a bright green LED display with 2½" high CO<sub>2</sub> digits. Also, indicates general CO<sub>2</sub> levels with green (good), yellow (fair), and red (poor) LED lights. User may set a maximum CO<sub>2</sub> audible alarm and adjust temperature and RH readings to match any standard. Automatic Baseline Calibration

(ABC) and maintenance free NDIR (non-dispersive infrared) CO<sub>2</sub> sensor ensure long-term accuracy, stability and reliability. Comes with an AC adaptor and will stand on a desk-top or wall mount.

DIM:  $12" \times 8\frac{1}{2}" \times 2"$  ( $304 \times 216 \times 51$  mm). WEIGHT: 46.4 oz (1315 g).



	Range	Resolution	Accuracy
Temperature	32 to 122°F -40 to 85°C	0.1°	±2.5°F ±0.6°C (-10 to 50°C) otherwise ±1.2°C
RH	0 to 99.9%	0.1%	±3% (@25°C & 10 to 90%RH) otherwise ±5%
CO <sub>2</sub>	0 to 9999 ppm	1 ppm	±75 ppm +5%rdg

TEMP.





# new

Quickly and Accurately Measure CO Levels with this Easy-to-Use Handheld Meter.

Sper's Handheld Carbon Monoxide Meter is the perfect instrument for safety professionals, technicians and other users who need to measure CO levels in industrial environments, garages, commercial buildings or residential dwellings where accumulation of gas can occur. Featuring the newest generation of stabilized electrochemical CO specific sensor, the 800058 responds very quickly to ambient changes in carbon monoxide concentration without the need for a pump. This is a quality instrument that feels solid in your hand and is built to last.

#### Includes meter, case, instruction manual and (4) AA batteries.

- Large LCD dual display for CO and temperature measurement
- Backlight for easy screen viewing under dim lighting conditions
- Adjustable alarm limits
- Temperature displays in °C or °F (switchable)
- CO level beeper can be silenced if desired
- Automatic zero-point adjustment
- MAX Hold / Data Hold / Auto Power Off
- Replaceable CO sensor extends tool life

DIM:  $8" \times 2.6" \times 1.8"$  (203 × 66 × 46 mm). WEIGHT: 8.2 oz (233 g).

No.	Description
800058	Handheld Carbon Monoxide Meter
Than	C€

Measurement Range	CO: 0 to 1000 ppm	
Temperature	-20 to 70°C, -4 to 158°F	
Resolution	1 ppm, 0.1°C, 0.1°F	
Accuracy	5% or 5 ppm, ±0.8°C, ±1.5°F	
Sensor Type	Stabilized electrochemical CO specific sensor; Thermistor temperature sensor	
Alarm Limits	Adjustable	
Sensor Life	3 years (typical)	
Battery	9V battery	



# **Indoor Air Quality Monitor**

Indoor Air Quality

SPER

#### **Continually Monitors** Indoor Air Quality Parameters.

Ideal for monitoring indoor air quality in homes, offices classrooms, hotels or anywhere air quality is important., and is especially helpful in preventing the spread of Covid-19. Provides audible alarms for CO<sub>2</sub> threshold. Maintenance free NDIR (non-dispersive infrared) sensor using waveguide CO2 technology, ensures long-term accuracy, stability and reliability. The compact design features a large display with a bar graph indicating CO<sub>2</sub> trend for up to 24 hours. 3 backlight colors indicate air quality status with four additional user selectable

backlight color choices. Calibrates easily to fresh air and comes with a USB power cable. Will stand on a desktop or can be wall mounted.



• CO<sub>2</sub>

RH

• Time

DIM:  $4\frac{1}{2}$ " × 2  $\frac{1}{2}$ " × 1  $\frac{1}{4}$ " (108 × 67 × 30 mm) WEIGHT: 3 oz (90 g)









# **Datalogging IAQ Meter**



#### Portable measurement and datalogging of Air Temperature, RH, CO<sub>2</sub>, Dew Point and Wet Bulb

Poor air quality may cause tiredness, inability to concentrate, and even illness (i.e., Sick Building Syndrome). This instrument is ideal for measuring indoor air quality in crowded public spaces with potentially high levels of CO<sub>2</sub> (carbon dioxide) such as offices, factories, classrooms, hospitals and hotels. The same measurement parameters can also be used to test air from HVAC equipment. Recalls the maximum and minimum CO2 readings and has a user selectable audible maximum alarm. Automatic Baseline Calibration (ABC) and maintenance free NDIR (non-dispersive infrared) CO<sub>2</sub> sensor ensure long-term accuracy, stability and reliability. Calibrates to air and has a hold function. Records up to 32,000 data points of temperature, RH and CO<sub>2</sub> that can be downloaded using a USB cable and software (included). Comes complete with tripod screw, soft carrying case, 6 x AAA batteries, AC Adapter (800059), USB computer cable and free downloadable software.

DIM:  $8\frac{1}{4}$ " ×  $2\frac{1}{4}$ " × 2" (210 × 57 × 51 mm). WEIGHT: 7 oz (198 g).

No.	Description
800050	Datalogging IAQ Meter
800059	AC Adapter
840093	Field Tripod













	Range	Resolution	Accuracy
Temperature	14 to 122°F -10 to 50°C	0.1°	±2°F ±1°C
RH	10 to 90%	0.1%	±5% (@25°C)
CO <sub>2</sub>	0 to 9999 ppm	1 ppm	±75 ppm +5%rdg (0 to 5000 ppm)



#### Wirelessly display, log, and transfer readings.

Sper Scientific's Bluetooth® Light Meter is small, light, and simple to use with results displayed on the meter's large 1-1/2" backlit display. Choose readings in lux or foot-candles. Features a bar graph display, minimum and maximum hold (peak) and data hold functions. The meter offers the convenience of Bluetooth® for wireless communication. Free iOS and Android Apps record every data point with time and overall Min/Max Average. Results can also be remotely viewed on

your smartphone in real time, saved and exported. This enables the meter to be used as a remote wireless probe and as a datalogger. Comes ready to use with instructions, tripod screw, and a 9V battery. N.I.S.T. traceable certificate of compliance available.

DIM: METER:  $8" \times 2" \times 1\frac{1}{2}" (206 \times 54 \times 36 \text{ mm}).$ WEIGHT: 6 oz. (172 kg).

No.	Description	
850004	Bluetooth* Light Meter	
850004C	Bluetooth Light Meter Certified	
840093	Field Tripod	

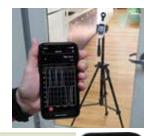












Range	Resolution	Accuracy
400 Lux	0.1	±5% rdg ±10 digits (<2500 Lux)
4000 Lux	1	±10% rdg ±10 digits (>2500 Lux)
40.00 KLux	10 lux (0.01 K lux)	
40 FC	0.01	
400 FC	0.1	
4000 FC	1	
DImensions	8" x 2" x 1 ½" (206 x 54 x 36 mm)	
Weight	6 oz (172 g)	

# SPER **SCIENTIFIC**

# Color LED Chroma Light Meter

Enables precise measurement of illuminance, color temperature, correlated color temperature or color difference simultaneously shown on a backlit display.

Excellent for art galleries and museums, film and TV studios, lighting manufacturers, stores and designers. Meets CIE photopic spectral response and color temperature. Lux and foot candle selectable with general or LED light modes and a hold function. Comes in a protective foam lined carrying case complete with a tripod screw, magnetic mount, 9V battery and instructions. N.I.S.T. traceable certificate of compliance available (for lux and foot candles only).

- Illuminance in Lux or FC
- Color temperature and correlated color temperature
- Custom reference value of color difference

DIM: 5 ½" x 2" x 1" (140 x 49 x 29 mm). WEIGHT: 16 oz (453g)

Chuama Limbt Matau
Chroma Light Meter
Chroma Light Meter Certified
Water Resistant Pouch
Field Tripod



Model Name:	Chroma Light Meter #850011
Light Source	Source Selectable
Measuring Function	Illuminance:Ev (lx or fcd) Color Coordinate:(x,y),(u¹, v¹)(CIE 1960) Correlated Color Temp:CT, Δuv Color Difference:(ΔΕν, Δx, Δy),(ΔΕν, Δu¹, Δv¹), (ΔΕν, ΔCΤ, Δu¹v¹)(One set of reference color)
Measuring Range	Ev:0~80,000 lx (0~7,432 fcd) CT:99,990 K Max. 8 to 140°F -13.3 to 60°C
Accuracy (at 25°C/77°F, 60% RH)	±(3,000 Lx, standard illuminant A measured) ±5% + 4D x,y:±0.02 (100 lx, RGB LED Light CT:±4%
Resolution	Ev:1(0~9,999), 10(Over 10,000), lx; 0.1(0.0~999.9), 1(Over 1,000), fcd: CT:1(0~9,999), 10(Over 10,000), K; x,y:0.001; u¹, v¹:0.001
Response Time	Approximately 1 second
Temperature Drift	Ev±(5% + 2 Digital)(3,000 lx, standard illuminant A measured) x, y:±0.008 (100 lx, RGB LED Light)
Humidity Drift	Ev±(3% + 2 Digital)(3,000 lx, standard illuminant A measured) x, y:±0.005 (100 lx, RGB LED Light)

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### Fast, stable and accurate response.

### Light Meter Lux 840006

Monitor light levels anywhere with fast, stable and accurate response. Results are easily read on the extra large digits (7/8" high, 22 mm) that also indicates when the battery is low or the reading over range. The color-and cosine-corrected sensor meets C.I.E. photopic spectrum. Also, features an external zero adjustment, hold function and an easel back. Comes ready to use with soft padded case and shoulder strap, instructions, detachable sensor with cover, and a 9V battery.

### Light Meter FC 840021

Same as 840006, but reads in foot-candles.

### Light Meter Lux / FC 840020

Same as 840006 but has a peak function, reads both lux and foot-candles, and also features min/max as well as a bar graph display.

### Advanced Light Meter 840022

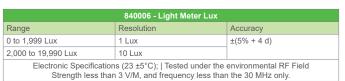
Same as 840020, but in addition offers a unique and very useful ability to compensate for the different colors of tungsten, florescent, mercury and sodium lights, with the push of a button. The result is readings true to actual lighting conditions.

All four models are available with a N.I.S.T. traceable certificate of calibration available.

METER DIM:  $7\frac{3}{4}$ " ×  $2\frac{3}{4}$ " ×  $1\frac{1}{4}$ " (197 × 70 × 32 mm). WEIGHT: 10 oz (283 g).

No.	Description
840006	Light Meter Lux
840006C	Light Meter Lux Certified
840020	Light Meter Lux/FC
840020C	Light Meter Lux/FC Certified
840021	Light Meter FC
840021C	Light Meter FC Certified
840022	Advanced Light Meter
840022C	Advanced Light Meter Certified
840090	Water Resistant Instrument Pouch
840093	Field Tripod





	840021 - Light	Meter FC
Range	Resolution	Accuracy
0 to 199.9 FC	0.1 FC	±(5% + 4 d)
200 to 1,999 FC	1 FC	
Electronic Specifications (23 ±5°C);   Tested under the environmental RF Field Strength less than 3 V/M, and frequency less than the 30 MHz only		

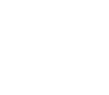
	840020 - L	ight Meter Lux/FC &	840022 - Adv	anced Light Meter
	Range	In-Range Display	Resolution	Accuracy
Lux	40.00	0 to 40.00	0.01	±(3%rdg + 0.5% FS)
	400.0	36.6 to 400.00	0.1	
	4,000	360 to 4,000	1	
	40,000	3,600 to 40,000	10	
	400,000	10,000 to 400,000	100	<100,000 ±(3%rdg + 0.5% FS) >100,000 for reference only
Foot	4.000	0 to 3.720	0.001	±(3%rdg + 0.5% FS)
Candle	40.00	3.35 to 37.20	0.01	
	400.0	33.5 to 372.0	0.1	
	4,000	335 to 3,720	1	
	40,000	930 to 37,2000	10	<9,300 ±(3%rdg + 0.5% FS) >9,300 for reference only
	Accuracy tested by a standard parallel light, tungsten lamp of 2856°K			gsten lamp of 2856°K











### Records data onto removable SD Cards.

Reads lux, foot candles and functions as a type K or J thermometer. A new advanced function compensates for the difference in tungsten, fluorescent, mercury and daylight ensuring highly accurate readings under various light sources. Records data onto standard SD memory cards (like a digital camera). When full, simply exchange SD cards for unlimited data storage. The removable SD card is easy to transport and insert into a computer's memory card slot or SD card reader. Uploads pre-formatted data to Excel, without the need for additional software and cables. Additional SD cards are readily available in a variety of memory sizes. Each data set includes lux or foot-candle reading, time and date. Features push-button zero adjustment, min/max, auto power off, low battery indicator and hold function. Also reads thermocouple temperature with optional probes. This well-made unit is extremely accurate with fast response times, and includes a fold-out easel back and large, easy-to-read backlit LCD. Comes ready to use in a soft carrying, case complete with a detachable color corrected probe that meets the C.I.E. photopic spectrum, 6 AA batteries, instruction manual, and an SD card. Uses optional USB Power Cable (840058) or AC Adapter (840097). N.I.S.T. traceable certificate of calibration available.

DIM: METER:  $7" \times 23/4" \times 13/4"$  (178 × 70 × 44 mm). WEIGHT: 1 lb. (0.45 kg).

No.	Description
850005	Advanced Visible Light SD Card Logger
850005C	Advanced Visible Light SD Card Logger Certified
800060-97	Type K / J Thermocouple Probes
840058	USB Power Cable
840097	AC Adapter
840059	SD Card
840090	Water Resistant Instrument Pouch
840093	Field Tripod

	Range	Resolution	Accuracy
Lux	2,000	1	±(4%rdg + 2DGT)
	20,000	10	
	100,000	100	
Foot Candle	200	0.1	
	2,000	1	±(4%rdg + 2 foot candle)
	10,0001	10	±(4%rdg +20 foot candle)
Type K	-58 to 2372°F, -50 to 1300°C	0.1	±(0.4% FS + 1°C) ±(0.4% FS + 1.8°F)
Type J	-58 to 2192°F, -50 to 1200°C		
Dimensions	7" × 2¾" × 1¾" (178 × 70 × 44 mm)		
Weight	1 lb. (0.45 kg)		



















Scan this QR code to view product dem

# **SPER SCIENTIFIC**

# **LED Light Meter with Color Temperature Compensation**

### Accurately measure any color temperature LED lighting.

Sper Scientific's LED Light Meter compensates for the wide variety of color temperatures available in modern LED lighting. Choose modes for 2700K, 3000K, 3500K, 4000K, 4500K, 5000K, or 6500K and the meter's internal calibration is adjusted for that color temperature resulting in equally accurate readings at every color temperature. There is also a mode for standard incandescent lighting. Results appear in Lux or Foot Candle on a large display that indicates when batteries are low. For an even more thorough analysis, the meter reads luminous intensity which corrects for distance from the light source. The cosine corrected silicon sensor meets C.I.E. photopic spectrum. Features auto ranging, zero adjustment, Max / Min / Ave, data hold, and can store up to 99 manual data points. Comes ready to use with clear instructions, tripod screw, 9V battery, sensor cover, and a hard protective carrying case. N.I.S.T. traceable certificate of compliance available.

Meter Dim: 5" x 2 1/4" x 1 1/2" (130 x 55 x 38 mm). Weight 9 oz (250 g).













	Range	Resolution	Accuracy	
	0 to 40	0.01		
	40 to 400	0.1		
Lux	400 to 4,000	1	±3%rdg 0 to 2,000 Lux	
	4,000 to 40,000	10		
	40,000 to 400,000	100	±6%rdg 2,000 to 5,000 Lux	
	0 to 40	0.01	Readings above 5,000 Lux	
Foot Candle	40 to 400	0.1	for reference only.	
	400 to 4,000	1		
	4,000 to 40,000	10		

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### Accurately measure UVA/B or C.

- Measure damaging UV (ultraviolet) light in the environment and museums.
- UV degradation studies in the pharmaceutical, cosmetic, semiconductor, printing, window tinting, and other industries.
- Laboratory chromatography, electrophoresis and forensics.
- Test UV sterilization and dermatology lamps in hospitals.

UV light intensity appears on the large backlit display in either  $\mu W$  or mW/cm2 while the small lower display simultaneously shows minimum, maximum, average and recorded data. Up to 20 data points can be recorded automatically at a variety of intervals. Feature zero point reset, hold, and indicates when the battery is low. Comes in a protective, hard, foam-lined carrying case, complete with a UV probe, tripod screw, magnetic mount and a 9V battery.

Model 850010 measures short wave UV-C light for applications such as UV light fume hoods, UV sterilization, industrial glass and non-destructive testing. Model 850009 measures long and medium wave UV-A/B for applications such as forensics, chromatography, electrophoresis and dermatology. N.I.S.T. traceable certificate of calibration available on both 850009 & 850010.

DIM:  $5\frac{1}{2}$ " ×  $1\frac{7}{8}$ " ×  $1\frac{1}{8}$ " ( $140 \times 49 \times 30$  mm). Weight (with probe): 8.6 oz (246 g).



No.	Description	
850009	UV Light Meter UVA/B	
850009C	UV Light Meter UVA/B Certified	
850010	UV Light Meter UVC	
850010C	UV Light Meter UVC Certified	
840090	Water Resistant Instrument Pouch	
840093	Field Tripod	

	850009	850010
Wavelength	290 to 370 nm	220 to 275 nm
Calibration Point	365 nm	254 nm
UV Range	1 μW/cm² to 40 mW/cm²	
Resolution	1 μW and 0.01 mW/cm²	
Accuracy	±4% ±1 digit (@23 ±5°C)	







# SPER SCIENTIFIC

### **Pocket Laser Power Meter**



### Easily carried in a shirt pocket.

This tiny meter is less than ¾" thick and weighs only 4 oz (120 g). The controls, display and sensor are all neatly contained and protected within the folding case. Directions are printed right inside the cover. When open, the sensor may be extended for remote use or snaps into a fixed position atop the case. Features bar graph display, auto power off, hold functions and indicate low battery and over range. Powered by 2 button cell batteries (included).

DIM:  $4\frac{1}{2}$ " × 3" ×  $3\frac{4}{4}$ " (114 × 76 × 19 mm). WEIGHT: 3.9 oz (111 g).

No.	Description
840011	Pocket Laser Power Meter
*	Scan this QR code to view our product demo.

Range	Calibrated at 633 nM but can also read any other wavelength in the 400 to 1100 nM range using a chart inside the case cover. Can calibrate directly to any other 400 to 1100 nM wavelength for special orders, with a 4 month lead time.
Resolution	0.01 uW
Accuracy	±5% @calibrated wavelength 633 nM / 1 mW
Additional Features	Min/Max
Cord Length	15"
Probe Dim	3½" × ½" × ½" (89 × 13 × 13 mm)
Operating Temperature	0 to 40°C
Operating RH	80% non condensing, maximum

# **Multifunction Moisture Meter with Psychrometer**





Measures moisture content in wood and other building materials such as sheetrock, drywall, wallboard, concrete, mortar, plaster.

It can also measure humidity, air temperature and dew point using the built-in probe. The unit allows for moisture measurement using 3 different methods - the built-in penetration pins, using the pin-less moisture sensor on the back of the unit or using the external probe which is included with the unit.

- Quickly measures the moisture content of wood and other building materials along with temperature and humidity
- Easy to read, large dual display with automatic backlight feature
- Simultaneously displays moisture value of wood or material being tested, Air Temperature, Humidity
- Programmable high/low moisture and humidity alarms
- Built-in humidity/temperature probe measures: Relative Humidity, Air Temperature and Grains Per Pound (GPP)/(g/kg), Dew Point (DP), Vapor Pressure, and condensation point
- Automatic calculation of differential Temperature (IR DP) to determine condensation point

DIM:  $7" \times 2.75" \times 1.5"$  (178 × 70 × 38 mm). WEIGHT: 10 oz (280 g).



No.	Description				(()
850003	Multifunction Mo	oisture Meter with	Psychrometer		CE RoHS COMPliant 2002/93/EC
		Range	Accuracy	Resolution	Pinless Depth
Pin-Type	Moisture Measurement	0 to 99.9 (Relative)	±5%	0.1	
Pinless	Moisture Measurement	0 to 99.9 (Relative)	±5%	0.1	up to 0.75" (19mm)
Air Ten	nperature Measurement	-28 to 77°C/ -20 to 170°F	±2°C/3.6°F		
Humidity Range 0 to 100%RH		Basic Accuracy ±5%RI to 100%	H @0% to 20% and 80%	±3.5%RH @20% to 80	%
Vapor Pressu	re 0 to 20.0kPA				
Dew Point -22	to 199°F (-30 to 100°C)				

# SPER SCIENTIFIC

# **Compact Moisture Meter**

# Our compact, pocket-sized moisture meter measures moisture content in wood and other building materials.

This handy, compact moisture meter has a dual backlit LCD digital display for moisture & temperature. Displays temperature in °C or °F, and has an auto power off function. Switchable modes for wood or other building materials.

- Backlit LCD displays moisture and temperature
- Meter is only 3.75" tall with cap easily fits in your pocket
- Uses replaceable electrode pins
- Detects moisture content in wood, drywall and other building materials
- Auto power off function
- Batteries and strap included

DIM:  $3.75" \times 1.5" \times .75"$  (95 × 38 × 19 mm). WEIGHT: 2.9 oz (83 g).

