

# VWR® TRACEABLE® PRODUCTS CATALOG

Over 20 NEW Products designed for your lab

Individually calibrated

Individually certified—traceable to NIST









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#### **VWR® Traceable® Products**

#### ISO/IEC 17025 Calibration laboratory

All Traceable® products are provided with a Traceable® Calibration Certificate from our ISO/IEC 17025 (1750.01) calibration laboratory. Timer, thermometer, hygrometer, barometer, tachometer, gauge pressure, balance, conductivity solution, conductivity meter, UV light meter, light meter, and caliper certificates are accredited by American Association for Laboratory Accreditation (A2LA).

A2LA is widely recognized internationally through bilateral and multilateral agreements and through its participation in International Laboratory Accreditation (ILAC) and Multilateral Recognition Arrangement (MRA). Through A2LA Accreditation, Traceable® Certificates are internationally recognized by Accreditation Agencies and Services in over 75 countries throughout Europe, Middle East, North America, South America. Asia. and Africa.

Traceable® Certificate indicates product is traceable to standards provided by National Institute of Standards and Technology (NIST), a U.S. Government agency within Commerce Department. The Traceable® Certificate complies with ANSI/NCSL Z540-1.

#### Certified Reference Materials, ISO Guide 34

ISO Guide 34 (1750.02) provides highest achievable level of quality assurance, documentation, and accuracy for chemical standards. All standards are directly traceable to NIST (National Institute of Standards and Technology) and/or a National Standards Laboratory.

Certified Reference Materials (CRM) are produced in an accredited manufacturing facility, an ISO Guide 34 (1750.02) Accredited Certified Reference Material (CRM) Producer. Additional certifications include ISO 31 (certificate content) and ISO 35 (statistical analysis). ISO Guide 34 (1750.02) Certified Reference Material (CRM) Producer is accredited by American Association for Laboratory Accreditation (A2LA Certificate No. 1750.02).

#### ISO 9001 Quality Certified

All products are provided from our ISO 9001 Quality Certified Company. This quality certification provides users with assurance that they receive only finest and most reliable products. It is worldwide recognition of superb quality for innovative electronic products. ISO 9001 Certification insures that every product is checked and rechecked to provide for absolutely highest quality. In addition, ISO 9001, in contrast to other ISO 9000 certifications, requires that design phase of every product be included in quality requirements. The 9001 certification provides that quality is designed into every product beginning with first drawing. All products are produced under ISO 9001 and certified by DNV (Det Norske Veritas.)

Trademark reference: Traceable® is a registered trademark of Control3.

# Through A2LA Accreditation, Traceable® Certificates are internationally recognized by the following Accreditation Agencies and Services in these countries:



Uzbekistan UZSTANDARD

#### **Traceable® Datalogging Thermometers**

# VWR® Traceable® Excursion-Trac™ Datalogging Refrigerator/Freezer Thermometers

#### Datalogging thermometer with user-defined time intervals

- Stores up to 10 unique alarm events
- Meets current CDC requirements for vaccine storage and monitoring
- Rolling memory structure, maintains most recent 525,600 temperature observations
- Memory can be cleared on unit after downloading data to USB stick
- Hassle-free retrieval of data—unit can remain in use while downloading/analyzing data
- Status indicators—low battery, memory full, USB data transfer, active alarm state
- Supplied: stand, Velcro®, magnetic strips, wall mount, batteries, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
10048-618	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	1 bottle
10048-682	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	2 bottles
10048-684	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	1 Bullet™
10048-686	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	2 Bullets™
10048-688	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	1 bottle & 1 Bullet™
10048-644	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	1 stainless-steel
10048-646	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	2 stainless-steel
10154-384	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	1 vaccine bottle
10154-386	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	2 vaccine bottles



#### VWR® Traceable® Memory-Loc™ Datalogging Refrigerator/ Freezer Thermometers

#### Data-logging thermometer that can be used in 21 CFR 11 environments

- Meets current CDC requirements and additional recommendations for vaccine storage and monitoring
- Use in 21 CFR 11 environments, raw data is locked and may not be cleared/changed on base unit
- Data-logging thermometer with fixed one minute logging interval
- Stores up to 10 unique alarm events
- Hassle-free retrieval of data—unit can remain in use while downloading/analyzing data
- Status indicators—low battery, low memory, USB data transfer, active alarm state
- Supplied: stand, Velcro®, magnetic strips, wall mount, batteries, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
10048-648	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	1 bottle
10048-650	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	2 bottles
10048-652	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	1 Bullet™
10048-654	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	2 Bullets™
10048-656	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	1 bottle & 1 Bullet™
10048-658	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	1 stainless-steel
10048-660	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.25°C	2 stainless-steel



#### **Traceable® Datalogging Thermometers**





#### VWR® Traceable® Logger-Trac™ Temperature Datalogger

Ultimate monitoring partner—displays, records, reports data every step of the way

- Know the temperature duration immediately, no data download required
- All critical information is displayed on the screen current, MIN/MAX temperatures; recording status, run time, cumulative alarm time, quarantine status, alarm tally
- Supplied: battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
10154-370	-35.0 to 50.0°C (-31.0 to 122°F)	0.1°	±0.2°C from 0 to 10°C; ±1°C otherwise
Accessories			
10154-372	Logger-Trac™ Paper sleeves (100/pk)		
10154-382	MaxiThermal software		
10154-374	Temperature Logger-Trac™ Cradle/Cabl	e	



VWR 65

#### VWR® Traceable® Logger-Trac™ RH/Temperature Datalogger

#### Mobile unit travels with shipments to track RH and Temperature

- Displays Cumulative Alarm duration from user selected MIN/MAX humidity and temperature values
- Reusable/Re-programmable—perfect for monitoring material during transportation
- Displayed during recording: Current RH and Temperature, Min/Max temperature achieved, cumulative running time
- Supplied: battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
10154-376	-29.0 to 72.0°C (-20.2 to 161.6°F)	0.1°	±0.2°C (0 to 10°C); ±0.5°C otherwise
10154-376	0.0 to 100.0% RH	0.1% RH	±3% RH between (25 to 75% RH); ±5% RH otherwise
Accessories			
10154-382	MaxiThermal software		
10154-380	Data Capture Cable		



#### VWR® Traceable® Logger-Trac™ LN2 Temperature Datalogger

#### External sensor designed for -196.0°C environments in the lab or in transit

- Displays Cumulative Alarm duration from user selected MIN/MAX temperature values
- Reusable/Re-programmable—perfect for monitoring cryo-material in transit as well as reagents, food, clinical/frozen samples, and pharmaceuticals in any location
- Supplied: LN2 probe sensor, battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	
10154 270	-29.0 to 72.0°C (-20.2 to 161.6°F) (internal sensor)		±0.2°C (2 to 10°C); ±2°C otherwise (int)	
10154-378	-196.0 to 72.0°C (-328.0 to 161.6°F) (external probe)	0.1	±0.2°C (0 to 30°C); ±2°C otherwise (ext)	
Accessories				
10154-382	MaxiThermal software			
10154-380	Data Capture Cable	•		



# VWR® Mini-Logger-Trac™ Temperature Datalogger

#### Perfect for monitoring material during transportation

- Displays cumulative Alarm Duration from user selected Min/Max values
- Reusable/Re-programmable, storage capacity: 7,680 readings
- Integrates with MaxiThermal Software for complete data analysis

Cat. No.	Range	Resolution	Accuracy
10510-926	-31.0 to 122.0°F (-35.0 to 50.0°C)	0.1°	$\pm 0.2$ °C from 0 to 10°C; $\pm 1$ °C otherwise
Accessories			
10510-928	Mini-Logger-Trac™ Temperature Cradle/Cable		
10154-380	Data Canture Cable		



23.9 - 196.4

# Refrigerator/Freezer & Vaccine Probe Thermometer Specifications Chart

C-4 N-	Page	Traceable® Certificate	B	Baradasian		Length		Water-	B	Alarm	Display
Cat. No.	No.	Supplied	Range	Resolution	esolution Accuracy Pr		Cable	resistant	Battery	Alamii	MIN/MAX
61161-336	6	Yes	-58 to 158°F / -50 to 70°C	1°	±1°C	0.75"	120"	probe/cable	AA	yes	yes
62379-549	9	Yes	-40 to 176°F / -40 to 80°C	0.1°	±1.5°C	1.5"	72"	probe/cable	AAA	no	yes
21800-002	9	Yes	-4 to 140°F / -20 to 60°C	0.1°	±1°C	0.75"	120"	probe/cable	AA/AAA	yes	yes
61161-288	8	Yes	–58 to 158°F	1°	±1°C	0.75"	120"	probe/cable	Button-cell 357	no	yes
61161-289	8	Yes	−50 to 70°C	1°	±1°C	0.75"	120"	probe/cable	Button-cell 357	no	yes
61161-364	6	Yes	-58 to 158°F / -50 to 70°C	1°	±1°C	2.5"	120"	probe/cable	AA	yes	yes
89094-768	8	Yes	-58 to 158°F / -50 to 70°C	0.1°	±1°C	0.75"	120"	probe/cable	AAA	yes	yes
12777-838	8	Yes	-58 to 158°F / -50 to 70°C	0.1°	±0.5°C	2.5"	120"	probe/cable	AAA	yes	yes
89094-748	6	Yes	-58 to 158°F / -50 to 70°C	0.01°	±0.3°C	2.5"	120" (2)	probe/cable	AA	yes	yes
10208-394	8	Yes	-58 to 158°F / -50 to 70°C	0.1°	±1°C	2.5"	36" (2)	probe/cable	AAA	yes	yes
89172-082	7	Yes	-22 to 122°F / -30 to 50°C	0.1°	±1.0°C	2.5"	n/a	yes	Button-cell 357	no	yes
89094-770	8	Yes	-58 to 158°F / -50 to 70°C	0.1°	±1°C	2.5"	120"	probe/cable	AAA	yes	yes
89369-154	6	Yes	-22 to 158°F / -30 to 70°C	0.1°	±0.6°C	2.5"	79"	probe/cable	AAA	yes	yes
89369-156	6	Yes	-22 to 158°F / -30 to 70°C	0.1°	±0.6°C	1"	79"	probe/cable	AAA	yes	yes
89369-146	12	Yes	-58 to 158°F / -50 to 70°C	0.01°	±0.1°C	2.5"	120"	probe/cable	AAA	yes	yes
89369-160	7	Yes	-22 to 158°F / -30 to 70°C	0.1°	±1.0°C	2.5"	n/a	probe/cable	AAA	yes	yes
10048-618/10048-646	3	Yes	-58 to 158°F / -50 to 70°C	0.01°	±0.25°C	various	120"	probe/cable	AA	yes	yes
10048-648/10048-660	3	Yes	-58 to 158°F / -50 to 70°C	0.01°	±0.25°C	various	120"	probe/cable	AA	yes	yes
10500-584	7	Yes	−58 to 158°F / −50 to 70°C	0.01°	±0.25°C	various	120"	probe/cable	AA	yes	yes
10154-370	4	Yes	-31 to 122°F (-35 to 50°C)	0.1°	±0.2°C	n/a	n/a	n/a	Button-cell 357	yes	yes
10154-378	4	Yes	-328 to 161°F (-196 to 72°C)	0.1°	±0.2°C	4.35"	20"	probe/cable	Button-cell 357	yes	yes
10510-926	4	No	-31 to 122°F (-35 to 50°C)	0.1°	n/a	n/a	n/a	n/a	Button-cell 357	yes	yes

# **Stainless-steel Probe Thermometer Specifications Chart**

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Cat. No.	Page No.	Traceable® Certificate Supplied	Range	Resolution	Accuracy (°C)	Probe Length	Water- resistant	Battery	Alarm	Display MIN/MAX
61220-601	11	Yes	−58 to 302°F / −50 to 150°C	0.0001°	±0.05	9"	probe only	9V	no	yes
61220-439	15	Yes	−58 to 572°F / −50 to 300°C	0.1°	±1.0	4.75"	probe only	Button-cell 393	no	no
61161-274	14	Yes	–58 to 500°F / –50 to 260°C	0.1°	±1.0	7.75"	probe only	AAA	yes	yes
61161-283/46610-024	14	Yes	−58 to 572°F / −50 to 300°C	0.1°	±1/±0.05*	4.5"	yes	Button-cell 389	no	yes
61161-310	16	Yes	–58 to 302°F / –50 to 150°C	0.1°	±1.0	5.25"	probe only	Button-cell 357	no	no
61161-368	16	Yes	–58 to 572°F / –50 to 300°C	0.1°	±1.5	3.5"	probe only	Button-cell 357	no	yes
61220-416	15	Yes	–58 to 302°F / –50 to 150°C	0.1°	±1	8"	probe only	Button-cell 357	no	no
62344-925	14	Yes	–58 to 302°F / –50 to 150°C	0.1°	±1.0	7 "	probe only	Button-cell 357	no	no
62344-916	13	Yes	32 to 392°F / 0 to 200°C	1°	±2.0	8.5"	probe only	AAA	yes	no
23609-206	16	Yes	–58 to 536°F / –50 to 280°C	0.1°	±1.0	8"	probe only	Button-cell 357	no	no
61161-328	14	Yes	–4 to 572°F / –20 to 300°C	0.1°	±1.0/±0.5	5.5"	probe only	Button-cell 357	no	no
37000-428	15	Yes	–58 to 572°F / –50 to 300°C	0.1°	±0.4*	4.75"	probe only	Button-cell 393	no	no
23609-204	16	Yes	–58 to 536°F / –50 to 280°C	0.1°	±0.4*	8"	probe only	Button-cell 357	no	no
37000-418	16	Yes	–58 to 572°F / –50 to 300°C	0.1°	±0.4*	3.5"	probe only	Button-cell 357	no	yes
23609-178	17	Yes	–58 to 302°F / –50 to 150°C	0.1°	±1.0	0.75"	probe only	Button-cell 357	no	no
23226-658	15	Yes	–58 to 302°F / –50 to 150°C	0.1°	±0.2*	8"	probe only	Button-cell 357	no	no
23609-176	15	Yes	–58 to 572°F / –50 to 300°C	0.1°	±1	11.375"	probe only	Button-cell 357	no	no
23609-174	15	Yes	–58 to 572°F / –50 to 300°C	0.1°	±0.5*	11.375"	probe only	Button-cell 357	no	no
23609-172	16	Yes	–58 to 302°F / –50 to 150°C	0.1°	±1.0	5.25"	probe only	Button-cell 357	no	no
89094-774	17	Yes	–67 to 626°F / –55 to 330°C	0.2°	±0.5	6"	probe only	AAA	no	yes
77776-718/37000-414	17	Yes	–58 to 536°F / –50 to 280°C	0.1°	±1.0/±0.4*	8"	yes	Button-cell 357	no	no
15551-004/12777-842	15	Yes	–58 to 572°F / –50 to 300°C	0.1°	±1.0/±0.4*	8"	yes	Button-cell 357	no	no
15551-002/37000-422	16	Yes	–58 to 572°F / –50 to 300°C	0.1°	±1.0/ ±0.3*	4.5"	probe only	AAA	no	yes
15551-000	15	Yes	–58 to 572°F / –50 to 300°C	0.1°	±1.0	7.5"	yes	Button-cell 357	yes	yes
77776-720	16	Yes	–58 to 302°F / –50 to 150°C	0.1°	±0.3*	5.25"	probe only	Button-cell 357	no	no
77776-730	14	Yes	–58 to 572°F / –50 to 300°C	0.1°	±1.0	2.75"	probe only	Button-cell 357	no	yes
37000-430	14	Yes	–58 to 572°F / –50 to 300°C	0.1°	±1.0/±0.5	5.5"	probe only	Button-cell 357	yes	yes
36934-166	17	Yes	–58 to 572°F / –50 to 300°C	0.1°	±1.5	3.5"	probe only	Button-cell 357	no	yes
36934-168	17	Yes	–58 to 572°F / –50 to 300°C	0.1°	±0.4*	3.5"	probe only	Button-cell 357	no	yes
21800-068	13	Yes	–58 to 572°F / –50 to 300°C	0.1°	±1.0	7.5"	probe only	Button-cell 357	yes	yes
89369-136	15	Yes	14 to 230°F / -10 to 110°C	0.1°	±1	20"	yes	AAA	no	yes
89369-150	12	Yes	-148 to 199°F / -100 to 199°C	0.1°	±0.01	9"	probe only	AAA	yes	yes
89369-138/89369-140	11	Yes	–328 to 932°F / –200 to 500°C	0.1° to 0.0001°	±0.05	6.3"/1"	no	9V	no	yes

#### **Traceable® Datalogging Thermometers**



#### **NEW**

#### VWR® Traceable® Memory-Card Refrigerator/Freezer Thermometers

#### Thermometer captures 5.9 million readings on removable SD card

- Unique 4-line display shows temperature of detachable bottle probe, ambient temperature, humidity and time, °F/°C switchable
- · Unit meets all current CDC requirements and recommendations for vaccine monitoring and storage
- USB memory card reader plugs directly into Windows and Mac—no software to install
- 89369-154: ideal for monitoring refrigerators and freezers; 89369-156: ideal for QC and research
- Alarm sounds and LED flashes when temperature rises above or falls below user-set trip points
- Supplied: 256 mb SD memory card, memory card reader, batteries, magnetic strips, Velcro®, flip open stand, adaptor, Traceable® Certificate

Cat. No.	Probe Range	Resolution	Accuracy	Probe
89369-154	–22.0 to 158.0°F (–30.0 to 70.0°C)	0.1°	$\pm 0.5^{\circ}$ C from 0°C to 25°C; $\pm 0.6^{\circ}$ C from 25°C to 70°C $\pm 1.2^{\circ}$ C from $-30^{\circ}$ C to 0°C and 50 to 70°C	Bottle (patented)
89369-156	–22.0 to 158.0°F (–30.0 to 70.0°C)	0.1°	±0.5°C from 0°C to 25°C; ±0.6°C from 25°C to 70°C ±1.2°C from –30°C to 0°C and 50 to 70°C	Stainless-steel

