

Water Quality
Airflow
Sound RH
Light **IAQ**
Radiation
Temperature
Heat Stress



Introducing

Page 26

WBGT Meter with Color-Coded LCD 801038

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Water Quality Meters

- 4 Conductivity/TDS/Salinity
- 8 Dissolved Oxygen
- 10 pH/ORP
- 16 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: 6½" x 1½" x 1½" (165 x 38 x 38 mm). WEIGHT: 2 oz (57 g).

No.	Description	Each
850036	Large Display Salinity Pen	\$67.00
850037	Large Display Conductivity Pen	\$64.00



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
Conductivity Pen 850037	0 to 1999 µS 0 to 19.99 mS	1 µS 0.01 mS	
Temperature (both models)	-32 to 122°F -0 to 50°C	0.1°	±2°F ±1°C

Pure Water Meter



Useful in industrial water testing Sophisticated features at a reasonable price

Measures conductivity (in a wide range of 0.1 µS to 199 mS), salinity, TDS (total dissolved solids), and temperature. Determine water purity 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 3½-ft cord, and 4 AAA batteries. EPA Equivalency Method: 120.1

DIM: 6¾" x 2¾" x 1¼" (171 x 70 x 32 mm). WEIGHT: 6.5 oz (185 g).

No.	Description	Each
850038	Pure Water Meter	\$314.00
850038P	Replacement Conductivity Probe	\$108.00
840052	Data Acquisition Software	\$59.00
840054	USB Cable	\$39.00
840089	Rubber Holster	\$13.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00



	Range	Resolution	Accuracy
Conductivity	0 to 19.9 µS/cm 0 to 199.9 µS/cm	0.01 µS/cm 0.1 µS/cm	±1% FS + 1 d
	0 to 1999 µS/cm	1 µS/cm	
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 1 ppm	±1% FS + 1 d
	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

Datalogging Conductivity/TDS Meter

Records data in the plant or field for later computer storage and analysis

Automatically records up to 16,000 data points in the field along with time and date. These can later be downloaded to a computer via the meter's USB port and the results can be viewed instantly on the free downloadable software. The software also enables real-time datalogging directly from the meter to the computer. Simultaneously displays conductivity or TDS and temperature. A user adjustable ATC coefficient enables absolute (non-temperature compensated) measurements, as well as accurate measurements in solutions other than water. Features manual or auto-range, min/max, calendar/clock, auto power off, and hold function. This well-made unit has a detachable probe, fold-out easel back, and a large, easy-to-read LCD. Comes ready to use in a protective foam-lined carrying case, complete with probe, free downloadable software, computer connection cable, 4 AA batteries, and one 3V button cell battery.

DIM: 8" x 3" x 1½" (203 x 76 x 38 mm). WEIGHT: 10 oz (283 g).



No.	Description	Each
850039	Datalogging Conductivity/TDS Meter	\$447.00
850040	Replacement Conductivity/TDS Probe	\$78.00
840058	USB Power Cable	\$29.00
840097	AC Adaptor	\$20.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00

	Range	Resolution	Accuracy
Conductivity	0 to 200.0 µS	0.1 µS	±(2% FS + 1 d)
	0.2 to 2.000 mS	0.001 mS	
	2 to 20.00 mS	0.01 mS	
	20 to 200.0 mS	0.1 mS	
TDS	0 to 132 ppm	0.1 ppm	±(2% FS + 1 d)
	132 to 1,320 ppm	1 ppm	
	1,320 to 13,200 ppm	10 ppm	
	13,200 to 132,000 ppm	100 ppm	
Temperature	32 to 140°F 0 to 60°C	0.1°	1.5°F 0.8°C



Benchtop Conductivity/TDS/Salinity Meter

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

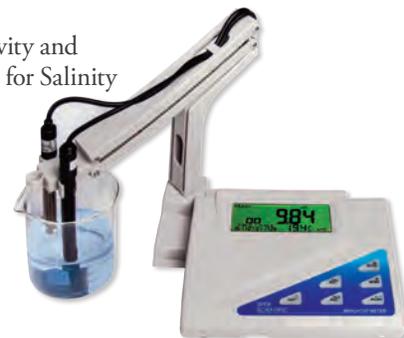
- Automatic or manual temperature compensation
- Automatic or manual ranging
- N.I.S.T buffer recognition
- Digital and analog outputs
- Min/Max and 99 data points
- Data Hold
- 5 calibration points for Conductivity and TDS (total dissolved solids) and 2 for Salinity
- Electrode status indication

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

DIM: 8½" x 7" x 2¼" (216 x 178 x 57 mm).

DIM WITH HOLDER ARM: 10" x 8" x 9" (254 x 203 x 229 mm).

WEIGHT: 18.7 oz (530 g).



No.	Description	Each
860032	Benchtop Conductivity/TDS/Salinity Meter	\$343.00
850038P	Replacement Conductivity Probe	\$108.00
840054	USB Cable	\$39.00
860030H	Benchtop Probe Holder Replacement	\$20.00

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



Scan this QR code to view our product demo.

AquaShock®

Rugged. Accurate. Reliable.

Bluetooth

Send Data Wirelessly

Use the Meter's Bluetooth® chip to wirelessly stream readings in real time, and log them on your computer, from up to 100-ft away.

Rechargeable Lithium-Ion Battery

provides over 80 hours of continuous usage on model 850034 and 200 hours per charge on all other models. Eliminates disposal of standard batteries containing mercury and other elements harmful to the environment. To protect the battery, AquaShock® meters automatically stop charging when full.

IP67 Waterproof including probe connections and will float if accidentally dropped in water.

Fully Shockproof. The integral (double injection molded) soft-grip outer layer provides a firm grip, even in wet environments and helps protect the internal components from shock. A reinforced internal structure and anti-shock LCD with a protective window further ensure that AquaShock® meters will not be damaged when dropped from any angle.

Patented Screw-Down Probe Connections are watertight when used with AquaShock® probes. When a waterproof connection is not needed, any BNC-connected probe can be used.

U.S. PATENT 8,480,428

4 AquaShock® Kits Now Available:

- Water Purity pg. 7
- Dissolved Oxygen pg. 9
- pH pg. 15
- pH/ORP pg. 15



Rugged, reliable, accurate

- Shockproof
- IP67 Waterproof
- Floats
- Rechargeable Lithium-Ion battery
- Protective soft-grip outer layer
- Send Data Wirelessly

AquaShock® meters have been designed and tested to ensure accurate, reliable water quality measurement under any conditions. Results are easy to read, in any light, on the large LED backlit display. Powered by a long-lasting, environmentally friendly, rechargeable Lithium-Ion battery. AquaShock® meters are very intuitive and include all the functions you will likely ever need, including: review of 99 memories (min/max/avg) directly on the meter's display, internal clock and calendar, temperature in °C or °F, auto-ranging, automatic and manual temperature compensation, and hold. Use the Meter's Bluetooth® chip to wirelessly stream readings in real time, and log them on your computer, from up to 100-ft away using the free downloadable software. EPA Equivalency Method: 120.1



- Determine water purity in applications such as coolers, waste water, environmental testing, aquariums and industrial quality control.
- Measures conductivity in mS or µS, TDS (Total Dissolved Solids) in ppm or ppt, and temperature.
- Recalls last calibration points.



Includes AquaShock® Pure Water Meter 850034; ATC conductivity/TDS probe; AC adaptor; manual; warranty card; probe input covers; protective, foam-lined, hard-shell carrying case.

AquaShock® is virtually unbreakable, eliminating the inconvenience of frequent instrument repair or replacement for at least 5 years of uninterrupted, accurate, reliable use.

METER DIM: 7¾" × 3¾" × 2¾" (197 × 95 × 70 mm). METER WEIGHT: 16 oz (454 g).
KIT DIM: 13½" × 11¼" × 3" (343 × 286 × 76 mm).

No.	Description	Each
850034K	AquaShock® Bluetooth® Water Purity Kit	\$774.00
850034P	Replacement AquaShock® ATC Conductivity/TDS Probe	\$273.00
840093	Field Tripod	\$35.00

	Range	Resolution	Accuracy
Conductivity	0 to 19.99 µS 0 to 199.9 µS 0 to 1999 µS	0.01 µS 0.1 µS 1 µS	±1% FS
	0 to 19.99 mS 0 to 199.9 mS	0.01 mS 0.1 mS	
TDS	0.0 to 9.99 ppm 10.0 to 99.9 ppm 100 to 999 ppm	0.01 ppm 0.1 ppm 1 ppm	
	1.0 to 9.99 ppt 10.0 to 199.9 ppt	0.01 ppt 0.1 ppt	
Temperature	32 to 212°F 0 to 100°C	0.1°	±0.9°F ±0.5°C



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U.S. PATENT 8,480,428



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: 7¾" × 1½" × 1½" (197 × 38 × 38 mm). WEIGHT: 4.1 oz (116 g).

No.	Description	Each
850045	Dissolved Oxygen Pen	\$293.00
850089	Replacement Heads with diaphragms for DO Probe	\$11.00
840044	Replacement DO Electrolyte	\$14.00

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



Scan this QR code to view our product demo.



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" × 2¾" × 1¼" (177 × 68 × 45 mm).

METER WEIGHT: 16 oz (489 g).

KIT DIM: 11" × 9½" × 2" (279 × 241 × 51 mm).

No.	Description	Each
850081DOK	Dissolved Oxygen Meter Kit	\$374.00
850081DO	Replacement ATC DO Probe	\$163.00
840016	pH Probe	\$81.00
840038	ATC Temperature Probe	\$48.00
840049	Spear Tip pH Probe	\$85.00
840051	Flat Surface pH Probe	\$91.00
850088	ORP Probe	\$141.00
850081C/TD	Conductivity/TDS Probe	\$56.00
850081C/SG	Pt Glass Low Conductivity Probe	\$135.00
850089	Replacement Heads with diaphragms for DO Probe	\$11.00
840044	Replacement DO Electrolyte	\$14.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00



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



Rugged, reliable, accurate

- Shockproof
- IP67 Waterproof
- Floats
- Rechargeable Lithium-Ion battery
- Protective soft-grip outer layer
- Send Data Wirelessly

AquaShock® meters have been designed and tested to ensure accurate, reliable water quality measurement under any conditions. Results are easy to read, in any light, on the large LED backlit display. Powered by a long-lasting, environmentally friendly, rechargeable Lithium-Ion battery. AquaShock® meters are very intuitive and include all the functions you will likely ever need, including: review of 99 memories (min/max/avg) directly on the meter's display, internal clock and calendar, temperature in °C or °F, auto-ranging, automatic and manual temperature compensation, and hold. Use the Meter's Bluetooth® chip to wirelessly stream readings in real time using the free downloadable software, and log them on your computer, from up to 100-ft away. EPA Equivalency Method: 360.1



- Measures DO (Dissolved Oxygen) in either % saturation, ppm or mg/L.
- Accepts corrections for salinity and barometric pressure.
- Automatic calibration to air.
- Recalls slope and last calibration.



Includes AquaShock® DO Meter 850046; AC adaptor; manual; warranty card; probe input covers; ATC DO probe with 10-ft cable; protective, foam-lined, hard-shell carrying case.

AquaShock® is virtually unbreakable, eliminating the inconvenience of frequent instrument repair or replacement for at least 5 years of uninterrupted, accurate, reliable use.

METER DIM: 7¾" × 3¾" × 2¾" (197 × 95 × 70 mm). METER WEIGHT: 16 oz (454 g).
KIT DIM: 13½" × 11¼" × 3" (343 × 286 × 76 mm).

No.	Description	Each
850046K	AquaShock® Bluetooth® DO Kit with 10-ft Probe Cable	\$812.00
850046K25	AquaShock® Bluetooth® DO Kit with 25-ft Probe Cable	\$942.00
850046K50	AquaShock® Bluetooth® DO Kit with 50-ft Probe Cable	\$965.00
850046P	Replacement AquaShock® ATC DO Probe 10-ft Cable	\$448.00
850046P25	Replacement AquaShock® ATC DO Probe 25-ft Cable	\$460.00
850046P50	Replacement AquaShock® ATC DO Probe 50-ft Cable	\$485.00
850046T	AquaShock® DO Electrolyte & DO Probe Heads	\$128.00
850046E	AquaShock® DO Electrolyte - 30 mL bottle	\$15.00
840093	Field Tripod	\$35.00

	Range	Resolution	Accuracy
mg/L	0.00 to 19.99 ppm	0.01 ppm	±1.0% FS
% Saturation	0.0 to 199.9%	0.1%	
Temperature	32.0 to 122.0°F 0.0 to 50.0°C	0.1°	±0.9°F ±0.5°C



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U.S. PATENT 8,480,428

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 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 4 button-cell batteries and a built-in electrode kept moist with a protective cap.

DIM: 6½" x 1½" x 1½" (165 x 38 x 38 mm).

WEIGHT: 2.3 oz (65 g).



No.	Description	Each
850050	Large Display pH Pen	\$42.00
850051	Large Display ATC pH Pen	\$51.00
850052	Large Display ATC 0.01 pH Pen	\$94.00
860008	pH 4, 3 bottles, 40 mL ea.	\$13.00
860009	pH 7, 3 bottles, 40 mL ea.	\$13.00
860010	pH 10, 3 bottles, 40 mL ea.	\$13.00
860011	Deionized Water, 3 bottles, 40 mL ea.	\$13.00
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.	\$13.00

	Model: 850050	850051	850052
Range	2 to 12 pH	0 to 14 pH	0 to 14 pH
Resolution	0.1 pH	0.1 pH	0.01 pH
Accuracy	±0.3 pH	±0.2 pH	±0.05 pH
Auto 3-pt Calibration	✓	✓	✓
IP65 Waterproof	✓	✓	✓
Indicates Low Battery	✓	✓	✓
Auto Power Off	✓	✓	✓
Auto Buffer Recognition:	✓	✓	✓
Hold	✓	✓	✓
Auto Temperature Compensation (ATC)		✓	✓
Temperature °C & °F Display		✓	✓
Special Features	Floats		



Test Tube pH Pens



Fits standard test tubes 16 x 50 mm or larger.

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 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.

DIM: 9½" x 1½" x 7/8" (245 x 35 x 22 mm). PROBE: 5" x 1/2" (120 x 12 mm).

WEIGHT: 2.5 oz (71 g).

No.	Description	Each
850062	Test Tube pH Pen	\$44.00
850063	Test Tube ATC pH Pen	\$59.00
860008	pH 4, 3 bottles, 40 mL ea.	\$13.00
860009	pH 7, 3 bottles, 40 mL ea.	\$13.00
860010	pH 10, 3 bottles, 40 mL ea.	\$13.00
860011	Deionized Water, 3 bottles, 40 mL ea.	\$13.00
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.	\$13.00

	Model: 850062	850063
Range	0 to 14 pH	0 to 14 pH
Resolution	0.01 pH	0.01 pH
Accuracy	±0.2 pH	±0.1 pH
Auto 3-pt Calibration	✓	✓
IP65 Waterproof	✓	✓
Indicates Low Battery	✓	✓
Auto Power Off	✓	✓
Auto Buffer Recognition	✓	✓
Hold	✓	✓
Auto Temperature Compensation (ATC)		✓
Temperature °C & °F Display		✓



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

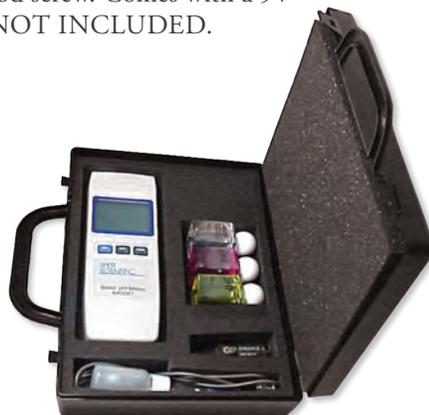
Large 7/8" high digits and lightweight design make this pH meter ideal for both field and lab applications. Simple to operate and works with any electrode with a BNC connector. Measures the full 0 to 14 pH range with a high 0.01 pH resolution. Features 2-pt. calibration, hold function, fold-out easel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

DIM: 8" x 2 3/4" x 1" (203 x 70 x 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 2 1/2-ft cable, pH buffers 4 and 7, deionized water, instructions, 9V battery, and hard carrying case.