No.	Description
850001E	Compact Moisture Meter





Electrode length	8 mm
Measuring range	Wood: 6 – 44%
	Building material: 0.2– 2.0%
	Ambient temperature: 0 to 50°C (32 to 122°F)
Accuracy	Wood: ±2 %
	Building materials: ±0.2%
Ambient temperature	±1°C / ±1.8°F
Auto power OFF	After approx. 3 minutes
Ambient temperature	0 - 40°C
Ambient Relative humidity	0 – 85 %RH

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SPER



### Non-Invasive.

Accurately reads elevated moisture content using cutting edge electromagnetic wave technology that penetrates 1½" through most materials. Non-destructive leaving no marks and automatically calibrates to dry air. The probe can be held at any angle and reads 0 to 100% moisture in wood and drywall for building inspection, lumber, water damage repair, and other industries. The large LCD simultaneously displays current, maximum and minimum moisture content, has a bright backlight and a low battery indicator. Features adjustable audible and visible, Hi/Lo wetness risk alarm, auto-power-off and a hold function. Comes ready to use with clear instructions and 3 AAA batteries.

DIM:  $9\frac{1}{2}$ " ×  $2\frac{1}{2}$ " × 1" (242 × 63 × 30 mm). Weight: 8 oz (226 g).

No.	Description			
850002	Scanning Moistu	re Meter		CE
		Materials	Resolution	Accuracy
Moisture Content		All soft and hard woods including but not limited to Pine, Poplar, Oak, Maple, and Teak.	0.1%	±2%
		All forms of drywall and sheetrock including cementboard, ¼" and ½" gypsum drywall, soundboard, and greenboard.		
		NOTE: This meter is not appropriate for testing concrete, brick, mortar, or screed		
Operating Temperature and Humidity 0 to 40°C and less than 85% Relative Humidity				
Reading Depth Range		40 mm		
Power Supply		AAA, 1.5V battery x 3		_
Battery Life 200 hours without backlight 50 hours with backlight constantly on.				





Measures electromagnetic emissions from electrical power lines and power transmission, computer, HVAC, audio/video, and other electrical appliances and equipment.

While the evidence of the carcinogenic effect of such electromagnetic emissions is still inconclusive, prudent avoidance is recommended to avoid excess exposure over long periods of time. Reads milli-Gauss and micro-Tesla on a large 1¼" high display. The display indicates when the object being measured is out of range as well as when the battery is low. Features both standard and maximum hold. Powered by a standard 9V battery lasting approximately 100 hours. Comes with battery, instructions, and a soft carrying case.

DIM:  $5" \times 2" \times 11/4"$  (127 × 51 × 32 mm). WEIGHT: 5.4 oz (153 g).

No.	Description
840045	EMF Meter
840090	Water Resistant Instrument Pouch
840093	Field Tripod
850000	Rubber Boot

Unit of Measure	Range	Resolution	Accuracy
milli-Gauss	0.1 to 2000 mG	0.1 to 1	±2.5% + 3 d @50/60 Hz
micro-Tesla	0.01 to 200 μT	0.01 to 0.1	@50/60 HZ



# SPER SCIENTIFIC

# **3-Axis RF Meter**

# Measure the RF strength of Wi-Fi and LAN, cell phone, radio and TV transmission towers, wireless cameras and microphones

Sper Scientific's 3-Axis RF Meter measures RF (Radio Frequency) electromagnetic field strength in the frequency range of 50 MHz to 3.5 GHz. Can be used to measure microwave oven leakage. The 3-Axis probe provides simple, accurate, non-directional measurement from any angle. Results are displayed in large digits and a bar graph on a backlit LCD that also indicates maximum or average readings, low battery, and overload. You may set audible alarms a CAL (calibration) factor for a specific frequency or save and review up to 200 readings directly on the meter. Auto-ranging, with auto power off. Comes ready to use in a soft carrying case with belt loop, instruction manual and one 9V battery.

DIM:  $734" \times 21/2" \times 21/2"$  (197 × 64 × 64 mm). Weight: 10.3 oz (292 g).

No.	Description
840047	3-Axis RF Meter
840090	Water Resistant Instrument Pouch
840093	Field Tripod
1	

Range	Resolution	Accuracy
38 mV/m to 20.00 V/m	0.1 mV/m	±2.4 dB (50 MHz to
53.0 μA/m to 53.74 mA/m	0.1 μA/m	1.9 GHz) ±1.0 dB
0.1 µW/m² to 1.089 W/m²	0.001 μW/m <sup>2</sup>	(1.9 GHz to 3.5 GHz)
0.001 µW/cm² to 108.9 µW/cm²	0.001 µW/cm <sup>2</sup>	



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# **ENVIRONMENTAL QUALITY**

### New technology, using a high precision geiger counter sensor and the latest CMOS integrated circuitry.

The meter features a data logger with built-in Bluetooth technology that allows for complete data analysis on a connected computer. It can test a ray, ß ray, y and X rays, and can also test for a radiation pulse. Large capacity memory can store 4,000 sets of data directly within the instrument, and then transfer it to the computer.

Tough, impact resistant construction is compact and easy to carry.

- Ray measurement function selector switch
- High-definition LCD liquid crystal display with backlight
- Measures dynamic, ray category, reading, real-time, battery, measurement units symbols and simulation diagram instructions.
- Show the average time adjustable
- Radiometer value accumulated and measuring unit conversion
- Alarm, real-time stamp readings and Bluetooth data transmission functions
- Pulse counting function
- Automatic selection of measurement range
- Compact and easy to carry
- Bluetooth functionality and powerful computer data analysis software (Windows only)

DIM:  $7^{7/8}$ " ×  $2^{3/4}$ " ×  $1^{3/4}$ " (200 × 70 × 45 mm). WEIGHT: 7.25 oz (206 g).

No.	Description
840023	Multi-Function Digital Radiation Detector with Bluetooth







# Handheld Radiation Meter / Geiger Counter





Small and light enough to go anywhere, yet sensitive enough to detect minuscule amounts of gamma, beta or X-rays.

Excellent for scanning lab work areas and clothing for traces of radioactivity after clean-up, or as a personal monitor in areas of potential radiation exposure. Useful in school labs for geology and science projects. One-button operation, can be used by untrained personnel.

The Meter registers 0-100mR/hour (milli-Roentgen) and 0-1000 uSv/hour (microsieverts) on a dual scale. Audible clicking will increase with the amount of background radiation. Beeping begins at 20mR/hr, increasing in frequency in proportion to the radiation level.

If required, this unit can be calibrated to NRC standards by a government authorized test facility. Used in applications where radiation may be present in greater than trace amounts. Visit the US EPA website for information on the health effects of radiation exposure.

DIM:  $6^{3}/4$ " ×  $3^{1}/4$ " ×  $1^{1}/2$ " (171 × 38 × 34 mm). WEIGHT: 1 lb (454 g).

No.	Description
840026	Handheld Radiation Meter / Geiger Counter



# **Autoranging Radiation Monitor / Geiger Counter**



Measures beta, gamma and x-ray radiation.

This lightweight, handheld radiation meter can be used to monitor the environment in the home, office, factory or other areas where safety is a priority, such as in the nuclear, medical, mining and metallurgy fields. It is also ideal for border control, customs and cargo inspections.

- Display units in uSv/h and uRem/h
- Built-in a GM tube
- Quick response to the radiation strength of Beta(B), Gamma(y) and X-ray
- Auto Ranging
- Automatic detection, easy setting
- A beeper chirps with each radiation count
- Audio alarm setting function

DIM:  $5^5/8^{\circ} \times 2^7/8^{\circ} \times 1^2/5^{\circ}$  (143 × 74 × 34 mm). WEIGHT: 8 oz (200 g).

No.	Description
840024	Autoranging Radiation Monitor / Geiger Counter



# SOUND METERS ARE USED BY:

# **Industrial Hygienists**

Measuring noise exposure in the workplace in compliance with OSHA hearing conservation program. Safety alarm testing.

### Sound Engineers

Measure acoustics in interior design, sound system installation, and sound proofing.

### **Construction Engineers**

Municipal code compliance.

### **Industrial Quality Control**

Measuring sound levels of bearings, machinery and other products.

### **Environmental Scientists**

Noise pollution from traffic, airports, machinery, etc.

### **Physics Laboratories**

Sound wave measurements.





### Wirelessly display, log, and transfer readings

Sper Scientific's Bluetooth® Sound Meter is small, light, and simple to use with results clearly displayed on the meter's large 1-1/2" backlit display. Choose A or C decibel frequency weighting scales and manual or auto ranging. Indicates readings over or under range and features minimum and maximum hold (peak) and data hold functions. The meter offers the convenience of Bluetooth® for wireless com-munication. Free iOS and Android Apps record every data

point with time and overall Min/Max Average. Results can also be remotely viewed on your smartphone in real time, saved and exported. This enables the meter to be used as a remote wireless probe and as a datalogger. Comes ready to use with a windscreen, tripod screw, instructions and a 9V battery. N.I.S.T. traceable certificate of calibration available.

DIM:  $7\frac{1}{4}$ " × 2" ×  $1\frac{1}{2}$ " (185 × 54 × 36 mm). WEIGHT: 6.5 oz (184 g).

No.	Description
850019	Bluetooth Sound Meter
850019C	Bluetooth Sound Meter Certified
840093	Field Tripod















# Sound Recorder / Datalogger



## Simultaneously Records Sound Level and Live Audio

This unique Sound Meter enables you to playback a live audio recording that is synced with the measured sound intensity graph. The meter and included software can quickly collect and analyze all standard sound data such as dB levels, LEQ and SPL, but also allows you to pinpoint the cause of various sound levels using the live recording. Accurate within ±1.0 dB this sound meter meets or exceeds all current specs for IEC 61672:2013 Class 2 and ANSI S1.4:2014 Type 2 meters. Meets ANSI S1.43:1997 and IEC 61672-3:2013 for Integrating-Averaging Sound Level Meters. Record up to 64,000 records complete with date and time stamp that can be stored in the meter for later download and analysis. All test parameters are simultaneously displayed on a large bright backlit display, with 0.1 dB resolution and a bar graph. Features A or C frequency weightings and fast/slow time weighting options, min/max, over/under range alarms, AC or DC recorder output, and an optional auto power off feature. Calibration can be performed in compliance with OSHA using our Acoustical Calibrator 850016. Comes complete with a foam lined carrying case, windscreen, USB cable, instruction manual, recorder output plug, and 4 AAA batteries providing about 50 hours of use when sound recording is on. The optional microphone extension cable enables remote measurements. N.I.S.T. traceable certificate of calibration available.

DIM:  $10\frac{1}{2}$ " ×  $2\frac{1}{2}$ " ×  $1\frac{1}{4}$ " (273 × 89 × 38 mm). WEIGHT: 14.6 oz (414 g).

No.	Description
850018	Sound Recorder/Datalogger
850018C	Sound Recorder/Datalogger Certified
800003	AC Adapter
850016	2-Pt. Acoustical Calibrator - Class 2
850017P	16-ft Microphone Extension Cable
840091	Replacement Windscreen
840093	Field Tripod

Range	Resolution	Accuracy
30 to 130 dB	0.1 dB	±1.0 dB









### Sound meter with one-button operation.

Despite its small size, the Sound Level Pen is a full function sound meter, perfect for testing OSHA requirements and most other sound meter applications. Auto-ranging with simple one-button operation. Press once to begin reading sound levels. Press the button a second time and the display holds the maximum reading, updating as new maximums are reached. Hold the button for 2 seconds to turn the unit off. Measures the 30 to 130 dB range in the "A" scale, with an accuracy of ±1.5 dB. The display provides 0.1 dB resolution, under range, over range and low battery indicators. The Sound Level Pen calibrates electronically to its own internal oscillator or external 2-Pt. Acoustical Calibrator 850016. Comes ready to use with 2 AAA batteries, instructions, calibration screwdriver, and a wind screen. N.I.S.T. traceable certificate of calibration available.

DIM:  $8" \times 1\frac{1}{2}" \times 1"$  (203 × 38 × 25 mm). WEIGHT: 4.3 oz (122 g).

No.	Description
840018	Sound Level Pen
840018C	Sound Level Pen Certified
850016	2-Pt. Acoustical Calibrator
840091	Replacement Windscreen

	Range	Resolution	Accuracy
	30 to 130 dB	0.1 dB	±1.5 dB
WHILE PARTY		To the same of the	



U.S. PATENT 7,270,006

# SPER SCIENTIFIC

# **Graphic Display Sound Meter**

SPER

### Slim, light, ergonomic design.

Features a large bar graph display, A & C decibel frequency weighting scales, min/max, peak, fast or slow response, AC or DC output, auto-power-off, low battery indicator. Covers 30 to 130 dB in the A & C scales with a resolution of 0.1 dB and an accuracy of ±1.4 dB (ref 94 dB @1 KHz). Comes ready to use with a windscreen, 9V battery, instructions, and a foam lined hard shell carrying case. N.I.S.T. traceable certificate of calibration available or calibrate in compliance with OSHA anytime using optional Acoustical Calibrator 850016.

DIM:  $10\frac{1}{4}$ " ×  $2\frac{1}{4}$ " × 1" (258 × 55 × 25 mm). WEIGHT: 6.5 oz (185 g).

No.	Description
850015	Graphic Display Sound Meter
850015C	Graphic Display Sound Meter Certified
850016	2-Pt. Acoustical Calibrator
840093	Field Tripod

Range	Resolution	Accuracy
30 to 130 dB	0.1 dB	±1.4 dB (ref 94 dB @1 KHz)









# **Advanced Datalogging Sound Meter**

### A single dynamic 30 to 130 dB range.

Eliminates the need to manually select ranges and prevents data errors during range changes in auto-ranging models. All test parameters are simultaneously displayed on a large, bright backlit display, featuring 0.1 dB resolution and a bar graph. Automatically log up to 31,000 records for later download, or manually save and recall 99 data points with date and time stamp directly on the meter's LCD. The bidirectional USB port and software also enable control of the meter via its on-screen image. Accurate within ±1.0 dB, and meets or exceeds all other specs for an IEC 61672:2013 Class 2 and ANSI S1.4:2014 Type 2 meter. Also, features A/C and fast/slow weighting scales, min/max, over/under alarms, AC or DC recorder output and auto power off. Calibrate in compliance with OSHA using Acoustical Calibrator 850016. Comes in a foam-lined protective carrying case, complete with a windscreen, USB computer connection power cable, instructions, calibration tool, recorder output plug, 4 AA batteries, which provide about 30 hours of use and free downloadable software. Can also be used with optional AC Adapter 800003. The optional microphone extension cable enables remote measurements. N.I.S.T. traceable certificate of calibration available.

DIM:  $10\frac{3}{4}$ " ×  $3\frac{1}{2}$ " ×  $1\frac{1}{2}$ " (273 × 89 × 38 mm). WEIGHT: 14.6 oz (414 g).

No.	Description
850013	Adv. Datalogging Sound Meter
850013C	Adv. Datalogging Sound Meter Certified
850016	2-Pt. Acoustical Calibrator
850017P	16-ft Microphone Extension Cable
840091	Replacement Windscreen
800003	AC Adapter
840093	Field Tripod





# SPER SCIENTIFIC

# **Integrating Sound Datalogger**



### Calculates SPL and LEQ.

Sper Scientific's Integrating Sound Datalogger measures sound pressure level (SPL) according to A or C weighting and integrates the weighted SPL over an established length of time, such as an 8 hour workday, to calculate cumulative sound exposure ( $L_{EQ}$ ). Test parameters are simultaneously displayed on a large, bright, backlit display, featuring 0.1 dB resolution and a bar graph. Up to 64,000 data records can be stored in the meter, saved, graphed, and processed on a computer through the USB interface and included software. The bidirectional USB port and software also enable control of the meter via its on-screen image. Features include SPL and  $L_{EQ}$  sound level readings, fast and slow time weighting, A and C frequency weightings, and over-limit and under-limit alarms. A single dynamic 30 to 130 dB range eliminates the need to manually select ranges and prevents data errors during range changes in auto-ranging models. The meter complies with IEC 61672:2013 Class 2 and ANSI S1.4:2014 Type 2 meter standards. Meets ANSI S1.43:1997 and IEC 61672-3:2013 for Integrating-Averaging Sound Level Meters. Calibrate in compliance with OSHA using Acoustical Calibrator 850016. Comes in a foam-lined protective carrying case, complete with a windscreen, USB computer connection power cable, instructions, calibration tool, recorder output plug, and 4 AA batteries, which provide about 30 hours of use and free downloadable software. N.I.S.T. traceable certificate of calibration available.

DIM:  $10\frac{3}{4}$ " ×  $3\frac{1}{2}$ " ×  $1\frac{1}{2}$ " (273 × 89 × 38 mm). WEIGHT: 14.6 oz (414 g).

No.	Description
850017	Integrating Sound Datalogger
850017C	Integrating Sound Datalogger Certified
850016	2-Pt. Acoustical Calibrator
850017P	16-ft Microphone Extension Cable
840091	Replacement Windscreen
840093	Field Tripod







### ±0.7 dB Accuracy.

Meets IEC 61672-1:2013 Class 1 and ANSI S1.4:2014 Type 1 requirements for sound meters. Features fast or slow time weightings, peak hold and AC output. A calibration adjustment allows the user to quickly calibrate the meter's internal electronics. Can also be acoustically calibrated, in compliance with OSHA, using Acoustical Calibrator 850016 or equivalent. CE Approved. Comes ready to use with a windscreen, calibration tool, instructions, and two 9V batteries, all contained in a hard shell carrying case. N.I.S.T. traceable certificate of calibration available.

DIM:  $10\frac{1}{2}$ " ×  $3\frac{1}{2}$ " ×  $1\frac{1}{2}$ " (267 × 89 × 38 mm). WEIGHT: 16.1 oz (454 g).

No.	Descrip	Description		
840015	Sound I	Sound Meter Type 1		
840015C	Sound I	Sound Meter Type 1 Certified		
850016	2-Pt. Ad	2-Pt. Acoustical Calibrator - Class 2		
840091	Replace	Replacement Windscreen		
840093	Field Tripod			
Range		Resolution	Accuracy	
30 to 130 dB		0.1 dB	±0.7 dB (125 Hz to 4 kHz)	







# SPER SCIENTIFIC

# **Digital Type 2 Sound Meter**

### All the standard features

Perfect for testing for OSHA requirements. Meets IEC 61672:2013 and ANSI S1.4: 2014 for a Type 2 sound meter. Offers a wide variety of measuring options including A and C decibel frequency weighting scales, fast or slow response, AC or DC output, and peak function. The large display has a resolution of 0.1 dB and also indicates low battery and over or under load. Covers 30 to 130 dB in the A scale and 35 to 130 dB in the C scale, with an accuracy of ±1.0 dB. Can be easily calibrated using the internal oscillation system. Has a fold out stand and comes with carrying case, instructions, calibration tool, windscreen, and a 9V battery. N.I.S.T. traceable certificate of calibration available.

DIM:  $8\frac{1}{2}$ " ×  $3\frac{1}{8}$ " ×  $1\frac{3}{8}$ " (216 × 80 × 35 mm). WEIGHT: 10 oz (283 g).

No.	Description	Description		
840029	Digital Type 2 Sound Meter	Digital Type 2 Sound Meter		
840029C	Digital Type 2 Sound Meter	Digital Type 2 Sound Meter Certified		
850016	2-Pt. Acoustical Calibrator	2-Pt. Acoustical Calibrator		
840091	Replacement Windscreen	Replacement Windscreen		
Range Resolution Accuracy				
Trange		Resolution	Accuracy	
A (dBA weighting: 30 to 130 dB C (dBC weighting: 35 to 130 dB		0.1 dB	±1.0 dB	









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### Enables remote sound level readings.

Coiled probe extends to 9-ft. Features an AC output and has A and C decibel frequency weighting scales, fast or slow time weighting, hold, peak hold, and min/max functions. Meets IEC 61672:2013 and ANSI S1.4:2014 for a Class 2 sound meter. Covers 30 to 130 dB in both manual and auto-ranging scales with 0.1 dB resolution and an accuracy of ±1.0 dB. Calibrate in compliance with OSHA using Acoustical Calibrator 850016. Has a foldout easel back and tripod screw. Comes ready to use with a windscreen, calibration tool, instructions and 9V battery in a hard-shell, foam-lined carrying case. N.I.S.T. traceable certificate of calibration available.

DIM:  $8" \times 2\frac{1}{2}" \times 1"$  (203 × 64 × 25 mm). WEIGHT: 13.6 oz (386 g).

No.	Descrip	tion	
840012	Detacha	Detachable Probe Sound Meter	
840012C	Detacha	able Probe Sound Meter Cei	rtified
850016	2-Pt. Ac	2-Pt. Acoustical Calibrator	
840091	Replace	Replacement Windscreen	
840090	Water R	Water Resistant Instrument Pouch	
840093	Field Tripod		
Range		Resolution	Accuracy
30 to 130 dB	0.1 dB ±1.0 dB		





# SPER SCIENTIFIC

# **Mini Sound Meter**



### A tiny meter packed with features.

This meter is small and light enough to be carried anywhere. Choose from fast or slow time weightings, min/max readings and A or C decibel frequency weighting scales. All of these settings are simultaneously displayed on a large 1¼" backlit display. Also, features hold and auto-power off. Readings are extremely stable and reliable. Auto-ranging 30 to 130 dB(A) with 0.1 dB resolution and an accuracy of ±1.5 dB (Ref. 94 dB @ 1 KHz). Can be calibrated, in compliance with OSHA, using Acoustical Calibrator 850016. Comes ready to use with a windscreen, instructions and 9V battery. N.I.S.T. traceable certificate of calibration available.