89369-154

#### **VWR®** Traceable® High-Accuracy Refrigerator Thermometers

#### High accuracy thermometer monitors 2 different areas of any refrigerator/freezer

- Reads to 0.01° while monitoring temperatures in refrigerator and freezer simultaneously or two refrigerator locations, °F/°C switchable
- Two channel alarms provide unique visual (LED's) and audio alerts when temperature rises above or falls below user-defined high and low set points
- Unit displays the exact time and date when dual thermometer alarms are triggered, alarms are programmable in 0.1 increments
- Monitors minimum and maximum readings and displays the exact time and date when minimum and maximum temperatures occurred for both probes
- Supplied: battery, sensors, 10-foot cable, magnetic strips, Velcro®, bench stand, Traceable® Certificate



Bottle



89094-746

Cat. No.	Range	Resolution	Accuracy	Probe
89094-746	-58.00 to 158.00°F (-50.00 to 70.00°C)	0.01°	±0.30°C	1 bottle (patented)
89094-748	-58.00 to 158.00°F (-50.00 to 70.00°C)	0.01°	±0.30°C	2 bottle (patented)
89094-750	-58.00 to 158.00°F (-50.00 to 70.00°C)	0.01°	±0.30°C	2 Bullets™
10205-164	-58.00 to 158.00°F (-50.00 to 70.00°C)	0.01°	±0.30°C	1 vaccine bottle (patented)
10208-392	–58.00 to 158.00°F (–50.00 to 70.00°C)	0.01°	±0.30°C	2 vaccine bottles (patented)



#### The world's most popular refrigerator/freezer thermometer

- Triple display simultaneously shows MIN/MAX and current temperatures, °F/°C switchable
- Accurately monitor temperatures in freezers, water baths, heating blocks, incubators, and refrigerators with this enclosed temperature-buffered sensor
- Bottle insulates sensor from rapid temperature changes when refrigerator door is opened
- MIN/MAX monitors high and low readings overnight, on weekends, or for any time period
- Alarm is programmable in 1° increments, sounds continuously when temperature rises above/falls below set points and can be turned off manually
- Visual and audible signals continue even if temperature returns to non-alarm range
- Supplied: flip-open stand, 10-foot micro cable, wall mounting, Velcro®, magnetic strips, Traceable® Certificate

Cat. No.	Range Resolution Accuracy		Probe	
61161-336	-58 to 158°F (-50 to 70°C)	1°	±1°C	1 Bullet™
61161-364	-58 to 158°F (-50 to 70°C)	1°	±1°C	1 bottle (patented)
89094-778	–58 to 158°F ( –50 to 70°C)	1°	±1°C	1 vaccine bottle (patented)





#### **Traceable® Refrigerator/Freezer Thermometers**

#### VWR® Traceable® Refrigerator/Freezer Plus™ Thermometers

#### Temperature-buffered bottle insulates sensor from rapid temperature changes

- Triple display simultaneously shows MIN/MAX and current temperatures, °F/°C switchable
- Monitors high and low readings overnight, on weekends, or for any time perioda significant advantage over current read-only temperatures
- Alarm is programmable in 1° increments and alerts user when temperature rises above or falls below a set point
- Supplied: battery, Velcro®, magnetic strips, 10-foot cable, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
10500-584	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.5°C	1 bottle
10500-586	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.5°C	2 bottles
10500-588	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.5°C	1 Bullet™
10500-590	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.5°C	2 Bullets™
10500-592	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.5°C	1 bottle & 1 Bullet™
10500-594	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.5°C	1 vaccine bottle (patented)
10500-596	-50.00 to 70.00°C (-58.00 to 158.00°F)	0.01°	±0.5°C	2 vaccine bottles (patented)



10500-584





#### VWR® Traceable® Digital-Bottle™ Refrigerator/Freezer Thermometers

#### Sealed unit can be placed inside a refrigerator

- MIN/MAX memory monitors high and low readings overnight, on weekends, or for any time period —
  a significant advantage over glass thermometers displaying only current temperature, °F/°C switchable
- Entire unit, including the bottle and display, may be placed in any environment within the operating range of the thermometer
- Supplied: battery, holder, double-backed tape, Velcro®, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
89172-082	-22.0 to 122.0°F (-30.0 to 50.0°C)	0.1°	±1.0°C between –20.0 to 85°C	1 bottle (patented)
89172-084	-22.0 to 122.0°F (-30.0 to 50.0°C)	0.1°	±0.4°C at tested points	1 bottle (patented)
89172-086	-22.0 to 122.0°F (-30.0 to 50.0°C)	0.1°	±1.0°C between –20.0 to 85°C	Glass-bead filled bottle
89172-088	-22.0 to 122.0°F (-30.0 to 50.0°C)	0.1°	±0.4°C at tested points	Glass-bead filled bottle



89172-082

#### VWR® Traceable® Wireless Radio-Signal Refrigerator Thermometers

#### Captures temperature data with high-efficiency wireless technology

- Unit wirelessly reads refrigerator temperatures from 100 feet away, place remote module inside a refrigerator
- Minimum/maximum memory allows monitoring conditions over any time period, °F/°C switchable
- Distinctive alarm sounds when temperature rises above or falls below set points
- Indicator on main unit shows rising/falling temperature trends
- Readings from up to three remote sensors are sent to main unit via radio signal-433 MHz penetrates refrigerators and walls
- Supplied: batteries, one main unit, one remote unit, flip-open stand, wall mount, Velcro®, Traceable® Certificate



89369-160



89	36	9-1	62
05	20	2-1	UZ

Cat. No.	Range	Resolution	Accuracy	Probe
89369-160	-22.0 to 158.0°F (-30.0 to 70.0°C)	0.1°	±1.0°C	Bottle designed for refrigerator/freezer applications (patented)
89369-162	-22.0 to 158.0°F (-30.0 to 70.0°C)	0.1°	±1.0°C	Accessory Bottle Remote module (set to channel 1, 2, or 3)

#### **Traceable® Refrigerator/Freezer Thermometers**





- All-time favorite modular thermometer is easy to mount or position on any flat surface
- Valuable MIN/MAX memory records reading over any time period, °F/°C switchable
- Easy-read digital display with jumbo digits updates every 10 seconds to maintain exact test results
- Supplied: battery, magnet, stand, probe, 10-foot cable, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
89094-768	-58.0 to 158.0°F (-50.0 to 70.0°C)	0.1°	±1°C	Bullet™
89094-770	-58.0 to 158.0°F (-50.0 to 70.0°C)	0.1°	±1°C	Bottle (patented)
89094-772	-58.0 to 158.0°F (-50.0 to 70.0°C)	0.1°	±1°C	Vaccine bottle (patented)

# Rettle Pullet<sup>IM</sup> Versing

Probe

Probe

#### VWR® Traceable® Dual Thermometers

#### Dual-probe thermometer gives accurate readings of 2 separate areas in refrigerators/freezers

- Two-part display shows °F or °C probe temperatures in distinct sections of refrigerator or freezer
- Easy-operate, always-ready unit quickly recalls exact date and time when MIN/MAX temperatures occur
- Audible and visual alarm feature provides alert when temperature rises above or falls below two set points, alarm is programmable in 1 degree increments
- Supplied: battery, flip-open stand, probes, 3½-foot cable, magnetic strips, Velcro® tape, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
10208-396	-58.0 to 158.0°F (-50.0 to 70.0°C)	0.1°	±1.0°C	¼-inch-diameter x 1¼ inch length (2 each)
10208-394	-58.0 to 158.0°F (-50.0 to 70.0°C)	0.1°	±1.0°C	2 bottles (patented)







#### VWR® Traceable® Refrigerator/Freezer Plus™ Thermometers

#### Temperature-buffered bottle insulates sensor from rapid temperature changes

- Triple display simultaneously shows MIN/MAX and current temperatures, °F/°C switchable
- Monitors high and low readings overnight, on weekends, or for any time period a significant advantage over current read-only temperatures
- · Alarm is programmable in 1° increments and alerts user when temperature rises above or falls below a set point
- Supplied: battery, Velcro®, magnetic strips, 10-foot cable, Traceable® Certificate







Bottle Probe Bullet™ Probe Vaccine Probe

#### VWR® Traceable® Sentry™ Thermometers

#### Simple one-key reset operation resets MIN/MAX memories

- Constantly monitor high, low and current temperatures
- Unplugging the cable activates a sensor inside the unit for monitoring ambient temperature
- Supplied: battery, probe, 10-foot cable, wall mount, magnet, stand, Velcro®, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
61161-288	–58 to 158°F	1°	±1°C	- Bullet™
61161-289	–50 to 70°C	1°	±1°C	Builet
36934-138	–58 to 158°F	1°	±1°C	Dattle (natested)
89370-110	–50 to 70°C	1°	±1°C	- Bottle (patented)
89094-788	–58 to 158°F	1°	±1°C	Vascina hattle (natanted)
89094-790	−50 to 70°C	1°	±1°C	- Vaccine bottle (patented)





### **Traceable® Refrigerator/Freezer Thermometers**

#### **VWR® Traceable® Radio-Signal Remote Thermometers**

#### Monitor up to 3 different remotes at same time from up to 100 feet away

- Main unit can receive/display data from up to 3 different remote modules, and may be set to channel 1, 2 or 3
- Displays trend indicator shows whether temperature is rising or falling
- MIN/MAX memory allows monitoring conditions over short or long periods
- Alarm sounds when temperature rises above/falls below two set points, may be programmed in 1° increments
- External sensor and 10-foot cable perform accurately even when both are underwater, °F/°C
- Supplied: battery, remote module, probe, cable, flip-open stand, wall-mount, Traceable® Certificate

Cat. No.	Indoor Range	Outdoor Range	Resolution	Accuracy	Probe
21800-002	–20.0 to 60.0°C	−5.0 to 50.0°C	0.1°	±1°C	Internal ambient; 0.187-inch dia. & ¾-inch long
Accessories					
21800-004	−20.0 to 60.0°C	−5.0 to 50.0°C	0.1°	±1°C	Bullet™
21800-030	–20.0 to 60.0°C	−5.0 to 50.0°C	0.1°	±1°C	Stainless-steel 0.125" dia. 8½ inch, 5-foot cable
21800-008	–20.0 to 60.0°C	−5.0 to 50.0°C	0.1°	±1°C	Bottle (patented)
89094-784	−20.0 to 60.0°C	−5.0 to 50.0°C	0.1°	±1°C	Vaccine bottle (patented)



Bottle Probe Bullet™ Probe Vaccine Probe

#### VWR® Traceable® Thermometers with Time/Date Max/Min Memory

#### Wide-range, triple-display thermometer offers amazing versatility and accuracy

- Thermometer displays current, MIN/MAX temperatures, °F/°C switchable
- Unit captures time and date when the MIN/MAX temperatures occurred
- Displays 0.375" high digits show the MIN/MAX of ambient or probe temperature, time and month/day
- Sensor and 6-foot cable perform accurately even when both are underwater
- Supplied: battery, probe, 6-foot cable, wall mount, flip-open stand, Velcro®, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
62379-549	-40.0 to 176.0°F (-40.0 to 80.0°C)	0.1°	±1.5°C	Bullet™
21800-076	-40.0 to 176.0°F (-40.0 to 80.0°C)	0.1°	±1.5°C	Bottle (patented)
89094-786	-40.0 to 176.0°E (-40.0 to 80.0°C)	0.1°	+1 5°C	Vaccine hottle (natented)





#### VWR® Traceable® Econo Refrigerator Thermometer

#### Low-cost mini-size temperature sensor is always on-duty in refrigerator

- Economical refrigerator monitor has wide temperature range and is easy to switch from °F to °C
- Ideal unit for use in storerooms, labs, offices, hoods, cabinets
- Remarkable, clear-view display updates every 30 seconds
- Supplied: battery, suction cup, Velcro®, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
36934-132	32 to 113°F (0 to 45°C)	0.1°	±1°C



#### **Traceable® General Purpose Thermometers**





#### View ambient and probe temperatures from 25 feet

- Dual display permits reading ambient and probe temperatures simultaneously, °F/°C switchable
- MIN/MAX memory readings may be displayed and reset at the touch of a key
- · Cable and sensor perform accurately when underwater, always-on instrument reads temperature constantly
- Supplied: flip-open stand, wall mounting,10-foot cable, Velcro®, battery, Traceable® Certificate

Cat. No.	External probe range	Ambient sensor range	Resolution	Accuracy
61161-324	–58.0 to 158.0°F (–50.0 to 70.0°C )	23.0 to 122.0°F (-5.0 to 50.0°C)	0.1°	±1°C



#### VWR® Traceable® Monitoring Thermometer

#### Monitoring thermometer with probe and 10-foot submersible cable

- Perfect thermometer for monitoring reagents or solutions in tanks, water baths, incubators
- Unit displays ambient temperature and probe temperature at the touch of a button, °F/°C switchable
- Display updates every 10 seconds, thus eliminating 3-minute lag inherent in glass and dial thermometers
- Supplied: flip-open stand, probe bracket, 10-foot cable, Velcro®, battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
61161-278	-58.0 to 158.0°F (-50.0 to 70.0°C)	0.1°C	±1°C	0.187 inch x 0.8 inches, water-resistant



#### VWR® Traceable® Big-Digit 4-Alert Alarm Thermometers

#### Flashing LED indicator and four different alarm configurations for multi-use operation

- Thermometer has 4 unique alarms configurations: alarm triggers when temperature is higher than set
  point, lower than set point, outside of high or low set points or inside higher and low set points allowing
  precise monitoring of any experiment
- Green/red lights blink and alarm sounds when out-of-range condition is detected
- Continuous alarm sounds every minute for 5 seconds until the temperature returns to non-alarm condition or alarm is turned off
- Large digits are readable from 10 feet
- Supplied: removable suction cup, stand, wall mount, 3½ feet cable, battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
62344-914	−50.0 to 70.0°C	0.1°	±1°C	0.187 inch x 0.8 inches, water-resistant
62344-922	–58.0 to 158.0°F	°F 0.1° ±1°C 0.187 inch x 0.8 inches, water-r		0.187 inch x 0.8 inches, water-resistant



#### VWR® Traceable® Solar-Powered Thermometer

#### Solar-powered thermometer with a back-up battery

- Efficient and cost-saving solar panels make unit environmentally attractive
- Sensor and cable perform accurately even under water, °F/°C switchable
- Supplied: back-up battery, mounting screw, 10-foot cable, Velcro®, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Sensor
61161-334	-58.0 to 158.0°F (-50.0 to 70.0°C)	0.1°C	±1°C	external cable/probe: 0.187 inch x 0.8 inches

#### **General Purpose Probe Thermometer Specifications Chart**

			•			-					
Cat. No.	Page	Traceable <sup>®</sup>	Dange	Resolution	Accuracy	Length		Water-	Batterv	Alarm	Display
Cat. No.	No.	Certificate Supplied	Range	Resolution	Accuracy	Probe	Cable	resistant	battery	Alariii	MIN/MAX
61161-278	10	Yes	-58 to 158°F / -50 to 70°C	0.1°	±1.0°C	0.187"	120"	probe/cable	AAA	no	no
61161-324	10	Yes	-58 to 158°F / -50 to 70°C	0.1°	±1.0°C	0.187"	120"	probe/cable	AAA	no	yes
62344-922	10	Yes	-58 to 158°F / -50 to 70°C	0.1°	±1.0°C	0.187"	120"	probe/cable	AAA	yes	no
61161-334	10	Yes	−58 to 158°F / −50 to 70°C	0.1°	±1.0°C	0.187"	120"	probe/cable	AAA	no	no

#### VWR® Traceable® Platinum Ultra-Accurate Digital Thermometer

#### Most accurate thermometer available with 0.0001° resolution

- High-precision unit is designed for years of reliable service even in harshest environments
- Computer output data captures in real time
- Decimal-placement key changes display to show one, two, three or four significant numbers after decimal
- Internal data logger automatically captures MIN/MAX readings every hour for last 24 hours
- Instant response probe updates readings 3 times per second for liquids, air/gas and semi-solids
- Supplied: battery, platinum probe, cable, computer output, plastic carrying case, Traceable® Certificate

Cat. No.	Unit Range	Probe Range	Resolution	Accuracy	Platinum RTD Stainless-steel Probe			
89369-138	-200.00 to	-200.00 to 500.000°C	0.1° to	±0.05°C or 0.05% between –80 to 290°C	7" stem, 0.13" diameter, 6' cable			
89369-140	500.000°C	-100.00 to -200.00°C	0.0001		1" stem, ¼" diameter, 10' PTFE cable			
Accessories	Accessories							
89369-142	Replacement Pla	atinum RTD stainless-steel F	robe					
89369-144	Replacement Platinum RTD stainless-steel Bullet™ Probe							
33500-092	Data Acquisition System (additional information, see page 68)							
89030-250	AC Adaptor							

# VWR® Traceable® Digital Thermometer

#### The laboratory standard

- Triple purpose stainless-steel probe for liquids, air/gas, and semisolids
- Ideal for foods, pharmaceuticals, petroleum products, gas systems, soil, ovens, and more
- Unit reads in °C and °F and includes a HOLD key for freezing data on the display for future readings
- Instant HISTORY key recalls minimum and maximum readings over the past 24 hours
- Unit conforms to ITS-90 International Temperature Standard
- Supplied: battery, probe, cable, computer output, plastic carrying case, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Stainless-steel Probe			
61220-601	-58.000 to 302.000°F (-50.000 to 150.000°C) 0.0001° ±0.05°C between 0.0 to 100°C 6" stem, 0.3" dia. x 9";						
Accessories							
10025-680	Replacement Probe: -50.000 to 150.000°C	_	±0.05°C between 0.0 to 100°C	6" stem, 0.3" dia. x 9"; cable: 66"			
33500-092	Data Acquisition System (additional information, see page 68)						
89030-250	AC Adaptor						