KIT DIM: 11" x 9 1/2" x 2" (279 x 241 x 51 mm).

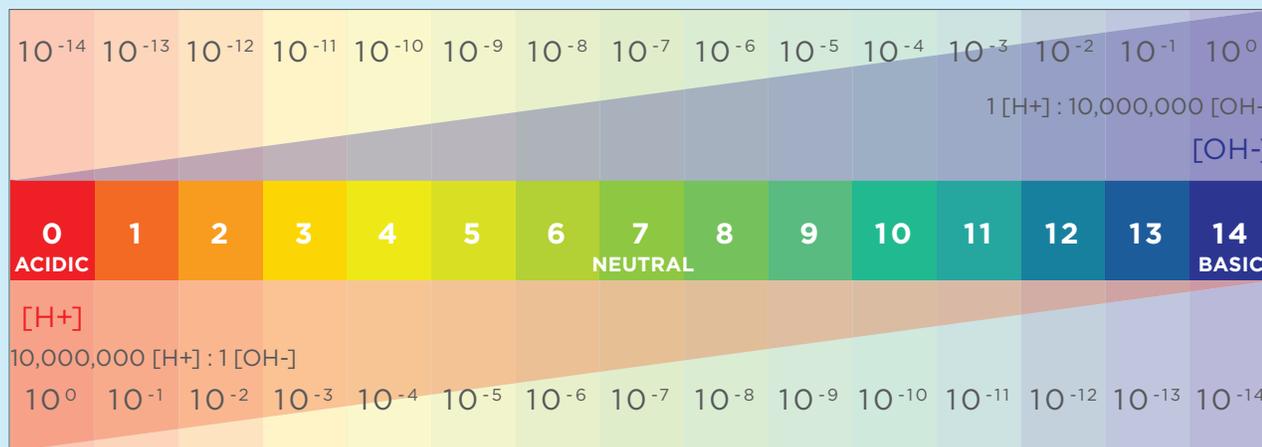


No.	Description	Each
840087	Basic pH Meter	\$79.00
840088	Basic pH Meter Kit	\$235.00
840016	Replacement pH Probe	\$81.00
840049	Spear Tip pH Probe	\$85.00
840051	Flat Surface pH Probe	\$91.00
860008	pH 4, 3 bottles, 40 mL ea.	\$13.00
860009	pH 7, 3 bottles, 40 mL ea.	\$13.00
860010	pH 10, 3 bottles, 40 mL ea.	\$13.00
860011	Deionized Water, 3 bottles, 40 mL ea.	\$13.00
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.	\$13.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00

Range	Resolution	Accuracy
0 to 14 pH	0.01 pH	±0.07 pH (pH 5 to 9) ±0.2 pH (<5 pH, >9 pH) <i>Meter only, after calibration and including error for temperatures of 23 ±5°C.</i>



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 0.000000000000001 M H+.



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. Will accept any pH or ORP probe with a BNC connector.

DIM: 7" x 2¾" x 1¼" (178 x 70 x 32 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" x 9" x 2¾" (356 x 229 x 70 mm).



No.	Description	Each
850055	Advanced pH Meter	\$153.00
850056	Advanced pH Meter Kit	\$265.00
850059P	Replacement ATC pH Probe	\$87.00
840016	pH Probe	\$81.00
840049	Spear Tip pH Probe	\$85.00
840051	Flat Surface pH Probe	\$91.00
850088	ORP Probe	\$141.00
840027	AC Adaptor	\$19.00
840052	Data Acquisition Software	\$59.00
840054	USB Cable	\$39.00
860008	pH 4, 3 bottles, 40 mL ea.	\$13.00
860009	pH 7, 3 bottles, 40 mL ea.	\$13.00
860010	pH 10, 3 bottles, 40 mL ea.	\$13.00
860011	Deionized Water, 3 bottles, 40 mL ea.	\$13.00
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.	\$13.00
840089	Rubber Holster	\$13.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00

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



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. ATC temperature probe available as an optional accessory. Will accept any pH or ORP probe with a BNC connector. **PROBE NOT INCLUDED.**

DIM: 7" x 2¾" x 1¾" (178 x 70 x 44 mm).
WEIGHT: 9.3 oz (264 g).



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 2½-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" x 9½" x 2" (279 x 241 x 51 mm).



No.	Description	Each
850060	pH SD Card Logger	\$225.00
850061	pH SD Card Logger Kit	\$289.00
840038	Replacement ATC Temperature Probe	\$48.00
840016	pH Probe	\$81.00
840049	Spear Tip pH Probe	\$85.00
840051	Flat Surface pH Probe	\$91.00
850088	ORP Probe	\$141.00
840058	USB Power Cable	\$29.00
840097	AC Adapter	\$20.00
860008	pH 4, 3 bottles, 40 mL ea.	\$13.00
860009	pH 7, 3 bottles, 40 mL ea.	\$13.00
860010	pH 10, 3 bottles, 40 mL ea.	\$13.00
860011	Deionized Water, 3 bottles, 40 mL ea.	\$13.00
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.	\$13.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00

	Range	Resolution	Accuracy
pH	0 to 14 pH	0.01 pH	± 0.04 pH
mV	-1999 to 1999 mV	1 mV	± 0.5% rdg + 2 d
ORP	-0 to 1999 mV		








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SPER
SCIENTIFIC

Large Display ORP Pen



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.

DIM: 6½" × 1½" × 1½" (165 × 38 × 38 mm). WEIGHT: 2 oz (57 g).

No.	Description	Each
850053	Large Display ORP Pen	\$101.00

Range	Resolution	Accuracy
-999 to 999 mV	1 mV	±4 mV

SPER
SCIENTIFIC

Benchtop pH/mV Meter



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 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: 8½" × 7" × 2¼" (216 × 178 × 57 mm). DIM WITH HOLDER ARM: 10" × 8" × 9" (254 × 203 × 229 mm). WEIGHT: 18.7 oz (530 g).

No.	Description	Each
860031	Benchtop pH/mV Meter	\$297.00
850059P	Replacement ATC pH Probe	\$87.00
840016	pH Probe	\$81.00
840049	Spear Tip pH Probe	\$85.00
840051	Flat Surface pH Probe	\$91.00
850038P	Conductivity Probe	\$108.00
850088	ORP Probe	\$141.00
840054	USB Cable	\$39.00
860030H	Benchtop Probe Holder Replacement	\$20.00
860008	pH 4, 3 bottles, 40 mL ea.	\$13.00
860009	pH 7, 3 bottles, 40 mL ea.	\$13.00
860010	pH 10, 3 bottles, 40 mL ea.	\$13.00
860011	Deionized Water, 3 bottles, 40 mL ea.	\$13.00
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.	\$13.00

	Range	Resolution	Accuracy
pH	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



Rugged, reliable, accurate

- Shockproof
- IP67 Waterproof
- Floats
- Send Data Wirelessly
- Also, accepts standard BNC probes
- Rechargeable Lithium-Ion battery
- Protective soft-grip outer layer

AquaShock® meters have been designed and tested to ensure accurate, reliable water quality measurement under any conditions. Results are easy to read, in any light, on the large LED backlit display. Powered by a long-lasting, environmentally friendly, rechargeable Lithium-Ion battery. AquaShock® meters are very intuitive and include all the functions you will likely ever need, including: review of 99 memories (min/max/avg) directly on the meter's display, internal clock and calendar, temperature in °C or °F, auto-ranging, automatic and manual temperature compensation, and hold. Use the Meter's Bluetooth® chip to wirelessly stream readings in real time, and log them on your computer, from up to 100-ft away.

AquaShock® is virtually unbreakable, eliminating the inconvenience of frequent instrument repair or replacement for at least 5 years of uninterrupted, accurate, reliable use.



No.	Description	Each
850057K	AquaShock® Bluetooth® pH Kit	\$662.00
850064K	AquaShock® Bluetooth® pH/ORP Kit	\$740.00
850057P	Replacement AquaShock® ATC pH Probe	\$232.00
850064P	AquaShock® ORP Probe	\$232.00
850057PG	AquaShock® Refillable ATC Glass pH Probe	\$252.00
860008	pH 4, 3 bottles, 40 mL ea.	\$13.00
860009	pH 7, 3 bottles, 40 mL ea.	\$13.00
860010	pH 10, 3 bottles, 40 mL ea.	\$13.00
860011	Deionized Water, 3 bottles, 40 mL ea.	\$13.00
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.	\$13.00
840093	Field Tripod	\$35.00



U.S. PATENT 8,480,428

pH Kit

- Measures pH, mV and temperature
- 5 calibration points
- Automatic buffer recognition
- Recalls electrode offset, slope and last calibration

Includes AquaShock® pH Meter 850057; AC adaptor; manual; warranty card; probe input covers; ATC pH probe; pH buffers 4, 7, 10 & deionized water; protective, foam-lined, hard-shell carrying case. EPA Equivalency Method (with Glass Probe): 150.1

METER DIM: 7¾" x 3¾" x 2¾" (197 x 95 x 70 mm).
METER WEIGHT: 16 oz (454 g).
KIT DIM: 13½" x 11¼" x 3" (343 x 286 x 76 mm).

	Range	Resolution	Accuracy
pH	0 to 14 pH	0.01 pH	±0.01 pH
mV	-1999 to 1999 mV	0.1 mV	±0.3 mV
Temperature	32 to 140°F 0 to 60°C	0.1°	0.9°F ±0.5°C

pH/ORP Kit

- Measures pH, mV & ORP (Oxygen Reduction Potential) and temperature
- 5 calibration points
- Automatic buffer recognition
- Recalls electrode offset, slope and last calibration

Includes AquaShock® pH/ORP Meter 850064; ATC pH probe; AC adaptor; manual; warranty card; probe input covers; pH buffers 4, 7, 10 & deionized water; protective, foam-lined, hard-shell carrying case. EPA Equivalency Method: 360.1

METER DIM: 7¾" x 3¾" x 2¾" (197 x 95 x 70 mm).
METER WEIGHT: 16 oz (454 g).
KIT DIM: 13½" x 11¼" x 3" (343 x 286 x 76 mm).

	Range	Resolution	Accuracy
pH	0 to 14 pH	0.01 pH	±0.01 pH
mV	-1999 to 1999 mV	0.1 mV	±0.3 mV
Temperature	32 to 140°F 0 to 60°C	0.1°	0.9°F ±0.5°C



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" × 2¾" × 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" × 9½" × 2" (279 × 241 × 51 mm).



No.	Description	Each
850081	Water Quality Meter	\$150.00
850086	Water Quality Meter pH Kit	\$268.00
840016	Replacement pH Probe	\$81.00
840038	Replacement ATC Temperature Probe	\$48.00
840049	Spear Tip pH Probe	\$85.00
840051	Flat Surface pH probe	\$91.00
850088	ORP Probe	\$141.00
850081C/TD	Conductivity/TDS Probe	\$56.00
850081C/SG	Pt Glass Low Conductivity Probe	\$135.00
850081DO	ATC Dissolved Oxygen Probe	\$163.00
850089	Replacement Heads with diaphragms for DO Probe	\$11.00
840044	Replacement DO Electrolyte	\$14.00
860008	pH 4, 3 bottles, 40 mL ea.	\$13.00
860009	pH 7, 3 bottles, 40 mL ea.	\$13.00
860010	pH 10, 3 bottles, 40 mL ea.	\$13.00
860011	Deionized Water, 3 bottles, 40 mL ea.	\$13.00
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.	\$13.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00



Specs for meter only, probe specs may vary		Range	Resolution	Accuracy
pH Probe 840016 (BNC connector)	pH	0 to 14 pH	0.01 pH	±0.04 pH
Spear Tip pH Probe 840049 (for non-liquid measurement, BNC connector)				
Flat Surface pH Probe 840051 (BNC connector)				
ORP Probe 850088 (BNC connector)		mV		
ATC Temp. Probe 840038 (for use with pH)	°F	32 to 140°F	0.1°	±1.5°F
ATC Conductivity/TDS/Salinity Probe 850081C/TD	mS	0.2 to 2,000 mS	0.001 mS	±(2% FS + 1 d)
		2 to 20 mS	0.01 mS	
	PPM	20 to 200 mS	0.1 mS	
		0 to 132 ppm	0.1 ppm	
		132 to 1,320 ppm	1 ppm	
		1,320 to 13,200 ppm	10 ppm	
		13,200 to 132,000 ppm	100 ppm	
	% 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 850081DO	DO	0 to 20 mg/L	0.1	±0.4 mg/L
	O ₂ in Air	0 to 100.0%		±0.7%
	°F	32 to 122°F		±1.5°F
	°C	0 to 50°C		±0.8°C

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: 8½" × 7" × 2¼" (216 × 178 × 57 mm). DIM WITH HOLDER ARM: 10" × 8" × 9" (254 × 203 × 229 mm). WEIGHT: 18.7 oz (530 g).

No.	Description	Each
860033	Benchtop Water Quality Meter	\$451.00
850038P	Replacement Conductivity Probe	\$108.00
850059P	Replacement ATC pH Probe	\$87.00
840016	pH Probe	\$81.00
840049	Spear Tip pH Probe	\$85.00
840051	Flat Surface pH Probe	\$91.00
850088	ORP Probe	\$141.00
840054	USB Cable	\$39.00
860030H	Benchtop Probe Holder Replacement	\$20.00
860008	pH 4, 3 bottles, 40 mL ea.	\$13.00
860009	pH 7, 3 bottles, 40 mL ea.	\$13.00
860010	pH 10, 3 bottles, 40 mL ea.	\$13.00
860011	Deionized Water, 3 bottles, 40 mL ea.	\$13.00
860012	pH Buffer Set: pH 4, pH 7, pH 10, 40 mL ea.	\$13.00

	Range	Resolution	Accuracy
pH	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	±1% FS + 1 digit
	0 to 19.99 mS/cm 0 to 199.9 mS/cm	0.01 mS/cm 0.1 mS/cm	
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



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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





Environmental Quality Meters

- 20 Anemometers
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- 34 Radiation
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- 42 Temperature/RH

new
LOOK



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.

DIM: 7" × 3" × 1½" (178 × 76 × 38 mm). SENSOR HEAD DIAMETER: 3" (76 mm). WEIGHT: 10 oz (283 g).