DIM:  $8" \times 2\frac{1}{2}" \times 1\frac{1}{2}" (203 \times 54 \times 38 \text{ mm})$ . Weight: 5.8 oz (164 g).

N.	5		
No.	Description		
850014	Mini Sound Meter	Mini Sound Meter	
850014C	Mini Sound Meter Certified		
850016	2-Pt. Acoustical Calibrator		
840091	Replacement Windscreen		
850000	Rubber Boot		
Range	Resolution Accuracy		



Range	Resolution	Accuracy
dynamic range: 50 dB auto-range: 30 to 130 dB 30 to 130 dBA 35 to 130 dBC	0.1 dB	±1.5 dB



For calibration of all Sper Scientific digital sound meters and any sound meter with a 1/2" microphone.

Calibrate the sensitivity of the microphone and sound level measuring equipment. The design is based on the feedback method to ensure a highly stable sound pressure level. This compact and ergonomic sound calibrator conforms to ANSI S1.40-1984 and IEC60942 (2003) Class 1 standard, and is perfect for calibrating Type 1 sound level meters with 1/2" microphones.

To use, simply place the calibrator onto the digital sound meter's microphone, turn on the calibrator, and adjust the meter's reading to either 94 or 114 dB. Operates at a frequency of 1KHz  $\pm 1\%$  with an accuracy of  $\pm 0.3$  dB for 94 dB and  $\pm 0.5$  dB for 1 14

dB levels, and features a built-in battery indicator. Small and light, it is easily portable for field use.

DIM:  $2^{1}/2^{\circ} \times 5^{1}/4^{\circ}$  (63.5 × 133.5 mm). WEIGHT: 12 oz (350 g). (including 9V battery)



Standard	IEC 60942(2003) and ANSI S1.40. (1984)
Sound Pressure Levels	94 and 114 dB (reference of 2x10-5Pa)
Accuracy	94 ± 0.3 dB and 114 ± 0.5dB
Frequency	1000Hz ± 1%.
Distortion	≤ 3 %
Stable Time	20s.
Humidity	< 90%
Atmospheric Pressure	65KPa~100KPa



# 2-Pt. Acoustical Calibrator - Class 2

For calibration of all Sper Scientific digital sound meters and any sound meter with 1" or 1/2" microphone.

product demo.

Conforms to ANSI S1.4-1984 and IEC942 1988 Class 2 standards for acoustical calibrators. Simply place the calibrator onto the digital sound meter's microphone, turn on the calibrator, and adjust the meter's reading to either 94 or 114 dB. Operates at a frequency of 1 KHz  $\pm 4\%$  with an accuracy of  $\pm 0.5$  dB. Built in battery check. Easily portable for field use, it comes with a carrying case, adaptors for  $\frac{1}{2}$ " and 1" microphones, instructions and a 9V battery.

DIM:  $5" \times 1\%"$  (127 × 48 mm). WEIGHT: 8.4 oz (238 g).

No.	Description
850016	2-Pt. Acoustical Calibrator
850016C	2-Pt. Acoustical Calibrator Certified
1	Scan this QR

Output Sound Level:	94 dB and 114 dB re 20 uPA under reference
Output Frequency	1 kHz ±4%
Accuracy	±0.5 dB
Operating	32 to 104°F (0 to 40°C)
Environment	Altitude up to 2000 meters
	10 to 70% RH
Storage Environment	14 to 140°F (-10 to 60°C)
	10 to 90% RH
Test Conditions	20°C
	65% RH
Atmospheric Pressure	1013 mbar



# **Wireless Products**

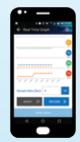


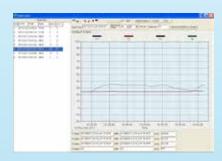


Wireless transmission eliminates the need to remove the meter to the computer to download data. Previously recorded, or real-time data can be streamed to the computer software or phone app from up to 100 feet away.











## Why Bluetooth?

Bluetooth® is currently the wireless technology of choice for indoor applications. Originally invented to connect computers with their peripherals Bluetooth®'s range has now increased to 100 feet. At the same time, its price has fallen due to mass production for use in consumer products such as headphones. Bluetooth® enabled devices simply pair with each other and, unlike Wi-Fi. Bluetooth® does not require a router. In addition, Bluetooth® consumes less power and eliminates the security issues inherent in Wi-Fi.

# Wireless products now available

Bluetooth® Anemometer 850020	pg. 24
Bluetooth® Light Meter 850004	pg. 36
Bluetooth® Sound Meter 850019	pg. 45
Bluetooth® Datalogging Thermo-Hygrometer 800020	pg. 52
Bluetooth® Hygrometer 800019	pg. 53
Wireless Humidity/Temperature Monitor 800254	pg. 57
Bluetooth® RH / Temperature / Pressure Logger 800018	pg. 60
Bluetooth® 4 Channel Datalogging Thermometer 800025	pg. 66

# Bluetooth® Datalogging Thermo-Hygrometer



Wirelessly display, log and download readings.

- Temperature / RH / Dew Point / Wet Bulb
- Hi / Lo Alarms
- K, J, E, N, R, S or T Thermocouple probes
- Min / Max / Ave

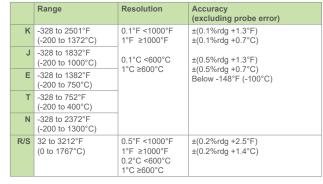
• Bluetooth®

This portable Thermo-Hygrometer displays RH, ambient temperature /dew point / wet bulb and thermocouple probe temperature on a large multi-line, back-lit LCD. Fast response with high accuracy. Automatically record and store up to 32,000 data points per parameter. Wireless Bluetooth® transmission eliminates the need to remove the meter to the computer to download data. Previously recorded or real-time data can be streamed to the computer software or phone app from up to 100 feet away. You may also manually record 100 data points directly from the keypad. User adjustable auto power off timer, audible and visible Hi/Lo alarms, min/max/avg, hold function, and fold-out easel back. Comes ready to use in a protective foam-lined case, with four AAA batteries, type K beaded wire probe, bi-directional USB computer/power cable, free downloadable computer software and free Android (version 4.4 "KitKat and above") and iOS phone Apps. Will also communicate with your computer via the USB cable. N.I.S.T. traceable certificate of compliance available.

DIM:  $11\frac{1}{4}$ " ×  $2\frac{1}{2}$ " ×  $1\frac{1}{4}$ " (284 × 75 × 29 mm). WEIGHT: 10 oz (290 g).

No.	Description
800020	Bluetooth® Datalogging Thermo-Hygrometer
800020C	Bluetooth® Datalogging Thermo-Hygrometer Certified
800020P	Probe Extension Cable
800060-97	Type K/J Thermocouple Probes
840090	Water Resistant Instrument Pouch

	Range	Resolution	Accuracy @ 73.4°F (23°C)
RH	0 to 90%RH	0.1% RH	±2.5%RH 10%RH to 90%RH ±5.0%RH <10%RH, >90%RH
Wet Bulb	-4 to 140°F (-20 to 60°C)	0.1°F, 0.1°C	±1.5°F (±0.8°C) -4 to 140°F
Dew Point	-58 to 140°F (-50 to 60°C)	0.1°F, 0.1°C	(-20 to 60°C)
Temperature	-4 to 140°F (-20 to 60°C)	0.1°F, 0.1°C	

















### **USEFUL TEMPERATURE INFORMATION**

The measurement of temperature in the laboratory is unsophisticated in its approach, and at the same time complicated.

Temperature is best defined as the level of thermal energy, where temperature is the driving force of thermodynamic flow.

Three of the most commonly used scales for measuring temperature are:

- Celsius or Centigrade = °C
- Fahrenheit = °F
- Kelvin = °K

Common temperature measurements in each scale:

°C	°F	°K
100.00	212.00	373.00
0.00	32.00	273.00
-273.00	-460.00	0.00



### Wirelessly display, log, and transfer readings.

Sper Scientific's Bluetooth® Hygrometer Meter is small, light, and simple to use. Displays humidity, wet bulb, dew point and air temperature in °C or °F on the meter's large 1-1/2" backlit display. Features minimum and maximum hold (peak) and data hold functions. The meter offers the convenience of Bluetooth® for wireless communication. Free iOS and Android Apps record every data point with time and overall Min/Max Average. Results can also be remotely

viewed on your smartphone in real time, saved and exported. This enables the meter to be used as a remote wireless probe and as a datalogger. Comes ready to use with tripod screw, instructions and a 9V battery. N.I.S.T. traceable certificate of compliance available.

DIM: 8" x 2" × 1½" (204 x 54 x 36 mm). WEIGHT: 6 oz. (172 kg).

No.	Description
800019	Bluetooth® Hygrometer
800019C	Bluetooth* Hygrometer Certified













	Range	Resolution	Accuracy
RH	0.0 to 100%	0.1% RH 0.1°C/0.1°F	±3.5% RH (20 to 80% RH) ±5% RH (0 to 20, & 80 to 100%)
Dry bulb (ambient) temperature	-0.4 to 140°F -20 to -60°C	0.1°C/0.1°F	±0.9°F / 0.5°C (0 to 40°C)
Wet bulb temperature	32 to 140°F 0 to -60°C		±1°C / 1.8°F (-20 to 0, & 40 to 60°C)
Dew point temperature	-0.4 to 140°F -20 to -60°C		
Dimensions	Dim: 8" x 2" x 1 ½" (204 x 54 x 36 mm) 6 oz (172 g)		
Weight			

# SPER SCIENTIFIC

# RH / Temperature SD Card Logger



### Records data onto removable SD Cards.

Reads relative humidity (RH) and ambient temperature, dew point and wet bulb, and functions as a type K or J thermometer. Records data onto standard SD memory cards (like a digital camera) for unlimited data storage. The removable SD card is easy to transport and insert into a computer's memory card slot or SD card reader. Uploads pre-formatted data to Excel, without the need for additional software and cables. Additional SD cards are readily available in a variety of memory sizes. Each data set includes temperature, RH, time and date. Features min/max, auto power off, low battery indicator and hold function. Also reads thermocouple temperature with optional probes. This well-made unit is extremely accurate with fast response times and includes a fold-out tripod and large, easy-to-read backlit LCD. Comes ready to use in a soft carrying case, complete with a detachable probe, 6 AA batteries, instruction manual and an SD card. Uses optional USB Power Cable (840058), or AC Adapter (840097). N.I.S.T. traceable certificate of compliance available.

DIM:  $7" \times 23/4" \times 2"$  (178 × 70 × 51 mm). WEIGHT: 1 lb. (0.45 kg).

No.	Description
800021	RH/Temp SD Card Logger
800021C	RH/Temp SD Card Logger Certified
800060-97	Type K/J Thermocouple Probes
840058	USB Power Cable
840059	SD Card
840097	AC Adapter
840090	Water Resistant Instrument Pouch
840093	Field Tripod

	Range	Resolution	Accuracy
RH	5 to 95% RH	0.1	≥70% RH ±3%rdg + 1% RH, <70% RH ±3% RH
Ambient Temperature	32 to 122°F 0 to 50°C		±1.5°F FS ±0.8°C FS
Dew Point	-13.5 to 120.1°F -25.3 to 48.9°C		Sum of RH & TA accuracies. Calculated automatically from
Wet Bulb	-6.9 to 122°F 21.6 to 50°C		RH & Temperature measurement.
Type K	-58 to 2372°F -50 to 1300°C		±(0.4%FS + 1.8°F) ±(0.4%FS + 1°C)
Type J	-58 to 2192°F -50 to 1200°C		





















# **Digital Temperature Monitor with** Remote Sensor and Frost Point Alarm





Simultaneously monitor indoor and outdoor temperature on a large, easy to read LCD display.

This digital thermometer with remote sensor is perfect for use in in refrigerators, freezers, incubators, desiccators, environmental chambers, labs, clean rooms, stock rooms, warehouses, factories, greenhouses, or even outdoors. Measures inside and outside temperature, and features high/low temperature LED alarm function and frost point alarm. Also recalls Min/Max temperature values. °C or °F selectable.

This compact unit can stand on a desktop, or can be attached to metal surface with the magnetic back. 1 meter (40") thermocouple sensor wire length. Comes with 1 LR44 button cell battery which lasts a full year.

- Indoor/outdoor temperature display
- Memorized MAX/MIN values of indoor/outdoor temperature
- Frost point alarm
- LED alarm indicator light
- Remote sensor 1 meter length

DIM:  $2^{1}/2^{\circ} \times 2^{1}/4^{\circ} \times 3/8^{\circ}$  (63.5 × 57 × 9.5 mm). WEIGHT: 2 oz (58 g).



### Description

800040 Digital Temperature Monitor with Remote Sensor

and Frost Point Alarm

800040C Digital Temperature Monitor with Remote Sensor

and Frost Point Alarm Certified









# Wall Mounted IR Thermometer with Large Color LED Display and Talkback

Features a rotating sensor, intelligent talkback feature and a large, color coded digital LED display.

This highly accurate IR thermometer is perfect for schools, hospitals, restaurants, hotels, offices, shops or home use. The 180 degree rotatable sensor allows for a variety of applications. The unit provides autotemperature measurement from a distance of 1-10 cm, and has a super-fast response time of 0.5 seconds. Intelligent talkback support in 4 languages provides feedback with a customizable voice that announces "Normal" or "High" temperature readings. High readings are accompanied by a flashing red light and alarm sound. Normal readings show a solid green light with a pleasant chime. The large, clear LED readout displays the temperature in degrees, with a switch for °F or °C.





Comes with a magnetic back and a pair of metallic, self-adhesive tabs that allow for easy wall mounting, or can also be mounted using a standard tripod (optional). Ships with lithium ion rechargeable battery and USB charging cable, and can also be powered using 3 standard AA batteries.

DIM:  $4^{3}/4^{\circ} \times 1^{1}/4^{\circ} \times 3^{1}/2^{\circ}$  (120 × 33 × 90 mm). WEIGHT: 8.8oz (249.4 g).

800113 Wall Mounted IR Thermometer with Large Color LED Display and Talkback









# CO2 Meter with PM 2.5/PM 10 - Temperature / Humidity

Ideal for monitoring indoor air quality in offices, classrooms, hospitals and homes.

### Low CO2 levels indicate adequate fresh air circulation.

The large, colorful LCD display indicates multiple indoor air quality parameters with a thoughtfully designed, graphical user interface. The entire display functions as a six color warning system, where colors correspond to actual realtime pollutions levels.

The unit measures PM2.5/10 particle levels, as well as CO2 levels in the atmosphere. The system also displays relative humidity, temperature and date/time. It features an internal memory that can record up to up to 5,000 datapoints to track PM2.5/PM10 readings over time. An internal fan with draws air through the high precision laser sensor for accurate monitoring, and features auto shutoff and "awake by sound" modes. The unit includes a rechargeable battery, USB cable and power adapter.

Also accurately measures air pollution particles of <2.5 microns (PM 2.5) and <10 microns (PM10). These tiny particles can travel into the respiratory system and may cause respiratory and other health problems. Includes ambient temperature and RH for a complete analysis of indoor air quality. All parameters are graphically displayed on a large backlit color TFT display. Comes complete with a rechargeable Li battery and power cord.



- Carbon Dioxide (CO2)
- Particle Mass PM 2.5 / 10
- Time/Temperature
- Relative Humidity

DIM:  $6^{1/4}$ " ×  $3^{1/4}$ " ×  $2^{3/4}$ " (159 × 76 × 70 mm). WEIGHT: 22 oz (624 g).

No.	Description
900025	CO2 Meter with PM 2.5/PM 10 - Temperature / Humidity
900033	Particle Mass Concentration Detector with Formaldehyde CO2/PM2.5/PM10 TVOC Temperature/Humidity





 $\epsilon$ 

Accuracy

±3% FS 30 to 80% RH

otherwise ±5%



### Pen-size meter.

- Humidity & Temperature
- Min/Max & Δ delta

Technicians in HVAC, labs, industry and environmental studies will find this sturdy metal pen useful for quick readings of RH (Relative Humidity) and ambient temperature. Simultaneously displays RH and temperature in °C or °F. Will also show a continually updated  $\Delta$  delta (difference) from a starting point. The pen stands upright on its base, enabling unobstructed airflow around the sensor, and recalls high and low readings. Comes in a protective, foam-lined metal case with a standard AAA battery and instructions. N.I.S.T. traceable certificate of compliance available.

dim:  $\frac{1}{2}$ " ×  $6\frac{1}{2}$ " (12.8 × 165 mm). Weight: 1.7 oz (48 g).

No.	Description
800012	RH/Temperature Pen
800012C	RH/Temperature Pen Certified













# IR Thermometer/LED Light Pen

0.1°

0.1%

Range

Temperature

-4 to 140°F

-20 to 60°C

20 to 95%



### Pen-size IR.

One end of the pen features a super bright white LED. A standard AAA battery provides 6 hours of continuous illumination. The other end contains a non-contact infrared thermometer. Press the button to scan temperature and release to hold. The IR thermometer has a response time of 1 second and is protected by a lens cap when not in use. Two LR44 (button cell) batteries provide 35 hours of continuous temperature measurement. All batteries (1 AAA and 2 L1154 button cell) are included, and the backlit LCD display will inform you when they need to be changed. Comes in an attractive foam-lined metal case. N.I.S.T. traceable certificate of compliance available.

DIM:  $6" \times \frac{1}{2}"$  (152 × 13 mm). WEIGHT: 2 oz (57 g).

No.	Description
800100	IR Thermometer/LED Light Pen
800100C	IR Thermometer/LED Light Pen

Range	Resolution	Accuracy
-27 to 482°F	0.1°F / 0.1°C when under 200°C,	±2% or 2°C,
-33 to 250°C	1°F / 1°C when over 200°C	whichever is greater









Scan this QR code to view our product demo.





# Wireless Humidity / Temperature Monitor Set

### Monitor RH and Temperature from up to 100-ft away.

Monitor RH & temperature inside an environmental chamber or clean room without opening the door. Place the weatherproof (IPX3) sensor outdoors, in green houses, warehouses, air ducts and other hard to reach places and continuously monitor ambient RH & temperature from a remote location. The wireless sensors broadcast to the monitor from up to 100-ft (30 M) away without obstructions, using a wireless RF signal. The monitor displays the local and remote temperatures in °C or °F, recalls min/ max on both, and indicates when the batteries are low in both the sensors and monitor. It also displays user adjustable, audible and visible, Hi / Lo Alarms, on both temperature and RH, for the base unit and the remote sensors. The monitor comes with one sensor that also displays local RH and temperature and stands on a bench or wall mounts. Each monitor can be paired with up to 3 sensors with the additional sensors sold separately. Comes with 2x AAA batteries for the monitor and 2x AA batteries for the sensor. Available with an optional N.I.S.T. traceable certificate of compliance available.



DIM: Monitor:  $3^{1}/8^{"} \times 3^{1}/8^{"} \times 1^{1}/4^{"}$  (80 × 80 × 30 mm).

Sensor:  $4\frac{1}{2}$ " ×  $2\frac{1}{2}$ " × 1" (110 × 60 × 30 mm).

WEIGHT: MONITOR: 4 oz (113 g). SENSOR: 4 oz (113 g) WITH BATTERIES.