89369-140 / 89369-144







#### NEW

#### VWR® Traceable® Platinum High-Accuracy Freezer Thermometers

Displays MIN/MAX temperatures for previous 24 hours (for each hour) and previous 7-days (for each day); or previous 31 days (for each day)

- Triple display shows current temperature in °F or °C, as well as the MIN/MAX temperatures • Time/date stamp key shows exact time and date for all minimum and maximum readings
- Visual LED flashes and audible alarm sounds continuously even if temperature returns to non-alarm range
- Stainless-steel probe holder ideal for mounting probe anywhere in lab
- 89369-150 and 89369-152 are ideal for ultra-low freezer applications
- 89369-146 and 89369-148 are ideal for refrigerator/freezer applications
- Supplied: platinum probe, stand, wall mount, stainless-steel probe holder, batteries, Traceable® Certificate



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Bullet" **Bottle** Probe

Supplied stainless-steel holde

Platinum RTD stainless-steel probe





#### VWR® Traceable® RTD Platinum Thermometer

#### State-of-the-art aerospace technology delivers high platinum performance

- · High-precision thermometer is geared specifically for measuring temperatures in soil, foods, ovens, cuvettes, gas systems, water baths, wastewater, incubators, chemical solutions, petroleum products, and extremely cold conditions
- Fail safe display shows low battery and probe condition
- Computer output allows thermometer to be connected to a computer or data logger for capturing and storing results
- Platinum (100-ohm) 4-wire probe is triple-purpose for liquids, air/gas, semisolids
- Supplied: platinum RTD probe, battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe				
23609-228	-58.00 to 752°F (-50.00 to 400°C)	0.01° below 200°, 0.1° above 200°	±(0.1% +0.2°C) below 200°, ±(0.15% + 0.5°C) above 200°	6" probe, 0.13" dia, 40" cable length				
Accessories								
61161-386	Data Acquisition System	Data Acquisition System (additional information, see page 68)						
21800-026	Data Logger							
61161-384	Fasy-Lise Adaptor (see page 79)							



#### VWR® Traceable® -100.0° Platinum Freezer Thermometer

#### Fast-response RTD platinum probe with thin micro cable supplies high-precision results

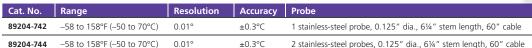
- Accurate –100.0°C platinum probe is triple purpose for liquids, air/gas, and frozen materials
- Ultra-slim micro 10-foot cable allows freezer doors to seal tightly around it
- Adjustable probe holder, magnets, Velcro® allow unit/probe to be used anywhere in lab/field
- Supplied: battery, probe, cable, probe holder, Velcro®, magnetic strips, carrying case, Traceable® Certificate

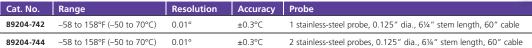
Cat. No.	Range	Resolution	Accuracy	Probe
36934-160	−99.0 to 199.9°C	0.1°	±2°C	3" probe, 0.16" dia, 116" cable length

#### VWR® Traceable® High-Accuracy Dual Thermometers

#### Dual-probe unit provides exact results for critical requirements, QC, routine readings

- Two probes are useful for monitoring inlets and outlets, tracking two tests simultaneously or measuring temperatures in two locations
- Display shows current °F/°C and minimum/maximum temperatures
- Minimum/maximum monitors readings overnight, on weekends, or any time period; unit displays the exact time and date when the minimum and maximum temperature occurred
- Visual/audible alarms are programmable in 0.1° increments and provide alerts when temperature rises above/falls below high/low set points
- Supplied: batteries, flip-open stand, probe, cable, magnetic strips, Velcro®, wall mount, Traceable® Certificate

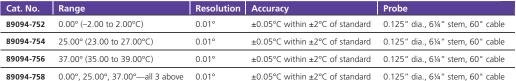




#### VWR® Traceable® International Standards Extreme-Accuracy Thermometers

#### Lab partner delivers exact time/date when temps rise above/fall below set-points

- Two audible and two visual alarms warn when temperatures rise above/fall below set-points, unit displays the exact time and date when alarm was triggered
- Efficient alarms are programmable in 0.1° increments and sound continuously until disabled
- Remarkable, three-line display shows minimum/maximum, current temperatures
- Accurate readings with tip penetration of 1/3-inch, unit reads °C and °F
- Supplied: batteries, flip-open stand, Velcro®, magnet, wall mount, probe, cable, Traceable® Certificate



#### VWR® Traceable® Kangaroo™ Thermometer

#### Pocket-size thermometer features handy cable storage and probe brackets for portability

- Precision memory feature automatically captures and recalls minimum/maximum temperature readings over any time period, °F/°C switchable
- Efficient alarm continues to sound every minute until temperature returns to non-alarm conditions
- Supplied: battery, probe, cable, flip-open stand, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
21800-068	–58 to 572°F (–50 to 300°C)	0.1° from –19.9 to 199.9°C;	±1°C from -30 to 250°C;	7½" length 0.14" dia.

#### VWR® Traceable® Alarm Thermometer/Alarm Timer

#### Stainless-steel probe and cable may be placed in an oven or incubator

- Display shows time, current temperature, and alarm temp setting, °F/°C switchable
- Metal cable may be placed in ovens and incubators making this unit ideal for those applications
- Unique, adjustable display and large digits allow for viewing from 9 feet at any angle
- Supplied: battery, probe, cable, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
62344-916	32 to 392°F (0 to 200°C)	10	+2°C	81/2-inch length 1/4" dia









#### **Traceable® Stainless-Steel Thermometers**





#### Readings are updated every second and displayed on a 0.375" LCD

- Stainless-steel probe with piercing tip delivers constant temperatures at both ends of scale
- 37000-430 and 37000-432 models include high/low alarms, MIN/MAX memories and a hold feature
- Magnetic back attaches unit to any metal surface (incubators, freezers, water baths) for hands-free use
- Supplied: battery, probe, cable, flip-open stand, clip, magnetic back, Traceable® Certificate

Cat. No.	Range	Accuracy	Resolution	
<b>61161-328</b> –4 to 500°F (–20 to 250°C) ±1.0°C bet		±1.0°C between -20 to 100°C	0.1° above –20 to 200°C; or 1°C elsewhere	
37000-424	-4 to 500°F (-20 to 250°C)	±0.5°C at tested points	0.1° above –20 to 200°C; or 1°C elsewhere	
37000-430	–4 to 572°F (–20 to 300°C)	±1.0°C between -20 to 100°C	0.1° above –20 to 200°C; or 1°C elsewhere	
37000-432	–4 to 572°F (–20 to 300°C)	±0.5°C at tested points	0.1° above –20 to 200°C; or 1°C elsewhere	



#### VWR® Traceable® Snap-in Module with Probe

#### Panel-mount, practical instrument snaps into place or can be used free-standing

- Valuable minimum/maximum memory records reading over any time period
- Easy-read digital display with jumbo digits updates every second to maintain exact test results
- Supplied: battery, probe, cable, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
77776-730	–58 to 572°F (–50 to 300°C)	0.1° from –20 to 200°C; or 1°C elsewhere	±1°C from -20 to 100°C	0.14" dia., 120" cable 2¾" probe length with handle



#### VWR® Traceable® Mini-Thermometer

#### Simple three key thermometer is business-card sized for easy storing and handling

- Stainless-steel probe can be used to measure liquid, air/gas, or semi-solids
- Small but powerful unit fits easily into tool kits, briefcases or pockets
- Supplied: battery, probe, cable, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
62344-925	-58.0 to 302.0°F (-50.0 to 150.0°C)	0.1°	±1.0°C	0.14" dia., 7" length, 18" cable



#### Ideal for use in cuvettes, foods, soils, water baths, waste water, and incubators

- Countdown timer, programmable Hi/Lo alarms, MIN/MAX memory, °F/°C switchable
- High/low alarms may be programmed in 1° increments, alarm mode may be switched off when not required
- Unit features a countdown timer for 99 hours, 59 minutes to 1 minute and may be set in 1-minute intervals
- Supplied: battery, probe, cable, probe holder, flip-open stand, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
61161-274	-58.0 to 500.8°F (-50.0 to 260.0°C)	0.1°	±1°C	0.14" dia. 7¼" length, 36" cable



#### **VWR® Traceable® Water-resistant Thermometers**

# Water-resistant case, cable, and stainless-steel probe monitors temperatures in any wet area

- Water/shock-resistant case provides flawless readings in freezers, water baths, incubators, tanks
- Stainless-steel probe efficiently monitors temperatures in liquids, semi-solids, air/gases
- One-key operation quickly recalls highest/lowest readings over any time period
- Supplied: battery, probe, cable, suction cups, magnet, Velcro® strips, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
			±1°C between –20 and 100°C	0.14" dia., 5" probe length, 120" cable
46610-024	–58 to 572°F (–50 to 300°C)	0.1° from –19.9 to 199.9°C; otherwise 1°C	±0.5°C at tested points	0.14" dia., 5" probe length, 120" cable



#### **Traceable® Stainless-Steel Thermometers**

#### VWR® Traceable® Extra-Extra Long-Probe Water-resistant Thermometer

#### Extra-long 20-inch probe created for deep vessels

- Thermometer is ideal for large beakers/flasks, vats, pails and drums
- Water-resistant to a depth of 10 feet (meter/probe/cable)
- Supplied: stainless-steel probe, spring-loaded holder, wall mount, batteries, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
89369-136	14.0 to 230.0°F (-10.0 to 110.0°C)	0.1	±1°C	20" length x 0.2" dia. 10' cable, stainless-steel

# 20 incl

#### **VWR® Traceable® Memory/Water-resistant Thermometer**

#### Amazing super-memory multi-tasker captures, stores and recalls 10 temperature readings

- Broad temperature range and extra-high accuracy solve 99% of most lab/field data collecting needs
- Records minimum and maximum memory readings over any time period, °F/°C switchable
- Supplied: battery, probe, cable, probe holder, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
15551-000	-58 to 572°F (-50 to 300°C)	0.1° from –20 to 200°C; or 1°C elsewhere	±1°C between -20 to 200°C	7½" length 0.19" dia.

#### **VWR®** Traceable® Long-Stem Thermometers

#### Ideal for replacing all glass and mercury thermometers in the lab

- On/off switch provides longer battery life, °F/°C switchable range
- Long stem allows for taking readings while stirring and is ideal for use in incubators and ovens
- Supplied: battery, protective sleeve, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Stem Length	Overall Length
61220-416	-58 to 302°F (-50 to 150°C)		±1°C	8 inches	11 inches
23226-658	-58 to 302°F (-50 to 150°C)	0.1° from –20 to 200°	±0.2°C at tested points	8 inches	11 inches
23609-176	–58 to 572°F (–50 to 300°C)	(1° otherwise)	±1°C	11.375-inches	14.375-inches
23609-174	–58 to 572°F (–50 to 300°C)		±0.5°C at tested points	11.375-inches	14.375-inches

#### VWR® Traceable® Lollipop™ Shock/Water-resistant Thermometers

#### Featherweight, wide-range lab partner covers 99% of routine temperature measurement needs

- Shock/water-resistant unit delivers reading updates every second
- One-key operation recalls MIN/MAX temperature results, °F/°C switchable
- Supplied: battery, probe, probe cover with pocket clip, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
15551-004	-58 to 572°F (-50 to 300°C)	0.1° from -20 to 200°C; or 1°C elsewhere	±1°C
12777-842	-58 to 572°F (-50 to 300°C)	0.1° from -20 to 200°C; or 1°C elsewhere	±0.4°C at tested points

#### **VWR® Traceable® Digital Dial Thermometers**

#### Readings updated every 10 seconds

- Wide temperature range combines range of over 90 different mercury thermometers making it an ideal lab partner
- Large, bright 0.375-inch-high LCD
- Stainless-steel stem dimensions: 4¾ x 0.19 inch diameter
- Supplied: protective case, battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
61220-417	-58 to 572°F (-50 to 300°C)	0.1°	±1°C
61220-439	–58 to 572°F (–50 to 300°C)	0.1°	±1°C

Cat. No.	Range	Resolution	Accuracy
37000-426	–58 to 572°F (–50 to 300°C)	0.1°	±0.4°C at tested points
37000-428	-58 to 572°F (-50 to 300°C)	0.1°	±0.4°C at tested points







#### **Traceable® Stainless-Steel Thermometers**





Reports MIN/MAX temperatures achieved during dishwashing cycle

- Monitors temperatures for proper cleaning
- Water-resistant and metal construction are ideal for food, wet labs, outdoors
- Supplied: clip for attaching to dishwasher rack, battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Feature
89204-740	–58 to 302°F (–50 to 150°C)	0.1°	±1°C between –20 to 150°C	stainless-steel probe
89204-738	–58 to 302°F (–50 to 150°C)	0.1°	±1°C between -20 to 150°C	dishwasher clip

#### **VWR® Traceable® Flip-Stick™ Thermometers**

Versatile, fold-out design makes taking probe readings in any position a snap

- Stainless-steel, multi-angle probe folds out for easy positioning in difficult to reach vessels
- Fully extended, chemical-resistant probe lengthens unit to 11" (27.9cm)
- Unit includes MIN/MAX memory and HOLD key to freeze current display
- Supplied: probe, battery, wrist-strap, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
15551-002	F0 +a F720F / F0 +a 2000C)	0.19 from 20 to 2009Ct or 19C olsouthers	±1°C
37000-422	56 tO 572 F (-50 tO 300°C)	0.1° from –20 to 200°C; or 1°C elsewhere	±0.3°C at tested points

# VWR® Traceable® Robo™ Thermometers

Innovative, 180° rotating display can be quickly positioned to deliver accurate readings from any angle

- Plastic and stainless-steel construction make this thermometer ideal for environments where safety is a concern
- 8-inch long stainless-steel probe is resistant to most lab chemicals
- Supplied: battery, probe case with clip, Traceable® Certificate

Ca	t. No.	Range	Resolution	Accuracy
236	509-206	-58 to 536°F (-50 to 280°C)	0.1° from -20 to 200°C	±1.0°C
236	509-204	–58 to 536°F (–50 to 280°C)	0.1° from -20 to 200°C	±0.4°C at tested points

#### VWR® Traceable® Jumbo-Display Dial Thermometers

#### Stainless-steel probe is perfect for viscous solutions

- Piercing tip makes it perfect for measuring temperatures of semisolids, °F/ °C switchable
- On/off switch provides longer battery life
- Supplied: battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe
61161-310	–58 to 302°F (–50 to 150°C)	0.1°	±1.0°C	0.14".x51/4"
77776-720	–58 to 302°F (–50 to 150°C)	0.1°	±0.3°C	0.14" dia. x 5¼"
23609-172	–58 to 302°F (–50 to 150°C)	0.1°	±1.0°C	½" dia. metal disk at end of probe for









#### VWR® Traceable® Pocket Thermometers

#### Unique, slim-line all-time-favorite thermometer

- Small, 1 oz. pocket thermometer
- Probe guard extends overall length to 10¾ inches
- Supplied: battery, probe case, pocket clip, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
61161-368	–58 to 572°F (–50 to 300°C)	0.1° from -20 to 200° (1° otherwise)	±1.5°C
37000-418	–58 to 572°F (–50 to 300°C)	0.1° from -20 to 200° (1° otherwise)	±0.4°C at tested points

#### VWR® Traceable® Key-Chain Thermometer

#### Use-anywhere pocket thermometer with wide-range capacity

- Fast, one-second response makes it ideal for measuring ambient air temperatures
- One-inch stainless steel probe is designed for penetration of semisolids and liquid measurements
- Supplied: battery, key-chain, clip, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
23609-178	–58 to 302°F (–50 to 150°C)	0.1°	±1°C from -20 to 100C°



#### VWR® Traceable® Water-resistant Food HACCP Thermometer

#### Versatile, no-touch infrared and piercing probe combo create perfect HACCP thermometer

- Designed specifically as a HAACP (Hazard Analysis and Critical Control Point) thermometer for food safety
- LED's indicate the HAACP zones: green light under 4°C (40°F), green light over 60°C (140°F) and red danger light between 4 to 60°C (40 to 140°F)
- Display shows current temperature, MIN/MAX temperature, low battery and emissivity value for infrared
- Water-resistant case and unique membrane keys prevent splashes/spills from permeating unit
- Infrared emissivity: 0.95 default; adjustable from 0.1 to 1.0; field of view: 2.5:1
- Supplied: battery, probe, Velcro®, Traceable® Certificate

Cat. No.	Sensor	Range	Resolution	Accuracy
20004 774	Infrared	-67 to 482°F (-55 to 250°C)	0.5°F (0.2C°) between	±0.6°C between -5 to 65°C
89094-774	Piercina stainless-steel		-10 and 200; 1° elsewhere	+0.5°C



#### **VWR®** Traceable® Water-resistant Food Thermometers

#### Water-resistant pocket partner is ready for every temperature task

- Specially designed membrane keys prevents splashes/spills from permeating thermometer
- One-key operation quickly displays MIN/MAX readings
- Piercing probe tip adds extra versatility to data collection requirements
- Supplied: battery, probe holder/guard, pocket clip, key-chain, lanyard, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
36934-166	E0 to E720F / E0 to 2000C)	0.19 from 20 to 2009Ct or 19C alcourbage	±1.5°C
36934-168	· –58 to 572°F (–50 to 300°C)	0.1° from –20 to 200°C; or 1°C elsewhere	±0.4°C at tested points



#### VWR® Traceable® Food/Water-resistant/Piercing Thermometers

#### Piercing probe is ideal for use in labs, soil, foods, brewing and other applications

- Stainless-steel piercing tip easily evaluates internal temperatures of stored, frozen, or prepared foods
- Wide °F/°C range unit is a must-have for 99% of routine temperature measurements
- Stainless-steel probe is 0.19-inch diameter x 8 inches
- Supplied: battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
77776-718	F0 +- F2C0F / F0 +- 2000C)	0.10 france 20 to 20000, or 100 along horse	±1.0°C
37000-414	–58 to 536°F (–50 to 280°C)	0.1° from –20 to 200°C; or 1°C elsewhere	±0.4°C at tested points