No.	Description	Each
840034	Psychrometer/Anemometer	\$253.00
840027	AC Adaptor	\$19.00
840052	Data Acquisition Software	\$59.00
840054	USB Cable	\$39.00
840089	Rubber Holster	\$13.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00



	Range	Resolution	Accuracy
Air Volume	0 to 99999 m ³ /sec 0 to 99999 ft ³ /min	0.1 (0 to 99.9) 1 (1000 to 9999)	±5%
Airspeed	0.3 to 35 m/s 1 to 114 ft/s		
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, and Capacity, are calculated values and have indirect accuracy.
Wet Bulb	-7.6 to 158°F -22 to 70°C		
Capacity BTU/H	0 to 99999 kW	0.1 (0 to 99.9) 1 (1000 to 9999)	

ENVIRONMENTAL QUALITY

ANEMOMETERS



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. 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 a SD card. N.I.S.T. Traceable Certificate of Calibration available (for Air Temperature & RH only).

DIM: METER: 7" × 2¾" × 1¾" (178 × 70 × 44 mm). WEIGHT: 16.9 oz (479 g).

No.	Description	Each
850071	Environmental Quality SD Card Logger	\$277.00
850071C	Environmental Quality SD Card Logger Certified	\$310.00
840058	USB Power Cable	\$29.00
840097	AC Adaptor	\$20.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00



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	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)
Airspeed km/h	1.4 to 90.0		±(0.2% + 0.8 km/h)
Airspeed mile/h	0.9 to 55.9		±(0.2% + 0.4 mph)
Airspeed knots	0.8 to 48.6	±(0.2% + 0.4 knots)	
Airspeed ft/min	80 to 4930	±(0.2% + 40 fpm)	
Lux	0 to 20,000	1	±(5% + 8 d)
Foot Candle	0 to 1,860		

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 air speed, air temperature, time and date. Features 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 complete with a detachable probe, 6 AA batteries, instruction manual and an SD card.

DIM: 7" x 2¾" x 1¾" (178 x 70 x 44 mm).
WEIGHT: 16.6 oz (471 g).



No.	Description	Each
850023	Anemometer SD Card Logger	\$368.00
850024	Hot Wire Anemometer SD Card Logger	\$482.00
800060-97	Type K/J Thermocouple Probes	see pg.57
840058	USB Power Cable	\$29.00
840097	AC Adaptor	\$20.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00



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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) ± (0.4% FS + 1°C)
Type K °C	-50 to 1300°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	0.5 to 44.7		±(1% FS +0.2 mph)
Type K °F	-58 to 2372°F		±(0.4% FS + 1.8°F) ±(0.4% FS + 1°C)
Type K °C	-50 to 1300°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

Hot Wire Vs. Vane Anemometer

Thermoelectric ("Hot Wire") Anemometers

Heat a wire to a specified temperature and then measure the rate of cooling. This rate is proportional to air speed. Thermoelectric measurement provides fast response times and excellent sensitivity to very low air flows of <1 m/s but these probes are also the most delicate of the two types and are not suitable for environments which are dusty, humid, corrosive, or where there are rapid fluctuations in the ambient temperature, all of which effect the rate of cooling. These anemometers cover ranges of 0.01 m/s - 5 m/s.

Vane Anemometers

Work on the principle that a freely turning turbine will rotate at a speed directly proportional to the wind speed. Vane Anemometers cover ranges as low as 0.15 m/s and as high as 40 m/s, or even higher by special order. Useful for a wide variety of applications including relatively harsh environments. Thresholds are not as low as with thermoelectric anemometers since the vane must overcome initial friction before it will turn.



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: 4¾" × 1¾" × ¾" (121 × 44 × 19 mm). WEIGHT: 2 oz (57 g).

No.	Description	Each
850025	Basic Mini Environmental Quality Meter	\$111.00
850026	Intermediate Mini Environmental Quality Meter	\$132.00
850027	Advanced Mini Environmental Quality Meter	\$202.00
850025V	Replacement Vane	\$35.00
850027P	Pt 1000 Temperature Probe	\$43.00



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ENVIRONMENTAL QUALITY

ANEMOMETERS

	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	✓	✓	✓
Air Temperature	32 to 122°F 0 to 50°C	0.1°	±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)	✓	✓	✓
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)			✓	✓
Wind Chill Temperature	15.0 to 112.0°F -0.4 to 44.2°C	0.1°	±3.6°F ±2.0°C		✓	✓
Heat Stress Index	32 to 212°F 0 to 100°C		±3.6°F ±2.0°C		✓	✓
Dew Point	-13.5 to 120.0°F -25.3 to 49.0°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)	14.0 to 212.0°F -10.0 to 100.0°C		±2.5°F ±1.2°C			✓
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			✓
Altitude	-6000 to 30000 ft -2000 to 90000 m	1 ft 1 m	±50 ft ±15 m			✓
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 ±8 dgt			✓

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: 7¼" × 3" × 1¾" (184 × 76 × 44 mm). WEIGHT: 7 oz (198 g).



No.	Description	Each
840003	Anemometer/Thermometer	\$176.00
840052	Data Acquisition Software	\$59.00
840054	USB Cable	\$39.00

	Range	Resolution	Accuracy
Temperature	14 to 122°F -10 to 50°C	0.1°	±1.0°F ±0.6°C
Airspeed ft/min	80 to 5900	1	±3%
Airspeed m/s	0.4 to 30	0.01	
Airspeed km/h	1.4 to 108	0.1	
Airspeed mile/h	0.9 to 68	0.1	
Airspeed knots	0.8 to 58	0.1	



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" × 2½" × 1" (152 × 64 × 25 mm). WEIGHT: 5.3 oz (150 g).



No.	Description	Each
850070	Mini Environmental Quality Meter	\$160.00

	Range	Resolution	Accuracy
Ambient Temperature	32 to 122°F 0 to 50°C	0.1	±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%		±6% 30 to 60 RH otherwise ±8%
Airspeed m/s	0.4 to 25.0		±(3% + 2 d)
Airspeed km/h	1.4 to 90.0		
Airspeed mile/h	0.9 to 55.9		
Airspeed knots	0.8 to 48.6		
Airspeed ft/min	80 to 4930	1	±(3% + 20 ft/min)
Lux	0 to 20,000	0.1	±(5% + 4 d)
Foot Candle	0 to 2,000		



Hybrid Powered Environmental Quality Meter



Measures 5 parameters in the field without batteries

A unique hand-powered generator enables environmental quality measurements with or without batteries. Combines an anemometer, hygrometer, thermometer, and light meter in a single rugged unit. Also, reads any type-K thermocouple probe. The large dual LCD displays results and indicates low battery and out of range. Features touch-tone buttons, min/max, auto power off and hold functions. Comes ready to use in a foam-lined, hard-shell carrying case with instructions, 9V battery, easel back and a tripod screw.

DIM: 7¼" × 2¾" × 1½" (184 × 70 × 38 mm).

WEIGHT: 14 oz (397 g).

No.	Description	Each
850068	Hybrid Powered Environmental Quality Meter	\$246.00
800060-77	Type-K Thermocouple Probes	see pg.57
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00



Scan this QR code to view our product demo.

	Range	Resolution	Accuracy
Ambient Temperature	32 to 122°F 0 to 50°C	0.1	±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 25.0		<20 m/s ±3% FS >20 m/s ±4% FS
Airspeed km/h	1.4 to 90.0		
Airspeed mile/h	0.9 to 55.9		
Airspeed knots	0.8 to 48.6		
Airspeed ft/min	80 to 4930	1	
Lux	0 to 20,000 1800 to 20,000	1 10	±5% rdg + 8 d
Foot Candle	0 to 204.0 170 to 1860	0.1 1	

Environmental Quality Meter with Sound



6 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. N.I.S.T. Traceable Certificate of Calibration available.

DIM: 9¾" × 2¾" × 1¼" (248 × 70 × 32 mm). WEIGHT: 12 oz (340 g).

No.	Description	Each
850069	Environmental Quality with Sound	\$278.00
850069C	Environmental Quality with Sound Certified	\$311.00
800060-77	Type-K Thermocouple Probes	see pg.57
840058	USB Power Cable	\$29.00
840097	AC Adaptor	\$20.00
850016	2-Pt. Acoustical Calibrator	\$256.00
840091	Sound Meter Windscreen	\$4.00
840093	Field Tripod	\$35.00



	Range	Resolution	Accuracy
Ambient Temperature	32 to 122°F 0 to 50°C	0.1	±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		<20 m/s ±3% FS >20 m/s ±4% FS
Airspeed km/h	1.4 to 108.0		
Airspeed mile/h	0.9 to 67.0		
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	±5% rdg + 8 d
Foot Candle	0 to 204.0 170 to 1860	0.1 1	
dB	35 to 130	0.1	23+5°C ±1.5 dB

Heat Stress Monitor & Datalogging Monitor

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

- TA (Air Temperature)
- RH
- Heat Index
- Dew Point
- Wet Bulb



Government organizations such as OSHA have set recommended heat stress limits for various activities. Continually monitor 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 come with the unit and free downloadable software. Both models include 4 AAA batteries and stand on a desk-top or wall mount. An AC Adaptor is included with Datalogger 800035 and available as an optional accessory for Monitor 800034.

DIM: 4½" x 4¼" x 1" (108 x 115 x 25 mm). WEIGHT: 5 oz (141 g).

No.	Description	Each
800034	Heat Stress Monitor	\$98.00
800035	Datalogging Heat Stress Monitor	\$154.00
800059	AC Adapter	\$11.00

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



Scan this QR code to view our product demo.

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: 1½" (38 mm). METER DIM: 9¾" x 2" x 1¼" (248 x 51 x 32 mm).

WEIGHT: 4.6 oz (130 g).



No.	Description	Each
800036	WBGT Heat Stress Meter	\$125.00
800036C	WBGT Heat Stress Meter Certified	\$158.00
840052	Data Acquisition Software	\$59.00
840054	USB Cable	\$39.00
840093	Field Tripod	\$35.00

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



Scan this QR code to view our product demo.

WBGT Meter with Color-Coded LCD

new



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 can be seen at a distance 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" x 3" x 1½" (302 x 75 x 37 mm). WEIGHT: 10.6 oz (300 g)

	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

No.	Description	Each
801038	WBGT Meter with Color-Coded LCD	\$211.00
801038C	WBGT Meter with Color-Coded LCD Certified	\$244.00
840093	Field Tripod	\$35.00



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 	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 (WBGD) 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 preformatted 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 WBGD 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 a SD card. N.I.S.T. Traceable Certificate of Compliance available (for RH & Air Temperature only).

DIM: 10¾" x 2½" x 1¾" (273 x 64 x 44 mm). GLOBE DIAMETER: 2¾" (70 mm).
WEIGHT: 14.9 oz (422 g).



No.	Description	Each
800037	WBGD SD Card Logger	\$471.00
800037C	WBGD SD Card Logger Certified	\$507.00
840058	USB Power Cable	\$29.00
840097	AC Adaptor	\$20.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00

	Range	Resolution	Accuracy
WBGD	Indoor / Outdoor: @95% RH 14 to 126°F (0% RH 14 to 93°F)	0.1	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)		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 automatically using the humidity/air temperature measurement.
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)		

Scan this QR code to view our product demo.

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 CO₂. Simultaneously displays O₂ concentration and air temperature in °C or °F. Features hold, min/max, 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" x 1½" x 1½" (178 x 38 x 38 mm). WEIGHT: 5.3 oz (150 g).

No.	Description	Each
800047	Oxygen Pen	\$370.00

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



Large display continually monitors the primary IAQ (Indoor Air Quality) parameters: Air Temperature, RH & CO₂



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. Recalls min/max CO₂ levels and provides visual alarms for maximum CO₂ threshold. Automatic Baseline Calibration (ABC) and maintenance free NDIR (non-dispersive infrared) CO₂ sensor ensure long-term accuracy, stability and reliability. Comes with an AC adaptor and will stand on a desk-top or wall mount.

Datalogging Model 800049 also records up to 32,000 data points that can be downloaded using the USB cable included with this model and free downloadable software.

DIM: 4½" x 4¼" x 1" (108 x 115 x 25 mm). WEIGHT: 6 oz (170 g).

No.	Description	Each
800048	Indoor Air Quality Monitor	\$237.00
800059	AC Adaptor	\$11.00
800049	Datalogging IAQ Monitor	\$273.00

	Range	Resolution	Accuracy
Temperature	-14 to 122°F -10 to 50°C	0.1°	±2.5°F ±0.6°C (-10 to 50°C) otherwise ±1.2°C
RH - 800048	10 to 90%	0.1%	±5% (@25°C & 10 to 99% RH) otherwise ±7%
RH - 800049	0.1 to 99.9%		
CO ₂	0 to 9999 ppm	1 ppm	±75 ppm +5% of rdg (0 to 2000 ppm)



Portable measurement and datalogging of Air Temperature, RH, CO₂, 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 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. 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) CO₂ 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 CO₂ that can be downloaded using a USB cable and software (included). Comes complete with tripod screw, soft carrying case, 6 x AAA batteries, AC Adaptor, USB computer cable and free downloadable software.

DIM: 8¼" x 2¼" x 2" (210 x 57 x 51 mm). WEIGHT: 7 oz (198 g).

No.	Description	Each
800050	Datalogging IAQ Meter	\$241.00
800059	AC Adaptor	\$11.00
840093	Field Tripod	\$35.00

	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 ₂	0 to 9999 ppm	1 ppm	±75 ppm +5% of rdg (0 to 5000 ppm)



Monitor indoor air quality in public spaces with potentially high levels of CO₂ (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.



DIM: 8½" x 2¾" x 2¼" (216 x 70 x 57 mm). WEIGHT: 9.6 oz (272 g).

No.	Description	Each
800046	Indoor Air Quality Meter	\$389.00
840027	AC Adaptor	\$19.00
840052	Data Acquisition Software	\$59.00
840054	USB Cable	\$39.00
840090	Water Resistant Instrument Pouch	\$12.00

	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 ₂	0 to 5000 ppm	1 ppm	±30 ppm + ±5% rdg



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

- Air Temperature
- RH
- CO₂

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. Displays readings on a bright green LED display with 2½" high CO₂ digits. Also, indicates general CO₂ levels with green (good), yellow (fair), and red (poor) LED lights. User may set a maximum CO₂ audible alarm and adjust temperature and RH readings to match any standard. Automatic Baseline Calibration (ABC) and maintenance free NDIR (non-dispersive infrared) CO₂ 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" x 8½" x 2" (304 x 216 x 51 mm). WEIGHT: 46.4 oz (1315 g).

No.	Description	Each
800051	IAQ Wall Monitor	\$652.00

	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 ₂	0 to 9999 ppm	1 ppm	±75 ppm +5% of rdg





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, bar graph display and computer output.

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.

METER DIM: 7¾" x 2¾" x 1¼" (197 x 70 x 32 mm). WEIGHT: 10 oz (283 g).

ENVIRONMENTAL QUALITY

LIGHT

No.	Description	Each
840006	Light Meter Lux	\$117.00
840006C	Light Meter Lux Certified	\$150.00
840020	Light Meter Lux/FC	\$145.00
840020C	Light Meter Lux/FC Certified	\$178.00
840021	Light Meter FC	\$117.00
840021C	Light Meter FC Certified	\$150.00
840022	Advanced Light Meter	\$165.00
840022C	Advanced Light Meter Certified	\$198.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00



840006 - Light Meter Lux		
Range	Resolution	Accuracy
0 to 1,999 Lux	1 Lux	±(5% + 4 d)
2,000 to 19,990 Lux	10 Lux	
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.		