No.	Description
800254	In/Out Humidity/Temperature Monitor Set
800254C	In/Out Humidity/Temperature Monitor Set Certified
800255	Additional Temperature Sensor
800255C	Additional Temperature Sensor Certified
WHILE /	



800254 THERMOMETER/HYGROMETER INDOOR DISPLAY UNIT					
	Range	Resolution	Accuracy		
Operating Temperature	14 to 140°F -10 to 60°C	0.2°F 0.1°C	±2°F ±1°C		
Operating RH%	0 to 95% @ 77°F (25°C)	1% RH	±5%		

800255 REMOTE WIRELESS SENSOR						
	Range	Resolution	Accuracy			
Operating Temperature	-4°F to 158°F -20°C to 70°C	0.2°F 0.1°C	±2°F ±1°C			
Operating RH%	10 to 95%	1% RH	±5%			
RF Transmission Frequency		433 MHz				
RF Transmission Range 30 meters in op			ea			
Temperature Sensing Rate		43 to 47 seconds				

Model		Price	Range	Res.	Accuracy	Internal Temp	External Temp	Internal RH	External RH	Min/Max Alarms	Min/Max Memory	
89 s	Wireless Temp/ Humidity	\$69.00	Temperature: Monitor: 14 to 140°F -10 to 60°C Sensor: -4 to 158°F -20 to 70°C	0.2°F 0.1°C	°C ±2°F ±1°C	1°C ± 2°F			<u> </u>			
255	Monitor Set 800254	ψοσ.σσ	Humidity: Monitor: 0 to 95% @ 77°F (25°C) Sensor: -10 to 95%	1% RH		·	•	•	•	•		
28140	In/Out Humidity/ Temp Monitor	\$57.00	Temperature: -58 to 158°F / -50 to 70°C	0.1°F/C	2°F / ±1°C	_	✓ ✓	<b>√</b>	<b>√</b>	<b>√</b>		<b>✓</b>
	800027		Humidity: 10 to 99%	1%	±5%							
2810a 2810a	Humidity/ Temp Monitor w/Remote 800015	\$28.00	Temperature: Indoor: 32 to 122°F 0 to 70°C Outdoor: -58 to 158°F -50 to 70°C	0.1°	±2°F ± 1°C	<b>√</b>	<b>✓</b>	<b>√</b>			<b>√</b>	
33333		Humidity In/Out: 10 to 99%	1%	±5%								
235	Humidity/ Temp Monitor	\$44.00	Temperature: -58 to 158°F / -50 to 70°C	0.1°C/F	± 2°F ± 1°C	<b>✓</b>		<b>√</b>			<b>√</b>	
	800016 Humidity: 10 to 99%			1%	±5%							

# Humidity/Temperature Monitor with Remote Temperature

### Simultaneously displays Internal Temperature/RH and External Temperature.

Large 3-3/16 x 2½" triple display can be read from across a room. Useful in incubators, refrigerators, desiccators, environmental chambers, labs, clean rooms, stock rooms, warehouses, factories, greenhouses, and outdoors. Recall min/max temperature & relative humidity readings over any time period. °C and °F selectable, wall mounted or free standing. Come with 1 AAA battery which lasts a full year. External temperature sensor on a remote probe (54" long). N.I.S.T. traceable certificate of compliance available.

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DIM:  $4\frac{1}{4}$ " ×  $3\frac{3}{4}$ " ×  $\frac{7}{8}$ " (110 × 97 × 20 mm). WEIGHT: 6 oz (170 g).

No.	Description
800015	Humidity/Temperature Monitor with Remote Temp
800015C	Humidity/Temperature Monitor with Remote Temp Certified
WHILE.	

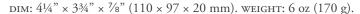




# **Humidity/Temperature Monitor**

### Simultaneously monitors RH/Temperature.

Large 3¾6" x 2½" dual display can be read from across a room. Monitor humidity and temperature in labs, chemical storage areas, clean rooms, stock rooms, warehouses, factories, greenhouses, and outdoors. Recall min/max temperature and min/max humidity readings over any time period or have it automatically reset itself every 24 hours. Wall mounted or free standing. °C and °F selectable. Comes with 1 AAA battery which lasts a full year. N.I.S.T. traceable certificate of compliance available.



No.	Description
800016	Humidity/Temperature Monitor
800016C	Humidity/Temperature Monitor Certified
.ww.	



	Range	Resolution	Accuracy
Temperature	-58 to 158°F -50 to 70°C	0.1°	±2°F ±1°C
RH	10 to 99%	1%	±5%



**SCIENTIFIC** 

# In-Out Humidity/Temperature Monitor

### Simultaneously displays Internal and External Temp/RH.

Large 3%6° x 21/2° quadruple display can be read from across a room. The remote ambient temperature/relative humidity sensor is mounted on a cord over 4-ft long. Place the highly accurate sensor inside a desiccator, refrigerator, drying or other environmental chamber and view simultaneous displays of temperature and RH outside on the large LCD. Recalls min/max readings on both parameters. °C and °F selectable. Wall mounted or free standing. Comes with 1 AAA battery which lasts a full year. N.I.S.T. traceable certificate of compliance available.



DIM:  $4\frac{1}{4}$ " ×  $3\frac{3}{4}$ " × 7/8" (110 × 97 × 20 mm). WEIGHT: 6 oz (170 g).

No.	Description
800027	In/Out RH/Temperature Monitor
800027C	In/Out RH/Temperature Monitor Certified



	Range	Resolution	Accuracy
Inside Temperature	32 to 122°F 0 to 50°C	0.1°	±2°F ±1°C
Outside Temperature	-58 to 158°F -50 to 70°C		±2°F ±1°C
RH	10 to 99%	1%	±5%



### Display current readings and automatically log:

- Air Temperature
- Dew Point

• RH

· Wet Bulb

Records up to 32,000 data points that can be downloaded by plugging the pen directly into a USB port, with no cradle or cable necessary. Datalogging can be programed to begin immediately, at a predetermined time, activated by the unit's push button, or to continually roll over after a set number of data points. Green and red led lights indicate datalogging and alarms. Comes with ½ AA battery, tripod screw and a wrist strap and free downloadable software. N.I.S.T. traceable certificate of compliance available.

DIM:  $1" \times 51/4"$  (25 × 133 mm). WEIGHT: 1.2 oz (34 g).

No.	Description
800013	Datalogging RH/Temp Pen
800013C	Datalogging RH/Temp Pen Certified
5	Ø C € ROHS

	Range	Resolution	Accuracy
Temperature	-40 to 185°F -40 to 85°C	0.1°	±0.9°F / 0.6°C (-20 to 50°C) otherwise ±2°F, ±1.2°C
RH	0.1 to 99.9%	0.1%	±3% (@25°C & 10 to 99% RH) otherwise ±5%





# **Self-Contained Datalogger**

### Logs up to 16,000 readings.

Self-contained Relative Humidity (RH)/Temperature Dataloggers excel in the widest range of applications where regulatory compliance is required, food and drug production, shipping and storage, greenhouses, refrigerators, art galleries, museums, HVAC, process control, meteorology, agriculture, or labs. The scalability of this Datalogger provides for an unlimited number of additional Dataloggers being used by the same software.

Simply place the Datalogger in its docking station and program it using your computer and the Datalogger's own software. You can set it to read temperature and RH in intervals of 1 second to 2 hours and for visual min/max alarms if desired. The flexibility of this Datalogger allows you to choose to begin recording immediately, at a predetermined time, or via external activation.

Each Datalogger comes with built-in sensor, wall mount, and LEDs that flash as it samples. Features a direct LCD\*\* display of current ambient temperature and RH. Each Datalogger takes up to 16,000 readings. An internal clock stores the date and time with each reading and non-volatile

memory ensures that data will not be lost even if the battery dies or is removed. When monitoring is complete simply return the Datalogger to its docking station, connect the station to your computer using the computer cable included, and start to download and view results on your computer using the free downloadable software. Set includes one Datalogger, docking station with computer cable, software, battery and instructions. N.I.S.T. traceable certificate of compliance available.

DIM:  $3" \times 2" \times \%"$  (76 × 51 × 22 mm). WEIGHT: 3 oz (85 g).

No.	Description
800054	Self-Contained Datalogger
800054C	Self-Contained Datalogger Certified
800055	Additional Temp/RH Datalogger (without Docking Station) w/LCD
800055C	Additional Temp/RH Datalogger (without Docking Station)w/LCD Certified

	Range	Resolution	Accuracy
Temperature	-40 to 185°F -40 to 85°C	0.1°	±0.6°C (-20 to 50°C), ±1.2°C (-40 to 20°C & 51 to 85°C)**
RH	0 to 100%	0.1%	±5% RH
Display**	LCD		
Maximum Memory	16,000		
Water Resistance*	Yes		

- \* Datalogger without docking station.
- \*\* LCDs do not work reliably below 20°C or above 51°C















# Bluetooth® RH / Temperature / Pressure Logger



### Program and retrieve data wirelessly via Bluetooth.®

A compact design with the convenience of Bluetooth® streaming to a smartphone App for data storage and sharing. Records up to 16000 data points per parameter with date/time stamps in either metric or imperial units of measure. Once the dataset is complete, there is no need to attach the device to a computer to retrieve comprehensive reports. Simply download a full-color graphic report to the phone APP wirelessly and e-mail to any computer for printing or further analysis in Excel. You may also view a quick summary of data recordings anytime on the APP. The free Android or iOS APP communicates with up to 3 loggers

simultaneously. Humidity, temperature, and barometric pressure cycle automatically on the large LCD screen while Hi/Low alarms are clearly indicated at a distance by the color-coded bright LED light on the housing. An optional audible alarm matches this warning from the phone. Quickly view Min/Max at any time by pushing a button on the device without interfering with data logging. Comes with a CR2 Lithium battery that will power the unit for approximately 72 days. Freestanding or wall mount with either flip-out tab or built-in magnet. EN12830:2018, GMP, GLP compliant. N.I.S.T. traceable certificate of compliance available.

DIM: 3" x 2" x 1" (78 x 50 x 23 mm) WEIGHT: 2.3 oz (66 g)

No.	Description
800018	Bluetooth® RH / Temperature / Pressure Logger
800018C	Bluetooth® RH / Temperature / Pressure Logger Certified













	Range	Resolution	Accuracy
Temperature	-22 to 158°F -30 to 70°C	0.1°F/C	±1.0°F ±0.5°C
RH	0.1 to 80%	0.1%	±3% (@25°C & 10 to 90% RH) otherwise ±5%
Barometer	300 to 1100 hPa 8.9 to 32.5 inHg	1 hPa 0.1 inHg	±3 hPa (0 to 60°C) ±5 hPa (-20 to 0°C)



# **Large Display Temperature Monitor**

Ideal for monitoring temperature in food processing, boilers and grain.

• Extra Large Display Waterproof

Ideal for monitoring temperature in food processing, boilers, and grain. Comes with a clamp for suspending the extra-long 19" (0.5M) probe in vats, tanks, and other large containers. 1-1/2" high digits can clearly be seen from a distance. °C&°F switchable display and fully waterproof (IP67) including the probe connection. Comes complete with high accuracy thermistor probe, probe clamp, hardware for wall mounting and 4 AAA battery which last about one year of continuous use. N.I.S.T. traceable certificate of compliance available.

DIM: DISPLAY UNIT:  $4^{3}/4^{"} \times 3^{1}/2^{"} \times 1^{"}$  (122 × 85 × 30 mm). PROBE LENGTH: 19" (483 mm), DIA: .2" (5 mm). HANDLE: 21/2" (65 mm), CABLE: 59" (1.5 m).

WEIGHT: 7 oz (200 g).

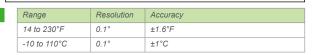
No.	Description
800116	Large Display Temperature Monitor
800116C	Large Display Temperature Monitor Certified











60

# **Waterproof RTD Thermometer Certified**

### Ideal for the food service industry and harsh environments.

A sturdy, fully waterproof IP67 housing protects the thermometer in wet environments and makes clean up easy. The platinum resistance temperature probe remains highly accurate and stable even at very low temperatures and under changing environmental conditions. Results are displayed in °C or °F on a large backlit LCD along with, Min/Max/ Avg readings. Also features touch-tone buttons, relative temperature ( $\Delta$ ), data hold, autopower-off, and a battery status indicator. Accepts Pt100, Pt500 and Pt1000 probes. Comes complete with a Pt100 probe, N.I.S.T. traceable certificate of compliance, 3 AAA batteries and full instructions. Optional PT1000 probe available.

DIM:  $6" \times 2\frac{1}{2}" \times 1\frac{1}{4}"$  (150 x 66 x 31 mm). WEIGHT: 6 oz (175 g).

No.	Description
800117C	Waterproof RTD Thermometer Certified
0001170	DT1000 Drales

PT1000 Probe

Range	Resolution	Accuracy
-148 to 572°F	0.1°C/F	±(0.1% rdg + 0.8°F)
-100 to 300°C		±(0.1% rdg + 0.4°C)
Probe		±0.15°C ±0.002t











# **Datalogging RTD Thermometer Certified**

### When the highest accuracy is required.

- 0.01°C resolution
- $\pm 0.05\%$  rdg + 0.1°C

Platinum resistance temperature probes offer the highest accuracy and stability even at very low temperatures and under changing environmental conditions. Results are displayed in °C or °F on a large backlit LCD along with Max/Min readings. Automatically record up to 16,000 data points with time stamp that can be downloaded and analyzed with the included USB computer cable and software. Also features relative temperature ( $\Delta$ ), data hold, auto-power-off, low battery indicator, and a tripod back. Comes in a protective, foam lined, carrying case complete with a Pt-100 probe, N.I.S.T. traceable certificate of compliance, USB computer cable and software, 9V battery and full instructions.

DIM:  $7\frac{1}{4}$ " x  $2\frac{1}{2}$ " ×  $1\frac{1}{2}$ " (185 x 65 x 36 mm). WEIGHT: 12.75 oz (360 g).

No.	Description
800118C	Datalogging RTD Thermometer Certified
800003	AC Adapter
840090	Water Resistant Instrument Pouch

Range	Resolution	Accuracy
-148 to 752°F	0.01°F	±(0.05% rdg + 0.2°F)
-100 to 400°C	0.01°C	±(0.05% rdg + 0.1°C)
Probe		±0.15°C ±0.002t







# **Compact Infrared Food Safety Thermometer**



### HACCP Compliant surface and internal temperature.

The compact Food Safety Thermometer offers both surface and internal temperature readings in one portable convenient unit. Instantly check the surface temperature of food with the single push of a button using infrared technology. The built-in bright white flashlight helps indicate the surface being measured. When regulations demand compliance to internal temperature such as with prepared meats, fish, or poultry, simply fold the penetration probe out to any angle, and read internal temperature on the large backlit LCD display. Programmable high and low alarms enable easy spotchecks for food safety. A fully sealed IP65 waterproof housing stands up to the rigors of food service and helps your establishment meet HACCP and FDA's Food Safety requirements. Comes complete with clear instructions and 2 x AAA batteries. N.I.S.T. traceable certificate of compliance available.

DIM: METER:  $5 \frac{1}{2} \times 1 \frac{1}{2} \times \frac{3}{4}$ ," (140 x 38 x 19 mm), penetration probe 3." weight: 4 oz (105 g).

No.	Description
800115 F	Food Safety Thermometer with IR
800115C F	Food Safety Thermometer with IR Certified

	Range	Resolution	Accuracy
Penetration Probe	-40 to 536°F (-40 to 280°C)	0.1°F/C	±3.6°F (2°C) below freezing ±1.8°F (1°C) for all other temperatures
Infrared Thermometer	-40 to 392°F (-40 to 200°C)	0.1°F/C	±5.4°F (3°C) from -40 to 20°C ±1.8°F (1°C) for all other temperatures
	Emissivity fixed at 0.95		
	Infrared Distance to Spot Ratio: 4:1		













### **HACCP Thermometer**

# Designed for food safety in compliance with HACCP principles.

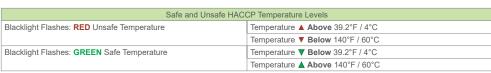
- IP67 Waterproof
- PT100 Probe
- Red/Green Temperature Alarm Display

The LCD flashes red to indicate the temperature range in which bacteria may grow (39.2 to 140°F & 4 to 60°C). Readings outside that range are safe as indicated by a flashing green LCD. The user can also program an audible alarm when any temperature is exceeded. A PT100 penetration probe offers the highest accuracy even at very low temperatures and a response time of <1 second. Features a sturdy IP67 waterproof, washable housing. Records 99 data points with time stamp which can be reviewed on the LCD along with min/max/avg readings. Also, features a count-down timer with audible and visible alarms, delta, hold, clock and a low battery indicator. Comes ready to use with probe, 4 AAA batteries and full instructions in a protective hard carrying case. N.I.S.T. traceable certificate of compliance available.

DIM:  $7\frac{1}{4}$ " ×  $2\frac{1}{2}$ " ×  $\frac{1}{3}$ " (180 × 58 × 24.5 mm). WEIGHT: 7 oz. (200 g).

No.	Description
800042	HACCP Thermometer
800042C	HACCP Thermometer Certified

Range	Resolution	Accuracy
-148 to 572°F -100 to 300°C	0.01°	±1°F ±0.5°C





















### Tiny meters with all the necessary features.

Although mini-sized, lightweight and inexpensive, these units provide extremely accurate and reliable temperature measurement with all the versatility and range of type K & J thermometers. Features relative, min/max/avg temperature, hold, and touchtone buttons. Results are displayed on a large 11/4" × 13/4" LCD. An adjustment allows the user to easily calibrate to ice point or any other standard. Model 800007 will read and display results from two probes simultaneously, and track the difference between them (T1-T2). Comes ready to use with a 9V battery and beaded wire probe (2 probes for 800007). N.I.S.T. traceable certificate of calibration available.

DIM:  $5\frac{1}{4}$ " ×  $2\frac{1}{4}$ " ×  $1\frac{1}{4}$ " (133 × 57 × 32 mm). WEIGHT: 6 oz (170 g).

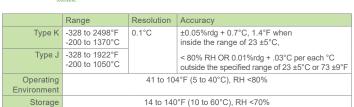
No.	Description
800004	Thermometer Basic Type K/J
800004C	Thermometer Basic Type K/J Certified
800007	Thermometer 2 Channel Type K/J
800007C	Thermometer 2 Channel Type K/J Certified
800060-97	Type K/J Thermocouple Probes
840090	Water Resistant Instrument Pouch
840093	Field Tripod
850000	Rubber Boot







Environment





# **Advanced Thermocouple Thermometer**

Range



### Type K/J.

These well-made units have exceptional accuracy for thermocouple thermometers, fast response times, high 0.1°F/C resolution (-200 to 800°C), and wide measurement ranges. Features include min/max, relative temperature, auto power off, and hold functions. Meters have large, easy-to-read 31/2" LCD, and accept standard thermocouple probes. Comes ready to use with carrying cases, beaded wire probes, and batteries. Can also be used with optional AC Adapter 800003. N.I.S.T. traceable certificate of calibration available.

DIM:  $7\frac{1}{4}$ " ×  $2\frac{1}{2}$ " ×  $1\frac{1}{4}$ " (184 × 64 × 32 mm). WEIGHT: 7.4 oz (210 g).

No.	Description
800005	Thermometer Advanced
800005C	Thermometer Advanced Certified
800060-97	Type K /J Thermocouple Probes
800005S	Thermolink Software
800001USB	USB Cable
800001	RS232 71" Cable
840094	RS232 to USB Adapter Cable
800003	AC Adapter
840089	Rubber Holster
840093	Field Tripod

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	Type K	-328 to 2498°F -200 to 1370°C	-328 to 1000°F, 0.1°F; 1000 to 2498°F, 1°F; -200 to 800°C, 0.1°C; 800 to 1370°C, 1°C;	±(0.1%rdg +1.4°F) ±(0.1%rdg +0.7°C)
	Type J	-328 to 1400°F -200 to 760°C	-328 to 1000°F, 0.1°F; 1000 to 2498°F, 1°F; -200 to 600°C, 0.1°C; 600 to 760°C, 1°C;	±(0.1%rdg +1.4°F) ±(0.1%rdg +0.7°C)

Resolution

Accuracy











# **Advanced Thermocouple Datalogger**

### Log 16,000 Datapoints.

These well-made units have exceptional accuracy for thermocouple thermometers, fast response times, high 0.1°C/F resolution (-200 to 800°C), and wide measurement ranges. Features include min/max, relative temperature, auto power off, and hold functions. Meters have large, easy-to-read 3½" LCD, and accept standard thermocouple probes.

No.	Description		
800008	Thermo	meter Datalogger	
800008C	Thermo	meter Datalogger C	ertified
800060-77	Туре К	Thermocouple Probe	es
800005S	Thermo	link Software	
800001USB	USB Cable		
800001	RS232 71" Cable		
840094	RS232 to USB Adapter Cable		
800003	AC Adapter		
840089	Rubber Holster		
840093 Field Tripod			
Range		Resolution	Accuracy

Automatically records and stores up to
16,000 data points in the field, which can
later be downloaded to your computer. An
adjustment allows the user to easily calibrate
this meter and probe to ice point or any
other standard. Comes ready to use with
carrying cases, software and USB cable,
beaded wire probe, and a 9V battery. Can
also be used with optional AC Adapter
800003. N.I.S.T. traceable certificate of
calibration available.

DIM:  $7\frac{1}{4}$ " ×  $2\frac{1}{2}$ " ×  $1\frac{1}{4}$ " ( $184 \times 64 \times 32$  mm). WEIGHT: 7.4 oz (210 g).





-328 to 2498°F





-328 to 1000°F = 0.1°F

1000 to 2498°F = 1°F -200 to 800°C = 0.1°C 800 to 1370°C = 1°C





±(0.1% rdg + 1.4°F) ±(0.1% rdg + 0.7°C)

# SPER SCIENTIFIC

### **4-Channel Thermometer**

### Simultaneously display 4 channels.

This unique portable thermometer displays data from 4 thermocouple probes simultaneously on a large, backlit LCD. Communicates with a computer via the bidirectional computer port, optional cable, and graphic software. Auto-ranging with auto power off, min/max, hold, Δ (T1-T2) and relative functions. High full-scale accuracy of ±0.5%rdg. + 1°C / 2°F. Easily calibrates to ice point or any other standard. 0.1° resolution <200° & 1° >200°C. Wide measurement range of -328 to 2498°F (-200 to 1370°C). Comes ready to use with 2 beaded wire probes, instructions, and a 9V battery, in a protective, foam-lined case. Can also be used with optional AC Adapter 800003. N.I.S.T. traceable certificate of calibration available.

DIM:  $7\frac{1}{4}$ " ×  $2\frac{1}{2}$ " ×  $1\frac{1}{4}$ " (184 × 64 × 32 mm). WEIGHT: 8.4 oz (238 g).