#### Traceable® General-Purpose Thermometers/Type-K Chart





#### VWR® Traceable® Thermometer/Clock/Humidity Monitor

Simultaneously displays time of day, temperature, and humidity

- Features: MIN/MAX memory, memory clear, °F/°C switchable, 12/24-hour clock
- At the touch of a button, memory recalls the highest and lowest temperature and humidity readings
- Internal sensors make it ideal for use in hoods, storerooms, cleanrooms, incubators, drying chambers and environmental cabinets
- Supplied: stand, wall mount, double-back tape, batteries, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Size/Weight
	Time: 12/24 hour clock	1 minute	0.01%	
62344-734	Temp: 0.0 to 50.0°C	0.1°	±1°C	4¼ x 2¼ x ½ inch, 2½ ounces
	Humidity: 20 to 90% RH	1%	+5% RH midrange otherwise +8% RH	_



#### VWR® Traceable® Big-Digit See-Thru™ Thermometers

Jumbo, see-thru display automatically clears and updates MIN/MAX readings daily

- Smart design feature routinely resets MIN/MAX every day
- Perfect for use in fume hoods, refrigerators, plant areas
- Can be easily attached to outside of window to show outdoor temperatures
- Supplied: battery, mounting tape, Velcro® strip, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
36934-156	–13.0 to 158.0°F	0.1°	±1°C
36934-158	–25.0 to 70.0°C	0.1°	±1°C

Thermometer with Type-K Probe Specifications Chart

	Page	Traceable® Certificate					Length	(inch)		Display	No. of
Cat. No.	No.	Supplied	Unit Range	Supplied Probe Range	Resolution	Accuracy (°C)	Probe	Cable	Battery	MIN/MAX	Probes
89094-738	20	Yes	–328 to 2372°F (–200 to 1300°C)	–40 to 250°C continuous or 300°C short-term use	0.1° / 1°	±0.3% + 1°C	0.12	48	9V	yes	1
89094-740	20	Yes	–58 to 2000°F (–50 to 1300°C)	−40 to 250°C continuous or 300°C short-term use	0.1°/1°	±0.3% + 1°C	0.12	48	9V	max only	1
77776-716	19	Yes	-328 to 2498°F (-200 to 1370°C)	–50 to 700°C	0.1°	±1.0	6.25	40	9V	yes	1
23609-232	19	Yes	-328 to 2498°F (-200 to 1370°C)	−40 to 250°C continuous or 300°C short-term use	0.1°/1°	±1.0	0.12	48	AAA	yes	1
61161-279	22	Yes	–40 to 2000°F	−40 to 250°C continuous or 300°C short-term use	1°	±(1 + 1%)	0.12	48	9V	no	2
61161-280	22	Yes	–40 to 1200°C	−40 to 250°C continuous or 300°C short-term use	'	±(1 + 1%)	0.12	48	9V	no	2
23609-230	22	Yes	–50 to 1999°F (–50 to 1230°C)	−40 to 250°C continuous or 300°C short-term use		±0.3% + 1°C	0.12	48	9V	no	2
61161-285	21	Yes	-328 to 2431°F (-200 to 1333°C)	−40 to 250°C continuous or 300°C short-term use	0.1°	±1.0	0.12	48	9V	no	2
77776-726	21	Yes	–50 to 1999°F (–50 to 1300°C)	−40 to 250°C continuous or 300°C short-term use	1°	±0.3% + 1°C	0.12	36	9V	max only	1
77776-722	21	Yes	–58 to 1999°F (–50 to 1300°C)	−40 to 250°C continuous or 300°C short-term use	1°	±0.3% + 1°C	0.12	120 (2)	9V	max only	2
23226-656	22	Yes	–50 to 1999°F (–50 to 1230°C)	−40 to 250°C continuous or 300°C short-term use	0.1°	±(1 + 0.75%)	0.12	48 (2)	9V	yes	2
36934-160	12	Yes	−99 to 199.9°C		0.1°	±2	5	120	9V	no	1
21800-070	21	Yes	–58 to 1382°F (–50 to 750°C)	−40 to 250°C continuous or 300°C short-term use	1°	±(1 + 0.75%)	0.12	48	9V	no	1
21800-074	20	Yes	–58.0 to 2372°F (–50.0 to 1300°C)	–45 to 230°C	0.1°	±(1 + 0.75%)	5	40	9V	no	1

#### **VWR®** Traceable® Total-Range Thermometer

#### Water-resistant design is perfect for use in lab or plant's worst environments

- Unit can recall minimum and maximum temperature readings captured during any time; updates display twice a second
- HI/LO Alarm: indicates when temperature rises above or falls below high/low set points, 1° increments
- °F/°C switchable
- Timer feature displays duration of temperature conditions and time tests; capacity: 23 hours 59 minutes to 1 minute; resolution: 1 second
- Probe range (supplied with unit) –40 to 250°C continuous or 300°C short-term; accepts all Type-K thermocouples
- Supplied: flip-out stand, PVC casing, 4-foot Type-K beaded probe, batteries, Traceable® Certificate

Cat. No.	Meter Range	Resolution	Accuracy
23609-232	-328 to 2498°F (-200 to 1370°C)	0.1° and 1°	$\pm 1^{\circ}\text{C}$ between $-50^{\circ}\text{C}$ to 740°C, otherwise $\pm 2^{\circ}\text{C}$

For additional Type-K probes, see page 23.



#### **VWR®** Traceable® Memory Wide-Range Thermometer

#### High accuracy, wide range Type-K thermometer

- Triple purpose probe may be used to measure temperature of liquids, gases and semi-solids
- Computer output allows thermometer to be connected to a computer or data logger for capturing and storing readings
- Count-up timer provides a relative time measurement while taking temperatures and recording MIN/MAX readings
- °F/°C switchable
- Probe range (supplied with unit) –50 to 700°C, 6¼" stem, 0.13" dia, 40" cable; meter accepts any Type-J, K or T probe
- Supplied: 40" stainless-steel Type-K thermocouple probe, battery, Traceable® Certificate

Cat. No.	Meter Range	Resolution	Accuracy		
77776-716	-328 to 2498°F (-200 to 1370°C)	0.1 from –200 to 640°C (–328 to 990°F) otherwise 1°	±1°C		
Accessorie	essories				
Cat. No.	Description				
89140-174	Data Acquisition System (for additional information see page 68)				
21800-026	Data Logger (for additional information, see page 68)				

For additional Type-K probes, see page 23.



## Traceable to NIST for accuracy

To assure accuracy an individually serial-numbered Traceable® Certificate is provided from an ISO/IEC 17025:2005 (1750.01) calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).

#### **Traceable® Type-K Thermometers**





Big digits are readable from 15 feet away

- Intuitive, four-key operation makes this thermometer extremely easy to use
- Max HOLD feature permits capturing the highest temperature achieved over any time period
- Probe range (supplied with unit) –40 to 250°C continuous 300°C short-term; accepts all Type-K thermocouples
- Supplied: carrying case, 4-foot Type-K beaded probe, battery, Traceable® Certificate

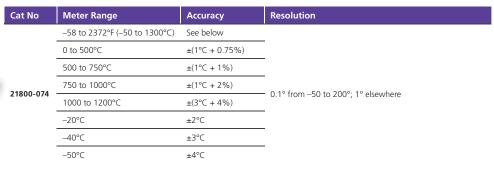
Cat. No.	Meter Range	Resolution	Accuracy
89094-740	–58 to 2000°F (–50 to 1300°C)	0.1° and 1°	$\pm 0.3\%$ of reading + 1°C between –50°C to 1000°C, otherwise 0.5% of reading + 1°C

For additional Type-K probes, see page 23.

#### **VWR®** Traceable® Workhorse™ Thermometer

Type-K workhorse with wide temperature range has new chip design for ultra-low cost

- Recessed adjustable offset offers increased accuracy by allowing user to set thermometer to specific temperatures, in-house calibrations, or a particular sensor
- HOLD function freezes display for easy recording of current temperature
- Probe range (supplied with unit) –45 to 230°C; 3¼" stem, 0.2" stem dia, 30" cable; accepts all Type K probes
- Supplied: stand, case, 30" stainless-steel Type-K probe, battery, Traceable® Certificate



For additional Type-K probes, see page 23.



#### VWR® Traceable® Water-resistant Type-K Thermometer

Rubber boot covers thermocouple to maintain water-resistant integrity with thermocouple attached

- MIN/MAX key rapidly recalls highest and lowest temperature reading achieved
- Unique differential feature shows the difference in temperature from a set point
- Back-lighting key (BKLT) allows for reading in dark areas, large-digit display is readable from 10 feet away
- Probe range (supplied with unit): -40 to 250°C continuous or 300°C short-term; uses all Type-K thermocouples
- Supplied: carrying case, battery, Type-K beaded probe, cable, Traceable® Certificate

Cat. No.	Meter Range	Resolution	Accuracy
89094-738	-328 to 2372°F (-200 to 1300°C)	0.1° and 1°	$\pm 0.3\%$ of reading + 1°C between $-200$ °C to $1000$ °C, otherwise $0.5\%$ of reading + 1°C

For additional Type-K probes, see page 23.



#### VWR® Traceable® Digital Thermometer with Recorder Output

#### Use with any chart recorder or computer that can accept millivolt signals

- Unit can recall the maximum temperature achieved at the touch of a button
- HOLD key freezes display to capture current reading, °F/°C switchable
- Probe range (supplied with unit): -40 to 250°C continuous or 300°C short-term; uses all Type-K thermocouples
- Supplied: Type-K beaded probe, 4-foot cable, battery, recorder output jack, Traceable® Certificate

Cat. I	No.	Meter Range	Resolution	Accuracy
77776	5-726	–50 to 1999°F (–50 to 1300°C)	0.1° from –50.0 to 199.9° and is 1° for all other readings	±0.3% of reading plus 1°C

For additional Type-K probes, see page 23.

#### VWR® Traceable® Pocket-Size™ Thermometer

#### New microchip design combines ultra-low cost with ultra-high precision

- Mini-size and shockproof construction increases convenience and reliability
- One-switch operation makes it the perfect thermometer for routine use, °F/°C switchable
- Probe range (supplied with unit): -40 to 250°C continuous or 300°C short-term; uses all Type-K thermocouples
- Supplied: nylon carrying case, 4-foot Type-K beaded probe, battery, Traceable® Certificate

Cat. No.	Meter Range	Resolution	Accuracy
21800-070	–58 to 1382°F (–50 to 750°C)	1°	±(1°C + 0.75%) from 0 to 500°C; ±(1°C +1%) from 500

For additional Type-K probes, see page 23.

#### VWR® Traceable® Dual-Channel Thermometer

#### Amazing data keeper records two probe readings and difference between them

- Dual display simultaneously shows one of two options: temperature of 2 probes or temperature of one probe and difference between probes
- Two-probe capability shows important temperature changes for 99% of all lab/field requirements, °F/°C switchable
- Probe range (supplied with unit): -40 to 250°C continuous or 300°C short-term; uses all Type-K thermocouples
- Computer output allows thermometer to be connected to the computer or data logger for capturing/storing data
- Supplied: two 4-foot Type-K beaded probes, battery, Traceable® Certificate

Cat. No.	Meter Range	Resolution	Accuracy
23609-230	−50 to 1999°F (−50 to 1230°C)	0.1° under 200°C and 1° above 200°C	0.3% + 1°C

For additional Type-K probes, see page 23.

#### VWR® Traceable® 2-Channel Thermometer

#### View independent probe temperatures or the difference between the probes

- Provides recessed front panel adjustable offsets on two channels allows the end to adjust thermometer to a
  specific temperature, in-house calibration, or particular sensor for increased accuracy, °F/°C switchable
- Rubberized case makes it a virtually environment-proof instrument for all weather
- Probe range (supplied with unit): -40 to 250°C continuous or 300°C short-term; uses all Type-K thermocouples
- Supplied: Velcro®, strap, stand, two 4-foot Type-K beaded probes, battery, Traceable® certificate

Cat. No.	Meter Range	Resolution	Accuracy	Probe supplied
77776-722	–58 to 1999°F (–50 to 1300°C)	switchable 0.1° or 1°	+0.3% plus 1°C	Type-K beaded: -40 to 250°C

For additional Type-K probes, see page 23.













#### **VWR® Traceable® Double Thermometer**

# Computer output allows thermometer to be connected to computer/data logger to capture and store data

- Monitors temperatures using 2 different probes/sensors making it easy to note temperature variations in an incubator/oven or temperature graduations in a bath water, °F/°C switchable
- Probe range (supplied with unit): -40 to 250°C continuous or 300°C short-term; uses all Type-K thermocouples
- Supplied: computer output, fast-response probes (2), 48-inch cables, battery, Traceable® Certificate

Cat. No.	Unit Range	Resolution	Accuracy			
23226-656	-50 to 1999°F (-50 to 1230°C)	$0.1^{\circ}$ (from –50.0 to 199.9°F) and 1°C/°F over entire range	±(0.75% + 1°C).			
Accessories						
Cat. No.	Description					
61161-386	Data Acquisition System (for additional information see page 68)					
21800-026	Data Logger (complete description on page 68)					

For additional Type-K probes, see page 23.



#### VWR® Traceable® Expanded-Range Thermometer °F/°C

#### Compact, pocket-size thermometer goes anywhere fast-response readings are needed

- Shockproof, mini-size thermometer is ideal lab assistant for all plant and field applications
- Probe range (supplied with unit): -40 to 250°C continuous or 300°C short-term; uses all Type-K thermocouples; dual probes allow two tests to be monitored simultaneously
- One-switch operation makes it the perfect thermometer for routine use, °F/°C switchable
- Supplied: two 4 foot Type-K beaded probes, battery, Traceable® Certificate

Cat. No.	Unit Range	Resolution	Accuracy
61161-279	–40 to 2000°F	1°	±(1°C +1%) from 0 to 750°C
61161-280	−40 to 1200°C	1°	±(1°C +1%) from 0 to 750°C

For additional Type-K probes, see page 23.



#### VWR® Traceable® Printing Thermometer

#### Built-in printer provides permanent record with time-and-date stamp

- Prints time and date for Max only, Min only, average only, and in circularly mode T1, T2 and differential, printing programs in intervals of 3 secs to 23h 59m 59s
- MIN,MAX or average temperature readings may be displayed or cleared at any time with the touch of a key
- Alarm feature may be set in 0.1 increments and will sound when temperature rises above or falls below set point
- Dual probe inputs allow displaying temperature of probe 1, probe 2, or difference (delta) of probe 1 and 2 (accepts Type J, K, T, or E probe), °F/°C switchable
- Supplied: two 4-foot Type-K beaded probes, batteries, two thermal paper rolls (good for approximately 1400 printings per roll), ABS carrying case, Traceable® Certificate

Cat. No. Range		Resolution	Accuracy
61161-285	-328 to 2431°F (-200 to 1333°C)	0.1°	±1°C

#### **Type-K Beaded Probe**

#### Beaded probe with PTFE coated cable can withstand wide temperature ranges

- Fast-response probe measures temperatures in semisolids, liquids, air/gases
- High-precision thermocouple has efficient 48" PTFE coated cable

Cat. No.	Probe Range	Probe Diameter	Cable Length
61161-372	–40 to 250°C continuous or 300°C short-term	0.06" (0.15cm)	48" (121.9cm)



#### **Stainless-steel Type-K Probe**

#### Handle probe makes temperature measurement easy

- Probe provides fast, accurate readings of air/gases, semi-solids, liquids
- Stainless-steel probe with an ABS plastic handle

Cat. No.	Probe Range	Overall Length	Probe Diameter	Probe Length	Cable Length
61161-305	−50 to 700°C	7½" (19.0cm)	0.13" (0.3cm)	5" (12.7cm)	40" (101.6cm)



#### **Low Temperature Type-K Probe**

#### Can be used in temperatures as low as -240°C

- Probe provides fast, accurate readings of air/gases, semi-solids, and liquids
- Stainless-steel probe with ABS plastic handle

Cat. No.	Probe Range	Overall Length	Probe Diameter	Probe Length	Cable Length
23609-238	−170 to 1070°C	17" (43.18cm)	0.17" (0.4318cm)	12" (30.48cm)	96" (243.84cm)



#### **High Temperature Type-K Beaded Probe**

#### Can be used in temperatures as high as 1093°C

- Beaded probe provides fast, accurate readings of air/gases, semi-solids, and liquids
- Stainless-steel probe attached to braided metal wire cable

•	Cat. No.	Probe Range	Cable Length	Cable Diameter
	77776-728	-73 to 982°C continuous or 1093°C short-term use	120" (304.8cm)	0.19" (0.4826cm)



#### **Type-K Surface Probe**

#### **Designed to take surface temperatures**

- Probe provides fast, accurate readings of air/gases, semi-solids, and liquids
- Stainless-steel probe with ABS handle

Cat. No.	Probe Range	Overall Length	Probe Diameter	Probe Length	Cable Length
89030-232	−73 to 760°C	8.5"(21.59cm)	0.5" (1.27cm)	5" (12.7cm)	36" (91.44cm)

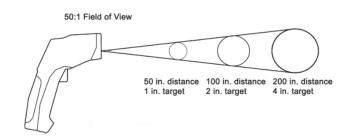


#### (1) What is Field of View?

Field of View is similar to a flashlight. The further object is away, the bigger the diameter of the beam. The further you are from a sample, the larger the area the IR thermometer is measuring. For example: if the Field of View ratio for a thermometer is 6:1, then, when the thermometer is 6 inches from an object the sensor is looking at and measuring a 1-inch diameter. If the thermometer is 1¼ inches away, then the spot size being measured is ¼-inch.