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 - Light Meter Lux/FC & 840022 - Advanced 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
Foot Candle	4.000	0 to 3.720	0.001	±(3% rdg + 0.5% FS)
	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
Accuracy tested by a standard parallel light, tungsten lamp of 2856°K				

Records data onto removable SD Cards

Reads lux, foot candles and functions as a type K or J thermometer. 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. 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 a SD card. N.I.S.T. Traceable Certificate of Calibration available.

DIM: 7" x 2 3/4" x 1 3/4" (178 x 70 x 44 mm). WEIGHT: 11.4 oz (323 g).



No.	Description	Each
850007	Visible Light SD Card Logger	\$225.00
850007C	Visible Light SD Card Logger Certified	\$259.00
800060-97	Type K/J Thermocouple Probes	see pg.57
840058	USB Power Cable	\$29.00
840097	AC Adaptor	\$20.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00

	Range	Resolution	Accuracy
Lux	2,000	1	±(4% rdg + 2 dgt)
	20,000	10	
	100,000	100	
Foot Candle	200	0.1	±(4% rdg + 2 foot candle)
	2,000	1	
	10,0001	10	
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		



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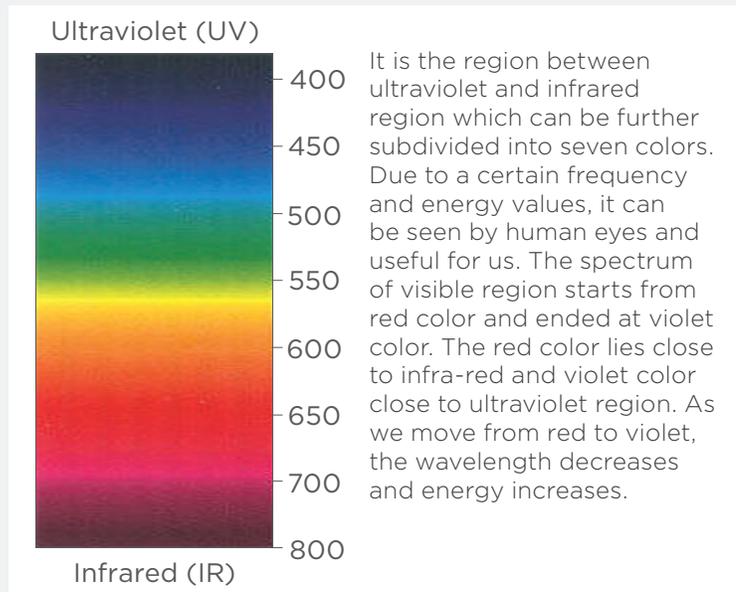
ENVIRONMENTAL QUALITY

LIGHT

Light Conversion Chart

TO CONVERT FROM	INTO	MULTIPLY BY
Lumens	Candela Steradian	1.0
Lumens	Candle power (spherical)	0.07958
Lumens	Watts	0.0015
Lumens per sq cm	Lamberts	1.0
Lumens per sq cm	Lux	10000
Lumens per sq cm	Phots	1.0
Lumens per sq ft	Foot-candles	1.0
Lumens per sq ft	Foot Lamberts	1.0
Lumens per sq ft	Lumens / sq meter	10.76391
Lumens per sq ft	Lux	10.76396
Lumens per sq meter	Foot-candles	0.0929
Lumens per sq meter	Lumens / sq ft	0.0929
Lumens per sq meter	Phots	0.0001
Lumens per sq meter	Lux	1.0
Lux	Foot-candles	0.0929
Lux	Lumens / sq meter	1.0
Lux	Phots	0.0001

Visible Spectrum





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 μW or mW/cm^2 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: 5½" x 2" x 1½" (140 x 51 x 38 mm). WEIGHT (WITH PROBE): 8.7 oz (247 g).



No.	Description	Each
850009	UV Light Meter UVA/B	\$182.00
850009C	UV Light Meter UVA/B Certified	\$322.00
850010	UV Light Meter UVC	\$676.00
850010C	UV Light Meter UVC Certified	\$816.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00

	850009	850010
Wavelength	280 to 400 nM	220 to 275 nM
Calibration Point	365 nM	254 nM
UV Range	1 $\mu\text{W}/\text{cm}^2$ to 40 mW/cm^2	
Resolution	1 μW and 0.01 mW/cm^2	
Accuracy	$\pm 4\% \pm 1$ digit (@23 $\pm 5^\circ\text{C}$)	

ENVIRONMENTAL QUALITY



Easily carried in a shirt pocket

This tiny meter is less than ¼" 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: 4½" x 3" x ¾" (114 x 76 x 19 mm). WEIGHT: 3.9 oz (111 g).

No.	Description	Each
840011	Pocket Laser Power Meter	\$273.00



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	$\pm 5\%$ @calibrated wavelength 633 nM / 1 mW
Additional Features	Min/Max
Cord Length	15"
Probe Dim	3½" x ½" x ½" (89 x 13 x 13 mm)
Operating Temperature	0 to 40°C
Operating RH	80% non condensing, maximum

LIGHT

Pocket Moisture Meter

Rugged, reliable and versatile

- Moisture content
- RH
- Dew Point
- Wet Bulb
- Ambient Temperature

Accurately reads elevated moisture content in various materials for use in building inspection and other industries. Seven material group settings cover various woods, cement, concrete, mortar, plaster, and brick. The large LCD withstands freezing temperatures, features a bright backlight, low battery indicator and a bar graph. Also, displays ambient RH, dew point, wet bulb, maximum and minimum temperatures. The pins are minimally invasive while still having the strength to penetrate up to 5 mm through the hardest materials. Sturdy pins remain sharp even after repeated use but unscrew for easy replacement. Features built in self-calibration and a hold function. Comes ready to use in a soft carrying case with pins, clear instructions and 2 AAA batteries.



new

DIM: 5" x 2¼" x 1" (130 x 56 x 29 mm). WEIGHT: 4 oz (120 g).

No.	Description	Each
850001	Pocket Moisture Meter	\$104.00
850001PS	Pocket Moisture Meter Replacement Pin (Set of 2)	\$2.00

	Range	Resolution	Accuracy
Temperature	23 to 113°F (-5 to 45°C)	0.1°	±2°C
RH	10 to 90%	0.1%	±5%
Dew Point	32 to 85°F (0 to 30°C)	0.1°	±2°C
Wet Bulb*	23 to 113°F (-5 to 45°C)	0.1°	N/A*
Moisture Content	0 to 75%	0.1%	±2% FS

*Wet Bulb value is calculated internally using the temperature and relative humidity. There is no physical wet bulb located on the meter, therefore there is no stated accuracy.



Scanning Moisture Meter

Non-Invasive

Accurately reads elevated moisture content using cutting edge electromagnetic wave technology that penetrates ¼" 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.



new

DIM: 9½" x 2½" x 1" (242 x 63 x 30 mm). WEIGHT: 8 oz (226 g).

No.	Description	Each
850002	Scanning Moisture Meter	\$155.00

	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 - 40°C And less than 85% Relative Humidity		
Reading Depth Range	6 - 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 1 1/4" 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. Certificate of Compliance available.

DIM: 5" x 2" x 1 1/4" (127 x 51 x 32 mm). WEIGHT: 5.4 oz (153 g).

No.	Description	Each
840045	EMF Meter	\$108.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00
850000	Rubber Boot	\$6.00

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



ENVIRONMENTAL QUALITY



Measure the electromagnetic field radiation intensity that is produced from welding equipment, microwave oven leakage, and other environmental safety concerns

The Sper Scientific Microwave Meter is calibrated precisely on the frequency value 2.45 GHz (microwave oven). Features maximum and minimum hold, an audible alarm, and a zero adjustment to eliminate background EMF. The display also indicates overload and low battery. Comes with a soft carrying case and standard 9V battery, which provides approximately 100 hours of use.

DIM: 5" x 2" x 1 1/4" (127 x 51 x 32 mm). WEIGHT: 5.4 oz (153 g).

No.	Description	Each
840046	Microwave Meter	\$194.00
850000	Rubber Boot	\$6.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00

Display	3 1/2 digits, maximum reading 3999
RF Power Density	0.003 to 2.700 mW/cm ²
RF Frequency	50 MHz to 3.5 GHz
Microwave Frequency	2450 MHz
Resolution	0.001 mW/cm ²
Accuracy	±2 dB @2.45 GHz ±50 MHz
Axis	Single
Alarm	@ readings >1 mW/cm ²
Operating Temperature	41 to 104°F 5 to 40°C
Operating RH	<80% RH



RADIATION

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. 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: 7¾" x 2½" x 2½" (197 x 64 x 64 mm). WEIGHT: 10.3 oz (292 g).



No.	Description	
840047	3-Axis RF Meter	\$222.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00

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



ENVIRONMENTAL QUALITY

ABOUT SOUND METERS

How Sound Meters Work

Sound level meters measure sound pressure (waves) by taking sound in through a microphone and processing it with a filter. This filter gives a “weighting” to the frequencies which make up the sound. The “weighted” intensity of the sound is then expressed in decibels (dB) by the meter. The weightings normally found on sound meters are “A” and “C”. “A” weighting is the standard filter used by most regulatory agencies. See the chart to the below for the frequency weightings for the “A” and “C” filters on Sper Scientific sound meters.

NORMAL FREQUENCY HZ	A WEIGHTING dB	C WEIGHTING dB
10	-70.4	-14.3
12.5	-63.4	-11.2
16	-56.7	-8.5
20	-50.5	-6.2
25	-44.7	-4.4
31.5	-39.4	-3.0
40	-34.6	-2.0
50	-30.2	-1.3
63	-26.2	-0.8
80	-22.5	-0.5
100	-19.1	-0.3
125	-16.1	-0.2
160	-13.4	-0.1
200	-10.9	0
250	-8.6	0
315	-6.6	0
400	-4.8	0

NORMAL FREQUENCY HZ	A WEIGHTING dB	C WEIGHTING dB
500	-3.2	0
630	-1.9	0
800	-0.8	0
1000	0	0
1250	+0.6	0
1600	+1.0	-0.1
2000	+1.2	-0.2
2500	+1.3	-0.3
3150	+1.2	-0.5
4000	+1.0	-0.8
5000	+0.5	-1.3
6300	-0.1	-2.0
8000	-1.1	-3.0
10000	-2.5	-4.4
12500	-4.3	-6.2
16000	-6.6	-8.5
20000	-9.3	-11.2

RADIATION



Easy to operate with analog display

Small, hand-held unit (weighs only 7 oz) can be used to measure sound levels anywhere:

- Measure sound levels in the work place.
- Quality control for sound level inspection of products.
- Environmental noise pollution.
- Background sound level, traffic, and more.

Two scales cover the 40 to 80 dB and 80 to 120 dB ranges, with an accuracy of ±3.0 dB. Simple to operate with one selection dial that includes a battery test mode. Stable, reliable operation with signal oscillator calibration and a capacitance microphone. Based on decibel frequency weighting "A" according to ANSI. Comes with a carrying case, instructions and a 9V battery.

DIM: 6¼" × 2½" × 1½" (159 × 64 × 38 mm). WEIGHT: 7 oz (198 g).

No.	Description	Each
840005	Sound Meter	\$63.00

Range	Resolution	Accuracy
40 to 80 dB 80 to 120 dB	2 dB	±4.0 dB



ENVIRONMENTAL QUALITY



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 is available.

DIM: 8" × 1½" × 1" (203 × 38 × 25 mm). WEIGHT: 4.3 oz (122 g).

No.	Description	Each
840018	Sound Level Pen	\$139.00
840018C	Sound Level Pen Certified	\$172.00
850016	2-Pt. Acoustical Calibrator	\$256.00
840091	Replacement Windscreen	\$4.00

Range	Resolution	Accuracy
30 to 130 dB	0.1 dB	±1.5 dB



U.S. PATENT 7,270,006

SOUND

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" x 2½" x 1½" (203 x 54 x 38 mm). WEIGHT: 5.8 oz (164 g).



No.	Description	Each
850014	Mini Sound Meter	\$160.00
850014C	Mini Sound Meter Certified	\$193.00
850016	2-Pt. Acoustical Calibrator	\$256.00
840091	Replacement Windscreen	\$4.00
850000	Rubber Boot	\$6.00

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



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: 10¼" x 2¼" x 1" (258 x 55 x 25 mm). WEIGHT: 6.5 oz (185 g).



No.	Description	Each
850015	Graphic Display Sound Meter	\$207.00
850015C	Graphic Display Sound Meter Certified	\$240.00
850016	2-Pt. Acoustical Calibrator	\$256.00
840093	Field Tripod	\$35.00

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





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 fold-out 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" × 2½" × 1" (203 × 64 × 25 mm). WEIGHT: 13.6 oz (386 g).

No.	Description	Each
840012	Detachable Probe Sound Meter	\$299.00
840012C	Detachable Probe Sound Meter Certified	\$332.00
850016	2-Pt. Acoustical Calibrator	\$256.00
840091	Replacement Windscreen	\$4.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00

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



ENVIRONMENTAL QUALITY



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: 8½" × 3½" × 1¾" (216 × 80 × 35 mm). WEIGHT: 10 oz (283 g).

No.	Description	Each
840029	Digital Type 2 Sound Meter	\$282.00
840029C	Digital Type 2 Sound Meter Certified	\$315.00
850016	2-Pt. Acoustical Calibrator	\$256.00
840091	Replacement Windscreen	\$4.00

Range	Resolution	Accuracy
A (dBA weighting: 30 to 130 dB)	0.1 dB	±1.0 dB
C (dBC weighting: 35 to 130 dB)		



SOUND

new



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. 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, windscreens, 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. An N.I.S.T. traceable certificate of calibration is also available.

DIM: 10½" x 2½" x 1¼" (273 x 89 x 38 mm). WEIGHT: 14.6 oz (414 g).

No.	Description	Each
850018	Sound Recorder/Datalogger	\$570.00
850018C	Sound Recorder/Datalogger Certified	\$603.00
800003	AC Adapter	\$17.00
850017P	16-ft Microphone Extension Cable	\$74.00
840091	Replacement Windscreen	\$4.00
840093	Field Tripod	\$35.00

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



±0.7 dB Accuracy

Meets IEC 61672 and ANSI S1.4:2014 for a class 1 sound meter. 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 windscreens, 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: 10½" x 3½" x 1½" (267 x 89 x 38 mm). WEIGHT: 16.1 oz (454 g).

No.	Description	Each
840015	Sound Meter Type 1	\$377.00
840015C	Sound Meter Type 1 Certified	\$410.00
850016	2-Pt. Acoustical Calibrator	\$256.00
840091	Replacement Windscreen	\$4.00
840093	Field Tripod	\$35.00

Range	Resolution	Accuracy
30 to 130 dB	0.1 dB	±0.7 dB (125 Hz to 4 kHz)



new
LOOK



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. The optional microphone extension cable enables remote measurements. N.I.S.T. Traceable Certificate of Calibration available.

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

No.	Description	Each
850013	Adv. Datalogging Sound Meter	\$481.00
850013C	Adv. Datalogging Sound Meter Certified	\$514.00
800003	AC Adapter	\$17.00
850016	2-Pt. Acoustical Calibrator	\$256.00
850017P	16-ft Microphone Extension Cable	\$74.00
840091	Replacement Windscreen	\$4.00
840093	Field Tripod	\$35.00

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



ENVIRONMENTAL QUALITY

new
LOOK



Calculates SPL and L_{EQ}

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. 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: $10\frac{3}{4}'' \times 3\frac{1}{2}'' \times 1\frac{1}{2}''$ (273 x 89 x 38 mm). WEIGHT: 14.6 oz (414 g).