No.	Description
800023	4 Channel Thermometer
800023C	4 Channel Thermometer Certified
800060-77	Type K Thermocouple Probes
840004	Software
800001USB	USB Cable
800001	RS232 71" Cable
840094	RS232 to USB Adapter Cable
840089	Rubber Holster
800003	AC Adapter
840090	Water Resistant Instrument Pouch
840093	Field Tripod

Range	Resolution	Accuracy
-328 to 200°F	-200 to 200°F, 0.1°F, else 1°F (-200 to 200°C, 0.1°C; 200 to 1370°C, 1°C)	±0.5%rdg +2°F
-200 to 200°F		±0.2%rdg +2°F
200 to 2498°F		±0.3%rdg +2°F
-200 to 200°C		±0.2%rdg +1°C
200 to 400°C		±0.5%rdg +1°C
400 to 1370°C		±0.2%rdg +1°C













# 4-Channel Datalogging Thermometer

### Simultaneously log and display 4 Channels.

- Hi / Lo Alarms / 1 Channel
- Ice Point calibration
- ∆ (T1-T2)
- Min / Max / Ave
- K, J, E, or T

This unique portable thermometer displays data from 4 K, J, E, or T type thermocouple probes simultaneously on a large multi-line and back-lit LCD. Fast response with high accuracy. Automatically record and store up to 16,000 data points on each of the 4 channels in the field which can later be downloaded to your computer. You may also manually record 99 data points directly from the keypad or log real time data directly to your computer. Communicates with the computer using a bi-directional USB port included cable, and graphic software. User adjustable auto power off timer and audible and visible Hi/Lo alarm. Calibrate to ice point, or any other calibration standard. Min/max/avg, hold and  $\Delta$  (T1-T2), fold-out easel back. Comes ready to use in a protective foamlined case, with 4 x AAA batteries, 2 beaded Type K wire probes, USB computer power cable and free downloadable software. N.I.S.T. traceable certificate of calibration available.



DIM:  $7\frac{1}{4}$ " ×  $2\frac{1}{2}$ " ×  $1\frac{1}{4}$ " (184 × 75 × 29 mm). WEIGHT: 10 oz (290 g).

No.	Description	
800024	4 Channel Datalogging Thermometer	
800024C	4 Channel Datalogging Thermometer Certified	
800060-97	Type K/J Thermocouple Probes	
840090	Water Resistant Instrument Pouch	
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Probe	Range	Resolution	Accuracy (excluding probe error)
Type K	-328 to 2501°F -200 to 1372°C	0.1°F < 1000°F 1°F ≥ 1000°F	± (0.1% of rdg + 1.4°F) ± (0.1% of rdg + 0.7°C)
Type J	-328 to 1832°F -200 to 1000°C	0.1°C < 600°C 1°C ≥ 600°C	At ambient temperature of 64 to 82°F (18 to 28°C)
Type E	-328 to 1382°F -200 to 750 °C		± (0.4% of rdg + 1.4°F) ± (0.4% of rdg + 0.7°C)
	-328 to 752°F		Below -148°F (-100°C)

### **TEMPERATURE CONVERSION CHART**

The conversion of temperature readings from one scale to another can be easily calculated using the following formulas:

Degrees Celsius → Degrees Fahrenheit	Degrees Celsius × 1.8 + 32
Degrees Celsius → Degrees Kelvin	Degrees Celsius + 273.15
Degrees Fahrenheit → Degrees Celsius	(Degrees Fahrenheit - 32) × 1.8
Degrees Fahrenheit → Degrees Kelvin	(Degrees Fahrenheit + 459.67) / 1.8
Degrees Kelvin → Degrees Fahrenheit	Degrees Kelvin × 1.8 - 459.67
Degrees Kelvin → Degrees Celsius	Degrees Kelvin - 273.15

°C	°F	°K
0	32	273.15
5	41	278.15
10	50	283.15
15	59	288.15
20	68	293.15
25	77	298.15
30	86	303.15

°C	°F	°K
35	95	308.15
40	104	313.15
45	113	318.15
50	122	323.15
55	131	328.15
60	140	333.15
65	149	338.15

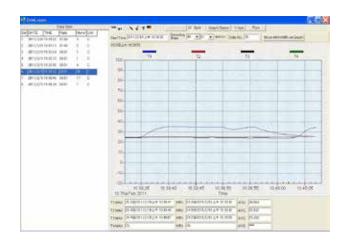
°C	°F	°K
70	158	343.15
75	167	348.15
80	176	353.15
85	185	358.15
90	194	363.15
95	203	368.15
100	212	373.15

# Bluetooth® 4-Channel Datalogging Thermometer











- Bluetooth®
- Hi / Lo Alarms / 1 Channel
- Ice Point calibration
- ∆ (T1-T2)
- Min / Max / Ave
- K, J, E, R, S or T

### Wirelessly display, log and download to your computer or phone.

This unique portable thermometer displays data from 4 K, J, E, R, S or T type thermocouple probes simultaneously on a large multi-line and back-lit LCD. Fast response with high accuracy. Automatically record and store up to 32,000 data points on each of the 4 channels. Wireless Bluetooth® transmission eliminates the need to remove the thermometer to computer to download data. Previously recorded, or real-time data, can be streamed to the computer software or phone App from up to 100-ft away. You may also manually record 99 data points directly from the keypad or log real time data directly to your computer. Also, communicates with the computer using a bi-directional USB port included cable, and graphic software. User adjustable auto power off timer and audible and visible Hi/Lo alarms. Calibrate to ice point, or any other calibration standard. Min/max/avg, hold and  $\Delta$  (T1-T2), fold-out easel back. Comes ready to use in a protective foam-lined case, with 4 x AAA batteries, 2 beaded Type K wire probes, and USB computer power cable, free downloadable computer software and phone App. N.I.S.T. traceable certificate of calibration available.

DIM:  $7\frac{1}{4}$ " ×  $2\frac{1}{2}$ " ×  $1\frac{1}{4}$ " ( $184 \times 75 \times 29$  mm). Weight: 10 oz (290 g).

No.	Description			
800025	Bluetooth® 4 Channel Datalogging Thermometer			
800025C	Bluetooth* 4 Channel Datalogging Thermometer Certified			
800060-97	Type K/J Thermocouple Probes			
840090	Water Resistant Instrument Pouch			
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	Range	Resolution	Accuracy (excluding probe error)
Type K	-328 to 2501°F -200 to 1372°C	0.1°F < 1000°F 1°F ≥ 1000°F	±(0.1% of rdg + 1.3°F) ±(0.1% of rdg + 0.7°C)
Type J	-328 to 1832°F -200 to 1000°C	0.1°C < 600°C	±(0.5% of rdg + 1.3°F) ±(0.5% of rdg + 0.7°C)
Type E	-328 to 1382°F -200 to 750°C	1°C ≥ 600°C	Below -148°F (-100°C)
Type T	-328 to 752°F -200 to 400°C		
Type N	-328 to 2372°F -200 to 1300°C		
Type R/S	32 to 3212°F O to 1767°C	0.5°F < 1000°F 1°F ≥ 1000°F 0.2°C < 600°C 1°C ≥ 600°C	±(0.2% of rdg + 2.5°F) ±(0.2% of rdg + 1.4°C)



# **Thermocouple Probes**

Sper Scientific Thermocouple Probes are compatible with any Type K or Type J Thermocouple Thermometer. The primary difference between Type J and Type K thermocouples is measuring range, and sensitivity. Type K is the most common general purpose thermocouple with a sensitivity of approximately 41  $\mu$ V/°C. A wide variety of probes are available in its -50 to 900°C / -58 to 1652°F range. Type J has a more restricted range of -50 to 400°C / -58 to 752°F, but a higher sensitivity of about 50  $\mu$ V/°C. All probes carry a 6 month warranty.

Thermocouple Probes						
Model		Price	Туре	Application	Temperature	Dimensions
			Immersio	n & General Purpose		
	800060	\$34	К	- Small	-58 to 572°F -50 to 300°C	Handle Length: 4½" Probe Length: 4"
	800080	\$36	J	Ginaii	-58 to 572°F -50 to 300°C	Probe Diam: 1/16" Cord Length: 40"
	800061	\$38	К	- Large	-58 to 752°F -50 to 400°C	Handle Length: 51/4" Probe Length: 6"
	800081	\$40	J	Large	-58 to 752°F -50 to 400°C	Probe Diam: 1/6" Cord Length: 40"
-	800062	\$104	К	High Temperature	-58 to 1652°F -50 to 900°C	Handle Length: 41/4" Probe Length: 31/4" Probe Diam: 5/16" Cord Length: 46"
				Penetration		
	800064	\$36	К	Small	-22 to 896°F -30 to 480°C	Handle Length: 5" Probe Length: 6" Probe Diam: ¼" Cord Length: 44"
	800065	\$43	К	Insertion	-58 to 752°F -50 to 400°C	Handle Length: 4½" Probe Length: 4" Probe Diam: ½" Max Cord Length: 45"
	800066	\$55	К		-58 to 752°F -50 to 400°C	Handle Length: 4½" Probe Length: 6" Probe Diam: ½" Max Cord Length: 45"
	800086	\$40	J	– Large	-40 to 752°F -40 to 400°C	Handle Length: 5½" Probe Length: 4½" Probe Diam: ½" Cord Length: 42"
				Surface		
-	800073	\$77	К	Standard	-58 to 752°F -50 to 400°C	Handle Length: 4" Probe Diam: ½" Max Cord Length: 45"
	800070	\$84	К	Hard to access areas	-22 to 896°F -30 to 480°C	Handle Length: 5½" Probe Length: 8" Probe Diam: ½" Cord Length: 38"
	800072	\$125	К	Magnetic, for use on stationary metal surfaces	-58 to 482°F -50 to 250°C	Probe Length: 1¾" Probe Width: ¾" Max Cord Length: 45"
				Ambient		
	800076	\$93	К	Fast response in air & gas. Sheath protected element.	-58 to 1112°F -50 to 600°C	Handle Length: 4½" Probe Length: 8" Probe Diam: 7/16" Max Cord Length: 40"
	800077	\$18	К	Beaded wire for fast response in air & gas in	-58 to 572°F -50 to 300°C	Cord Length: 47"
	800097	\$19	J	hard to access areas.	-58 to 392°F -50 to 200°C	Cord Length: 36"

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### Laser circle indicates the precise area measured.

- Measures up to 932°F (500°C)

Simply press the button and aim the laser circle guide at the target to scan temperature, release to hold. Results immediately appear in °C or °F on the backlit LCD and are automatically held for 27 seconds after the trigger is released. The laser circle corresponds precisely to IR Pen's 6:1 distance to spot ratio. Also, features min/max, hold and auto power off. Rugged and ergonomically designed this infrared thermometer comes complete with one AA battery providing at least 10,000 measurements. The LCD indicates battery status. N.I.S.T. traceable certificate of compliance available.

DIM:  $6" \times 1" \times 1"$  (150 × 25 × 27 mm). WEIGHT: 2.5 oz (74 g)

No.	Description
800109	IR Pen with True D:S Laser Guide
800109C	IR Pen with True D:S Laser Guide Certified
SHIP .	

	Range	Resolution	Accuracy
Temperature	-27 to 932°F -33 to 500°C	0.1°C/F	±2.0% of rdg or ±2.0°C whichever is greater
Emissivity	0.95 fixed		



# IR Thermometer with Dewpoint

### Indicates potential areas of mold and mildew growth.

Enables residential and commercial users to quickly detect areas prone to mildew growth with a simple scanning motion. Aim the thermometer at questionable areas and read surface temperature on the large multi-line backlit LCD display. The meter simultaneously measures ambient air temperature, relative humidity, and dewpoint. This clever device then compares the surface temperature to the air conditions to accurately predict the possibility of condensation on that surface. The green LED will change to yellow and then red as temperatures approach dewpoint indicating areas prone to mold and mildew growth. An audible alarm also indicates increasing moisture levels during the scan. The 20:1 IR thermometer features dual-point lasers, and a hold function. Comes complete with carrying case, 9V battery, and instruction manual. N.I.S.T. traceable certificate of compliance available.

DIM: 6½" x 3 ¼" x 2 ¼" (168 x 82 x 58 mm). WEIGHT: 5.7oz (163g)

No.	Description
800111	IR Thermometer with Dew Point
800111C	IR Thermometer with Dew Point Certified

	Range	Resolution	Accuracy
Ambient Air Temperature	-22 to 212°F (-30 to 100°C)	0.1°F/C	±4°F (2°C) from 32 to 482°F (0 to 250°C) ±6°F (3.5°C) below freezing ±2% of rdg or ±2°C whichever is greater
Infrared Thermometer	-58 to 482°F (-50 to 250°C)	0.1°F/C	±5.4°F (3.5°C)
Relative Humidity	20% to 90%RH	0.1%	±3.5%RH
Emissivity fixed at 0.95	Infrared Distance to Spot Ratio: 20:1		











Scan this QR code to view our product demo.

### Accurate IR at a reasonable price.

Simply hold the IR gun, press the trigger, and aim the laser guide at the target. Results immediately appear in °C or °F on the backlit LCD, and are automatically held for 6 seconds after the trigger is released. Rugged and ergonomically designed with auto power off. All models come complete with batteries. Model 800103 includes a soft holster with belt loop. N.I.S.T. traceable certificate of compliance available.

DIM (800101 & 800102):  $6" \times 5" \times 2"$  (150 × 133 × 45 mm). WEIGHT: 6 oz (171 g) DIM (800103):  $6^3/_4" \times 4^7/_8" \times 1^2/_3"$  (171 × 124 × 42 mm). WEIGHT:  $5^2/_3$  oz (163 g)

,	
No.	Description
800101	IR Thermometer 8:1
800101C	IR Thermometer 8:1 Certified
800102	IR Thermometer 8:1
800102C	IR Thermometer 8:1 Certified
800103	IR Thermometer 12:1
800103C	IR Thermometer 12:1 Certified



Model:	800101	800102	800103
Range:	-4 to 605°F (-20 to 320°C)	-4 to 930°F (-20 to 500°C)	-25 to 999°F (-32 to 535°C)
Resolution:	0.5° C/F	0.2° C/F	0.1° C/F
Accuracy:	±2% of rdg or ±3.6°F (±2°C) whichever is greater	±3.6°F (±2°C) from -4 to 212°F (-20 to 100°C), ±2% from 212 to 930°F (100 to 500°C) ±2% of rdg or ±2°C whichever is greater	±5.4°F (±3°C) from -25 to -4°F (-32 to -20°C), ±3.6°F (±2°C) from -4 to 212°F (-20 to 100°C), 2% from 212 to 999°F (100 to 535°C) ±2% of rdg or ±3°F (±2°C) whichever is greater
Emissivity:	0.95 Fixed	0.95 Fixed	0.95 Fixed
Distance to spot size ratio:	8:1	8:1	12:1
Backlit LCD	✓	✓	✓
Laser Guide:	✓	✓	<b>√</b>
Hold:	✓	✓	✓

# SPER SCIENTIFIC

# IR Thermometer With Alarm 12:1



Description

When temperature exceeds your minimum or maximum setting entire display flashes red.

Scan this QR

code to view our product demo.

Simply hold the IR gun, press the trigger, and aim the laser guide at the target. Results immediately appear in °C or °F on the backlit LCD and are automatically held for 6 seconds after the trigger is released. Features adjustable audible and visible min/max alarms. Emissivity is automatically adjusted to any thermocouple probe, which can also be used for standard thermocouple temperature measurements. Other advanced features include dual display showing current and peak min/max or average temperatures, 10 memories, and auto power off. Rugged and ergonomically designed, the thermometer comes with a built in tripod mount, 9V battery and soft holster with belt loop. N.I.S.T. traceable certificate of compliance available.

DIM:  $7" \times 5" \times 2"$  (180 × 130 × 40 mm). WEIGHT: 7 oz (195 g).

800106	IR Thermometer w/ Alarm 12:1		
800106C	IR Thermometer 12:1 Certified		
840093	Field Tripod		
800060-77	Type K Thermocouple Probes		
	Scan this QR code to view our product demo.		

		Range	Resolution	Accuracy
	IR	-25 to 1400°F -32 to 760°C	0.1° C/F	±5.4°F @-25 to -4°F ±3.6°F @-4 to 212°F ±2% @212 to 1400°F ±3°C @-32 to -20°C ±2°C @-20 to 100°C ±2% @100 to 760°C ±2% of rdg or ±2°C whichever is greater
	D:S (distance to spot ratio)	12:1		
	Emissivity	Adjustable 0.1 to 1.0		

# SCIENTIFIC



### **Dial Barometer**

Large, clear dual-scale barometer in hPa (hecto Pascal) and mm (millimeter mercury) on a 4" dial which is easy to read from a distance. For classroom, lab, or industrial use. Accuracy of ±3 to 4 hPa. Wall mounts.

WEIGHT: 2.6 oz (74 g).



Description 736930 **Dial Barometer** 



### Weather Ball Barometer

When atmospheric pressure rises, the liquid in the indicator tube is pushed down and an improvement in the weather can be anticipated. When air pressure falls, the greater pressure inside the ball causes the liquid in the indicator tube to rise indicating that a deterioration in weather can be expected.

HEIGHT:  $7\frac{1}{2}$ ". BALL DIAMETER: 4".

Description 739750 Weather Ball Barometer



### Mason's Hygrometer

One thermometer bulb is kept constantly wet by a siphon reservoir while the other gives a dry temperature reading. Humidity is obtained by comparing the two readings on the enclosed chart. The red liquid masons hygrometer uses a safe and easy to read red liquid in place of the usual mercury. Dual scales of -10/50°C and 10/120°F.

No.	Description
INO.	Description

736740 Mason's Hygrometer Red Liquid



### Dial Hygrometer/ **Thermometer**

20 to 100% RH scale on 4" dial. Uses a precise synthetic hair hygrometer with an accuracy of ±5%. Inner dial shows temperature using a bimetal thermometer, with an accuracy of ±2°F. N.I.S.T. traceable certificate of compliance available.

WEIGHT: 3.7 oz (105 g).

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No.	Description			
736920	Dial Hygrometer/Thermometer			
736920C	Dial Hygrometer/Thermometer Certified			



### Sling Psychrometer

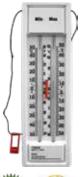
Obtain fast and accurate humidity readings anywhere by comparing the reading of the wet and dry bulb thermometers on the enclosed humidity chart. Eliminates the hazard of splattering mercury by using a safe and easy to read red liquid. The thermometers are recessed into a protective plastic mounting. The mounting also contains a water reservoir eliminating the need to constantly re wet the wick. Comes with a carrying case and plastic humidity chart.

DIM:  $9\frac{1}{8}$ " × 2" ×  $\frac{5}{8}$ "  $(232 \times 51 \times 16 \text{ mm}).$ WEIGHT: 7.4 oz. (210 g).



Description

736700 Sling Psychrometer -5 to 50°C 736710 Sling Psychrometer 20 to 120°F



### Min-Max Thermometer

Small floats are pushed to each temperature extreme by the two mercury columns and stay there until reset with the attached magnet or by pushing the red button on the front. N.I.S.T. traceable certificate of compliance available.





Description

DIM: 7%" ×  $2\frac{1}{2}$ " × 7%"

736690 **Min-Max Thermometer Push Button** Min-Max Thermometer Push Button 736690C



### Min-Max Thermometer

Used in weather stations, cold storage rooms, construction, industry, or anywhere, indoor and out, requiring a record of min/max temperatures. Small floats are pushed to each temperature extreme by the two mercury columns and stay there until reset with the attached magnet. Dual scales of -50/50°C and -60/120°F. N.I.S.T. traceable certificate of compliance available.

DIM: 7%" ×  $2\frac{1}{2}$ " × %" (200 × 64 × 22). WEIGHT: 4 oz (133 g).

THE PARTY OF		wеіGнт: 4 оz (133 g).	
No.	Description		
736680	Min-Max The	rmometer Magnet	

736680C Min-Max Thermometer Magnet Certified



### **Pocket Thermometers**

All filled with safe red kerosene, white backed, total immersion, 6" (153 mm) long in blue plastic case. Comes as a box of 12 units.

No.	Description
738730	Pocket Thermometer -40 to 70°C/°F
738750	Pocket Thermometer -40 to 50°C
738760	Pocket Thermometer -10 to 110°C

# SPER SCIENTIFIC

# **SAMA Range Thermometers**



### **High Quality Construction**

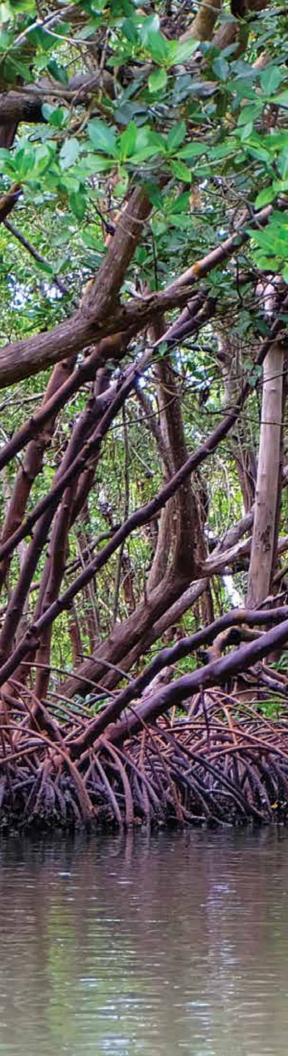
All Sper Scientific immersion thermometers are made with safe red liquid to SAMA specifications for ranges and accuracy. In addition, our thermometers have a number of extra quality features built in:

- Red Liquid Expansion Chambers
- · Reinforced Bulbs to prevent breakage
- Horizontally Printed Scales are easier to read in use
- Ring Tops for submersion
- Non Roll Caps
- Scales Printed Into The Glass rather than on the surface so they never wear off

No.	Description
736570	Thermometer (Box of 10)
736580	Thermometer (Box of 10)
736590	Thermometer (Box of 10)
736600	Thermometer (Box of 10)
736620	Thermometer (Box of 10)
736630	Thermometer (Box of 10)
736780	Thermometer (Box of 10)
737000	Thermometer (Box of 10)
737680	Thermometer (Box of 10)
738640	Thermometer (Box of 10)
JAMES .	