Emissivity refers to the amount of infrared radiation an object emits. The emissivity adjustment on IR thermometers is used to compensate for different materials. The default emissivity of 0.95 covers 90% of typical applications. For thermometers with adjustable emissivity a materials chart with suggested settings is provided. Generally very shiny, highly reflective surfaces require low emissivity settings.



#### **Infrared Thermometer Selection Chart**

Cat. No.	Page No.	Traceable® Certificate Supplied	Range	Resolution	Accuracy	Field of View (1)	Emissivity (2)	MIN/MAX Readings	Hi/Lo Alarms	Battery	Special Features
77776-724	26	Yes	–4 to 752°F / –20 to 400°C	0.1°	±3°C or ±3%	7:1	0.2 to 1.00*	Yes	N/A	9V	Trigger grip
12777-846	25	Yes	–76 to 932°F / –60 to 500°C	0.1°	±2°C or 1%	11:1	0.95 fixed	MAX only	N/A	AAA	Trigger grip
12777-844	26	Yes	0 to 788°F / –20 to 420°C	1°	±2°C or 2%	8:1	0.3 to 1.00*	Yes	Yes	9V	9 memories
10208-416	27	Yes	−7.0 to 230°F / −22.0 to 110°C	0.1°	±1°C	1:1	0.95 fixed	Yes	N/A	Button-Cell (CR2032)	Key-chain
36934-174	27	Yes	−27 to 428°F / −33 to 220°C	0.1°	±1°C + 2%	1:1	0.95 fixed	N/A	N/A	Button-Cell (357)	Pocket-clip/ strap/ key-chain
36934-176	27	Yes	–67 to 482°F / –55 to 250°C	0.1°	±1°C + 2%	6:1	0.5 to 1.00*	Yes	N/A	Button-Cell (CR2032)	Wrist strap
36934-178	25	Yes	-76 to 932°F / -60 to 500°C	0.1°	±1°C + 2%	12:1	0.1 to 1.00*	Yes	Yes	AAA	Trigger grip
36934-180	26	Yes	−58 to 1832°F / −50 to 1000°C	0.1° to 200, 1° over 200	±1.5% + 2°C	50:1	0.95 fixed	N/A	N/A	9V	Trigger grip
36934-182	26	Yes	−58 to 1832°F / −50 to 1000°C	0.1° to 200, 1° over 200	±1.5% + 2°C	50:1	0.1 to 1.00*	Yes	Yes	9V	Trigger grip
89140-188	25	Yes	−76 to 1022°F / −60 to 550°C	0.1°	±2°C or 2%	12:1	0.1 to 1.00*	Yes	Yes	AAA	Dual lasers

<sup>\*</sup>Indicates adjustable emissivity in steps of 0.01°

#### VWR® Traceable® Infrared Thermometer Gun

#### Point-and-read gun provides temperature results of any surface in less than one second

- Easy-read display is back-lit, has low-battery indicator, and tracks maximum readings
- DATA HOLD key freezes display and gives time to accurately record readings
- Emissivity is 0.95 fixed
- Unit can take measurements in °C and °F and includes auto-off feature
- Supplied: batteries, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Field of view
12777-846	–76 to 932°F (–60 to 500°C)	0.1°	±2% of reading or ±2°C	11:1



#### VWR® Traceable® Infrared Thermometer with Type-K Probe

#### Handy infrared unit with Type-K probe delivers flawless °C/°F surface measurements every time

- Audible, user-settable, high and low alarms signal out of range conditions
- Memory permits recalling individually captured readings
- Emissivity is adjustable from 0.10 to 1.00
- Supplied: Type-K probe, batteries, Traceable® Certificate

Cat. No.	Infrared Range	Type-K Probe Range	Resolution	Accuracy	Field of view
36934-178	-76 to 932°F (-60 to 500°C)	-83 to 2552°F (-64 to 1400°C)	0.1°	±1°C + 2%	12:1

For additional Type-K probes, see page 23.



#### VWR® Traceable® Infrared Dual Laser Thermometer w/Type-K Probe

#### Point-shoot-record with handy Type-K laser gun

- Dual lasers show the diameter of the area being measured, °F/°C switchable
- Thermometer displays the average of all measurements taken and the difference between the two readings
- Emissivity is adjustable from 0.1 to 1.00 in increments of 0.01
- Supplied: batteries, Type-K beaded sensor, Traceable® Certificate

Cat. No.	Infrared Range	Type-K Range	Resolution	Accuracy	Field of view
89140-188	-76 to 1022°F (-60 to 550°C)	-83 to 2552°F (-64 to 1400°C)	0.1°	±2% of reading or ±2°C	12:1

For additional Type-K probes, see page 23.



**NEW** 

#### Traceable® IR Thermometers





Internal laser target guide and Type-K compatibility make this infrared gun a 2-for-1 lab powerhouse

- Great for use in food preparation, clean rooms, electronics-where accuracy is imperative
- Emissivity is adjustable from 0.20 to 1.00
- HOLD functions allows time for user to record temperature readings, °F/°C switchable
- Memory function stores MIN/MAX readings
- Supplied: battery, Type-K beaded probe, carrying case, Traceable® Certificate

Cat. No.	Infrared Range	Type-K Range	Resolution	Accuracy	Field of view
77776-724	-4.0 to 752°F (-20 to 400°C)	−100.0 to 1300.0°C	0.1°	±3% of reading or ±3°C	7:1

For additional Type-K probes, see page 23.



#### VWR® Traceable® Infrared Thermometer Gun

High-performance, easy-to-operate infrared gun has 50:1 field of view

- Instant, less-than-a-second temperature readings of any surface, °F/°C switchable
- Ideal for food preparation, pharmaceuticals, field use, electronics, and safety inspection
- Backlighting at the touch of a key/Data hold freezes display reading
- Supplied: battery, carrying case, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Field of view	Emissivity
36934-180	-58 to 1832°F (-50 to 1000°C)	0.1°	±1.5% + 2°C between -20 to 200°C	50:1	Fixed at 0.95



#### VWR® Traceable® Infrared Thermometer Gun

Adjustable emissivity infrared gun has incredibly wide field of view

- Instant, less-than-a-second temperature readings of any surface, °F/°C switchable
- Ideal for food preparation, pharmaceuticals, field use, electronics, and safety inspection
- Features minimum/maximum memory, average readings, and high/low audible alarms
- Supplied: battery, carrying case, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Field of view	Emissivity
36934-182	-58 to 1832°F (-50 to 1000°C)	0.1°	±1.5% + 2°C between –20 to 200°C	50:1	Adjustable from 0.10



#### VWR® Traceable® Infrared Thermometer with Memories/Alarm

Innovative, 9-memory infrared unit with alarm meets every touchless temperature reading need

- Nine memory sets of 4 values (MIN, MAX, ΔT, and AVG) are available and ready for recall
- Distinctive audible alarm sounds when temperatures rise above or drop below user-set limits
- Compact, 5-key unit takes temperature readings in less than 1 second, °F/°C switchable
- Emissivity is adjustable from 0.3 to 1.0
- Supplied: battery, wrist strap, soft carrying case, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Field of view
12777-844	0 to 788°F (-20 to 420°C)	1°	2% of reading or ±2°C	8:1

#### VWR® Traceable® Infrared Thermometer with wristband

#### Laser beam permits perfect sample target sighting

- One button design makes operation easy, °F/°C switchable
- Emissivity is 0.05 to 1.00 in .01 steps
- Minimum and maximum feature permits viewing highest and lowest readings at any time
- Features a handy wristband, display indicates low battery.
- Supplied: battery, wristband, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Field of view
36934-176	-67 to 482°F (-55 to 250°C)	0.1°	±1°C + 2%	6:1



#### VWR® Traceable® Infrared Thermometer with pocket clip

#### Easy-to-carry design is ideal for blood bank labs

- Simple point-and-shoot operation, °F/°C switchable
- Unit reads both Fahrenheit and Celsius of any surface—solids, semisolids, and liquids
- Fixed emissivity is precisely set at 0.95
- Supplied: battery, lanyard, pocket-clip, key-chain, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Field of view
36934-174	−27 to 428°F (−33 to 220°C)	0.1°	+1°C + 2%	1:1



#### **VWR® Traceable® Mini-IR™ Thermometer**

#### Point-and-read, non-invasive IR mini-thermometer is super-reliable lab helper

- LOCK mode allows for 60 minutes of continuous readings without holding key down, °F/°C switchable
- Simple-to-set unit records minimum-only or maximum-only results for constantly changing targets
- Fixed emissivity is precisely set at 0.95
- Supplied: battery, key-chain, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Field of view
10208-416	–7 to 230°F (–22 to 110°C)	0.1°	±1°C between 15.0 to 40.0°C; ±1.5°C elsewhere	1:1



#### VWR® Traceable® Disposable Temperature Strip-Chart Recorder

#### Provides a permanent record—easy to read, copy, fax, scan, file

- Disposable recorder with broad temperature range delivers °F/°C accuracy on same chart
- Solid-state, battery-driven, quartz-crystal-controlled motor makes operation error-free
- Temperature sensor is bimetallic and has an accuracy rate of better than 1 second per day
- Supplied: battery, chart paper, Traceable® Certificate

Cat. No.	Range	Accuracy	Records
15551-008	20 + 40005 ( 20 + 2005)	205 ( 405)	10 days
15551-010	–20 to 100°F (–28 to 38°C)	±2°F (±1°C)	40 days







# **Timer Selection Chart**

	Timer Selection chart									
	Page	Traceable® Certificate		Maximum						
Cat. No.	No.	Supplied	Accuracy	Time	Resolution	Channels	Battery	Clock	Memory	Features
23609-218	36	No	n/a	60 Minutes	1 Minute	n/a	n/a	No	No	Mechanical
36934-148	36	No	n/a	60 Minutes	1 Minute	n/a	n/a	No	No	Magnet and lanyard
62344-600	29	Yes	0.00%	100 Hours	1 Second	3	AAA	Yes	Yes	Continuous alarm
23609-200	29	Yes	0.00%	10 Hours	1 Second	3	AA	No	Yes	3 timing channels
62344-641	29	Yes	0.01%	100 Hours	1 Second	4	Button-cell 357	Yes	Yes	4-channel countdown/up
23609-192	36	No	n/a	100 Hours	1 Minute	8	n/a	No	No	8 timing channels
62344-908	30	Yes	0.01%	24 Hours	1 Second	2	Button-cell 357	Yes	Yes	2-channel countdown/up
62344-910	32	Yes	0.01%	24 Hours	1 Second	1	AA	Yes	Yes	Innovative design
62344-912	30	Yes	0.01%	100 Hours	1 Second	3	Button-cell 357	Yes	Yes	3-line display
89087-398	32	Yes	0.01%	100 Minutes	1 Second	1	AAA	No	Yes	Jumbo digits
89087-400	29	Yes	0.01%	100 Hours	1 Second	4	Button-cell 357	Yes	Yes	Personalize your timer
89140-194	31	Yes	0.01%	100 Minutes	1 Second	1	AAA	No	Yes	Automatic memory
62379-565	33	Yes	0.01%	24 Hours	1 Second	1	Button-cell 357	Yes	Yes	Repeat countdown and talking
89140-196	30	Yes	0.01%	100 Hours	1 Second	2	AAA	No	Yes	Large display
62344-585	32	Yes	0.01%	100 Minutes	1 Second	1	Button-cell 357	No	No	Numbered keys
62344-586	32	Yes	0.01%	100 Hours	1 Second	1	Button-cell 357	Yes	Yes	Numbered keys
61161-340	31	Yes	0.01%	24 Hours	1 Second	2	AAA	Yes	Yes	Jumbo-display black
61161-346	31	Yes	0.01%	24 Hours	1 Second	2	AAA	Yes	Yes	Jumbo-display white
62344-588	30	Yes	0.01%	20 Hours	1 Second	3	AAA	Yes	Yes	Triple-display
62344-902	34	Yes	0.01%	20 Hours	1 Minute	1	AAA	No	No	Easy 3-key operation
62344-904	33	Yes	0.01%	10 Hours	1 Second	1	AAA	Yes	Yes	Clock, timer, stopwatch
23609-196	32	Yes	0.01%	100 Minutes	1 Second	1	AAA	No	Yes	Automatic memory
62344-778	33	Yes	0.01%	24 Hours	1 Second	1	Button-cell 357	No	Yes	Memory
23609-198	33	Yes	0.01%	24 Hours	1 Second	1	Button-cell 357	Yes	Yes	Compact all-in-one
47732-426	35	Yes	0.01%	100 Minutes	1 Second	1	Button-cell 357	No	Yes	Water-resistant
23609-202	29	Yes	0.01%	100 Hours	1 Second	4	Button-cell 357	Yes	Yes	Easy to program
61161-306	35	Yes	0.01%	20 Hours	1 Minute	1	Button-cell 357	No	Yes	Key-chain
61161-330	33	Yes	0.01%	100 Minutes	1 Second	1	Button-cell 357	No	Yes	Easy to use
23609-194	35	Yes	0.01%	24 Hours	1 Second	1	Button-cell 357	Yes	Yes	Lanyard
62379-604	35	Yes	0.01%	100 Hours	1 Second	1	Button-cell 357	No	No	Key-chain
62379-606	35	Yes	0.01%	100 Hours	1 Second	1	Button-cell 357	No	Yes	Clips to everything
89370-114	34	Yes	0.01%	100 Minutes	1 Second	1	AAA	No	Yes	Memory
21800-064	30	Yes	0.01%	24 Hours	1 Second	2	Button-cell 357	Yes	Yes	Ultra-compact
89038-756	34	Yes	0.01%	166 Hours	1 Second	1	AAA	No	Yes	Times up, flashing LED
89369-164	31	Yes	0.01%	100 Hours	1 Second	1	AAA	No	Yes	Extra-extra-large digits
10027-016	34	Yes	0.01%	100 Minutes	1 Second	1	Button-cell 357	No	Yes	Removable suction-cup
46610-060	34	Yes	0.01%	24 Hours	1 Second	1	Button-cell 357	No	Yes	Compact timer with clock
33501-418	31	Yes	0.01%	100 Minutes	1 Second	1	AAA	No	Yes	Extra-large, 1-inch-high
10154-394	31	Yes	0.01%	10 Hours	1 Second	1	AAA	No	Yes	Vibrating or an audible alarm

#### VWR® Traceable® Four-Channel Alarm Timer

#### The lab's most popular timer

- Features: count up/down, time in/out, memories, alarm, 12/24 hour clock
- Massive ¾" high display allows viewing from across the lab
- Remarkable memory returns display to previously programmed countdown time at the touch of a button
- Extra-loud, high decibel alarms for 1 minute or can be silenced manually
- Supplied: clip, stand, magnet, battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62344-641	99 hours, 59 minutes, 59 seconds	1 second	0.01%	4

#### VWR® Traceable® Multi-Colored™ Timer

#### Show your distinct style with customized bold colors—a fresh look for lab

- Features: count up/down, time in/out, memories, alarm, clock
- 3-bright colorful supplied frames permit personalization of timer
- Unique memory returns channel to previously programmed setting at touch of a key
- Counts up during alarming indicating elapsed time since alarming, 12/24 hour clock
- Supplied: bench stand, magnetic back, battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
89087-400	99 hours, 59 minutes, 59 seconds	1 second	0.01%	4

#### VWR® Traceable® 100-Hour Timer

#### Lab workhorse provides 100 hour up/down timing on four channels

- Features: counts down/up, alarm, clock
- TIME IS UP message flashes on display during count-up mode
- Alarms sound for 60 seconds and may be silenced manually
- Supplied: battery, flip-open stand, clip, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
23609-202	99 hours, 59 minutes, 59 seconds	1 second	0.01%	4

#### VWR® Traceable® Three-Channel Alarm Timer

#### Innovative timer has programmable alarm with adjustable volume control

- Features: count up/down, time in/out, memories, alarm, clock, adjustable alarm duration/volume
- Perfect unit to dedicate to repetitive tests
- Triple display shows 3 different times at once; tests can be started individually or simultaneously
- Adjustable volume alarm can be set to sound for 60 seconds or to sound continuously until turned off
- Supplied: battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62344-600	99 hours, 59 minutes, 59 seconds	1 second	0.001%	3

#### VWR® Traceable® Original Lab Timer

#### Three-channel lab staple gives years and years of reliable service

- Features: countdown, distinct alarm and display indicator per channel
- Simple-to-use timer is ideal for quality-control and experimental requirements
- Alarms sound for 60 seconds or may be turned off manually
- Supplied: batteries, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
23609-200	9 hours, 59 minutes, 59 seconds	1 second	0.001%	3





















#### VWR® Traceable® Triple-Display Timer

#### Triple-line display makes easy work of simultaneously timing three events

- Features: count up/down, time in/out, memory, alarm, stopwatch, 12/24-hour clock
- Perfect timer for dedicating to a test requiring several different times
- Unique memory returns channel to previously programmed setting at touch of a key
- When zero is reached, distinct alarm sounds and timer counts up showing time elapsed since alarm
- Supplied: battery, magnetic back, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62344-588	19 hours, 59 minutes, 59 seconds	1 second	0.01%	3

#### VWR® Traceable® Three-Line Alarm Timer

#### Unique, 3-channel timer is perfect for use in all count up/down timing combinations

- Features: alarm for each channel sounds for 60 seconds, count up/down, memory, clock
- Display: 3-line LCD with 0.38" high digits
- Supplied: clip, stand, magnet, battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62344-912	99 hours, 59 minutes, 59 seconds	1 second	0.01%	3

#### VWR® Traceable® Flashing LED Big-Digit Dual Channel Timer

#### Compact, multi-tasker with 6-digit, dual channel display

- Features: 2 simultaneous countdown activities, flashing LED timing indicator/alarm, adjustable volume
- Unique visual indication for each channel; green light flashes while counting down and red light flashes once zero has been reached
- Adjustable volume: high decibel, low decibel, or off for silent flashing LED operation
- Supplied: batteries, magnetic back, flip-open stand/clip, opening for lanyard, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
89140-196	99 hours, 59 minutes, 59 seconds	1 second	0.01%	2