No.	Description	Each
850017	Integrating Sound Datalogger	\$667.00
850017C	Integrating Sound Datalogger Certified	\$700.00
850016	2-Pt. Acoustical Calibrator	\$256.00
850017P	16-ft Microphone Extension Cable	\$74.00
840091	Replacement Windscreen	\$4.00
840093	Field Tripod	\$35.00

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



SOUND

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

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 ±4% with an accuracy of ±0.5 dB. Built in battery check. Easily portable for field use, it comes with a carrying case, adaptors for 1/2" and 1" microphones, instructions and a 9V battery.

DIM: 5" x 1 7/8" (127 x 48 mm). WEIGHT: 8.4 oz (238 g).



No.	Description	Each
850016	2-Pt. Acoustical Calibrator	\$256.00



Scan this QR code to view our product demo.

Output Sound Level:	94 dB and 114 dB re 20 uPA under reference
Output Frequency	1 kHz ±4%
Accuracy	±0.5 dB
Operating Environment	32 to 104°F (0 to 40°C)
	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

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.



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 Δ 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: 1/2" x 6 1/2" (12.8 x 165 mm). WEIGHT: 1.7 oz (48 g).

No.	Description	Each
800012	RH/Temperature Pen	\$36.00
800012C	RH/Temperature Pen Certified	\$69.00

	Range	Resolution	Accuracy
Temperature	-4 to 140°F -20 to 60°C	0.1°	2°F ±1°C
RH	20 to 95%	0.1%	±3% FS 30 to 80% RH otherwise ±5%



Simultaneously displays Internal Temperature/RH and External Temperature

Large 3-3/16 x 2 1/2" 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.

DIM: 4 1/4" x 3 3/4" x 7/8" (110 x 97 x 20 mm). WEIGHT: 6 oz (170 g).

No.	Description	Each
800015	Humidity/Temperature Monitor w/Remote Temp	\$31.00
800015C	Humidity/Temperature Monitor w/Remote Temp Certified	\$64.00

	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%



Humidity/Temperature Monitor

Simultaneously monitors RH/Temperature

Large 3 3/16" x 2 1/2" 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.

DIM: 4 1/4" x 3 3/4" x 7/8" (110 x 97 x 20 mm). WEIGHT: 6 oz (170 g).



No.	Description	Each
800016	Humidity/Temperature Monitor	\$44.00
800016C	Humidity/Temperature Monitor Certified	\$77.00

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



In-Out Humidity/Temperature Monitor

Simultaneously displays Internal and External Temp/RH.

Large 3 3/16" x 2 1/2" 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 1/4" x 3 3/4" x 7/8" (110 x 97 x 20 mm). WEIGHT: 6 oz (170 g).



No.	Description	Each
800027	In/Out RH/Temperature Monitor	\$57.00
800027C	In/Out RH/Temperature Monitor Certified	\$90.00

	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		
RH	10 to 99%	1%	±5%





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.

DIM: MONITOR: 3 1/8" x 3 1/8" x 1 1/4" (80 x 80 x 30 mm).

SENSOR: 4 1/2" x 2 1/2" x 1" (110 x 60 x 30 mm).

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

ENVIRONMENTAL QUALITY

Temperature/RH

No.	Description	Each
800254	In/Out Humidity/Temperature Monitor Set	\$76.00
800254C	In/Out Humidity/Temperature Monitor Set Certified	\$109.00
800255	Additional Temperature Sensor	\$26.00
800255C	Additional Temperature Sensor Certified	\$59.00



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 open area		
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
 Wireless Temp/Humidity Monitor Set 800254	\$69.00	Temperature: Monitor: 14 to 140°F -10 to 60°C Sensor: -4 to 158°F -20 to 70°C Humidity: Monitor: 0 to 95% @ 77°F (25°C) Sensor: -10 to 95%	0.2°F 0.1°C 1% RH	±2°F ±1°C	✓	✓	✓	✓	✓	✓
 In/Out Humidity/Temp Monitor 800027	\$57.00	Temperature: -58 to 158°F / -50 to 70°C Humidity: 10 to 99%	0.1°F/C 1%	2°F / ±1°C ±5%	✓	✓	✓	✓		✓
 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 Humidity In/Out: 10 to 99%	0.1° 1%	±2°F ±1°C ±5%	✓	✓	✓			✓
 Humidity/Temp Monitor 800016	\$44.00	Temperature: -58 to 158°F / -50 to 70°C Humidity: 10 to 99%	0.1°C/F 1%	±2°F ±1°C ±5%	✓		✓			✓

Display current readings and automatically log:

- Air Temperature
- RH
- Dew Point
- 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 programmed 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 1/2 AA battery, tripod screw and a wrist strap and free downloadable software. N.I.S.T. Traceable Certificate of Compliance available.

DIM: 1" x 5 1/4" (25 x 133 mm). WEIGHT: 1.2 oz (34 g).



No.	Description	Each
800013	Datalogging RH/Temp Pen	\$109.00
800013C	Datalogging RH/Temp Pen Certified	\$142.00

	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%



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. 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. N.I.S.T. Traceable Certificate of Compliance available.

DIM: 7" x 2 3/4" x 2" (178 x 70 x 51 mm). WEIGHT: 16 oz (454 g).



No.	Description	Each
800021	RH/Temp SD Card Logger	\$319.00
800021C	RH/Temp SD Card Logger Certified	\$352.00
840058	USB Power Cable	\$29.00
800060-97	Type K/J Thermocouple Probes	see pg.57
840097	AC Adapter	\$20.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00

	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 RH & Temperature measurement.
Wet Bulb	-6.9 to 122°F 21.6 to 50°C		
Type K	-58 to 2372°F -50 to 1300°C		±(0.4% + 1.8°F) FS
Type J	-58 to 2192°F -50 to 1200°C	±(0.4% + 1°C) FS	



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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" x 2" x 7/8" (76 x 51 x 22 mm). WEIGHT: 3 oz (85 g).

No.	Description	Each
800054	Self-Contained Datalogger	\$160.00
800054C	Self-Contained Datalogger Certified	\$193.00
800055	Additional Temp/RH Datalogger (without Docking Station) w/LCD	\$100.00
800055C	Additional Temp/RH Datalogger (without Docking Station)w/LCD Certified	\$133.00

	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



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ENVIRONMENTAL QUALITY

Temperature/RH



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:

Degrees	°C	°F	°K
Boiling Point of Water	100.00	212.00	373.00
Ice Point of Water	0.00	32.00	273.00
Absolute Zero	-273.00	-460.00	0.00

IR Thermometer/LED Light Pen



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" x 1/2" (152 x 13 mm). WEIGHT: 2 oz (57 g).

No.	Description	Each
800100	IR Thermometer/LED Light Pen	\$56.00
800100C	IR Thermometer/LED Light Pen Certified	\$89.00

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



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IR Thermistor Pen



Pen-size unit handles surface & penetration temperature measurements

One end of the sturdy metal pen contains a non-contact infrared thermometer for surface temperature measurements. Press the button to scan temperature and release to hold. IR temperature results are displayed within one second on a backlit LCD. The other end contains a stainless steel probe for penetration measurements, and features min/max and hold functions. The thermistor probe rotates out and locks at 90° and 180°. Two button cell batteries provide 35 hours of continuous IR temperature measurement, and two additional button cell batteries power the thermistor thermometer. The displays indicate when batteries need to be changed. Comes in an attractive foam-lined metal case with batteries included. N.I.S.T. Traceable Certificate of Compliance available.

DIM: 7" x 3/4" (178 x 19 mm). PROBE DIM: 6" x 1/16" (152 x 1.5 mm). WEIGHT: 2 oz (57 g).

No.	Description	Each
800108	IR Thermistor Pen	\$75.00
800108C	IR Thermistor Pen Certified	\$108.00

	Range	Resolution	Accuracy
IR	-28 to 428°F -33 to 220°C	0.1°F / 0.1°C when under 200°C, 1°F / 1°C when over 200°C	±2% rdg or 2°C, whichever is greater
Thermistor	-58 to 302°F -50 to 150°C	0.1°C/F	±2°F (±1.0°C): -58 to 14°F (-50 to -10°C) & 176 to 257°F (80 to 125°C) ±1°F (±0.5°C): 14 to 176°F (-10 to 80°C) ± 1.5%: 257 to 302°F (125 to 150°C)



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Laser circle indicates the precise area measured.

- 6:1 D:S
- 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" x 1" x 1" (150 x 25 x 27 mm). WEIGHT: 2.5 oz (74 g)

No.	Description	Each
800109	IR Pen with True D:S Laser Guide	\$77.00
800109C	IR Pen with True D:S Laser Guide Certified	\$110.00

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



Results appear on your Smartphone

Simply choose Scan or Continuous Monitoring on the App and aim the laser circle guide at the target to read the temperature. The laser circle corresponds precisely to IR Pen's 6:1 distance to spot. Results are sent to your smartphone via Bluetooth®. The App displays and charts temperature readings in °C or °F, and shows Max, Min, Dif & Avg temperatures. The App also enables you to adjust emissivity between 0 and 99 using a roller with various surfaces listed next to their recommended emissivity number. You may save the results in file format to your phone and e-mail them. Comes complete with one AAA battery and free Android (version 4.3 "Jelly Bean" and above) and iOS App. N.I.S.T. Traceable Certificate of Compliance available.



DIM: 3¾" x 1" x 1" (95 x 30 x 30 mm). WEIGHT: 2.5 oz (72 g)

No.	Description	Each
800110	Bluetooth® IR Pen	\$114.00
800110C	Bluetooth® IR Pen Certified	\$147.00

	Range	Resolution	Accuracy
Temperature	-22 to 950°F -30 to 510°C	0.1°C/F	±2.0% of reading or ±4°F/ 2.0°C whichever is greater
Emissivity	Selectable between 0 to 0.99		



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.



**new
LOOK**

No.	Description	Each
800101	IR Thermometer 8:1	\$55.00
800101C	IR Thermometer 8:1 Certified	\$88.00
800102	IR Thermometer 8:1	\$64.00
800102C	IR Thermometer 8:1 Certified	\$97.00
800103	IR Thermometer 12:1	\$83.00
800103C	IR Thermometer 12:1 Certified	\$116.00



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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 reading or ±3°F (±2°C) whichever is greater	±3°F (±2°C) from -4 to 212°F (-20 to 100°C), ±2% from 212 to 930°F (100 to 500°C)	±5°F (±3°C) from -25 to -4°F (-32 to -20°C), ±3°F (±2°C) from -4 to 212°F (-20 to 100°C), ±3°F (±2°C) from 212 to 999°F (100 to 535°C)
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:	✓	✓	✓
Hold:	✓	✓	✓
Dimensions	6" x 5" x 2" (150 x 133 x 45 mm)		6¼" x 4¼" x 1½" (171 x 124 x 42 mm)
Weight	6 oz (171 g)		5½ oz (163 g)

ENVIRONMENTAL QUALITY

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

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" x 5" x 2" (180 x 130 x 40 mm). WEIGHT: 7 oz (195 g).



**new
LOOK**



Display flashes red when maximum or minimum temperature is reached.

No.	Description	Each
800106	IR Thermometer 12:1	\$139.00
800106C	IR Thermometer 12:1 Certified	\$172.00
840093	Field Tripod	\$35.00

	Range	Resolution	Accuracy
IR	-25 to 1400°F -32 to 760°C	0.1° C/F	±5°F @ -25 to -4°F ±3°F @ -4 to 212°F ±2% @ 212 to 1400°F ±3°C @ -32 to -20°C ±2°C @ -20 to 100°C ±2°C @ 100 to 760°C
D:S (distance to spot ratio)	12:1		
Emissivity	Adjustable 0.1 to 1.0		



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About IR Thermometers

How IR Thermometers Work

An infrared thermometer is a thermometer which infers temperature from a portion of the thermal radiation emitted by the object being measured. They are sometimes called laser thermometers if a laser is used to help aim the thermometer, or non-contact thermometers or temperature guns, to describe the device's ability to measure temperature from a distance. By knowing the amount of infrared energy emitted by the object and its emissivity, the object's temperature can often be determined.

The most basic design consists of a lens to focus the infrared thermal radiation onto a detector, which converts the radiant power to an electrical signal that can be displayed in units of temperature after being compensated for ambient temperature. This configuration facilitates temperature measurement from a distance without contact with the object to be measured. As such, the infrared thermometer is useful for measuring temperature under circumstances where thermocouples or other probe type sensors cannot be used or do not produce accurate data for a variety of reasons.

Use Cases

IR thermometers provide non-contact temperature measurement making them particularly useful in circumstances where the object to be measured is moving; where the object is surrounded by an electromagnetic field, as in induction heating; where the object is contained in a vacuum or other controlled atmosphere; or in applications where a fast response is required, an accurate surface temperature is desired or the object temperature is above the recommended use point for contact sensors, or contact with a sensor would mar the object or the sensor, or introduce a significant temperature gradient on the object's surface.

They can be used to serve a wide variety of temperature monitoring functions. A few examples provided include:

- Checking mechanical equipment or electrical circuit breaker boxes or outlets for hot spots.
- Checking heater or oven temperature, for calibration and control purposes.
- Detecting hot spots / performing diagnostics in electrical circuit board manufacturing.
- Monitoring materials in process of heating and cooling, for research and development or manufacturing quality control situations.

Infrared, RTD and thermocouple capabilities in a single unit

With Ultimate Thermometer you're certain to have a solution for every temperature measurement application you encounter. For general purpose applications use any standard type K, J, R, E, or T thermocouple probe. Need a very precise temperature reading? Use the PT100 RTD probe included. Want to measure the temperature inside a furnace? Just point the built-in IR thermometer which features a laser guide and adjustable emissivity. Other sophisticated features include C & F selection, min/max memory, relative temperature, auto power off, and hold. Has a tripod back and an easy to read back lit display with large 1/2" high digits. Comes in a hard carrying case and a 9V battery. N.I.S.T. Traceable Certificate of Compliance available. Certificate includes separate tests for: IR, RTD, & Type K.

DIM: 7 7/8" x 2 3/4" x 1 1/4" (199 x 70 x 32 mm). WEIGHT: 9 oz (255 g).



No.	Description	Each
800043	Ultimate Thermometer	\$372.00
800043C	Ultimate Thermometer Certified	\$489.00
800044	Replacement PT100 RTD Probe	\$170.00
800060-97	Type K / J Thermocouple Probes	see pg.57
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00

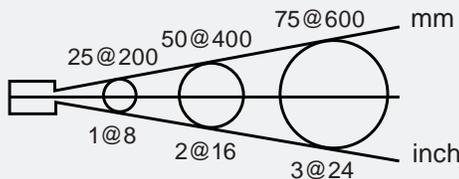
Probe	Range	Resolution	Accuracy (meter only)
PT100	-328 to 1562°F -200 to 850°C	0.1°	±0.2% + 1°F ±0.2% + 0.5°C
Type K	-148 to 2372°F -100 to 1300°C		
Type J	-148 to 2102°F -100 to 1150°C		
Type T	-148 to 752°F -100 to 400°C		
Type E	-148 to 1652°F -100 to 900°C	1°	±0.2% + 2°F ±0.2% + 0.8°C
Type R	32 to 1112°F/1113 to 3092°F 0 to 600°C/601 to 1700°C		
Infrared	-4 to 752°F -20 to 400°C		±1% + 10°F / ± 1.5% + 10°F ±1% + 5°C / ± 1.5% + 5°C ±3% rdg or 5°F (±3°C) , whichever is greater



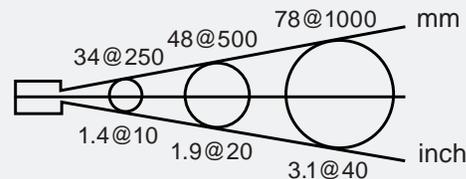
About IR Thermometers

Distance to Spot Ratio

8:1 Ratio



12:1 Ratio



Spot Size : Distance

Distance to Spot Ratio

The actual area being measured is determined by the distance-to-spot ratio of the IR thermometer you are using and this varies from model to model. As the distance from the object being measured increases, the spot size of the area being measured also increases.