Model:	Partial Immersion	Total Immersion	Temp Range	Length
736570	✓		-20 to 110°C	76 mm
736590		✓	-20 to 100°C	305 mm
736580	✓		-20 to 150°C	76 mm
736600		✓	-20 to 150°C	305 mm
737000	✓		0 to 230°F	76 mm
736780	✓		0 to 230°F	76 mm
			-20 to 110°C	
737680		✓	0 to 230°F	305 mm
			-20 to 110°C	
736620		<b>√</b>	-50 to 50°C	305 mm
736630	✓		-10 to 110°C	76 mm
738640	✓		0 to 230°F	76 mm
			-10 to 110°C	





# Lab Equipment

74	Stopwatches
76	Timers
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84	Pressure Meters
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88	Electrical / Multimeters
91	Lab Equipment
92	Scales / Balance
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#### **About Sper Scientific Stopwatches**





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Sper Scientific professional laboratory stopwatches and timers use only highly accurate quartz crystal movements. All models are available with an N.I.S.T. traceable certificate of compliance available. To order calibrated products, add "C" to the end of the part number. At Sper Scientific, even our least expensive timers undergo extensive quality control and come with a 5 year warranty.



#### Water Resistant Stopwatch

- Split interval function.
- Alarm clock, calendar and hourly chime option.



#### 8-Memory Stopwatch

- Timer mode.
- Countdown cycles repeat upon completion.
- Lap counter.

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810012	Water Resistant Stopwatch
810012C	Water Resistant Stopwatch Certified





#### **Large Display Stopwatch**

 Click-stop controls give the definitive feel of a mechanical stopwatch, but with hundreds of times the accuracy.



#### **60-Memory Stopwatch**

- Memory stores last 60 lap times.
- Fastest, slowest and average lap times.
- mode & shock resistant.

	Description
810022	Large Display Stopwatch
810022C	Large Display Stopwatch Certified

	Description
810033	60-Memory Stopwatch
810033C	60-Memory Stopwatch Certified



#### Observational Research Stopwatch

- Time a subject without disturbing it.
- Alarm audible only through a headphone.



No.	Description
810029AR	Observational Research Stopwatch
810029ARC	Observational Research Stopwatch Certified



#### Features a large display with 1/100 second resolution, split time display, clock/calendar mode and alarm functions.

This Sper Scientific Stopwatch is shock and water resistant, and has a large 5/8" high display for good visibility. 1/100 second resolution stopwatch with split time display. Also features an alarm clock with chime, calendar and 12 or 24 hour time modes. The rounded, ergonomic design fits neatly in your hand.

Lanyard, instructions and button cell battery are included.

DIM:  $2^{1/4}$ " × 3" × 3/4" (57 × 76.2 × 19 mm). WEIGHT: 1.5 oz (42.5 g).

No.	Description
810035A	Large Display Water Resistant Stopwatch

810035AC Large Display Water Resistant Stopwatch Certified





#### 100 Memory Water and Shock Resistant Stopwatch

#### Stopwatch/Timer with 100 Count Memory for Sports and Other Applications.

This Sper Scientific Stopwatch stores 100 split and lap times, will count up or down to 20 hours in 1/100 second resolution and offers many advanced features. The large 3 line display simultaneously shows total elapsed time, split time, current lap time, lap counter and also indicates low battery. This unit is made of a durable black and grey ABS plastic, is water and shockresistant, and features a built-in belt clip and lanyard to keep it handy. The rounded, ergonomic design fits neatly in your hand.

#### Features 4 timing modes: Stopwatch, Countdown, Pacer and Clock/Calendar

#### Stopwatch

Recalls split and lap times as well as the slowest, fastest & average laps.

#### • Clock/Calendar

Selectable 12 or 24 hour format with alarm, calendar and hourly chime modes.

#### • Count Down & Count Up

Displays elapsed time and counts down from a desired time.

Set from 5 to 240 beeps per minute.

Belt clip, lanyard, instructions and button cell battery are included.

DIM:  $3^{1/2}$ " ×  $2^{1/2}$ " ×  $1^{1/4}$ " (88.9 × 63.5 × 31.8 mm). WEIGHT: 2.3 oz (65.2 g).

No.	Description	$C \epsilon$
810036A	100 Memory Water and Shock Resistant Stopwatch	
810036A	100 Memory Water and Shock Resistant Stopwatch Certified	





#### **About Sper Scientific Timers**

All Sper Scientific professional laboratory timers are available with an N.I.S.T. traceable certificate of c ompliance available. To order calibrated products add "C" to the end of the part number.

At Sper Scientific, even our least expensive timers undergo extensive quality control and come with a 5 year warranty.



#### **Stopwatch Timer**

- True stopwatch mode with 1/100 second resolution.
- Lap and split.
- Timer mode.



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No.	Description
810025R	Stopwatch Timer
810025RC	Stopwatch Timer Certified



	Description
810017	Project Timer
810017C	Project Timer Certified



#### Alarm Timer - 99 Min.

**Project Timer** 

• Counts down to completion of

a project up to 8 years in the

seconds, and 1/100 seconds. • View either the target date or the actual count down. • Insert the name of your project into a special window.

future in days, hours, minutes,

- Has a range of 99 minutes and 59 seconds in 1 second intervals.
- Bright flashing yellow LED visual alarm or an audible alarm.
- Benchtop use, clips to your pocket or magnetic back.



#### **Continuous Alarm Timer**

- A bright, flashing yellow LED visual alarm, or an audible alarm.
- Will flash or sound continuously for weeks until shut off.
- Counts time elapsed after the alarm.



No.	Description
810045	Continuous Alarm Timer
810045C	Continuous Alarm Timer Certified



NO.	Description
810040	Alarm Timer - 99 Min.
810040C	Alarm Timer - 99 Min. Certified



#### Large Display Bench Timer

- ¾ Inch high digits.
- Warning alarms sound at 3 and 5 minutes prior.
- Records elapsed time after the alarm.
- Easily portable.



No.	Description
810046	Large Display Bench Timer
810046C	Large Display Bench Timer Certified





#### Count Up/Down 99 Mins.

- Numeric keypad allows for fast programming.
- Counts up or down for 99 minutes in intervals of 1 second.



#### Count Up/Down 100 Hrs.

- Numeric keypad allows for fast programming.
- Counts up or down for 100 hours in intervals of 1 second.

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INO.	Description
810024R	Count Up/Count Down 99 Min.
810024RC	Count Un/Count Down 99 Min Certific

No.	Description
810026R	Count Up/Count Down 100 Hr
810026RC	Count Up/Count Down 100 Hr Certified



#### White Large Display Timer

- Easily read from across a room.
- Simultaneously displays either one count-up channel and a clock, or two count-down channels.
- Extra large start/stop button and a loud alarm.
- Wall mount.



<b>∞ ∞ ○</b>
0:0000
∞ ∞ ⊕

#### **5 Channel Timer**

- Large Display.
- Indicates time elapsed after countdown reaches zero.
- Has a stand, pocket clip and magnet.



No. Description	140.	
810005 White Large Display Timer	810015	5 Channel Timer
810005C White Large Display Timer Certified	810015C	5 Channel Timer Certified



810027

810027C

#### Simultaneous Start Timer

- 4 channels can be set independently but started simultaneously.
- Loud alarm.



#### **Talking Timer**

- Eliminate the need to continually visually check time remaining.
- Audible count-down can be heard throughout the lab.
- Useful for work in low light.



No.	Description
810038	Talking Timer
810038C	Talking Timer Certified

Simultaneous Start Timer

Simultaneous Start Timer Certified

#### **Digital Refractometer Comparison Chart**









Model:	Pocket 300050-57	Waterproof 300058	Laboratory 300033-36	Programmable 300037
Calibrates to H <sub>2</sub> O	✓	✓	✓	✓
Water Resistant	✓	✓	✓	✓
ATC (Automatic Temperature Compensation)	✓	✓	✓	✓
Reads°C &°F	✓	✓	✓	✓
Reads ND (Refractive Index)		✓	✓	✓
Rechargeable Li-ion Battery		✓		
High/Low Alarms			✓	✓
Computer Interface				✓
User Programmable Scales				✓
AC Adaptor		✓		✓

#### SPER SCIENTIFIC

#### **Pocket Digital Refractometer**

#### Laboratory accuracy in the field.

Measure concentrations in brix, salinity, and a wide variety of other parameters. As small, light and simple to use as optical refractometers, but with the precision of a digital readout. Reads samples as small as 1 mL. Sample temperature is initially displayed on the large LCD, followed by the measurement results. The sophisticated microprocessor provides automatic calibration, automatic temperature compensation, and automatic shutoff (after 3 minutes). All models feature one-button calibration to distilled water, and indicate when the battery should be replaced (8000 readings). Comes ready to use with distilled water, transfer pipet, AAA battery, instructions and a carrying case.

DIM: 45%" × 23%" × 114" ( $118 \times 62 \times 32$  mm). Weight: 4.6 oz (130 g).



No.	Description
300050	Digital Refractometer Honey
300051	Digital Refractometer Brix 0 to 65%
300052	Digital Refractometer Brix 40 to 88%
300053	Digital Refractometer Brix 0 to 88%
300054	Digital Refractometer Salinity
300055	Digital Refractometer Automotive

Custom scale refractometers are available by special order. Please allow lead times of approximately 60 days. Be sure to list your desired scale number(s) when ordering.











Model	Unit of Measure	Range	Resolution	Accuracy
	Be'	28 to 48	0.1%	±0.2%
300050	Water	10 to 45%	0.1%	±0.2%
	Brix	40 to 88%	0.1%	±0.2%
300051	Brix	0 to 65%	0.1%	±0.2%
300052	Brix	40 to 88%	0.1%	±0.2%
300053	Brix	0 to 88%	0.1%	±0.2%
300054	Salinity %	0 to 28%	0.1%	±0.2%
300054	Salinity ppt	0 to 280 ppt	1 ppt	±2 ppt
	Propylene Glycol	32 (-50)°F	0.1°F	± 2.0°F
200055	Ethylene Glycol	32 (-50)°F	0.1°F	± 2.0°F
300055	Battery Acid	1.000 to (1.500) sg	0.001 sg	±0.005 sg
	Cleaner	14 (-40)°F	0.1°F	± 2.0°F

78

#### All models calibrate to distilled water

Measure concentrations in brix, salinity, refractive index and clinical parameters, with full scale accuracy of 0.2% using CCD scanner (linear scanned array imaging) technology. Simple to use, and requires a sample of only 0.4 mL. Instantly displays temperature in addition to multiple scales with the unit of measure indicated on the large LCD. The sophisticated microprocessor provides automatic calibration, automatic temperature compensation, automatic shutoff (after 3 minutes), and visual min/max alarms. Low power consumption enables 5000 readings before the LCD indicates that the battery should be replaced. Comes ready to use with a 9V battery, distilled water, a transfer pipet, instructions and a protective case.



dim: 7" × 4" × 2½" (180 × 100 × 65 mm). Weight: 18 oz (500 g).

No.	Description
300033	Lab Digital Refractometer Brix 45 to 88%
300034	Lab Digital Refractometer Brix 0 to 88%
300035	Lab Digital Refractometer Salinity
300036	Lab Digital Refractometer Clinical
Thur-	

Model	Unit of Measure	Range	Resolution	Accuracy
300033	Brix	45 to 88%	0.1%	±0.2%
	Refractive Index	1.4098 to 1.5100	0.0001	±0.001
300034	Brix	0 to 88%	0.1%	±0.2%
	Refractive Index (nD)	1.3330 to 1.5100	0.0001	±0.001
300035	Brix	0 to 60%	0.1%	±0.2%
	Salinity %	0 to 28%		±0.1%
	Salinity ppt	0 to 280 ppt	1 ppt	±1 ppt
	Refractive Index (nD)	1.3330 to 1.4419	0.0001	±0.001
300036	Urine Specific Gravity	1.000 to 1.090	0.001	±0.002
	Serum Protein g/dL	0 to 12	0.1	±0.1
	Refractive Index (nD)	1.3330 to 1.4098	0.0001	±0.001
All Models	Temperature	32 to 104°F 0 to 40°C	0.1°	2°C 1°F



#### Programmable Digital Refractometer

#### Create your own custom scales.

This programmable refractometer comes preloaded with the commonly used Brix (0 to 95%) and nD (refractive index) scales. In addition, you may create your own custom scales. An unlimited number of scales can be stored in the software's database. Transfer these from your computer to the three numbered display positions on the Programmable Refractometer using the built-in RS232 computer interface. Scales can be loaded and unloaded from your database to your refractometer at any time. Test results can be saved to your computer, graphed and analyzed. Reads samples as small as 0.4 mL with full scale accuracy of 0.2% using CCD scanner (linear scanned array imaging) technology. Measurement results, unit of measure, and sample temperature are all displayed on the large LCD, and visual alarms are indicated by a red LED. The programmable refractometer's sophisticated microprocessor provides automatic calibration, automatic temperature compensation, and automatic shutoff (after 3 minutes). Features one button calibration to distilled water and indicates when the battery should be replaced (5000 readings). Scratch resistant sapphire crystal lens. Comes ready to use with a 9V battery, distilled water, transfer pipette, cable, AC adaptor, instructions, a protective case and free downloadable software.





DIM:  $7" \times 4" \times 2\frac{1}{2}"$  (180 × 100 × 65 mm). WEIGHT: 18 oz (500 g).

product demo.

No.	Description
300037	Programmable Refractometer
The same	Scan this QR

Unit of Measure	Range	Resolution	Accuracy
Temperature	32° to 104°F 0° to 40°C	0.1	2°F 1°C
Brix	0 to 88%	0.1%	±0.2%
Refractive Index + up to 3 custom scales	1.3330 to 1.5100	0.0001	±0.001

#### Waterproof Digital Refractometer



#### Rugged & waterproof, ideal for field use.

Housed in a protective rubberized IP65 Waterproof case to safeguard the electronics from wet environments and makes for easy clean ups. Model 300058 features a scratchproof sapphire lens. Measure samples as small as 1 mL, in the field with laboratory accuracy. Sample temperature is initially displayed on the large LCD followed by the measurement results. The sophisticated microprocessor provides automatic calibration, automatic temperature compensation and automatic shutoff (after 3 minutes). Features one button calibration to distilled water and indicates when the battery is low. Powered by a

rechargeable, long-life, Lithium Ion battery providing 50,000 tests or about half a year use on a single charge. Comes ready to use with instructions, carrying case, transfer-pipet and an AC power adapter.

DIM:  $4\frac{1}{2}$ " ×  $2\frac{1}{4}$ " × 1" (108 × 57 × 25 mm). WEIGHT: 5 oz (141 g)

No.	Description	***
300059	Waterproof Digital Refractometer Brix 0 to 60%	W MARTIN
300060	Waterproof Digital Refractometer Brix 0 to 88%	
300062	Waterproof Digital Refractometer Salinity	( (
300064	Waterproof Digital Refractometer Clinical	•
300065	Waterproof Digital Refractometer Diesel Exhaust Fluid	
300058	Waterproof Digital Refractometer Sugars	

Model	Unit of Measure	Range	Resolution	Accuracy
300059	Brix	0 to 60%	0.1%	±0.2%
	Refractive Index (nD)	1.3330 to 1.4420	0.0001	±0.003 nD
300060	Brix	0 to 88%	0.1%	±0.2%
	Refractive Index (nD)	1.3330 to 1.532 0	0.0001	±0.003 nD
300062	Salinity	0 to 28%	0.1%	±0.2%
		0 to 280‰	1‰	±2‰
	Specific Gravity	1.000 to 1.217	0.001	±0.002
	Refractive Index (nD)	1.3330 to 1.3900	0.0001 nD	±0.003 nD
300064	Urine Specific Gravity	1.000 to 1.050	0.001	±0.002
	Serum Protein g/dL	0 to 12	0.1	±0.2
	Refractive Index (nD)	1.3330 to 1.3900	0.0001	±0.003 nD
300065	ADBLUE (Diesel Exhaust Fluid)	0 to 40%	0.1%	±0.2%
	Refractive Index (nD)	1.3330 to 1.4098	0.0001	±0.003 nD
300058	Brix	0.0 to 88%	0.1%	±0.2%
	Refractive Index (nD)	1.3330 to 1.5100	0.0001	±0.003 nD
	Dextran	0.0 to 10.6%	0.1%	±0.2%
	Fructose	0.0 to 68.9%	0.1%	±0.2%
	Glucose	0.0 to 59.9%	0.1%	±0.2%
	Lactose	0.0 to 16.5%	0.1%	±0.2%
	Maltose	0.0 to 15.6%	0.1%	±0.2%
	Temperature	0.0 to 40°C	0.1°C	±0.5°C

#### Place a drop or two of a sample on the prism and read the results.

Sper Scientific portable refractometers work in ambient light with no battery or other power source necessary. They can be used in labs, on production lines, in the field or anywhere. Simply place a drop or two of a sample on the prism and read the results immediately. With reasonable care, their reliability, precision, and optical performance will last forever. All Sper Scientific refractometers come complete with:

- Rubber coated hand grip and construction, which insulate the test solution from inaccuracies caused by the body heat of the user.
- Covered eye piece and bright, clearly defined scale, with large easy-to-read measurements.
- · All the accessories for immediate use, including calibration tools and solutions, full instructions, transfer pipettes and protective cases.

Brix refractometers, which are also called sugar refractometers, are commonly used in the food and beverage, agriculture and wine industries. Fruit farmers will use a refractometer to check the sugar content of fruit on the vine to determine the best time for harvesting. Similarly, grocers and other fruit purchasers will use brix values to determine how much they are willing to spend. It is the latter application for which this Sper Scientific handheld sugar - brix refractometer is an ideal measurement instrument for the food and beverage industry.

Certificate of Calibration available on all models except 300005 and 300014.

DIM:  $6\frac{1}{2}$ " ×  $1\frac{1}{2}$ " (165 × 38 mm). WEIGHT: 3 oz (86 g).

No.	Description
300001	Sugar Refractometer 0 to 32%
300001C	Sugar Refractometer 0 to 32% Certified
300002	Sugar Refractometer 28 to 62%
300002C	Sugar Refractometer 28 to 62% Certified
300003	Sugar Refractometer 0 to 80%
300003C	Sugar Refractometer 0 to 80% Certified
300005	Clinical Refractometer
300006	Salt Refractometer 0 to 28%
300006C	Salt Refractometer 0 to 28% Certified
300010	Sugar Refractometer 0 to 32% w/ATC
300010C	Sugar Refractometer 0 to 32% w/ATC Certified
300011	Salt Refract w/ATC 0 to 100 ppt
300011C	Salt Refract w/ATC 0 to 100 ppt Certified
300014	Automotive Refractometer









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Model #	Model	Range	Resolution	Accuracy
300001	Sugar Refractometer 0 to 32%	Brix O to 32%	0.2%	±0.2%
300002	Sugar Refractometer 28 to 62%	Brix 28 to 62%	0.2%	±0.2%
300003	Sugar Refractometer 0 to 80%	Brix 0 to 50% & 50 to 80%	1%	±1%
300005	Clinical Refractometer	1 to 12 g/dL Serum Albumen 1.000 to 1.050 Urine Specific Gravity 1.3330 to 1.3600 Refractive Index (nD)	0.2 g/dL 0.002 0.0005	±0.2 g/dL ±0.002 ±0.0005
300006	Salt Refractometer 0 to 28%	Sodium Chloride 0 to 28%	0.2%	±0.2%
300010	Sugar Refractometer 0 to 32 w/ATC	Brix O to 32%	0.2%	±0.2%
300011	Salt Refract w/ATC 0 to 100 ppt	0 to 100 Parts Per Thousand 1.000 to 1.070 Specific Gravity	1 0.001	±1 ±0.001
300014	Automotive Refractometer	32 to -60°F Ethylene Glycol 32 to -50°F Propylene Glycol 1.15 to 1.30 Specific Gravity Battery Acid	10°F 10°F 0.01	±2°F ±2°F



Designed to measure the specific gravity and refractive index of a urine sample within seconds.

A refractometer measures the extent to which light is bent (refracted) through a liquid sample. They are commonly used to help identify or confirm the identity of a sample, assess the purity of a sample, or determine the concentration of a solute in a solution.