#### **VWR® Traceable® Two-Memory Timer**

#### Popular timer—memory is ideal for repetitive quality control tests and requirements

- Features: count up/down, time in/out, memories, 12/24 hour clock
- Each channel's memory feature recalls previously programmed time and allows same tests to be repeated
- When zero is reached, distinct alarm sounds and timer counts up showing time elapsed since alarm
- Supplied: battery, magnet, flip-open stand/clip, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62344-908	23 hours, 59 minutes, 59 seconds	1 second	0.01%	2

#### VWR® Traceable® Nano™ Timer

#### Small design—large display

- Features: countdown alarm time/stopwatch (count-up) time, or 12/24 hour clock
- Two-channel memory automatically returns display to original programmed time
- Supplied: battery, clip/stand, magnet on back, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
21800-064	23 hours, 59 minutes, 59 seconds	1 second	0.01%	2

#### VWR® Traceable® Jumbo Timer

#### Read display from any angle

- Features: count up/down, time in/out, memory, alarm, 12/24 hour clock, stopwatch
- Adjustable jumbo display from 90° to 180°
- When zero is reached, distinct alarm sounds and timer counts up showing time elapsed since alarm
- Supplied: battery, stand, wall-mount, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels	Unit color
61161-340	23 hours, 59 minutes, 59 seconds	1 second	0.01%	2	Black
61161-346	23 hours, 59 minutes, 59 seconds	1 second	0.01%	2	White



Innovative countdown timer vibrates when time is up; quietly nudges you during a meeting or perfect for loud environments when hearing a buzzer is impossible

- Features: count up/down, Bounceback™ memory, vibrating or an audible alarm, stopwatch
- Automatic Bounceback™ Memory for repetitive timing
- Supplied: magnetic back, stand/spring-clip, battery, opening for lanyard, and Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
10154-394	9 hours 99 minutes 99 seconds	1 second	0.01%	1

#### VWR® Traceable® Extra, Extra Large Digit Countdown Timer

#### Extreme 1½ inch digit height allows viewing from 60 feet

- Features: count up/down, memory, alarm, stopwatch
- Unique memory returns channel to previously programmed setting at touch of a key
- Supplied: hanger, clip, easel bench stand, magnetic back, battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
89369-164	99 minutes, 59 seconds	1 second	0.01%	1

#### VWR® Traceable® Flashing LED Alert Big-Digit Alarm Timer

#### Big-Digit Timer has it all—adjustable alarm, flashing led, superb accuracy

- Features: 1-inch display, count up/down, flashing LED, adjustable volume, 3 countdown memories
- Green light flashes every second after timing reaches 10 seconds; red LED indicator flashes when zero is reached and shows time elapsed since alarm
- Adjustable volume: high decibel, low decibel, or off for silent visual flashing LED operation
- Supplied: batteries, magnetic back, flip-open stand/ clip, opening for lanyard, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
89140-194	99 minutes, 59 seconds	1 second	0.01%	1

#### VWR® Traceable® Timer

#### The ideal timer to dedicate to a routinely timed test

- Features: count up/down, Bounceback<sup>™</sup> memory, 1-minute alarm
- Bright, extra-large, 1-inch-high digits count down at any set time
- Supplied: magnetic back, flip-open stand/clip, batteries, Traceable® Certificate

Cat. N	o.	Timing Capacity	Resolution	Accuracy	Channels
33501-	418	99 minutes, 59 seconds	1 second	0.01%	1

















View 1.33" giant size digits on your bench timer from across lab

- Features: countdown/up, memory, stopwatch mode
- Unique memory returns channel to previously programmed setting at touch of a key
- Supplied: stand, magnetic back, battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
89087-398	99 minutes, 59 seconds	1 second	0.01%	1



#### VWR® Traceable® 100-Hour Mini-Alarm Timer/Stopwatch

Lab partner delivers multiple functions for routine, everyday timing needs

- Features: count up/down, time in/out, memory, extra-loud alarm, clock
- Numbered keys make it a breeze to set countdown time
- When zero is reached, alarm sounds, TIME'S UP flashes and timer counts-up, shows time elapsed since alarm
- Supplied: battery, magnetic back, flip-open stand, clip, opening for lanyard, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62344-586	99 hours, 59 minutes, 59 seconds	1 second	0.01%	1



#### **VWR® Traceable® Lab-Top Timer**

Innovatively designed display can be clearly seen from any angle

- Features: count down/up, memory, clock, large keys
- In countdown mode when unit reaches zero, alarm sounds and timer counts up showing time elapsed since alarm; TIME'S UP flashes on display
- MEMORY stores most recently programmed time and provides quick access for repetitive tasks
- Supplied: battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62344-910	23 hours, 59 minutes, 59 seconds	1 second	0.01%	1



#### VWR® Traceable® Alarm Timer/Stopwatch

Numbered, quick-set keys make programming this multi-purpose timer a breeze

- Features: count up/down, time-out, alarm
- Numbered keys make it a breeze to set countdown time
- Supplied: clip, stand, magnet, opening for lanyard, battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62344-585	99 minutes, 99 seconds	1 second	0.01%	1



#### VWR® Traceable® 99M/59S Timer

Jumbo-digit, light weight, portable lab partner is ideal for repetitive countdown tests

- Features: countdown, memory, large keys, extra large digits, alarm
- Unique memory resets display to last programmed time for quick repeat of frequent, routine tests
- Supplied: battery, magnet, flip-open stand, clip, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
23609-196	99 minutes, 59 seconds	1 second	0.01%	1

#### **VWR® Traceable® Memory Timer**

#### Unique timer counts down with an alarm and remembers setting

- Features: count-down, memory
- Unique memory returns display to previously programmed time at touch of a key
- Loud-beeping alarm sounds for 60 seconds or may be turned off manually
- Supplied: battery, clip/stand, magnetic back, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62344-778	23 hours, 59 minutes to 1 minute	1 minute	0.01%	1

#### VWR® Traceable® Talking Timer

#### Talks, counts down, counts up and tells time with Traceable® precision

- Features: count-up/count-down/clock, memory, it talks, alarm
- Timer speaks in English announcing time remaining, time elapsed since alarm was triggered, and time of day
- Six distinct alarm sounds make this timer ideal for purchasing multiple units and setting each one to a different alarm sound
- Supplied: magnetic back, flip-open stand, spring fastener, opening for lanyard, battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62379-565	23 hours, 59 minutes, 59 seconds	1 second	0.01%	1

#### VWR® Traceable® Advanced Memory Timer

#### Timer remembers last time set, counts down, alarms, and counts up

- Features: count-up/count-down/clock
- Clock channel features time of day to the second with AM/PM indicators
- Remarkable memory returns display to the previously programmed countdown time at the touch of a key
- Visual alarm displays TIME'S UP
- Supplied: clip, magnet, flip-open stand, battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
23609-198	23 hours, 59 minutes, 59 seconds	1 second	0.01%	1

#### VWR® Traceable® Triple-Purpose Timer

#### Displays countdown alarm time, stopwatch time, and time

- Features: big-digits, countdown alarm time, stopwatch, 12/24-hour clock
- Full 0-9 keyboard makes entering times exceptionally fast
- Supplied: magnetic back, battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62344-904	9 hours, 59 minutes, 59 seconds	1 second	0.01%	1

#### **VWR®** Traceable® Fingertip™ Timer

#### Quick-to-program, three-key, countdown timer delivers error-free operation for any lab test

- Features: count down, time in/out, alarm
- · Impressive memory remembers most-recently-programmed setting for recurring lab experiments
- Supplied: battery, magnetic back, Velcro®, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
61161-330	99 minutes, 59 seconds	1 second	0.01%	1



















#### Affix this timer anywhere using removable suction cup

- Features: countdown/up, memory, stopwatch mode, water-resistant, steam-resistant
- Ideal for use in wash-down areas, wet labs, manufacturing plants or field work
- Impressive memory remembers most-recently-programmed setting for recurring lab experiments
- Supplied: stand, removable suction-cup, battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
10027-016	99 minutes,59 seconds	1 second	0.01%	1



#### VWR® Traceable® Instant-Recall Memory Timer

#### Always-ready timer delivers accurate results for lab's demanding requirements

- Features: count down, time in/out, memory
- Intuitive, 3-key programming make this all-time-favorite perfect for delivering countdown results
- Valuable time-out function permits unlimited time-outs without having to reset timer
- Supplied: battery, flip-open stand, clip, magnetic back, opening for lanyard, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
89370-114	99 minutes 59 seconds	1 second	0.01%	1



#### VWR® Traceable® LCD Timer

#### Compact, 6-digit-display multi-tasker offers easy-set count up/down timing and clock

- Features: count up/down, time in/out, memory, clock
- When countdown timing reaches zero, TIMES UP flashes on display, alarm sounds, and timer counts up showing time elapsed since alarm
- Supplied: battery, flip-open stand, clip, magnet, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
46610-060	23 hours, 59 minutes, 59 seconds	1 second	0.01%	1



#### **VWR® Traceable® QC Timer**

#### Simple 3-key use and large digits for easy viewing

- Features: count up/down
- When countdown timing reaches zero, TIMES UP flashes on display, alarm sounds, and timer counts up showing time elapsed since alarm
- Supplied: battery, flip-open stand, clip, magnet, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62344-902	19 hours, 59 minutes	1 minute	0.01%	1



#### VWR® Traceable® Visual Alarm Timer (9999m)

#### Automatic memory resets display to last programmed time—ideal for repetitive tests

- Features: count up/down, time in/out, alarm
- Lightweight, mini-size, 3-key operation provides fast, user-friendly, reliable service
- Extended time makes this unit ideal for long test runs
- Supplied: battery, stand, magnet, Traceable® Certificate

	Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
8	89038-756	9999 minutes to zero	1 second to 1 minute	0.01%	1

#### VWR® Traceable® Clip-It™ Timer

#### Perennial favorite multi-tasking timer attaches to any lab surface

- Features: count up/down, alarm, time in/out
- Helpful memory saves last programmed setting for quick recall—useful for repetitive timing events
- Six-digit LCD shows time remaining in hours, minutes, seconds with quartz-crystal accuracy
- Supplied: clip, magnet, opening for lanyard, battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62379-606	99 hours, 59 minutes, 59 seconds	1 second	0.005% quartz-crystal	1

#### VWR® Traceable® Key-Chain Timer

#### Cleverly-designed, portable timekeeper travels anywhere

- Features: key-chain, count up/down, time in/out, alarm, stopwatch
- In stopwatch mode, timer counts up from 1 second to 20 minutes then rolls over and counts up again
- At zero, alarm sounds for 60 seconds and timer shuts off automatically
- Supplied: battery, key-chain, Traceable® Certificate

Ca	t. No.	Timing Capacity	Resolution	Accuracy	Channels
611	161-306	19 hours, 59 minutes (countdown) 19 minutes, 59 seconds (countup)	1 minute (countdown) 1 second (countup)	0.01%	1

#### VWR® Traceable® Digital Timer Plus

#### Handiest timer ever designed clips to any surface

- Features: count up/down, time in/out, key-chain, alarm
- When zero is reached, alarm sounds for 60 seconds or may be silenced manually
- Supplied: key-chain, clip, magnet, opening for lanyard, battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
62379-604	99 hours, 59 minute, 59 seconds	1 second	0.005%	1

#### VWR® Traceable® Tie Timer

#### Multipurpose, ready-to-wear lanyard timer adds style to capturing testing results

- Features: count up/down, time in/out, memory, alarm, clock, lanyard
- Count up/down timer has distinctive 36" (91.4cm) lanyard for never-miss-an-alarm lab wear
- Supplied: battery, lanyard, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
23609-194	24 hours	1 second	0.01%	1

#### VWR® Traceable® Water-Resistant, Flashing Timer

#### Perfect timer for wet labs, wash-down areas, manufacturing plants and field use

- Features: water-resistant, splash proof, countup/countdown, alarm, lanyard
- Bright LED flashes at zero to indicate alarm is sounding
- Infinite timeouts, audible alarm sounds for 1 minute or can be manually turned off
- Supplied: lanyard, suction cup, magnet, Velcro®, battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels
47732-426	99 minutes, 59 seconds	1 second	0.01%	1















The ONLY timer manufactured with 8-channels and an adjustable alarm volume

- Features: count up/down, alarm, countdown repeat, stopwatch, memories, clock, volume control
- Volume control sets alarm from whisper-low to ear-piercing loud
- Alarms continuously until turned off manually, or may be set to automatically turn off in 7 seconds or 1 minute

Cat. No.	Timing Capacity	Resolution	Accuracy	Channels	Power	
23609-192	99 hours 59 minutes 59 seconds (all channels)	1 second	0.01%	8	115 VAC/60 Hz	



#### Quick-Timer™

#### Easy-to-read, and use—no keys, no batteries

- Features: count down, key-chain, lanyard
- Loud five-second bell rings at zero
- Turning the pointer to the desired countdown automatically winds timer; indicating pointer always show exact time remaining
- Supplied: key-chain, lanyard

Cat. No.	Timing Capacity	Resolution	Description					
36934-148	60 minutes	1 minute	blue/white, with magnet on back, diameter 2½ x 1", weight is 3 oz					



#### **60-Minute Interval Timer**

#### Stands on lab bench at a viewing angle

- Features: count down, no batteries
- Bell sounds at end of cycle

Cat. No.	Timing Capacity	Resolution	Size
23609-218	60 minutes	1 minute	3¾ x 3¾ x 2 inches

#### **Clock Selection Chart**

Cat. No.	Page No.	Traceable® Certificate Supplied	Accuracy	Digital or Analog/ Resolution	Atomic	Date	Day	Temp	Humidity	Size (inches)
89500-394	37	Yes	0.0001%	Digital/Seconds	Yes	Yes	Yes	Yes	No	9 x 5 x 1¼
89087-394	37	Yes	0.0001%	Digital/Seconds	Yes	Yes	Yes	Yes	No	16½ x 10½ x 1¾
47732-424	37	Yes	0.0001%	Digital/Seconds	Yes	Yes	Yes	Yes	No	11 x 7¼ x ¾
36934-140	38	Yes	0.0001%	Digital/Seconds	Yes	Yes	Yes	Yes	No	2½ x 3 x 1½
47732-422	38	Yes	0.0001%	Analog/Seconds	Yes	No	No	No	No	12 diameter
61161-338	38	Yes	0.0001%	Digital/Seconds	Yes	Yes	Yes	No	No	3 x 4 x 1½
62379-519	39	Yes	0.01%	Digital/Minutes	No	Yes	Yes	Yes	No	9¼ x 10 x 1
62344-734	38	Yes	0.01%	Digital/Minutes	No	No	No	Yes	Yes	4¼ x 2¼ x ½
61161-348	39	Yes	0.01%	Analog/Seconds	No	No	No	Yes	Yes	12 diameter
61161-344	39	Yes	0.01%	Analog/Seconds	No	No	No	No	No	12 diameter

# VWR® Traceable® Jumbo-Digit Compact Radio-Controlled Atomic Clock

# Jumbo sized 3¾ inch clock digits in a compact case

- Features: radio signal from NIST's Colorado atomic clock automatically sets correct date/time; calendar displays month/date and day
- Temperature range: 23 to 122°F (-5 to 50°C); resolution: 0.1°; accuracy: ±1°C
- Supplied: wall mount, bench stand, batteries, Traceable® Certificate

Cat. No.	Time feature	Resolution	Accuracy	Size/Weight	
89500-394	12/24 hours	1 second	1/10.000 second	9 x 5 x 1¼ inches: 15 ounces	



# VWR® Traceable® GIANT-DIGITS™ Radio-Controlled Atomic Clock with Ambient and Remote Temperature

## View time and temperature from anywhere

- Features: radio signal from NIST's Colorado atomic clock automatically sets correct date/time; calendar displays month/date, day, leap year, Earth's wobble in leap seconds
- Temperature range: 23 to 122°F (-5 to 50°C); resolution: 0.1°; accuracy: ±1°C
- Supplied: wall mount, bench stand, batteries, Traceable® Certificate

Cat. No.	Time feature	Resolution	Accuracy	Size
89087-394	12/24 hours	1 second	1/10,000 second	16½ x 10½ x 1¾ inches



# VWR® Traceable® Radio-Controlled Wall Atomic Clock

# Adjusts automatically for daylight savings, leap year, and leap seconds

- Features: radio signal from NIST's Colorado atomic clock automatically sets correct date/time; calendar displays month/date and day
- $\bullet~$  Temperature range: 32 to 122°F (0 to 50°C); resolution: 0.1°
- Supplied: wall mount, bench stand, batteries, Traceable® Certificate

Cat. No.	Time feature	Resolution	Accuracy	Size/Weight	
47732-424	12/24 hours	1 second	1/10,000 second	11 x 7¼ x ¾ inch; 1 pounds	



# **Traceable to NIST for accuracy**

To assure accuracy an individually serial-numbered Traceable® Certificate is provided from an ISO/IEC 17025:2005 (1750.01) calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).