For example this Sper Scientific's IR Pen has a distance to spot ratio of 1:1 meaning that at 1" from the target it will measure the temperature of a 1" circle. At 2" it will measure a 2" diameter and so forth.

new



HACCP Compliant surface and internal temperature

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 thermometer projects a white circle indicating the actual IR area being measured. When compliance to regulations for internal temperature is needed, 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 spot-checks 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.

DIM: Meter: 5 1/2 x 1 1/2 x 3/4", (140 x 38 x 19 mm), penetration probe 3". Weight: 4 oz (105 g)

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



No.	Description	Each
800115	Food Safety Thermometer	\$81.00
800115C	Food Safety Thermometer Certified	\$114.00

ENVIRONMENTAL QUALITY

Temperature/RH



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. Certification of Compliance available.

DIM: 7 1/4" x 2 1/2" x 1/3" (180 x 58 x 24.5 mm). WEIGHT: 7 oz. (200 g).

No.	Description	Each
800042	HACCP Thermometer	\$285.00
800042C	HACCP Thermometer Certified	\$318.00

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



Safe and Unsafe HACCP Temperature Levels	
Blacklight Flashes: RED Unsafe Temperature	Temperature ▲ Above 39.2°F / 4°C Temperature ▼ Below 140°F / 60°C
Blacklight Flashes: GREEN Safe Temperature	Temperature ▼ Below 39.2°F / 4°C Temperature ▲ Above 140°F / 60°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 touch-tone buttons. Results are displayed on a large 1 1/4" x 1 3/4" 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 Compliance available.

DIM: 5 1/4" x 2 1/4" x 1 1/4" (133 x 57 x 32 mm). WEIGHT: 6 oz (170 g).



No.	Description	Each
800004	Thermometer Basic Type K/J	\$84.00
800004C	Thermometer Basic Type K/J Certified	\$117.00
800007	Thermometer 2 Channel Type K/J	90.00
800007C	Thermometer 2 Channel Type K/J Certified	\$123.00
800060-97	Type K /J Thermocouple Probes	see pg.57
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00
850000	Rubber Boot	\$6.00



	Range	Resolution	Accuracy
Type K	-328 to 2498°F -200 to 1370°C	0.1°C	±0.05% rdg + 0.7°C, 1.4°F when inside the range of 23 ±5°C, < 80% RH OR 0.01% of reading + .03°C per each °C outside the specified range of 23 ±5°C or 73 ±9°F
Type J	-328 to 1922°F -200 to 1050°C		
Operating Environment	41 to 104°F (5 to 40°C), RH <80%		
Storage Environment	14 to 140°F (10 to 60°C), RH <70%		

Computer output

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 3 1/2" LCD, and accept standard thermocouple probes. Comes ready to use with carrying cases, beaded wire probes, and batteries. N.I.S.T. Traceable Certificate of Compliance available.

DIM: 7 1/4" x 2 1/2" x 1 1/4" (184 x 64 x 32 mm). WEIGHT: 7.4 oz (210 g).

No.	Description	Each
800005	Thermometer Advanced	\$124.00
800005C	Thermometer Advanced Certified	\$157.00
800003	AC Adaptor	\$17.00
800060-97	Type K /J Thermocouple Probes	see pg.57
800005S	Thermolink Software	\$40.00
800001	USB Cable	\$40.00
840089	Rubber Holster	\$13.00



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





Computer output

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.

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. N.I.S.T. Traceable Certificate of Compliance available.

DIM: 7¼" × 2½" × 1¼" (184 × 64 × 32 mm). WEIGHT: 7.4 oz (210 g).

No.	Description	Each
800008	Thermometer Datalogger	\$222.00
800008C	Thermometer Datalogger Certified	\$255.00
800060-77	Type K Thermocouple Probes	see pg.57
840089	Rubber Holster	\$13.00

	Range	Resolution	Accuracy
Type K	-328 to 2498°F	-328 to 1000°F = 0.1°F	±(0.1% reading + 1.4°F)
	-200 to 1370°C	1000 to 2498°F = 1°F	
	-200 to 1370°C	-200 to 800°C = 0.1°C	±(0.1% reading + 0.7°C)
		800 to 1370°C = 1°C	



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. N.I.S.T. Traceable Certificate of Compliance available.

DIM: 7¼" × 2½" × 1¼" (184 × 64 × 32 mm). WEIGHT: 8.4 oz (238 g).

No.	Description	Each
800023	4 Channel Thermometer	\$175.00
800023C	4 Channel Thermometer Certified	\$208.00
800003	AC Adaptor	\$17.00
800060-77	Type K Thermocouple Probes	see pg.57
840004	Intelligent Software	\$43.00
800001	USB Cable	\$40.00
840089	Rubber Holster	\$13.00
840090	Water Resistant Instrument Pouch	\$12.00
840093	Field Tripod	\$35.00

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



Simultaneously log and display 4 Channels

- Hi / Lo Alarms
- Ice Point calibration
- Δ (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 Δ (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, USB computer power cable and free downloadable software. N.I.S.T. Traceable Certificate of Compliance available.



DIM: 7¼" x 2½" x 1¼" (184 x 75 x 29 mm). WEIGHT: 10 oz (290 g).

No.	Description	Each
800024	4 Channel Datalogging Thermometer	\$304.00
800024C	4 Channel Datalogging Thermometer Certified	\$337.00
800060-97	Type K/J Thermocouple Probes	see pg.57
840090	Water Resistant Instrument Pouch	\$12.00

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	At ambient temperature of 64 to 82°F (18 to 28°C) ± (0.1% of reading + 1.4°F) ± (0.1% of reading + 0.7°C)
Type J	-328 to 1832°F -200 to 1000°C		
Type E	-328 to 1382°F -200 to 750 °C	0.1°C < 600°C 1°C ≥ 600°C	Below -148°F (-100°C) ± (0.4% of reading + 1.4°F) ± (0.4% of reading + 0.7°C)
Type T	-328 to 752°F -200 to 400°C		



TEMPERATURE CONVERSION CHART

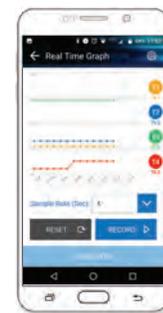
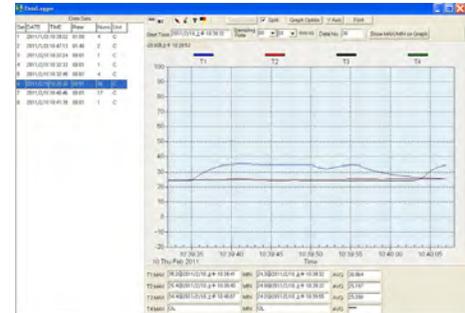
The conversion of temperature readings from one scale to another can be easily calculated using the following formulas:

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

Wirelessly display, log and download

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 Δ (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 Compliance available.

DIM: 7¼" x 2½" x 1¼" (184 x 75 x 29 mm). WEIGHT: 10 oz (290 g).

No.	Description	Each
800025	Bluetooth® 4 Channel Datalogging Thermometer	\$348.00
800025C	Bluetooth® 4 Channel Datalogging Thermometer Certified	\$381.00
800060-97	Type K/J Thermocouple Probes	see pg.57
840090	Water Resistant Instrument Pouch	\$12.00

	Range	Resolution	Accuracy (excluding probe error)
Type K	-328 to 2501°F -200 to 1372°C		
Type J	-328 to 1832°F -200 to 1000°C	0.1°F < 1000°F 1°F ≥ 1000°F	±(0.1% of reading + 1.3°F) ±(0.1% of reading + 0.7°C)
Type E	-328 to 1382°F -200 to 750°C		Below -148°F (-100°C)
Type T	-328 to 752°F -200 to 400°C	0.1°C < 600°C 1°C ≥ 600°C	±(0.5% of reading + 1.3°F) ±(0.5% of reading + 0.7°C)
Type N	-328 to 2372°F -200 to 1300°C		
Type R/S	32 to 3212°F 0 to 1767°C	0.5°F < 1000°F 1°F ≥ 1000°F 0.2°C < 600°C 1°C ≥ 600°C	±(0.2% of reading + 2.5°F) ±(0.2% of reading + 1.4°C)



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 $\mu\text{V}/^\circ\text{C}$. A wide variety of probes are available in its -330 to 2460°F / -200 to 1350°C range. Type J has a more restricted range of -40 to 750°C, but a higher sensitivity of about 50 $\mu\text{V}/^\circ\text{C}$.

All probes carry a 6 month warranty.

Thermocouple Probes						
Model	Price	Type	Application	Temperature	Dimensions	
Immersion & General Purpose						
	800060	\$34	K	Small	-58 to 572°F -50 to 300°C	Handle Length: 4½" Probe Length: 4" Probe Diam: ¼" Cord Length: 40"
	800080	\$34	J		-58 to 572°F -50 to 300°C	
	800061	\$38	K	Large	-58 to 752°F -50 to 400°C	Handle Length: 5¼" Probe Length: 6" Probe Diam: ¼" Cord Length: 40"
	800081	\$38	J		-58 to 752°F -50 to 400°C	
	800062	\$104	K	High Temperature	-58 to 1652°F -50 to 900°C	Handle Length: 4½" Probe Length: 3¼" Probe Diam: 5/16" Cord Length: 46"
Penetration						
	800064	\$36	K	Small	-22 to 896°F -30 to 480°C	Handle Length: 5" Probe Length: 6" Probe Diam: ¼" Cord Length: 44"
	800065	\$43	K	Insertion	-58 to 752°F -50 to 400°C	Handle Length: 4½" Probe Length: 4" Probe Diam: ¼" Max Cord Length: 45"
	800066	\$55	K	Large	-58 to 752°F -50 to 400°C	Handle Length: 4½" Probe Length: 6" Probe Diam: ¼" Max Cord Length: 45"
	800086	\$38	J		-40 to 752°F -40 to 400°C	Handle Length: 5½" Probe Length: 4¾" Probe Diam: ⅛" Cord Length: 42"
Surface						
	800073	\$77	K	Standard	-58 to 752°F -50 to 400°C	Handle Length: 4" Probe Diam: ¼" Max Cord Length: 45"
	800070	\$84	K	Hard to access areas	-22 to 896°F -30 to 480°C	Handle Length: 5½" Probe Length: 8" Probe Diam: ¼" Cord Length: 38"
	800072	\$125	K	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	K	Fast response in air & gas. Sheath protected element.	-58 to 1112°F -50 to 600°C	Handle Length: 4½" Probe Length: 8" Probe Diam: 7/8" Max Cord Length: 40"
	800077	\$18	K	Beaded wire for fast response in air & gas in hard to access areas.	-58 to 572°F -50 to 300°C	Cord Length: 47"
	800097	\$18	J		-58 to 392°F -50 to 200°C	Cord Length: 36"



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).



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: 7½". BALL DIAMETER: 4".

No.	Description	Each
736930	Dial Barometer	\$26.00

No.	Description	Each
739750	Weather Ball Barometer	\$29.00



Mason's Hygrometer Red Liquid

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.



Dial Hygrometer/Thermometer

20 to 100% RH scale on 4" dial. Uses a precise synthetic hair hygrometer with an accuracy of $\pm 5\%$. Inner dial shows temperature using a bimetal thermometer, with an accuracy of $\pm 2^\circ\text{F}$. N.I.S.T. Traceable Certificate of Compliance available.

WEIGHT: 3.7 oz (105 g).

No.	Description	Each
736740	Mason's Hygrometer Red Liquid	\$17.00

No.	Description	Each
736920	Dial Hygrometer/Thermometer	\$36.00
736920C	Dial Hygrometer/Thermometer Certified	\$71.00



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 rewet the wick. Comes with a carrying case and plastic humidity chart.

No.	Description	Each
736700	Sling Psychrometer -5 to 50°C	\$103.00
736710	Sling Psychrometer 20 to 120°F	\$103.00



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.

DIM: 7⅞" × 2½" × ⅞"
(200 × 64 × 22).

WEIGHT: 4 oz (133 g).

No.	Description	Each
736690	Min-Max Thermometer Push Button	\$18.00
736690C	Min-Max Thermometer Push Button Certified	\$53.00

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 7/8" x 2 1/2" x 7/8" (200 x 64 x 22).
WEIGHT: 4 oz (133 g).



Pocket Thermometers

All filled with safe red kerosene, white backed, total immersion, 6" (153 mm) long in blue plastic case.



No.	Description	Each
736680	Min-Max Thermometer Magnet	\$23.00
736680C	Min-Max Thermometer Magnet Certified	\$58.00

No.	Description	Each
738730	Pocket Thermometer -40 to 220°C/°F	\$54.00
738750	Pocket Thermometer -40 to 50°C	\$54.00
738760	Pocket Thermometer -10 to 110°C	\$54.00

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	Each
736570	Thermometer (Box of 10)	\$37.00
736590	Thermometer (Box of 10)	\$37.00
736580	Thermometer (Box of 10)	\$38.00
736600	Thermometer (Box of 10)	\$38.00
737000	Thermometer (Box of 10)	\$37.00
736780	Thermometer (Box of 10)	\$41.00
737680	Thermometer (Box of 10)	\$41.00
736620	Thermometer (Box of 10)	\$34.00
736630	Thermometer (Box of 10)	\$27.00
738640	Thermometer (Box of 10)	\$41.00



Model:	Partial Immersion	Total Immersion	Temp Range	Length
736570	✓		-20 to 100°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		✓	-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

- 62 Stopwatches
- 64 Timers
- 66 Refractometers
- 70 Pressure Meters
- 74 Other Lab Equipment

About Sper Scientific Stopwatches

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. To order certified 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.



No.	Description	Each
810012	Water Resistant Stopwatch	\$12.00
810012C	Water Resistant Stopwatch Certified	\$36.00



Clip-On Stopwatch

- Miniature size, single event, start/stop and lap functions.
- Alarm clock and calendar.
- Thermometer in °F & compass.

No.	Description	Each
810016	Clip-On Stopwatch	\$12.00
810016C	Clip-On Stopwatch Certified	\$36.00



Transparent Red Stopwatch

- Large display and control buttons.
- Split interval function.