They can be used in labs, on production lines, in the field or anywhere. Simply place a drop or two of a sample on the

prism and read the results immediately. With reasonable care, their reliability, precision and optical performance will

- Soft rubber eye piece for comfortable viewing
- Comfortable non-slip rubber grip
- Measurement scale provides direct reading
- Extremely easy to use and calibrate
- No bat

attery or power source required		
Description		_
Clinical Refractometer with ATC - Urine Specific	W MARKET !	7

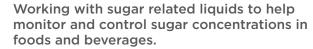
#### SPER SCIENTIFIC

300069

#### Brix Sugar Refractometer with ATC - 0-80%







This hand-held refractometer with automatic temperature compensation (ATC) is specifically designed to measure brix in fruits, vegetables, juices, honey, wine etc. It is an optical device which is easy to use, light weight and accurate.

This is a well made, high quality optical instrument and comes complete with a hard carrying case, bulb filler, screwdriver and instructions. With reasonable care, their reliability, precision and optical performance will last a lifetime.



- Measurement scale provides direct reading
- Extremely easy to use and calibrate
- Adjustable manual focus
- No battery or power source required



No.	Description
300067	Brix Sugar Refractometer with ATC - 0-80%
300067C	Brix Sugar Refractometer with ATC - 0-80% Certified







# Automatic temperature compensation (ATC) is specifically designed to measure alcohol content in liquids.

For beer, wine and other alcoholic beverages, this refractometer measures wort sugars in the liquid and shows the corresponding percentage of alcohol. Use readings to get wort sugars and help determine finished alcohol readings (for beer and wine, use in conjunction with a hydrometer both before and after fermentation or distillation). The need to consult temperature correction charts is eliminated with the built-in 10-30°C ATC. The unit also comes with a manual calibration knob that is secured with a lock nut, and has a brighter display than the more narrow range refractometers.

- Soft rubber eye piece for comfortable viewing
- Comfortable non-slip rubber grip
- Measurement scale provides direct reading
- Extremely easy to use and calibrate
- Adjustable manual focus
- No battery or power source required





#### SPER SCIENTIFIC

#### Handheld Digital Refractometer - 0-55%



Compact digital brix refractometer is a highprecision optical instrument that uses its own LED light source to measure brix and refractive index.

# Displays brix%, refractive index and temperature simultaneously.

This compact digital brix meter is a high-precision optical instrument that uses its own LED light source to measure brix and refractive index. The device uses the principle that different liquids have different refractive indices, and uses a light beam to measure the refraction of the test solution. The meter can be easily calibrated using distilled water (included). The unit

is simple to use, delivering fast and accurate results. Can be used to detect sugar content in fruits, vegetables, juices and honey with applications in food and beverage industries.

Includes rechargeable battery & instructions. IP65 water resistant.

No.	Description
300066	Handheld Digital Refractometer - 0-55%









#### Wide Range Pressure Meter

#### Portable Handheld Pressure Meter.

Covers a wide pressure range, 0 to 725 psi, not usually found in a single pressure meter. Compatible with both liquids and gases. Useful in measuring pneumatic pressure, automobile engine vacuum pressure, super heat measurements, hydraulic servo controls, refrigeration, air conditioning, and food processing. Features eight units of measure, min/max, hold, and auto power off. Accuracy of  $\pm (0.5\% + 1 \text{ d})$ . Comes in a hard carrying case with a 9V battery. Transducers sold separately. These pressure transducers come with the thread size of  $\frac{1}{4}$  inch NPT (per inch 18 teeth) and one adapter connector with the tread size of 1/4 inch PS (per inch 19 teeth). To use the 1/4 inch NPT threads directly, you will need to remove the adapter connecter from the transducer manually. N.I.S.T. traceable certificate of compliance available. (Transducers only)



DIM:  $7" \times 3" \times 1\frac{1}{2}"$  (178 × 76 × 38 mm). WEIGHT: 13 oz (369 g).

No.	Description
840065	Wide Range Pressure Meter
840090	Water Resistant Instrument Pouch
AMMe.	









No.	Description
840066	29 PSI Transducer
840066C	29 PSI Transducer Certified
840067	72.5 PSI Transducer
840067C	72.5 PSI Transducer Certified
840068	145 PSI Transducer
840068C	145 PSI Transducer Certified
840069	290 PSI Transducer
840069C	290 PSI Transducer Certified
840070	725 PSI Transducer
840070C	725 PSI Transducer Certified

Transducer	840066		nsducer 840066 840067		067	840068		840069		840070	
	Max Range	Resolution	Max Range	Resolution	Max Range	Resolution	Max Range	Resolution	Max Range	Resolution	
bar	2	0.002	5	0.005	10	0.01	20	0.02	50	0.05	
psi	29	0.02	72.5	0.1	145	0.2	290	0.2	725	1	
kg cm2	2.040	0.002	5.095	0.005	10.19	0.01	20.40	0.02	50.95	0.05	
mmHg	1500	2	3750	5	7500	10	15000	20	37500	50	
inHg	59.05	0.05	147.6	0.1	295.2	0.2	590.5	0.5	1476	1	
Meter H <sub>2</sub> O	20.40	0.02	50.95	0.05	101.9	0.1	204.0	0.2	509.5	0.5	
in H <sub>2</sub> O	802	1	2006	2	4010	5	8020	10	20050	20	
Atmospheres	1.974	0.002	4.935	0.005	9.87	0.01	19.74	0.02	49.35	0.05	

# SPER SCIENTIFIC MANOMETER OC:08:50 Interpretation of the policy of the

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#### Five models are available covering a wide range.

Ideal for measuring low differential pressure in clean rooms, test and balance, medical equipment, HVAC, pneumatic systems and computer peripherals. Portable, and weighing only 5 oz (150 g) including the battery. These meters are convenient for use in the lab, field or factory. All read gauge and differential pressure in up to 11 units of measure, and feature large, backlit displays, min/max, hold, and auto power off functions. The USB output port enables communication with a computer. High accuracy of  $\pm 0.3\%$  FS @25°C, repeatability:  $\pm 0.2\%$  (max  $\pm 0.5\%$ ) FSO, and combined linearity and hysteresis:  $\pm 0.2$  (max  $\pm 1.0\%$ ) FSO. All Sper Scientific manometers come ready to use with connection hose, instructions, and a 9V battery in a hard-shell carrying case. Uses optional AC Adapter (840027). N.I.S.T. traceable certificate of calibration available.

DIM:  $7\frac{1}{8}$ " ×  $2\frac{3}{4}$ " × 1" ( $182 \times 72 \times 30$  mm). WEIGHT: 1 lb. (0.45 kg)

Meter	840	085	840	080	840	081	840	082	840	083
	Range ±	Res.								
psi	2	0.001	5	0.001	15	0.01	30	0.01	100	0.1
in H <sub>2</sub> O	55.4	0.01	138	0.1	415	0.1	830	0.1	2768	1
kPa	N.	/A	34.5	0.01	183	0.1	207	0.1	684	0.1
ft H <sub>2</sub> O			11.5	0.01	34.6	0.01	69.2	0.01	231	0.1
inHg			10.2	0.01	30.54	0.01	61.08	0.01	203.6	0.1
cm H <sub>2</sub> O (840085 is in mm H <sub>2</sub> O)	1410	1	352	0.1	1050	1	2110	1	7030	1
mbar	138	0.1	345	0.1	1034	1	2068	1	6895	1
bar	0.138	0.001	0.345	0.001	1.03	0.001	2.07	0.001	6.89	0.001
mmHg	N.	/A	259	0.1	776	0.1	1550	1	5170	1
oz Inch²			80	0.01	240	0.1	480	0.1	1600	1
kg cm²			0.35	0.001	1.05	0.001	2.10	0.001	7.03	0.001
Max Pressure	20	PSI	20	PSI	30	PSI	60	PSI	150	PSI



No.	Description
850097	Manometer 2 PSI
850097C	Manometer 2 PSI Certified
850098	Manometer 5 PSI
850098C	Manometer 5 PSI Certified
850097	Manometer 15 PSI
850097C	Manometer 15 PSI Certified
850098	Manometer 30 PSI
850098C	Manometer 30 PSI Certified
850098	Manometer 100 PSI
850098C	Manometer 100 PSI Certified
840058	AC Adapter
840089	Data Acquisition Software
840093	UBS Cable
840059	Rubber Holster











#### **Manometer SD Card Loggers**

#### Records data onto removable SD Cards.

Reads gauge and differential pressure in non-corrosive and non-ionized air and gas, (not for use with liquids). Records data along with date and time onto standard SD memory cards (like a digital camera). When full, simply exchange SD cards for unlimited data storage. The removable SD card is easy to transport and insert into a computer's memory card slot or SD card reader. Uploads pre-formatted data to Excel, without the need for additional software and cables. Additional SD cards are readily available in a variety of memory sizes. Features 10 units of measure, push-button zero offset, min/max, auto power off, low battery indicator and hold function. This well-made unit is accurate to +/-2% full scale and includes a fold-out easel back and a large easy-to-read backlit LCD. Comes ready to use with a carrying case, 6 AA batteries, tubing and pipe attachment lugs, instruction manual, and an SD card. Uses optional USB Power Cable 840058, or AC Adapter 840097. N.I.S.T. traceable certificate of calibration available.

DIM:  $7\frac{1}{8}$ " ×  $2\frac{3}{4}$ " × 1" (182 × 72 × 30 mm). WEIGHT: 1 lb. (0.45 kg)

	Description
850097	Manometer 3 PSI
850097C	Manometer 3 PSI Certified
850098	Manometer 29 PSI Certified
850098C	Manometer 29 PSI Certified
840097	AC Adapter
840058	UBS Cable
840089	Rubber Holster
840093	Field Tripod
840059	8GB SD Card

Meter	850	097	850	098	
	Range ±	Resolution	Range ±	Resolution	
mbar	2	0.1	2000	1	
psi	2.9	0.001	29	0.01	
kg cm <sup>2</sup>	0.204	0.001	2.04	0.001	
mmHg	150	0.1	1500	1	
inHg	5.905	0.002	59.05	0.01	
m H <sub>2</sub> O	2.040	0.001	20.4	0.01	
H PA	200	0.1	2000	1	
K PA	20	0.01	200	0.1	
in H <sub>2</sub> O	80	0.05	802	0.5	
Atmos	0.197	0.001	1.974	0.001	













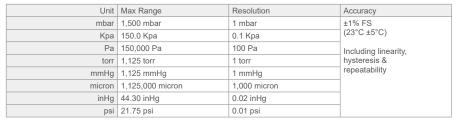
#### Portable Handheld Vacuum Meter.

Portable meter for absolute vacuum pressure measurements in hospital labs, crystal growing, solvent recovery, distillation, and rotary evaporation. Also, used in HVAC, automotive and other industrial applications. Includes a detachable heavy-duty probe with ½ PS connector for liquid, air, oil and gas. Features a large display with eight units of measure, min/max, hold, low battery indicator, and auto power off. Comes ready to use in a foam-lined, hard-shell carrying case, with 9V battery and instructions. N.I.S.T. traceable certificate of compliance available.

DIM:  $7" \times 3" \times 1\frac{1}{2}"$  (180 × 75 × 35 mm), probe cord: 49" (125 cm). Weight: meter 8 oz (220 g), probe 6 oz (170 g).

No.	Description
840064	Vacuum Meter
840064C	Vacuum Meter Certified
840090	Water Resistant Instrument Pouch





#### SPER SCIENTIFIC

#### **Vibration Meter**

#### Portable Handheld Vibration Meter.

The level of vibration is a useful guide to the balance, alignment and general condition of pumps, motors, and other machinery. Poor balance, misalignment and looseness results in higher levels of vibration and indicates maintenance is required for operational as well as safety reasons. Measures velocity and acceleration. The large display indicates RMS, Peak, min/max, hold, low battery and features auto power off. Comes ready to use in a foamlined, hard-shell carrying case, with a detachable strongly magnetic probe, 9V battery and instructions.

METER DIM:  $17" \times 3" \times 1\frac{1}{2}" (80 \times 75 \times 35 \text{ mm})$ . PROBE CORD: 49" (125 cm). PROBE DIM 19 mm. WEIGHT: METER WITH BATTERY 10 oz (230 g). PROBE WITH MAGNETIC BASE 2 oz (50 g).

840063	Vibration Meter	
No.	Description	
PROBE WIT	TH MAGNETIC BASE 2 oz (50 g).	

Water Resistant Instrument Pouch

	Unit of Measure		Resolution	Accuracy
Acceleration	m/s <sup>2</sup>	0.5 to 199.9 m/s <sup>2</sup>	0.1 m/s <sup>2</sup>	±(5% +2 d) rdg
	g @1 g = 9.8 m/s <sup>2</sup>	.05 to 20.39 g	0.01 g	±(5% +2 d) rdg
	ft/s²	2 to 656 ft/s²	1 ft/s²	±(5% +2 d) rdg
Velocity	mm/s	0.5 to 199.99 mm/s	0.1 mm/s	±(5% +2 d) rdg
	cm/s	0.05 to 19.99 cm/s	0.01 cm/s	±(5% +2 d) rdg
	inch/s	0.02 to 7.87 inch/s	0.01 inch/s	±(5% +2 d) rdg
Frequency	Hz		10 Hz to 1 KHz	



840090





#### Portable Handheld Torque Meter.

This portable meter is used for bolt torquing, torque wrench calibration, switch or contact closure measurement and other industrial, QC, and materials testing applications. Features 3 units of measure as well as hold, peak, min/max, fast/slow sampling, push button hi/ low resolution selector, auto power off. Comes in a hard carrying case with a 15 kg/cm torque probe with 41/2-ft (123 cm) cable and a 9V battery. N.I.S.T. traceable certificate of compliance available.

METER DIM:  $7" \times 3" \times 1\frac{1}{2}"$  (178 × 76 × 38 mm). WEIGHT: 8 oz (227 g). PROBE DIM:  $2" \times 6\frac{1}{4}"$  (51 × 159 mm). WEIGHT: 24 oz (680 g).

No.	Description
840062	Torque Meter
840062C	Torque Meter Certified
840090	Water Resistant Instrument Pouch

Unit	Max Range	High Resolution	Low Resolution	Accuracy
Kg	15	0.01	0.1	±1.5% +5 d FS
Lb-in	12.99	0.01	0.1	
Newton cm	147.1	0.1	1	











This unit can provide 125V,250V, 500V and 1000V source for the test, and under each range it can supply 1mA current to feed the capacitance load. With the autorange function, it can measure up to 4,000 Megaohm with the resolution of 1Kohm.

Features a large, easy to read dual display with analog bar graph and backlight, and min/max recording & data hold functions. Auto-discharge of capacitive voltage for added user protection, live circuit detection prevents insulation test if voltage >30V for added safety.

This is a complete kit which includes 6 AA batteries, users manual, test leads, "crocodile clips," strap and a hard plastic carrying case.

- Meets IEC10101, CATIII 1000V
- · Large dual display with analog bar graph and backlight
- Displays insulation resistance and test voltage simultaneously
- Auto-discharge of capacitive voltage for added user protection
- Live circuit detection prevents insulation test if voltage >30V
- Min/Max recording & Data Hold Function
- 1mA test current for Megohm range at rated voltage
- 200mA short current for continuity range
- Additional test voltages 125V,250V,500V,1000V
- Test hold & lock function for easy operation





420001 Electrical Insulation Tester Kit with Dual Display



#### SPER SCIENTIFIC

# Compact AC/DC Auto Ranging Clamp Meter





The small bodies and jaws fit perfectly in your hand and into tight places. Meter controls are positioned so that current measurements can be done with one hand. A large backlit display is easy to see, and the handy display hold function keeps measurements fixed on the display. Measures starting current for motors, lighting, etc.

- AC/DC Current Measurement Cat III 600V
- 4,000 LCD Display Counts
- True RMS
- Data Hold Function
- REL(Zero) Function
- 1.2"(30mm) Jaw Opening
- NCV Detection

No. Description

120002 Compact AC/DC Auto Ranging Clamp Meter









#### Offers all the features you need to fit the way you work.

The small bodies and jaws fit perfectly in your hand and into tight places. Meter controls are positioned so that current measurements can be done with one hand. A large backlit display is easy to see, and the handy display hold function keeps measurements fixed on the display. Measures starting current for motors, lighting, etc.

Clamp meter comes complete with users manual, test leads, K-temp probe & socket, (2) AAA batteries and carrying case. One year warranty.

- AC Current Measurement Cat III 600V
- 4,000 LCD Display Counts
- True RMS
- Data Hold Function
- REL(Zero) Function
- Auto Power Off
- Low battery Indicator
- 1.2"(30mm) Jaw Opening
- NCV Detection

No. Description

410001 Compact AC Auto Ranging Clamp Meter





#### **Compact Digital Multimeter**

#### Compact, full-featured multimeter that fits nicely in your palm.

An easy to use unit that delivers safe, reliable measurements, time after time. These meters are made to fit the way you work, and designed to go along no matter where your work takes you.

They feature a large, crisp backlit LCD display, making it easier to work in dark environments. Virtually everything you need to measure is available in these meters, including test settings for 1.5V and 9V batteries. These meters conform to EN 61010-1, CAT-III 600V standards. The double molded housing provides a safe grip, and the meter features full overload protection.

9V battery, test leads and instructions are included. One year warranty.



400001 Compact Digital Multimeter











90

# Quality construction, True RMS, optional Bluetooth, plus a built-in flashlight to light up your work.

The Sper Scientific 400002 and 400002BT multimeters are True RMS compact digital multimeters with double molded plastic housing and oversized high contrast 4000 counts LCD display. They are CAT III rated for 600V. The 400002BT model includes Bluetooth capability to view and save data on your iOS or Android smartphone, using the free Meterbox Pro Software.

Unit ships with 2 AAA batteries and test leads, and carries a one-year warranty.

No.	Description
840065	True RMS Digital Multimeter with Bluetooth Option and Built-in Flashlight

Features	40002	40002BT
Digital display counts	4000	4000
Display type (Negativity display)	✓	Positive
True RMS measurements	✓	✓
Safety design	✓	✓
Data Hold/ MAX/MIN recording mode	✓	✓
Built-In Flashlight + Backlight	✓	✓
Auto Ranging & Auto Power Off	✓	✓
Bluetooth interface with Meterbox Pro software		✓







#### SPER SCIENTIFIC







The Lutron GM-5000 balance is a microprocessor-based unit which provides high accuracy and reliable performance.

The balance has a measurement capacity of 5,000g and a resolution of 1g with built in self-calibration feature. This unit has a large 0.8-inch LCD display and 7.25" x 7.25" weighing platform which can measure in grams or ounces. The balance can be powered using AA batteries or AC power.

These extremely durable balances made of heavy-duty ABS and stainless steel, are designed to withstand accidental

overload, harsh chemicals, dust and dirt. The GM-5000 balance provides basic weighing functionality and robust performance at an economical price.

- Microprocessor circuit with high accuracy & better performance
- High resolution & wide measuring capacity, 5,000g x 1g
- Large LCD display, 20.9mm (0.8" digit size), easy read out
- Built-in gram & oz display unit, select by the internal slide switch
- Built-in self calibration system, high precision
- RS-232 computer interface (requires optional RS-232 to USB cable and software)
- Heavy duty ABS housing

No. Description

GM-5000 Digital Balance - 5.000g x 1g







The most precise and accurate weighing results, even under the toughest weighing conditions.

The GM-1500P precision balance has readability range between 0.5g and 1500g and a resolution of 0.05 g. This unit has a large 0.8-inch LCD display and  $7.25^{\circ}$  x  $7.25^{\circ}$  weighing platform. The unit can measure weight in grams or ounces. This balance can be powered using AA batteries or AC power.

- Microprocessor circuit with high accuracy & better performance
- High resolution & wide measuring capacity, 1500g x 0.05g, 50oz x 0.002oz
- Large LCD display, 20.9mm (0.8" digit size)
- Built-in gram & oz display unit, select by internal slide switch
- Built-in self calibration system the calibration value can memorize into EEPROM circuit permanently even with the power off
- Counting scale function
- RS232/USB computer interface (with optional cable)
- Uses 6 AA batteries (included) or AC/DC adapter power source (optional)
- Heavy duty ABS housing

No. Description

GM-1500P Precision Digital Balance - 1,500g x 0.05g







# Capacity of 600 grams, with a readability range of 0.01g to 600g, and features a 4.75-inch diameter pan size.

The Lutron GM series scales are convenient, compact and portable. This elegant looking electronic balance offers unparalleled weighing performance, with the advantage of low cost and affordability. Standard features include gram and ounce weighing modes, push button tare and easy to use large LCD display. It has a built-in self-calibration system, and the calibration value can be stored internally.

- Microprocessor circuit with high accuracy and better performance
- Wide measuring capacity: 600g x 0.01g
- 0.01g & 0.0005oz resolution & wide measuring capacity
- Large LCD display, 20.9 mm (0.8" digit size)
- Built-in gram & oz display unit, select by the internal slide switch
- Built-in self calibration system the calibration value can memorize into EEPROM circuit permanently even with the power off
- High precision counting scale function
- RS-232 computer interface (requires optional RS-232 to USB cable and software)
- Accept batteries or AC/DC adapter power source, two way power supply
- Built-in bubble level & adjustable rubber pads
- Heavy duty ABS housing plastic case

No.	Description
GM-610P	Precision Digital Balance - 600g x 0.01g











**Ultrasonic cleaning** removes grease, dust or other contaminants from surfaces and cavities of small objects, parts and samples such as cuvettes, lenses, glassware, stainless steel instruments, tools, electronic parts, medical and dental instruments, and more. Does not pollute, scratch the surface or harm objects like many chemical or abrasive cleansers.