# VWR® Traceable® Analog Radio-Controlled Wall Atomic Clock

# Large numbers and bright, sweeping second hand are highly visible

- Features: radio signal from NIST's Colorado atomic clock automatically sets correct time
- Supplied: wall mounting slot, batteries, screw, Traceable® Certificate

Cat. No.	Time feature	Resolution	Accuracy	Size/Weight	
47732-422	12/24 hours	1 second	1/10,000 second	12 x 2 inches; 1.375 pounds	



# VWR® Traceable® Radio-Controlled Atomic Clock Workstation

# World's most accurate clock for your workstation

- Features: radio signal from NIST's Colorado atomic clock automatically sets correct date/time; calendar displays month/date, day, alarm
- Alarm volume increases until turned off
- Ideal for recording the receiving of samples or noting the exact time an event occurred
- Temperature range: 32 to 158°F (0 to 70°C); resolution: 0.1°C; accuracy: ±1°C
- Supplied: bench stand, batteries, Traceable® Certificate

Cat. No.	Time feature Resolution		Accuracy	Size/Weight	
36934-140	12/24 hours	1 second	1/10,000 second	2½ x 3 x 1½", 4 ounces	



# VWR® Traceable® Radio-Controlled Atomic Clock with Temperature and Humidity

## Large LCD shows essential information from a distance

- Features: radio signal from NIST's Colorado atomic clock automatically sets correct date/time; calendar displays month/date, day, temperature and humidity readings
- Supplied: bench stand, batteries, Traceable® Certificate

Cat. No.	Feature parameters	Resolution	Accuracy	Size/Weight
C44C4 220	Time: 12/24 hours	1 second	1/10,000 second	41/ 41/ 21/
61161-338	Temperature: 32 to 158°F (0 to 70°C)	0.1°	+1°C	- 4¼ x 4¼ x 2½", 6 ounces



# **VWR® Traceable® Thermometer/Clock/Humidity Monitor**

# Simultaneously displays time of day, temperature, and humidity

- Features: MIN/MAX memory, memory clear, °F/°C switchable, 12/24-hour clock
- · At the touch of a button, memory recalls the highest and lowest temperature and humidity readings
- Internal sensors make it ideal for use in hoods, storerooms, cleanrooms, incubators, drying chambers and environmental cabinets
- Supplied: stand, wall mount, double-back tape, batteries, Traceable® Certificate

Cat. No.	Feature parameters	Resolution	Accuracy	Size/Weight
	Time: 12/24 hours	1 minute	0.01%	
62344-734	Temp: 0.0 to 50.0°C	0.1°	±1°C	4¼ x 2¼ x ½", 2½ ounces
	Humidity: 20 to 90% RH	1%	±5% RH midrange otherwise ±8% RH	

# VWR® Traceable® Calendar/Thermometer/Clock

# Clock has stylish 2-tone color and slim silhouette

- Features: time, date/day, temperature
- Supplied: battery, wall-mount, Traceable® Certificate

Cat. No.	Feature parameters	Resolution	Accuracy	Size/Weight	
62270 540	Time: 12/24 hour clock	1 minute 0.	0.01%	01/ v 10 v 1 = 10 ourses	
62379-519	Temp: -5 to 50°C	0.1°	n/a	- 9¼ x 10 x 1", 19 ounces	



# VWR® Traceable® Clock Thermometer/Humidity

Bright, sweeping hands simultaneously display time, temperature, and humidity on wall

- Features: analog time, temperature, humidity
- Supplied: battery, wall mount screw, Traceable® Certificate

Cat. No.	Feature parameters	Resolution	Accuracy	Size/Weight
	Time: AM/PM clock	1 second	0.01%	
61161-348	Temp: -20 to 55°C	1°	n/a	12½-inch diameter, 1 pound
	Humidity: 0 to 100%	2%	n/a	



# VWR® Traceable® Splash-Resistant Wall Clock

## Attractive 12-inch wall clock tell time of day to second

- Features: water/dust resistant sealed case, bright sweeping second hand
- Supplied: battery, wall mount, Traceable® Certificate

Cat. No.	Time feature	Resolution	Accuracy	Size/Weight
61161-344	AM/PM clock	1 second	0.01%	121/2-inch diameter. 1 pound



# **Traceable to NIST for accuracy**

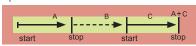
To assure accuracy an individually serial-numbered Traceable® Certificate is provided from an ISO/IEC 17025:2005 (1750.01) calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).



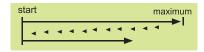
A Single Action Timing: Pressing start key begins timing, a second press stops clock.

start stop

Time-out/Time-in: Records total elapsed time with any number of "time-outs". Permits stopping timer for "off" periods, holds reading where stopped, and starts again from that point.

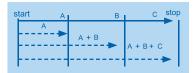


Continuous Timing: Digits offer a continuous display. When maximum display is reached, digits rollover to zero and automatically begin timing again. Permits timing for hours, days, or weeks.



**Timing Functions** -

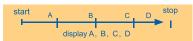
Cumulative Split: Freezes display for partial event times while internal clock continues to run and measure total elapsed time since starting timer



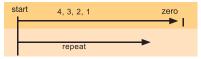
Interval Split: Yields a readout of each individual time increment of a connected series of events. Each press of key displays time interval since previous press.



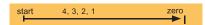
Memories: Capture and store up to six or eight separate times and display them while timing or after event is over. Never look away from a lab test-even to take notes.



G Countdown I (repeat): An alarm sounds at zero, program automatically repeats, counts down, and alarms again. It continues this sequence until stopped.



**Countdown II:** Allows setting unit to countdown. An alarm sounds at zero.



Sample Counter: Box on display shows sample number for each split taken.

1, 2, 3, 4 . . .

# **Stopwatch Selections Chart**

Cat. No.	Page No.	Traceable® Certificate Supplied	Accuracy	Timing Capacity	Resolution	Timing Functions (see above)	Features
23609-190	43	Yes	0.001%	999 Hours	1/100 Second	A, B, C, D, E, H	12 different events
62379-200	41	Yes	0.001%	10 Hours	1/100 Second	A, B, C, D, E, F, G, H, I	60 memories
62379-218	42	Yes	0.0005%	10 Hours	1/100 Second	A, B, C, D, E	High accuracy
62379-457	42	Yes	0.001%	24 Hours	1/100 Second	A, B, C, D	Extra-tough construction
61161-350	42	Yes	0.01%	24 Hours	1/100 Second	A, B, C, D	Water-resistant
62379-234	43	Yes	0.1%	24 Hours	1/100 Second	A, B, C, D	Disposable
62344-898	42	Yes	0.01%	24 Hours	1/100 Second	A, B, C, D	Extra-tough construction
62379-460	43	Yes	0.01%	24 Hours	1/100 Second	A, B, C, D	Water-and-shock resistant
62379-036	41	Yes	0.0035%	24 Hours	1/100 Second	A, B, C, D	Big digits
62374-000	41	Yes	0.001%	10 Hours	1/100 Second	A, B, C, D, E, F, G, H, I	8 memories
62379-515	42	Yes	0.001%	24 Hours	1/100 Second	A, B, C, D	Jumbo digits
62379-517	41	Yes	0.001%	10 Hours	1/100 Second	A, B, C, D, E, F, G, H, I	300 memories
61161-326	43	Yes	0.001%	10 Hours	1/1000 Second	A, B, C, D, E	Bench top

# VWR® Traceable® 300-Memory Stopwatch

# Three-line display simultaneously shows running time, cumulative-split, and interval-split

- Features: water-resistant, 300 memories, repetitive programmable countdown alarm, alarm, clock
- Stopwatch functions: single-action, time in/out, continuous timing, cumulative split, interval split
- Unit recalls 300 memories and displays sample numbers 1 through 300
- Interval split shows longest, shortest and average times
- Supplied: detachable clip, battery, lanyard, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Timing Functions
62379-517	9 hours, 59 minutes, 59 seconds, 99 hundredths	0.01 second	0.001%	A, B, C, D, E, F, G, H, I



# VWR® Traceable® 60-Memory Stopwatch

### Extra smart 10-hour time keeper recalls 60 events

- Features: 60 memories, alarm, time, date, day of week
- Stopwatch functions: single action timing, time in/out, continuous timing, cumulative split, interval split, countdown I and II, auto-repeat
- Supplied: battery, lanyard, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Timing Functions
62379-200	9 hours, 59 minutes, 59 seconds	0.01 second	0.001%	A, B, C, D, E, F, G, H, I



# VWR® Traceable® Stopwatch/Repeat Timer

# Universal stopwatch provides repeat function of countdown alarm timing

- Features: 8 memories, chronograph, pacer, alarm
- Display count box shows how many times cycle has been repeated
- Stopwatch functions: single action, time in/out, cumulative split, interval split, continuous timing
- Supplied: battery, lanyard, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Timing Functions
62374-000	10 hours to 1/10 of a second	0.01 second	0.001%	A, B, C, D, E, F, G, H, I



# VWR® Traceable® Big-Digit Stopwatch/Chronograph

# Utility unit has complete stopwatch functions and full chronograph features

- Features: big-digit, chronograph, time in hours, minutes, seconds, AM/PM, date, day, alarm clock
- Stopwatch functions: single action, time in/out, cumulative split, continuous timing
- Extra-tough ABS plastic shockproof construction makes unit ideal for lab and plant use
- Supplied: battery, lanyard, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Timing Functions
62379-036	23 hours, 59 minutes, 59 seconds	0.01 second	0.0035%	A, B, C, D, E, F, G, H, I





# VWR® Traceable® Digital Stopwatch

# Extremely accurate stopwatch with tongue and grove craftsmanship make this a lab must-have

- Features: large digits, water-resistant, constructed to seal out moisture, dust and fumes, alarm
- Stopwatch functions: single action, time out, cumulative split, interval split, continuous roll-over time
- Supplied: battery, lanyard, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Timing Functions
62379-218	9 hours, 59 minutes, 59 seconds, 99 hundredths	0.01 second	0.0005%	A, B, C, D, E



# VWR® Traceable® Jumbo-Digit Stopwatch

## Vivid, large stopwatch digits provide ease in reading

- Features: water-resistant, time-of-day alarm, ABS plastic case, AM/PM, date, day, alarm
- Stopwatch functions: single-action, time-out, cumulative-split, and continuous timing
- Supplied: Velcro®, Traceable® Certificate, battery, lanyard, detachable clip

Cat. No.	Timing Capacity	Resolution	Accuracy	Timing Functions
62379-515	23 hours, 59 minutes, 59 seconds	1/100 of a second (between 0 to 30 minutes)		A, B, C, D
		1 second (between 31 min to 23 hr 59 min 59 sec)	0.001%	



# VWR® Traceable® Stopwatch/Chronograph

## **Extra-tough construction with alarm**

- Features: shock-resistant ABS plastic case, AM/PM, date, day, alarm, clock
- Stopwatch functions: single-action, time-out, cumulative-split, and continuous timing
- Supplied: lanyard, Traceable® Certificate, battery

Cat. No.	Timing Capacity	Resolution Acc		Timing Functions
62379-457	24 hours	0.01 second	0.001% (Ultra™)	A, B, C, D
62344-898	24 hours	0.01 second	0.01%	A, B, C, D



# VWR® Traceable® Water-resistant/Shock-resistant Stopwatch

# General purpose stopwatch is water-resistant to three atmospheres

- Features: water-resistant, chronograph, time of day in hours, minutes, and seconds, date, day, and alarm
- Stopwatch functions: single action, time out, cumulative split, interval split, continuous timing
- Supplied: battery, key-chain, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Timing Functions
	22 haves 50 minutes 50 manuals	1/100 of a second (between 0 to 30 minutes)	- 0.01%	A, B, C, D
61161-350	23 hours, 59 minutes, 59 seconds	1 second (between 31 min to 23 hr 59 min 59 sec)	- 0.01%	

# VWR® Traceable® Water-/Shock-Resistant Stopwatch

# General purpose water-resistant stopwatch with tactile feel

- · Features: chronograph, water-resistant, displays time in hrs, mins, secs, date, day, and pause-able alarm
- Stopwatch functions: single action, time out, cumulative split, continuous timing
- Supplied: battery, lanyard, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Timing Functions
62379-460	23 hours, 59 minutes, 59 seconds	1/100 second (between 0 and 30 mins), 1 second (between 31 minutes to 23 hours 59 mins 59 secs	0.01%	A, B, C, D



# VWR® Traceable® Three-Key Stopwatch

### The first disposable stopwatch

- Stopwatch functions: single action timing, time-in/time-out timing, cumulative split timing, continuous timing
- Supplied: battery, lanyard, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Timing Functions
62379-234	23 hours, 59 minutes, 59 seconds, 99 hundredths	0.01 second	0.1%	A, B, C, D



# **VWR® Traceable® Digital Bench-top Timer**

# Unique external triggering capability provides broad array of timing options

- Features: large LCD screen, lab-bench footprint
- Stopwatch functions: time in/out timing, cumulative split and interval split, infinite time outs
- · Three 4mm sockets and supplied test leads allow external triggering of STOP/START and SPLIT/LAP/RESET
- Supplied: battery, test leads, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Timing Functions
61161-326	9 hours, 59 minutes, 59 seconds, and 99 hundredths	0.01 second	0.001%	A, B, C, D, E



# VWR® Traceable® Bench Timer

# Times 12 events simultaneously on a lab bench

- Features: large digits, bright LED display, battery backup, alarm
- Stopwatch functions: single action, time in/out, cumulative split, interval split
- Ultra-high stability and sealed guartz-crystal provide precision timing immune to AC line fluctuations
- For use with 120 VAC AC power
- Supplied: back-up battery, Traceable® Certificate

Cat. No.	Timing Capacity	Resolution	Accuracy	Timing Functions
23609-190	99 hrs, 59 mins, 99 hundredths; 99999.999 sec; 9999.9999 min; 999.99999 hrs	0.001 seconds	0.001%	A, B, C, D, E, H







# Intuitive operation permits program setting in less than 5 seconds

- Performs reproducible stirring, heating, or pumping times; ideal for timed shutdown/repeated on/off timing
- Features: battery backup, manual override, automatic operation allows walking away from equipment
- LED lights indicate status of attached equipment
- Manual pause switch overrides program without disturbing it, and permits equipment to be switched off instantly
- Supplied: AC adaptor, Traceable® Certificate

Cat. No.	Timing Capacity	Horsepower	Accuracy	Power Capacity
36934-170	0.01 sec to 99.99 secs; 1 min to 9999 mins; or 1 hr to 9999 hrs	1/3	0.01%	120 VAC, 15 amps, 1800 W



# VWR® Traceable® Timer Switch Controller

## Program up to 196 switchings per week

- Features: memory (14 different switchings per day), battery backup, manual override, clock
- Schedule an entire week with the press of a few keys; turn equipment on today and off a week later
- Programs allow repeating the same cycle every day of the week, weekdays only, weekends only or any selected day
- CSA-and NTRL-C-rated

Cat. No.

• Supplied: battery, Traceable® Certificate

Cat. No.	Timing Capacity	Horsepower	Accuracy	Power Capacity
62344-723	1 minute or as long as 168 hours	1/3	0.01%	125 VAC, 50/60 Hz, 15 amps, 1850 W

Accuracy Power Capacity



# **VWR® Traceable® Lab Controller**

# Controls any appliance plugged into back of controller

- Features: countdown, repeat, manually override, time, stopwatch, metric converter, clock, day
- Provides up to 224 on/off switchings per day or up to 1568 switchings per week
- Supplied: AC adaptor, Traceable® Certificate **Timing Capacity**

**VWR® Traceable® 7-Day Controller** 

<b>23609-188</b> 1 second to	0.01%	125 VAC, 50/60 Hz	
Switching Capability	125 VAC, 50/60 Hz, 15 amps, 1875 watts		
Cycle Duration	Minimum 1 sec, Maximum 168 hr		
On/Off Programs	1568 per week, 224 per day		
Size	6½ x 4¾ x 3½ inches		
Weight	2 pounds		

Units combine a controller and eight outlet strip into single package



• Up to 84 on/off switches per week with up to 12 switches per day can be set (61161-314 only)

• Features: four time-controlled and four manual outlets; day and AM/PM time; daily program repeat,

• Index pins, which can be raised or lowered to set trip times (5055 only)

• UL-Listed next to NTRL-C rated Supplied: Traceable® Certificate

**Power Capacity** Cat. No. **Timing Capacity** Accuracy 61161-314 1 minute to 168 hours 0.01% 16 amps, 1000 W at 125 VAC

61161-314

# **VWR® Traceable® Countdown Controller**

## Counts down from 23hrs, 59min, 59sec

- Features: programs to 24 hours, turns equipment on/off, manual override, time, backup battery
- Can operate in countdown or time-of-day mode, which permits programming 14 different clock switchings, up to 196 on/off switchings per week, CSA-and NTRL-C-rated
- Supplied: battery, Traceable® Certificate

Cat. No.	Timing Capacity	Horsepower	Accuracy	Power Capacity
62379-567	1-minute intervals from 23 hours, 59 minutes to 1 minute	1/3	0.01%	125 VAC, 15 amps, 1800 W



# VWR® Traceable® Outlet Controller

# 14 time switchings per day, up to 196 switchings per week

- Features: turns equipment on/off, manual override, memory, random interval setting, time-of-day program, backup battery
- AM/PM day programs allow repeating same cycle everyday, weekdays only, weekends only or any selected days, CSA-and NTRL-C-rated
- Supplied: battery, Traceable® Certificate

Cat. No.	Timing Capacity	Horsepower	Accuracy	Power Capacity
61161-343	1 min to 168 hrs	1/3	0.01%	125 VAC, 50/60 Hz, 15 amps, 1850 W



# VWR® Traceable® Humidity Controller

## Ideal for turning humidifiers and dehumidifiers on or off

- Features: manual override, battery backup, alarm
- Turns any piece of equipment on or off when relative humidity rises above/falls below low set point, timer on/off settings can be pre-set
- Program higher ON/lower OFF or lower ON/higher OFF at any set point within range
- Supplied: rechargeable battery, Traceable® Certificate

Cat. No.	Cat. No. Range		Humidity Accuracy	Power Capacity	
62379-551	30 to 90% RH (increments of 1%)	1/3	±5% RH	125 VAC, 15 amps, 1800 W	



# 7-Day Controller

# Easy-to-set controllers are ready to use out of box, program in less than a minute

- Fast, easy index pin memory permits programming unit to exact time requirements
- Repeats cycle daily or weekly; has manual override

Cat. No.	Timing Capacity	Horsepower	Power Capacity
09-186	7-day (2-hour increment)	1/3	125 VAC, 15 amps, 1875 W