No.	Description	Each
810013R	Transparent Red Stopwatch	\$23.00
810013RC	Transparent Red Stopwatch Certified	\$47.00



8-Memory Stopwatch

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



No.	Description	Each
810029R	8-Memory Stopwatch	\$27.00
810029RC	8-Memory Stopwatch Certified	\$51.00



Large Display Stopwatch

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

No.	Description	Each
810022	Large Display Stopwatch	\$28.00
810022C	Large Display Stopwatch Certified	\$52.00



60-Memory Stopwatch

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

No.	Description	Each
810033	60-Memory Stopwatch	\$36.00
810033C	60-Memory Stopwatch Certified	\$60.00

Large Display Water Resistant Stopwatch

- Sonically welded case ensures excellent water resistance.
- Large 5/8" high display.



No.	Description	Each
810035	Large Display Water Resistant Stopwatch	\$40.00
810035C	Large Display Water Resistant Stopwatch Certified	\$64.00

Electro-Luminescent Stopwatch

- Excellent for HPLC, TLC, electrophoresis, dark rooms, and nocturnal behavioral studies.
- Read in the dark.



No.	Description	Each
810037	Electro-Luminescent Stopwatch	\$47.00
810037C	Electro-Luminescent Stopwatch Certified	\$71.00

100-Memory Water Resistant Stopwatch

- 100 memories of split and lap times.
- 3 line display simultaneously shows total elapsed time, split time, current lap time, lap counter and low battery.



No.	Description	Each
810036	100 Memory Water Resistant Stopwatch	\$49.00
810036C	100 Memory Water Resistant Stopwatch Certified	\$73.00

Decimal Display Stopwatch

- 3-line display simultaneously shows total elapsed time, split time, current lap time, and lap counter.
- Change the resolution based on the mode you use.



No.	Description	Each
810048	Decimal Display Stopwatch	\$57.00
810048C	Decimal Display Stopwatch Certified	\$81.00

Observational Research Stopwatch

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



No.	Description	Each
810029AR	Observational Research Stopwatch	\$70.00
810029ARC	Observational Research Stopwatch Certified	\$94.00

About Sper Scientific Timers

All Sper Scientific professional laboratory timers are available with an N.I.S.T. Traceable Certificate of Compliance. To order certified 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.



Digital Hourglass

- The simplicity of an hourglass adjustable to any interval.
- Shows min and sec remaining at the top of the display, and min and sec elapsed at the bottom.
- Restarted simply by flipping the timer over.

No.	Description	Each
810044	Digital Hourglass	\$10.00
810044C	Digital Hourglass Certified	\$34.00



Project Timer

- Counts down to completion of a project up to 8 years in the future in days, hours, minutes, 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.

No.	Description	Each
810017	Project Timer	\$13.00
810017C	Project Timer Certified	\$37.00



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	Each
810045	Continuous Alarm Timer	\$16.00
810045C	Continuous Alarm Timer Certified	\$40.00



Large Display Bench Timer

- 3/4 Inch high digits.
- Warning alarms sound at 3 and 5 minutes prior.
- Records elapsed time after the alarm.
- Easily portable.

No.	Description	Each
810046	Pocket Large Display Timer	\$13.00
810046C	Pocket Large Display Timer Certified	\$37.00



Count Up/Down 99 Mins.

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

No.	Description	Each
810024R	Count Up/Count Down 99 Min	\$18.00
810024RC	Count Up/Count Down 99 Minutes Certified	\$41.00



Count Up/Down 100 Hrs.

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

No.	Description	Each
810026R	Count Up/Count Down 100 Hr	\$21.00
810026RC	Count Up/Count Down 100 Hours Certified	\$44.00

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.



No.	Description	Each
810005	White Large Display Timer	\$22.00
810005C	White Large Display Timer Certified	\$46.00

5 Channel Timer

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



No.	Description	Each
810015	5 Channel Timer	\$24.00
810015C	5 Channel Timer Certified	\$48.00

Simultaneous Start Timer

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



No.	Description	Each
810027	Simultaneous Start Timer	\$24.00
810027C	Simultaneous Start Timer Certified	\$48.00

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	Each
810038	Talking Timer	\$24.00
810038C	Certified Talking Timer	\$48.00

Stopwatch Timer

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



No.	Description	Each
810025R	Stopwatch Timer	\$27.00
810025RC	Stopwatch Timer Certified	\$51.00

Digital Refractometer Comparison Chart



Model:	Pocket 300050-57	Waterproof 300058	Laboratory 300033-36	Programmable 300037
Calibrates to H ₂ 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		✓		✓

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). A sturdy water-resistant case protects the electronics from wet environments, and makes for easy clean ups. 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: 4⁵/₈" × 2³/₈" × 1¹/₄" (118 × 62 × 32 mm). WEIGHT: 4.6 oz (130 g).

No.	Description	Each
300050	Digital Refractometer Honey	\$284.00
300051	Digital Refractometer Brix 0 to 65%	\$251.00
300052	Digital Refractometer Brix 40 to 95%	\$251.00
300053	Digital Refractometer Brix 0 to 95%	\$318.00
300054	Digital Refractometer Salinity	\$284.00
300055	Digital Refractometer Automotive	\$284.00

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.



Scan this QR code to view our product demo.

Model	Unit of Measure	Range	Resolution	Accuracy
300050	Be'	28 to 48	0.1%	±0.2%
	Water	10 to 45%	0.1%	±0.2%
	Brix	40 to 95%	0.1%	±0.2%
300051	Brix	0 to 65%	0.1%	±0.2%
300052	Brix	40 to 95%	0.1%	±0.2%
300053	Brix	0 to 95%	0.1%	±0.2%
300054	Salinity %	0 to 28%	0.1%	±0.2%
	Salinity ppt	0 to 280 ppt	1 ppt	±2 ppt
300055	Propylene Glycol	32 (-50)°F	0.1°F	± 2.0°F
	Ethylene Glycol	32 (-50)°F	0.1°F	± 2.0°F
	Battery Acid	1.000 to (1.500) sg	0.001 sg	±0.005 sg
	Cleaner	14 (-40)°F	0.1°F	± 2.0°F

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. The water-resistant design protects the electronics from wet environments, and makes for easy clean ups. Comes ready to use with a 9V battery, distilled water, a transfer pipet, instructions and a protective case.



DIM: 7" x 4" x 2½" (180 x 100 x 65 mm). WEIGHT: 18 oz (500 g).

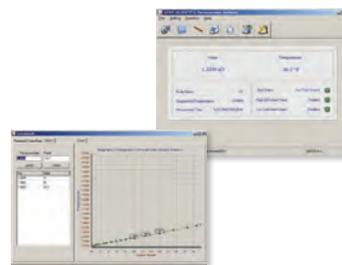
No.	Description	Each
300033	Lab Digital Refractometer Brix 45 to 95%	\$706.00
300034	Lab Digital Refractometer Brix 0 to 95%	\$901.00
300035	Lab Digital Refractometer Salinity	\$655.00
300036	Lab Digital Refractometer Clinical	\$655.00



Model	Unit of Measure	Range	Resolution	Accuracy
300033	Brix	45 to 95%	0.1%	±0.2%
	Refractive Index	1.4098 to 1.5318	0.0001	±0.001
300034	Brix	0 to 95%	0.1%	±0.2%
	Refractive Index (nD)	1.3330 to 1.5318	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

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). A sturdy water resistant case protects the electronics from wet environments and makes for easy clean ups. 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" x 4" x 2½" (180 x 100 x 65 mm). WEIGHT: 18 oz (500 g).

No.	Description	Each
300037	Programmable Refractometer	\$1199.00



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Unit of Measure	Range	Resolution	Accuracy
Temperature	32° to 104°F 0° to 40°C	0.1	2°F 1°C
	Brix	0 to 95%	0.1%
Refractive Index	1.3330 to 1.5318	0.0001	±0.001
+ up to 3 custom scales			

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: 4½" x 2¼" x 1" (108 x 57 x 25 mm). WEIGHT: 5 oz (141 g)

No.	Description	Each
300059	Waterproof Digital Refractometer Brix 0 to 60%	\$308.00
300060	Waterproof Digital Refractometer Brix 0 to 95%	\$385.00
300062	Waterproof Digital Refractometer Salinity	\$385.00
300063	Waterproof Digital Refractometer Automotive	\$402.00
300064	Waterproof Digital Refractometer Clinical	\$402.00
300065	Waterproof Digital Refractometer Diesel Exhaust Fluid	\$385.00
300058	Waterproof Digital Refractometer Sugars	\$552.00

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 95%	0.1%	±0.2%
	Refractive Index (nD)	1.3330 to 1.5320	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
300063	Cleaner	32 to -40°F	0.1°F	±0.2°F
	Ethylene Glycol	32 to -50°F	0.1°F	±0.2°F
	Propylene Glycol	32 to -50°F	0.1°F	±0.2°F
	Battery	1.000 to 1.500 sg	0.001	±0.005 sg
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 95%	0.1%	±0.2%
	Refractive Index (nD)	1.3330 to 1.5320	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: 6½" x 1½" (165 x 38 mm). WEIGHT: 3 oz (86 g).



No.	Description	Each
300001	Sugar Refractometer 0 to 32%	\$63.00
300001C	Sugar Refractometer 0 to 32% Certified	\$111.00
300002	Sugar Refractometer 28 to 62%	\$70.00
300002C	Sugar Refractometer 28 to 62% Certified	\$118.00
300003	Sugar Refractometer 0 to 80%	\$186.00
300003C	Sugar Refractometer 0 to 80% Certified	\$234.00
300005	Clinical Refractometer	\$70.00
300006	Salt Refractometer 0 to 28%	\$70.00
300006C	Salt Refractometer 0 to 28% Certified	\$118.00
300010	Sugar Refractometer 0 to 32% w/ATC	\$95.00
300010C	Sugar Refractometer 0 to 32% w/ATC Certified	\$143.00
300011	Salt Refract w/ATC 0 to 100 ppt	\$108.00
300011C	Salt Refract w/ATC 0 to 100 ppt Certified	\$156.00
300014	Automotive Refractometer	\$70.00



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Model #	Model	Range	Resolution	Accuracy
300001	Sugar Refractometer 0 to 32%	Brix 0 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 0 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

Model:				
	Manometers 840080/1/2/3/5	Datalogging Manometers 840086/98/99	Wide Range Pressure Meter 840065	Vacuum Meter 840064
Gas Pressure	✓	✓	✓	✓
Differential Pressure	✓	✓		
Liquid Pressure			✓	✓
Vacuum Pressure				✓
High Pressure			✓	
Datalogging		✓		



Portable Handheld Pressure Meter

Covers a wide pressure range, 0 to 725 psi, not usually found in a single manometer. 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 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 connector from the transducer manually. N.I.S.T. Traceable Certificate of Calibration available. (Transducers only)

DIM: 7" x 3" x 1 1/2" (178 x 76 x 38 mm). WEIGHT: 13 oz (369 g).

No.	Description	Each	No.	Description	Each
840065	Wide Range Pressure Meter	\$208.00	840066	29 PSI Transducer	\$183.00
840090	Water Resistant Instrument Pouch	\$12.00	840066C	29 PSI Transducer Certified	\$368.00
			840067	72.5 PSI Transducer	\$183.00
			840067C	72.5 PSI Transducer Certified	\$368.00
			840068	145 PSI Transducer	\$183.00
			840068C	145 PSI Transducer Certified	\$368.00
			840069	290 PSI Transducer	\$183.00
			840069C	290 PSI Transducer Certified	\$368.00
			840070	725 PSI Transducer	\$183.00
			840070C	725 PSI Transducer Certified	\$368.00



Transducer	840066		840067		840068		840069		840070	
	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 ₂ O	20.40	0.02	50.95	0.05	101.9	0.1	204.0	0.2	509.5	0.5
in H ₂ 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

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: ± 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. N.I.S.T. Traceable Certificate of Calibration available.

DIM: 7 1/8" x 2 3/4" x 1" (182 x 72 x 30 mm). WEIGHT: 5 oz (150 g)



No.	Description	Each	Meter		840085		840080		840081		840082		840083		
			Range ±	Res.	Range ±	Res.	Range ±	Res.	Range ±	Res.	Range ±	Res.	Range ±	Res.	
840085	Manometer 2 PSI	\$241.00	psi	2	0.001	5	0.001	15	0.01	30	0.01	100	0.1		
840085C	Manometer 2 PSI Certified	\$351.00	in H ₂ O	55.4	0.01	138	0.1	415	0.1	830	0.1	2768	1		
840080	Manometer 5 PSI	\$210.00	kPa			34.5	0.01	183	0.1	207	0.1	684	0.1		
840080C	Manometer 5 PSI Certified	\$320.00	ft H ₂ O		N/A	11.5	0.01	34.6	0.01	69.2	0.01	231	0.1		
840081	Manometer 15 PSI	\$210.00	inHg			10.2	0.01	30.54	0.01	61.08	0.01	203.6	0.1		
840081C	Manometer 15 PSI Certified	\$320.00	cm H ₂ O												
840082	Manometer 30 PSI	\$210.00	(840085 is in mm H ₂ O)	1410	1	352	0.1	1050	1	2110	1	7030	1		
840082C	Manometer 30 PSI Certified	\$320.00	mbar	138	0.1	345	0.1	1034	1	2068	1	6895	1		
840083	Manometer 100 PSI	\$210.00	bar	0.138	0.001	0.345	0.001	1.03	0.001	2.07	0.001	6.89	0.001		
840083C	Manometer 100 PSI Certified	\$320.00	mmHg			259	0.1	776	0.1	1550	1	5170	1		
840027	AC Adapter	\$19.00	oz Inch ²		N/A	80	0.01	240	0.1	480	0.1	1600	1		
840052	Data Acquisition Software	\$59.00	kg cm ²			0.35	0.001	1.05	0.001	2.10	0.001	7.03	0.001		
840054	USB Cable	\$39.00	Max Pressure	20 PSI		20 PSI		30 PSI		60 PSI		150 PSI			
840089	Rubber Holster	\$13.00													

Datalogging Manometers

Automatically log up to 12,000 readings

Readings include date and time stamps. Download them to your computer or manually record and review 99 readings on the meter's display. Features a user-friendly menu, backlit dot matrix display, auto power off, and a tripod screw. This portable meter is ideal for measuring low differential pressure in clean rooms, test and balance, medical equipment, HVAC, pneumatic systems and computer peripherals. Reads gauge and differential pressure in 11 units of measure. Has a maximum pressure of 20 PSI, accuracy of $\pm 0.3\%$ FS @25°C, repeatability of $\pm 0.2\%$ typ, Max $\pm 0.5\%$ FS, and a combined linearity and hysteresis of ± 0.29 typ, Max $\pm 1.0\%$ FS. Comes in a hard shell carrying case complete with 4 standard AAA batteries, pressure connection hose, instructions, computer cable and software. N.I.S.T. Traceable Certificate of Calibration available.

DIM: 6 3/4" x 2 3/4" x 1 1/2" (208 x 70 x 40 mm). WEIGHT: 9 oz (255 g)



No.	Description	Each
840086	Datalogging Manometer 5 PSI	\$278.00
840086C	Datalogging Manometer 5 PSI Certified	\$388.00
840098	Datalogging Manometer 2 PSI	\$278.00
840098C	Datalogging Manometer 2 PSI Certified	\$388.00
840099	Datalogging Manometer 15 PSI	\$278.00
840099C	Datalogging Manometer 15 PSI Certified	\$388.00

Meter	840086		840098		840099	
	Range ±	Resolution	Range ±	Resolution	Range ±	Resolution
psig	5	0.001	2	0.001	15	0.01
in H ₂ O	138	0.1	55.36	0.01	415.2	0.1
kPa	34.5	0.01	13.79	0.01	103.4	0.1
ft H ₂ O	11.5	0.01	4.614	0.01	34.60	0.01
inHg	10.2	0.01	4.072	0.01	30.54	0.01
cm H ₂ O	352	0.1	140.6	0.1	1054	1
mbar	345	0.1	137.9	0.1	1034	1
bar	0.345	0.001	0.138	0.001	1.034	0.001
mmHg	259	0.1	103.4	0.1	775.7	0.1
oz Inch ²	80	0.01	32.48	0.01	240.0	0.1
kg cm ²	0.35	0.001	0.141	0.001	1.055	0.001



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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 ¼ 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" x 3" x 1½" (180 x 75 x 35 mm), PROBE CORD: 49" (125 cm).