#### Non-Abrasive Cleaning of Laboratory Instruments.

Simply place objects directly into the stainless steel tank and press "on". The unit generates thousands of tiny cleansing bubbles which vibrate at a very high electrical frequency. When the vibration speed rises above the ultrasonic frequency level, bubbles

explode and generate strong power, cleaning the surfaces and cavities of hard-to-clean objects. Your samples will be clean in 3 minutes after which the unit will shut off automatically. Ultrasonic cleaning does not scratch the surface or harm objects like many chemical or abrasive cleansers. Not intended for commercial, non-stop use. Includes a plastic basket and bracelet holder.

DIM:  $5" \times 8" \times 4\frac{1}{2}"$  (127 × 203 × 117 mm). Tank dim:  $2\frac{1}{2}" \times 6\frac{1}{2}" \times 3\frac{1}{2}"$  (64 × 165 × 89 mm). Weight: 32 oz (907 g).

No.	Description
100005	Mini Ultrasonic Cleaner







#### SPER SCIENTIFIC

#### High Powered Ultrasonic Cleaner

Timer
5 pre-programmed



#### Non-Abrasive Cleaning of Laboratory Instruments.

Simply place objects directly into the stainless steel tank or into the dipping basket (included), replace the transparent lid and press "on". The high powered transducer generates thousands of minute cleansing bubbles which vibrate at a very high electrical frequency. When the vibration speed rises above the ultrasonic frequency level, bubbles explode and generate strong power, cleaning the surfaces and cavities of hard-to-clean objects. Ultrasonic cleaning does not scratch the surface or harm objects like many chemical or abrasive cleansers. Choose from 5 pre-programmed timing cycles with the remaining count-down time shown on a large bright LED. A cooling fan enables prolonged operation without overheating. Operates quietly and is powered by AC 100/120V.

DIM:  $8\frac{1}{2}$ " × 7" ×  $5\frac{1}{2}$ " (216 × 178 × 140 mm). TANK DIM: 7" ×  $5\frac{1}{2}$ " × 2" (178 × 140 × 51 mm). WEIGHT: 61 oz (1729 g).

No.	Description	Tank Capacity	Output Power
100004	High Powered Ultrasonic Cleaner	1 qt (1,000 mL)	60 Watts
100004B	Replacement Basket for 100004		







#### **UV-C Ultrasonic Cleaner**



#### Combines ultrasonic cleaning & UV sterilization.

The built-in UV-C lamp sanitizes 99.9% of bacteria, viruses, and germs in 5 minutes. Keeps your instruments safe and clean by reducing the spread of germs, bacteria, and contaminations. This feature can be used with, or independent of the ultrasonic cleaning function. Timer can be set from 1 ~ 30 minutes with the remaining countdown time shown on a large bright LED.

1.2-liter tank capacity with 10" long cleaning bath, made of high quality 304 stainless steel makes it suitable for sterilization and cleaning of various instruments. Operates quietly and is powered by a detachable AC power cord.

DIM.: 12.2" × 7" × 6.3" (310 × 180 × 160 MM). WEIGHT: 4 LB. 13 OZ. (2200 GMS.)

No.	Description
100006	UV-C Ultrasonic Cleaner



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#### Advanced Ultrasonic Cleaner with Heater - 2.5 Liters

#### This high capacity Ultrasonic Cleaner adds an advanced ceramic water heater to further enhance the cleaning process.

This Advanced Ultrasonic Cleaner is designed to remove grease, dust or other contaminants from surfaces and cavities of small/medium sized objects, parts and samples such as cuvettes, lenses, glassware, stainless steel instruments, metals, jewelry and more.

- Digital controls, LED display and 5 timer settings
- Suitable for a wide variety of applications such as jewelry, watches, eyeglasses, dental instruments, etc.
- Ceramic heater aids in cleaning process
- Cooling fan provides good heat dissipation for continuous operation

TANK CAPACITY: 2500 ml. TANK DIM.: 9.85" x 5.90" x 3.12" (250 x 150 x 80 mm). WEIGHT: 2.5 KG (5.5 LBS).

No.	Description	CC 0
100007	CD-4820 Ultrasonic Cleaner	RoH3 Complia 2002/95/6



Advanced Ultrasonic Cleaner with Heater + De-Gas - 6 Liters

#### Designed for rigorous use and features heating and de-gas functions, cooling fan, dual industrial grade ultrasonic transducers and large, 6 liter capacity.

Removes grease, dust or other contaminants from surfaces and cavities of medium sized objects, parts and samples such as cuvettes, lenses, glassware, stainless steel instruments, metals, jewelry and more.



- 2-color LED display. 1 to 30-minute full range timer. 5 temperature settings.
- Suitable for a wide variety of applications such as jewelry, watches, eyeglasses, dental instruments. etc.
- Built-in cooling fan provides excellent heat dissipation, and allow for for continuous operation.

Tank Capacity: 6000 ml. Tank Dim.: 12.71" x 8.07" x 3.89" (323 x 205 x 99 mm). Weight: 5.4 kg (12 lbs)

100009 Advanced Ultrasonic Cleaner with Heater + De-Gas - 6 Liters



#### High Capacity Advanced Ultrasonic Cleaner with Heater + De-Gas - 7.5 Liters

#### Professional/industrial use featuring 3 ultrasonic transducers. de-gas functionality and an extra-large 7.5 liter capacity.

Designed to remove grease, dust or other contaminants from surfaces and cavities of medium sized objects, parts and samples such as cuvettes, lenses, glassware, stainless steel instruments, metals, jewelry and more.

- 3-color LED display. 1 to 30-minute full range timer. 5 temperature settings
- Suitable for various applications such as jewelry, watches eyeglasses, dental instruments, lab items and more.
- 3 cooling fans provide excellent heat dissipation and allow for continuous operation.
- 3 industrial grade ultrasonic transducers provide uniform distribution of ultrasonic waves for maximum cleaning power.
- Plastic basket has a patented design that can be elevated along the folding handles and locked in position to drain water.

Tank Capacity: 7500 ml. Tank Dim.: 13.04" x 9.37" x 4.14" (331 x 238 x 105 mm). weight: 9.8 kg (21.5 lbs).









#### Large Display Solar Scientific Calculator.

This solar scientific calculator comes with a highly efficient solar panel that requires only 50 lux, works with any available light. Will never need batteries. 10 digit LCD + 2 digit exponent. 15 levels of parenthesis. 67 functions, plus; binary, octal decimal, sexagesimal, and hexadecimal conversion, and standard deviation. Comes with a soft carrying pouch, full instructions and a button cell battery.

DIM:  $5\frac{1}{4}$ " ×  $2\frac{3}{4}$ " ×  $\frac{1}{2}$ " ( $133 \times 70 \times 13$  mm). WEIGHT: 2 oz (57 g).

No. Description

830005 Solar Scientific Calculator



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#### UV Light Pen.

A more compact, rugged, and easily portable product, perfect for fieldwork, the 400 nM output is just on the edge of the visible light spectrum, low enough to cause fluorescence yet inherently safer than lower UV wavelengths. Powered by only four button cell batteries (included). Immediate output; no warm up time.

DIM:  $5\frac{1}{8}$ " ×  $\frac{3}{8}$ " (130 × 10 mm). WEIGHT: 1 oz (28 g).

No.	Description	<u> </u>	<b>**</b>	- 4	
330005	UV Light Pen		MITTEE .	. (	
330005IR	Ink Refill (Black)	.,			



#### SPER SCIENTIFIC

#### **Laser Pointer**

#### Brushed Metal Laser Pointer Pen.

Sturdy construction and long battery life, which allows for heavy use as a teaching tool for science presentations, conferences, lectures, seminars and planetariums. The attractive, brushed-metal and world's thinnest pen-shaped unit can be easily carried in a shirt pocket. Projects a brilliant red dot clearly visible even in bright ambient light or with video, film and slide presentations. Runs for a minimum of 4 continuous hours on 2 standard alkaline batteries (included).

DIM:  $11\frac{1}{2} \times 130$  mm. WEIGHT: 31.5 g

No.	Description		_
330001	Laser Pointer	Wateries C	



UV / Laser / White Light

#### UV Key Chain Laser Light.

Press one end of the button and get a bright 650 nM red laser pointer. Press the other end and get high intensity white LED light for inspection and illumination. Press the same side again and get 400 nM ultra-violet light. All packed into a tiny pocket sized device.

DIM:  $3\frac{1}{4}$ " ×  $\frac{1}{2}$ " (83 × 13 mm). WEIGHT: 1.3 oz. (37 g).

	Description	JAMES .	
330006	UV / Laser / White Light	W Marrie	て





# Icon Glossary



#### Restriction on Hazardous Substances Directive (RoHS)

This directive (effective July 1st, 2006) restricts the use of six hazardous materials in various types of electronic and electrical equipment. This icon indicates the product does not contain these materials.



CE Mark
The letters "CE" stand for "Conformité Européenne" ("European Conformity"). Manufacturer ensures that the product is in conformity with the essential requirements of the applicable EC directives.



#### Sper Scientific Calibrated Product

Designates a product that can be calibrated for an additional price. Each calibrated product comes with a serial number, a calibration label, and a report attached to the box. See page 78 for more details.



#### Water Resistant

Designates a product that is water resistant.



#### Waterproof

Designates a product that is waterproof.



Designates products that meet or exceeds the instrument standards as defined by the EPA method.



#### Wireless

Designates a product that has Bluetooth®, or other wireless technology.



#### Sper Scientific New Product

Designates a newly available Sper Scientific product.



#### Good Laboratory Practice/ Good Manufacturer Practice

Designates products that meet Good Laboratory (GLP) and Good Manufacturer Practice (GMP) requirements by providing an automated date and time stamp option for data recording and documentation.



Designates a product that logs results to an SD Card.



#### QR Code

QR (quick response) codes enable you to use your smartphone to access product demos and additional information. To scan a QR code with your smartphone, first download a free QR reader App from your favorite App store or marketplace.



#### cULus Mark

Designates the technical equipment was tested to Canadian and US standards by Underwriters' Laboratories. (Refers to the AC adapter).



#### GS Mark

The Geprüfte Sicherheit (Tested Safety) or GS mark is a voluntary certification mark for technical equipment. It indicates that the equipment meets German and, if available, European safety requirements for such devices. (Refers to the AC adapter).

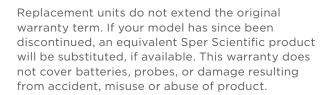
## Warranty Information



# Sper Scientific offers 6 month, 1 and 5 year Warranties



Sper Scientific warrants this product against defects in materials and workmanship for up to six (6) months, 1 year or 5 years (depending on the icon) from the date of purchase, and agrees to repair or replace any defective unit without charge.



In order to obtain warranty service, simply ship the unit, postage prepaid, to:

Sper Scientific Attn: Returns Dept. 8281 E. Evans Rd., Suite #103 Scottsdale, Arizona 85260

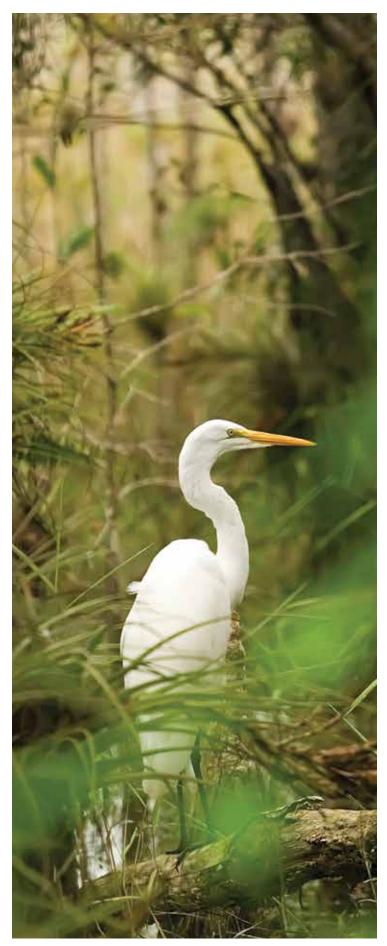
Please note: The defective unit must be accompanied by a description of the problem, and your phone number or e-mail address. Be sure to register your product at www.sperwarranty.com within ten (10) days of purchase.

## **Download Software**

With technology upgrading, some computers no longer have a disc drive for you to install the software that comes with your meter.

You can now find Software Download links on each individual product page that has free downloadable software available on our website.





## Certification Program



#### Purpose of the Program:

There is an increasing requirement by customers for documentation supporting manufacturer's claims of accuracy on their scientific equipment.

This is partially due to the increasing acceptance of quality standards, such as ISO 9000\* and GMP\*\*, which require that periodic certification of test equipment be performed and documented. We at Sper Scientific believe this trend is highly justified. To help, we have instituted this program of certification. Most testing is done in-house with our own state-of-the-art equipment. Whenever possible and practical, we use N.I.S.T. Traceable equipment and N.I.S.T. procedures.

- \* ISO 9002 1987 (E) Section 4.10
- \*\* FDA Good Manufacturing Practices Section 820.61

#### To Order

Simply add the suffix "C" to the regular catalog number. For example, Timer 810026 becomes 810026C in its certified version.

Please note: Certifications are pre-pay only.

#### Delivery:

The certification process may take up to two weeks, and products are promptly shipped once completed.

#### Complete Documentation:

Each calibrated product comes with:

- A serial number
- A certification label
- A certification report:

#### "Certification Report Traceable to N.I.S.T."

Specifies that the standards against which the product has been certified or calibrated were themselves calibrated by the National Institute of Standards and Technology (N.I.S.T.), or with N.I.S.T. calibrated equipment under conditions specified by N.I.S.T.



## **Green Policy**



#### Sper Scientific Green Policy:

We are committed to maintaining and enhancing the integrity of the environment and the world

we live in. Our goal is to achieve customer satisfaction while maintaining the trust of all of our stakeholders now and for generations to come.

#### Maintain Compliance:

At Sper Scientific, we do our best to ensure that the products we carry conform to or exceed relevant standards such as:



Restriction on Hazardous Substances Directive (RoHS)



By doing so, we strive to minimize our impact on the Earth by eliminating toxic materials from our manufactured goods, and by using recyclable materials wherever possible.

#### Purchase Green:

Like all companies, our purchasing decisions are influenced by costs. However, this is by no means the only factor we consider. At Sper Scientific, we make a conscious effort to ensure that we are purchasing from sustainable sources and choosing products that reduce the impact we have on the environment.

#### Reduce Waste:

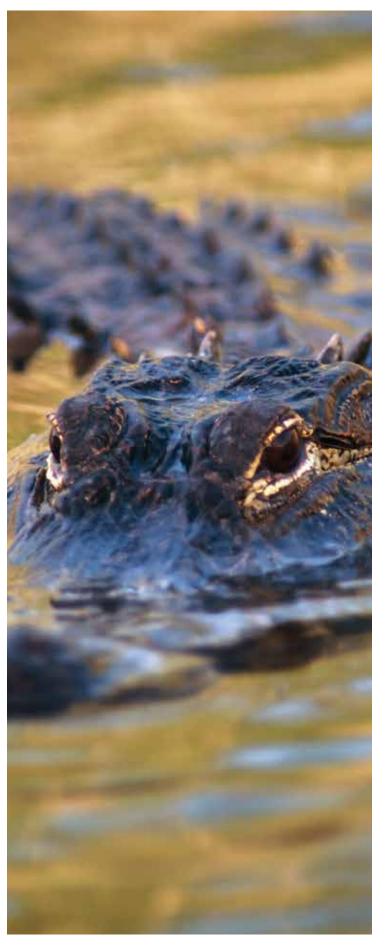
Sper Scientific addresses waste reduction by consuming and throwing away less, by purchasing durable, long-lasting goods, and seeking products and packaging that are free of toxic and non-biodegradable materials. Other ways we seek to reduce waste include:

**Packaging** — Whenever possible, we reuse every carton that comes into our facility for shipping products to our customers.

Electronic Communications — Unless our customers absolutely demand otherwise, we send all our quotes, invoices and other communications via e-mail. This reduces paper waste as well as fuel emissions from delivery.

**Reduced Printing** — It is company policy that any document that does not need to be printed be created in electronic format only.

Paper Reuse — Paper that has already been printed on, but no longer holds value based on its content, is reused for fax and copy machines, and is also bound and used as office notebooks. Paper that contains confidential information, or that is printed on each side, is shredded and used as packing material.





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Heat Stress	Timers
Hygrometers	Torque88
Indoor Air Quality	UV Light Meters
Laser Pointers	Ultrasonic Cleaners
Laser Power Meter	Vacuum
Light Meters	Vibration
Manometers	Water Quality Meters
Moisture	Multi-Parameter
Ovvigon $(0)$	

#### **About Us**

#### Why Sper Scientific?

For over 35 years, Sper Scientific has been committed to manufacturing reliable environmental measurement instruments that help maintain regulatory compliance and provide safer work environments. Sper Scientific products are sold through a network of over 100 distributors. These include all of the important laboratory and industrial hygiene distributors in North America, as well as others located throughout the world.

#### Our Goal:

Your complete satisfaction with every product purchased from Sper Scientific.

#### **Product Quality:**

Sper Scientific products are regularly tested for accuracy to ensure that they are within their stated specifications (always full scale unless otherwise noted). We also do reliability testing to ensure that products will continue to function correctly and accurately over time. On appropriate products we offer certificates of traceability to the United States N.I.S.T., based on tests performed on our state-of-the-art calibration equipment. All Sper Scientific products come with a warranty up to five years.

#### Service:

Sper Scientific's extensive QC programs make it unlikely that you will ever receive a defective product from us. (Our total rate of return does not exceed 1% on any product.) Most Sper Scientific products receive a 5 year warranty, if however, your customer should find a product defective, they may send the product directly to Sper Scientific for service.

#### **Fast Delivery:**

You will usually find all products in stock, at Sper Scientific with the exception of certain special order items. Most products ship within 3 business days with expedited delivery available.

#### **Competitive Pricing:**

Our pricing is always competitive. In addition please note that Sper Scientific products are generally delivered complete with probes, batteries, calibration tools and instructions necessary for immediate, out-of-the-box use. Competitors may charge extra for some of these accessories. At Sper Scientific we believe that a complete product simplifies your buying decision and use of our products. Resellers should contact sales@sperscientific.com for information about reseller quantity discounts.

#### **Product Design:**

All Sper Scientific meters are portable, self-contained and battery operated, making them appropriate for testing in both the lab and field. They are simple to use, and require no additional training. Sper Scientific products are also ergonomically and attractively designed. Good product design does not cost more than poor design.

#### **Technical Support:**

Most answers can be found in the downloadable instruction manuals on www.sperscientific.com. Please email quality@sperscientific.com if you have additional questions.

#### Note:

Prices and availability subject to change without notice.

#### Contact Us



Phone: (480) 948-4448 8 a.m. to 5 p.m. Monday to Friday, Arizona time.



Fax: (480) 967-8736



Mail: Sper Scientific 8281 E. Evans Rd., Suite 103 Scottsdale, AZ 85260 USA



Website: www.sperscientific.com Email: info@sperscientific.com

# SPER SCIENTIFIC Introduces

## Products for 2023

#### **Portable Residual Chlorine Analyzer** LH-C10F

Adopts the DPD photometric



which is specially used to determine the concentration of residual chlorine in water samples...

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method,

#### Handheld Carbon Monoxide Meter 800058

Handheld Meter.

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#### Low Range/ **High Precision Turbidity Meter** 860045

Measures Total Suspended Solids from 0-20 NTU.

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#### **Combination Water** Meter Kit (DO, Condutivity, pH, Temperature 850048

Measures Dissolved Oxygen, pH, Conductivity, TDS, Salinity or Temperature Using Different Probes.

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Quickly and Accurately Measure CO Levels with this Easy-to-Use



#### **Multifunction Moisture Meter** with Psychrometer 850003

Measures moisture content in wood and other building materials such as sheetrock, drywall, wallboard, concrete, mortar, plaster.

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#### **Compact Moisture Meter** 850001E

Our compact. pocket-sized moisture meter measures moisture content in wood and other building materials.

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#### **Multi-Function Digital Radiation Detector with Bluetooth** 840023

New technology, using a high precision geiger counter sensor and the latest CMOS integrated circuitry.

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#### Handheld Radiation Meter / **Geiger Counter** 840026

Small and light enough to go anywhere, vet sensitive enough to detect minuscule amounts of gamma, beta or X-rays.

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#### **Autoranging Radiation** Monitor / Geiger Counter 840024

Measures beta, gamma and x-ray radiation.

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#### 2-Pt. Acoustical Calibrator - Class 1 850012

For calibration of all Sper Scientific digital sound meters and any sound meter with a ½" microphone.

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#### CO2 Meter with PM 2.5/PM 10 -Temperature / Humidity 900025

Ideal for monitoring indoor air quality in offices, classrooms, hospitals and homes.

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#### WWW.SPERSCIENTIFIC.COM