WEIGHT: METER 8 oz (220 g), PROBE 6 oz (170 g).

No.	Description	Each
840064	Vacuum Meter	\$524.00
840064C	Vacuum Meter Certified	\$709.00
840090	Water Resistant Instrument Pouch	\$12.00

Unit	Max Range	Resolution	Accuracy
mbar	1,500 mbar	1 mbar	±1% FS (23°C ±5°C) Including linearity, hysteresis & repeatability
Kpa	150.0 Kpa	0.1 Kpa	
Pa	150,000 Pa	100 Pa	
torr	1,125 torr	1 torr	
mmHg	1,125 mmHg	1 mmHg	
micron	1,125,000 micron	1,000 micron	
inHg	44.30 inHg	0.02 inHg	
psi	21.75 psi	0.01 psi	



Force Gauge - Measures Tension or Compression

With this force gauge, you can measure tension or compression anywhere or mount it on the force gauge test stand. Display results right side up or upside down for compression or tension applications. The peak hold function also works in both modes. Also, features a zero (tare) function, fast or slow response option, overload protection, and a low battery indicator. Comes in a protective carrying case containing an extension rod with a full line of adapters and 6 AAA batteries. N.I.S.T. Certificate of Calibration available.

DIM: 9" x 3½" x 1½" (227 x 83 x 39 mm). WEIGHT: 20 oz (569 g)

No.	Description	Each
840060	Force Gauge w/ RS202 Out	\$430.00
840060C	Force Gauge w/ RS202 Out Certified	\$615.00

	Range	Resolution	Accuracy
Grams	3 to 5000	1	±(0.4% + 1 d) within 23 ±5°C
Oz	0.1 to 176	0.05	
Newtons	0.03 to 49	0.01	



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 foam-lined, hard-shell carrying case, with a detachable strongly magnetic probe, 9V battery and instructions.

METER DIM: 17" x 3" x 1½" (80 x 75 x 35 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).



No.	Description	Each
840063	Vibration Meter	\$609.00
840090	Water Resistant Instrument Pouch	\$12.00

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



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 4½-ft (123 cm) cable and a 9V battery. N.I.S.T. Traceable Certificate of Compliance available.

METER DIM: 7" x 3" x 1½" (178 x 76 x 38 mm). WEIGHT: 8 oz (227 g).

PROBE DIM: 2" x 6¼" (51 x 159 mm). WEIGHT: 24 oz (680 g).



No.	Description	Each
840062	Torque Meter	\$778.00
840062C	Torque Meter Certified	\$963.00
840090	Water Resistant Instrument Pouch	\$12.00

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	





Large Display Scientific Calculator - Solar

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: 5¼" x 2¾" x ½" (133 x 70 x 13 mm). WEIGHT: 2 oz (57 g).

No.	Description	Each
830005	Solar Scientific Calculator	\$30.00



Non-Abrasive Cleaning of Laboratory Instruments

The Mini Ultrasonic Cleaner is designed to remove grease, dust or other contaminants from surfaces and cavities of small objects, parts and samples such as cuvettes, lenses, glassware, jewelry, stainless steel instruments, metals and more. 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" x 8" x 4½" (127 x 203 x 117 mm). TANK DIM: 2½" x 6½" x 3½" (64 x 165 x 89 mm). WEIGHT: 32 oz (907 g).

No.	Description	Each	Tank Capacity	Output Power	Timer
100005	Mini Ultrasonic Cleaner	\$75.00	½ qt (600 mL)	35 Watts	3 Minutes



Non-Abrasive Cleaning of Laboratory Instruments

The High Power Ultrasonic Cleaner is designed to remove grease, dust or other contaminants from surfaces and cavities of small objects, parts and samples such as cuvettes, lenses, glassware, stainless steel instruments, metals, jewelry and more. 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: 8½" x 7" x 5½" (216 x 178 x 140 mm). TANK DIM: 7" x 5½" x 2" (178 x 140 x 51 mm). WEIGHT: 61 oz (1729 g).

No.	Description	Each	Tank Capacity	Output Power	Timer
100004	High Powered Ultrasonic Cleaner	\$145.00	1 qt (1,000 mL)	60 Watts	5 pre-programmed cycles
100004B	Replacement Basket for 100004	\$15.00			

UV Light Pen

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: 5½" × ⅜" (130 × 10 mm). WEIGHT: 1 oz (28 g).

No.	Description	Each
330005	UV Light Pen	\$20.00
330005IR	Ink Refill (Black)	\$4.00



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: 11½ × 130 mm. WEIGHT: 31.5 g

No.	Description	Each
330001	Laser Pointer	\$33.00



UV / Laser / White Light

UV Keychain 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: 3¼ × ½" (83 × 13 mm). WEIGHT: 1.3 oz. (37 g).

No.	Description	Each
330006	UV / Laser / White Light	\$32.00



Microscope Pen

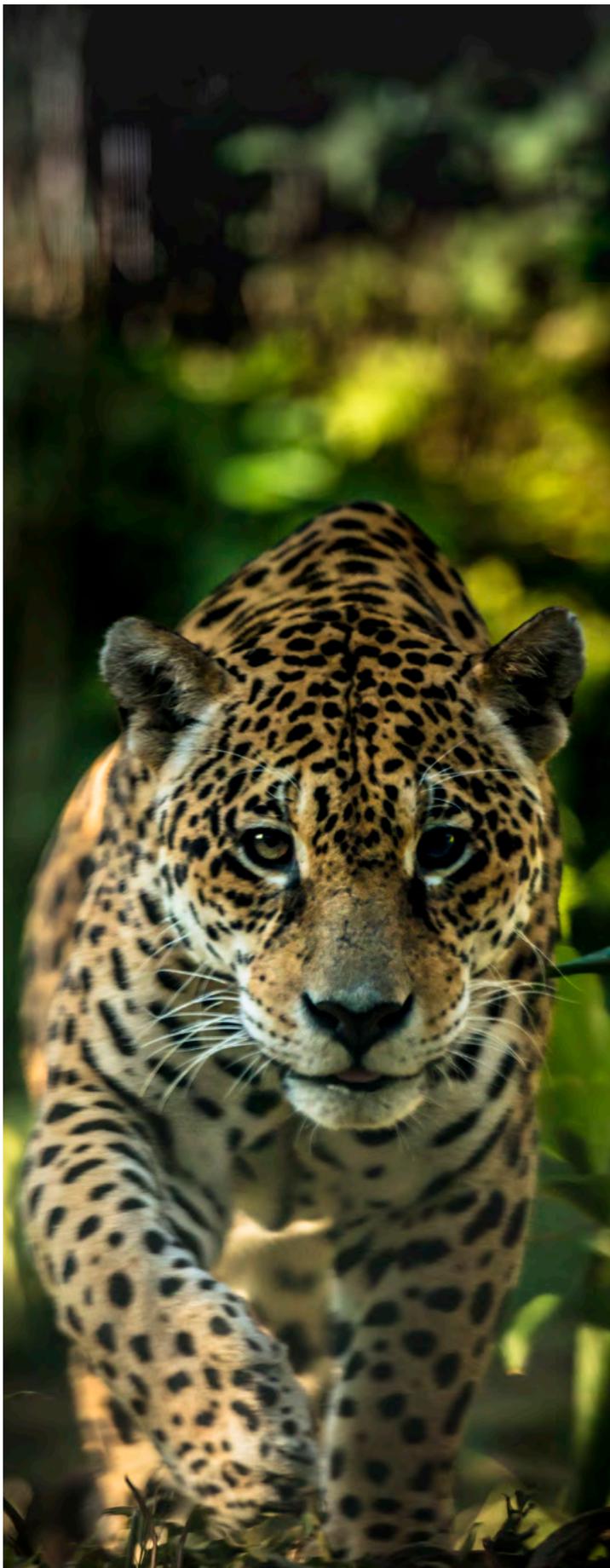
Microscope Pen

Useful for on the spot inspections in printing, textile, art, jewelry, microelectronics and other industries. Also, serves as an inexpensive and simple to use microscope for science education and other labs. Powerful 50x optics that clips to a shirt pocket and is easy to carry anywhere. Has LED light feature, and comes in a soft carrying case.

DIM: 5½" × ½" (130 × 13 mm). WEIGHT: 0.7 oz (20 g).

No.	Description	Each
330004	Microscope Pen	\$43.00





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 Certified Product

Designates a product that can be certified for an additional price. Each certified product comes with a serial number, a calibration or certification label, and a certificate attached to the box. See next page for more details.



Water Resistant

Designates a product that is water resistant.



Waterproof

Designates a product that is waterproof.



EPA

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



Bluetooth®

Designates a product that has Bluetooth®.



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.



SD Card

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.

Warranty Information



Sper Scientific 90 Day Warranty

Sper Scientific warrants this product against defects in materials and workmanship for up to **ninety (90) days** from the date of purchase, and agrees to repair or replace any defective unit without charge.



Sper Scientific 1 Year Warranty

Sper Scientific warrants this product against defects in materials and workmanship for up to **one (1) year** from the date of purchase, and agrees to repair or replace any defective unit without charge.



Sper Scientific 5 Year Warranty

Sper Scientific warrants this product against defects in materials and workmanship for up to **five (5) years** from the date of purchase, and agrees to repair or replace any defective unit without charge.

Replacement units do not extend the original warranty term. If your model has since been discontinued, an equivalent Sper Scientific product will be substituted, if available. This warranty does not cover batteries, probes, or damage resulting from accident, misuse or abuse of product.

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 certified product comes with:

- A serial number
- A calibration or certification label
- One of three certificates. The type of certificate varies by product:

"Certificate of Compliance"

Specifies that the product has been tested and found to be within its stated tolerance for accuracy.

"Certificate of Calibration"

Similar to above, but for products which can be adjusted to the standard they are tested against.

"Certificate 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:

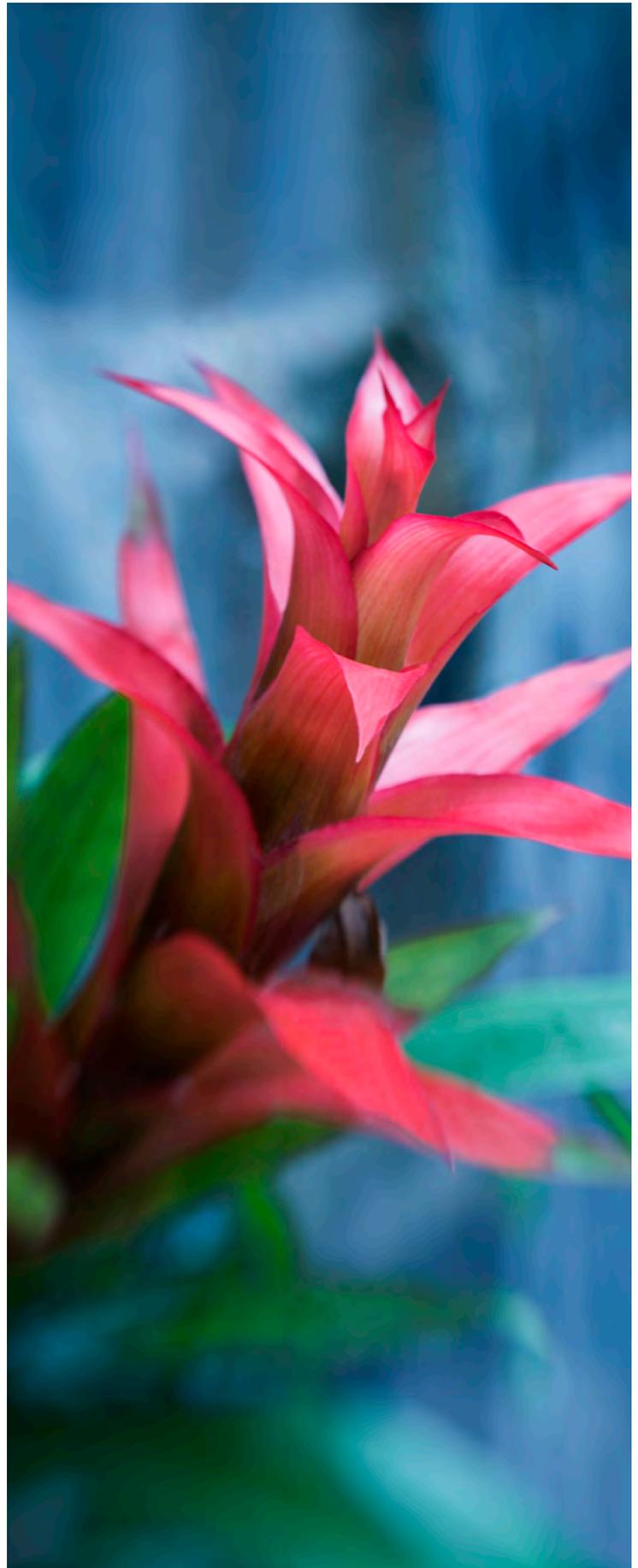
Sper Scientific addresses waste reduction by consuming and throwing away less, by purchasing durable, long-lasting goods, and seeking products and packaging that are free of toxic and non-biodegradable materials. Other ways we seek to reduce waste include:

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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NEW LOOK



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

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Sound Level Pen

Sound meter with one-button operation.

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A single dynamic 30 to 130 dB range.

Integrating Sound Meter

Calculates SPL and L_{EQ} .

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IR Thermometers

Accurate IR at a reasonable price.

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IR Thermometer 12:1

Entire display flashes red when temperature exceeds your minimum or maximum setting.

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About Us

Why Sper Scientific?

For over 35 years, Sper Scientific has been committed to providing reliable environmental measurement instruments that help maintain regulatory compliance and provide safer work environments. Buying direct from Sper Scientific guarantees the best product knowledge and selection, customer service, technical support, and warranty fulfillment, at the best prices available.

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.

Technical Support:

Most answers can be found in the downloadable instruction manuals on most product pages at www.sperdirect.com. Please email support@sperdirect.com if you have additional questions.

Service & Returns:

Claims for items that were received damaged or defective must be made within 14 days of the purchase date. If you are not satisfied with a product, you may return it within 30 days of the purchase date for replacement or a refund, minus the cost of shipping and certification (if applicable). Please see your warranty for problems that occur after 30 days. When we replace an item, we also cover the cost of shipping the replacement to you. Returned items must be in sellable condition, and include the original packaging, instructions and accessories. A restocking fee may apply. Please contact our customer service at 480.948.4448 or email us at support@sperdirect.com for additional information.

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Scottsdale, AZ 85260 USA

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Takes the guesswork
out of heat stress
calculations.

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versatile.

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Non-Invasive.

page 33



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Simultaneously
Records Sound Level
and Live Audio.

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HACCP Compliant
surface and internal
temperature.

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