Humidity	Sel	ection	Chart
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					, 50					
Cat. No.	Page No.	Traceable® Certificate Supplied	Relative Humidity Range	Resolution	Accuracy	Temperature Range	Resolution	Accuracy	Battery	Features
35519-020	50	Yes	10.00 to 95.00% RH	0.01% RH	±1.5% RH	-40.0 to 104.4°C	0.01°	±0.4°C	9V	Also reads dew point
35519-048	50	Yes	25 to 95% RH	1% RH	±2% RH	−50 to 70°C	0.1°	±1°C	AA	Remote sensor with memory
35519-041	48	Yes	5.00 to 95.00% RH	0.01% RH	±1.5% RH	-40.0 to 104.4°C	0.01°	±0.4°C	9V	Response time of 10 seconds
35519-043	48	Yes	10.0 to 95.0% RH	0.01% RH	±1.5% RH	0.0 to 50.0°C	0.01°	±0.4°C	9V	Simple point/read technology
35519-049	47	Yes	20 to 95% RH	1% RH	±3.5% RH	0.0 to 50.0°C	0.1°	±1°C	AAA	Pen shape
35519-045	47	Yes	25 to 95% RH	1% RH	±2% RH	0 to 50°C	1°	±1°C	AAA	Compact size
35519-047	47	Yes	25 to 95% RH	1% RH	±2% RH	0 to 50°C	1°	±1°C	AAA	Dual min/max memories
21800-066	50	Yes	0.0 to 100.0% RH	0.1% RH	±5% RH	−30.0 to 70.0°C	0.1°	±1°C	AAA	Remote humidity sensor
33500-094	49	Yes	10 to 95% RH	0.1% RH	±3% RH	–20 to 60°C	0.1°	±1°C	AAA	Hard-copy results
61161-378	50	Yes	10 to 95% RH	0.1% RH	±2% RH	−50 to 70°C	1°	±1°C	AAA	Jumbo digits
35519-050	49	Yes	10 to 95.0% RH	0.1% RH	±2% RH	−18 to 93°C	0.1°	±1°C	9V	Computer-output
15551-014	51	No	0 to 100% RH	1% RH	n/a	−40 to 50°C	1°	n/a	n/a	No maintenance required
61161-380	47	Yes	10.0 to 95.0% RH	0.1% RH	±2.5% RH	−20.0 to 60.0°C	0.1°	±1°C	9V	Recorder output
61161-382	49	Yes	10.0 to 95.0% RH	0.01% RH	±3% RH	0.0 to 50.0°C	0.01°	±1°C	9V	Computer-output
15551-012	51	Yes	0 to 100% RH	10% RH	±5% RH	n/a	n/a	n/a	n/a	Humidity card (pack of six)
15551-258	48	Yes	25 to 90% RH	1% RH	±2% RH	–20 to 60°C	0.1°	±1°C	AA/AAA	Radio-signal from remote
33500-098	49	Yes	0 to 95.0% RH	0.1% RH	±2% RH	–18 to 93°C	0.1°	±1°C	9V	Computer-output
12777-834	48	Yes	0 to 100.0% RH	0.1% RH	±3% RH	–20.0 to 50.0°C	0.1°	±1°C	AAA	Dew point, min/max
36934-164	50	Yes	1 to 99% RH	0.1% RH	±4% RH	–40 to 70°C	0.1°	±1°C	AAA	Dew point & wet-bulb monito
89500-398	46	Yes	1 to 99% RH	1% RH	±3% RH	−10 to 60°C	1°	±1°C	AAA	RH Alarm and reads Dew poin
89369-158	46	Yes	0.0 to 90.0% RH	0.1% RH	±5% RH	0 to 50.0°C	0.1°	±1°C	AA	Datalogger with Memory card



# VWR® Traceable® Memory-Card Humidity/Temperature/Dew Point

It records readings from once a minute up to once every 720 minutes on a SD memory card

- Datalogging capabilities that can capture 5.9 million readings with 256 mb removable SD memory card
- · Visual and audible alarms indicate when temperature, humidity or dew point rises above and falls below userdefined set points
- USB memory card reader plugs directly into Windows and Mac—no software to install to retrieve date/time of day and readings of sensors
- Supplied: 256 mb SD memory card, USB memory card reader, magnetic strips, Velcro®, wall mount, bench stand, batteries, adaptor, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Dew point
89369-158	Humidity: 0.0 to 90.0%RH	0.1%	±5% RH at 25°C between 20 to 85% RH; ±7% RH elsewhere	−20.0 to 50.0°C
	Tomporature: 0 to 50 0°C	0.10	±1°C	with 0.1° resolution



# VWR® Traceable® Digital Humidity/Temperature/Dew Point Meter

Convenient triple memories recall minimum/maximum readouts for relative humidity, dew point, and temperature

- Audible/visual LED alarm may be set to trigger at 3 different humidity readings (55%, 60% or 65%)
- Solid state sensors deliver response times of less than 30 seconds, °F/°C switchable
- Supplied: wall mount, batteries, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
	Humidity: 1 to 99%	0.1%	±3% mid-range, ±5% elsewhere
89500-398	Ambient Temperature: 14 to 140°F (-10 to 60°C)	0.1°	±1°C
	Ambient Dew point: 14 to 140°F (-10 to 60°C)	0.1°	na





# VWR® Traceable® Digital Humidity/Temperature Meter

# Continuously/simultaneously displays relative humidity and temperature with dual-recall memories

- Ideal for routine measurements, monitoring round-the-clock, quality-control needs, and critical experimental requirements
- Minimum and maximum memories can be displayed or cleared at any time with the touch of a key
- Fulfils CLIA requirements, °F/°C switchable
- Supplied: wall mount, bench, stand, batteries, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Features
25540 047	Humidity: 25 to 95%RH	1%	±2% RH mid-range to ±4% RH elsewhere	MIN/MAX
35519-047	Temperature: 32 to 122°F (0 to 50°C)	1°	±1°C	memory



# VWR® Traceable® Thermometer/Clock/Humidity Monitor

# Simultaneously displays time of day, temperature, and humidity

- Features: MIN/MAX memory, memory clear, °F/°C switchable, 12/24-hour clock
- At the touch of a button, memory recalls the highest and lowest temperature and humidity readings
- · Internal sensors make it ideal for hoods, storerooms, cleanrooms, incubators, drying chambers and environmental cabinets
- Supplied: stand, wall mount, double-back tape, batteries, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Size/Weight
	Time: 12/24 hour clock	1 minute	0.01%	
62344-734	Temp: 0.0 to 50.0°C	0.1°	±1°C	4¼ x 2¼ x ½ inch, 2½ ounces
	Humidity: 20 to 90% RH	1%	±5% RH midrange otherwise ±8% RH	_



# VWR® Traceable® Dew Point/Wet-Bulb/Humidity/ Thermometer Alarm

## Settable high/low alarms for all four readings

- Unit shows current minimum and maximum readings for dew point, wet-bulb, humidity and temperature
- Alarm sounds for 1 minute and red LED flashes until readings return to non-alarm conditions
- Supplied: stand, batteries, wall-mount, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
36934-164	Humidity: 1 to 99%RH	0.1%	±4% between 35 to 75% RH, ±5% otherwise
30934-104	Temperature: -40 to 158°F (-40 to 70°C)	0.1° below 100°	±1°C



# **VWR®** Traceable® Humidity/Temperature Pen

# Quickly view temperature and relative humidity with dual-recall memories

- Meets Federal Government CLIA requirement 493.1252
- Easy to carry due to handy pocket clip
- Response time is less than 6 seconds, °F/°C switchable
- Supplied: battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
35519-049	Humidity: 20 to 95% RH	0.1%	±3.5% RH mid-range to ±5.5%
35519-049	Temperature: 32.0 to 122°F (0.0 to 50°C)	0.1°	±1°C















# VWR® Traceable® General-Purpose Hygrometer/Thermometer

Perfect quality-control unit displays accurate answers for every air measurement

- Easy-to-operate unit features a DATA HOLD switch allowing readings to be captured and noted
- Unit is self-contained with built-in humidity and temperature sensors, °F/°C switchable
- Response times vary from 30 seconds to  $3\frac{1}{2}$  minutes
- Supplied: battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
35519-043	Humidity: 10.00 to 95.00% RH	0.01%	±1.5%
33319-043	Temperature: 32.0 to 122.0°F or 0 to 50°C	0.01°	±0.4°C at tested points
Accessories			

89140-174 Data Acquisition System (for additional information see page 68)

# VWR® Traceable® Humidity/Temperature Meter

# Hand-held, compact unit is easy to operate

- Memory captures 99 data points which can be recalled on demand
- Response time is 30 seconds to 5 minutes depending on environment, °F/°C switchable
- Large ½-inch digits can be read from 10 feet away
- Precision thin-film capacitance sensor updates the display 3 times per second
- Supplied: battery, tripod-mount, hard carrying case, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
61161-380	Humidity: 10.0 to 95.0% RH	0.1%	±2.5% RH mid-range to ±5% RH elsewhere
01101-380	Temperature: -4.0 to 140.0°E (-20.0 to 60.0°C)	0.1°	+0.1°C

# VWR® Traceable® Radio-Signal Remote Humidity/Thermometer Monitors humidity and temperature up to 100 feet away

- Unit feature high/low alarms, °F/°C switchable, data transmitted every 30 seconds
- Trend indicators show if humidity is rising or falling
- Additional Traceable Humidity/Thermometer Remote Sensor Module (Cat No. 15551-126); may be set to channel 1, 2, or 3; total of three modules may be used with main unit 15551-258
- Multiple main units-they must be 300 feet apart, remotes must be within 100 feet of main unit
- Supplied: battery, carrying case, flip-open stand, wall brackets, one remote sensor module Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
45554 350	Humidity: 25 to 90% RH	1%	±2% RH mid-range to ±4% RH elsewhere
15551-258	Temperature: -4 to 140°F (-20 to 60°C)	0.1°	±1°C
Accessories			

15551-126 Additional Traceable® Humidity/Thermometer Remote Sensor Module

# **VWR® Traceable® Pocket Hygrometer/Dew Point/Thermometer**

Humidity, dew point, temperature display—sensor not affected by condensation

- Unit may be used in 100% humidity, °F/°C switchable
- Full range response time of 30 seconds to 1 minute
- Supplied: battery, hard carrying case, Traceable® Certificate

Cat. No.	o. Range Re		Accuracy
	Humidity: 0 to 100.0% RH	0.1%	±3% RH mid-range to ±4% RH elsewhere
12777-834	Temperature: -20.0 to 50.0°C (-4.0 to 122°F)	0.1°	±1°C
	Dew point: -20.0 to 50.0°C (-4.0 to 122°F)	0.1°	±1°C

# VWR® Traceable® Humidity/Thermometer

# Unit simultaneously displays humidity or dew point and temperature

- Unit displays MIN/MAX humidity readings and includes a HOLD key to freeze display for later reading
- Records wide humidity variations on a second-to-second basis
- Data logger captures 1000 readings manually at the push of a key or automatically when set between 1 to 3600 secs
- Computer output allows unit to be connected to a computer for data downloading
- Supplied: battery, probe, 40" cable, computer output, carrying case, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe	
C11C1 303	Humidity: 10.0 to 95.0% RH	0.01%	±3% RH	Size: 8" x 0.66"	
61161-382	Temperature: 32.0 to 122.0°F (0.0 to 50.0°C)	0.01°	±1°C	diameter	
Accessories					
61161-386	Data Acquisition System (for additional information see page 68)				
21800-026	Data Logger (for additional information see page 68)				



# VWR® Traceable® Memory Hygrometer/Thermometer

# Maintain accuracy with do-it-yourself calibration

- Microprocessor-based design provides unparalleled accuracy
- Simultaneously displays both temperature and relative humidity on dual 1.125-inch high LCD
- 3 foot cable allows user to retrieve readings from hard-to-reach areas
- Supplied: probe, cable, battery, carrying case, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
25540,050	Humidity: 10 to 95% RH	0.1% RH	±2% mid-range, otherwise ±4%
35519-050	Temperature: –18 to 93°C	0.1°	±1°C between 0 to 40°C, otherwise ±2°C
	Humidity: 10 to 95% RH	0.1% RH	±2.0%
33500-098	Temperature: –18 to 93°C	0.1°	±1°C between 0 to 40°C, otherwise ±2°C
	Dew Point: 0 to 50°C	0.1°	±2°C
Accessories			
33500-100	33% Calibration Standard with calibration in	nstructions	
33500-102	75% Calibration Standard with calibration instructions		
89140-204	Data Acquisition System (for additional infor	mation see page 68	3)



# VWR® Traceable® Printing Hygrometer/Thermometer

## Print readings at any programmed time interval from 6 seconds to 59 minutes, 59 seconds

- Provides a permanent record by printing current humidity/temperature/time/date and maximum and minimum readings; also includes the time and date that the readings occurred.
- Fast-response, solid-state sensors detect changes in less than 10 seconds
- Meets CLIA specification 493.1252
- Supplied: T1, T2 Type-K probe, cable, probe holder/stand, carrying case, paper rolls, battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Probe	
	Humidity: 10 to 95%	0.1% RH	$\pm 3\%$ RH mid-range to $\pm 5\%$ RH elsewhere	Probe: ¾" diameter x	
33500-094	T1 Temperature: –20.0 to 60.0°C	0.1°	±1°C	074 , 40 Cable	
	T2 Temperature: –200 to 1333°C	0.1°C (from –328 to 999.9°F) elsewhere 1°	±(0.2% of reading plus 1.8°C)	Type-K: 0.06" diameter; 48" cable	











Triple display shows high, low, and current RH/temperature readings

- Remote humidity/temperature sensor on a 7-foot cable
- Hi/Lo Alarms, MIN/MAX memories
- High/low alarm feature may be set by user in 1% RH or 1° increments
- Use in hoods, classrooms, stockrooms, environmental chambers and chemical storage areas
- Supplied: battery, external RH/temperature sensor, stand, wall-mount, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
	Humidity: 0.0 to 100.0% RH	0.1%	±5% RH midrange
21800-066	Temperature: -58.0 to 158.0°F (-30.0 to 70.0°C)	0.1°	±1°C
	Ambient sensor temperature: 32 to 122°F (0 to 50°C)	10	+1°C

# VWR® Traceable® Jumbo Humidity/Temperature Meter

Jumbo 1.125-inch digits display humidity, temperature—read from 35 feet away

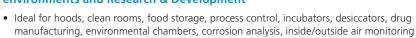
- Simultaneously displays ambient relative humidity and internal probe and external probe temperatures °F/°C with dual-recall memories
- Both sensor and 10-foot cable perform accurately when under water
- Fulfills CLIA specification 493.1207
- Response time is less than 30 seconds
- Supplied: flip-open stand, wall mount, battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
	Ambient humidity: 25 to 95% RH	1%	±2% RH mid-range to ±4% RH elsewhere
61161-378	Ambient temperature: –32 to 122°F	1°	±1°C
	Probe temperature: –50 to 70°C	1°	±1°C

# VWR 65

# VWR® Traceable® Humidity/Temperature/Dew Point Meter

Resolution of 0.01% relative humidity—ideal for QC labs, ISO 9000 environments and Research & Development



- Fulfills federal CLIA requirements
- Memory recalls minimum and maximum readings at any time, °F/°C switchable
- High and low alarms can be programmed for dew point, temperature and humidity
- Computer output permits data capture, transfer, store and print with DAS software
- Under 10 second response time
- Probe: 7-inch length x 0.4 inch diameter; cable: 72 inches
- Supplied: computer output, battery, Traceable® Certificate



Cat. No.	Range	Response time	Resolution	Accuracy	Probe
	Humidity: 5.00 to 95.00% RH	10 seconds	0.01% RH	±1.5% RH	
35519-041	Temperature: -40.00 to 220.0°F (-40.00 to 104.0°C)	_	0.01°	±0.4°C (0 to 40°C) elsewhere 1°C	Stainless-steel: 7-inch length x 0.4 inch diameter; cable: 72 inches
	Dew Point: -40.00 to 140.0°F (-40.00 to 60.00°C)	_	0.01°	_	,
	Humidity: 10.00 to 95.00% RH	30 seconds	0.01% RH	±1.5% RH	
35519-020	Temperature: -40.00 to 220.0°F (-40.00 to 104.0°C)	_	0.01°	±0.4°C (0 to 40°C) elsewhere 1°C	Epoxy: 7-inch length x 0.4 inch dia.; cable: 72 inches
	Dew Point: -40.00 to 140.0°F (-40.00 to 60.00°C)	_	0.01°	_	
Accessories					
33500-092	Data Acquisition System (for additional information see p	age 68)			
00020 250	A.C. AI				

89030-250 AC Adaptor

# VWR® Traceable® Humidity-on-a-Card™

# Color changes from blue to lavender in increments of 10% RH

- Individually sealed cards indicate both current humidity and the maximum humidity attained
- Maximum relative humidity attained is indicated by the highest numbered hole containing dissolved crystals
- Monitor humidity levels in shipments, optics and packaging
- Supplied: Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Size	Quantity
15551-012	Humidity: 0 to 100% RH	10% RH	+5% RH at 75°F (24°C)	4 x 4 inches	6/nk



# **Dial Hygrometer/Thermometer**

# No batteries required

- Easy analog reading, no batteries to replace
- Supplied: wall mount screw, hanger

Cat. No.	Range	Resolution
15551-014	Humidity: 0 to 100%	1% RH
13331-014	Temperature range: -40 to 122°F (-40 to 50°C)	



# **Enviro-Meter™**

# Four-in-one lab champion

- Lightweight, hand-held workhorse: anemometer, humidity meter, light meter, and 2 thermometers, °F/°C switchable
- · HOLD key freezes display, MIN/MAX feature displays highest and lowest reading over any time period
- Supplied: battery, Type-K beaded probe/4-foot cable, wrist strap

Cat. No.	Function	Range	Resolution	Accuracy
	Air Velocity	0.40 to 30.0 meters per second 1.4 to 108.0 kilometers per hour 80 to 5910 feet per minute 0.9 to 67.0 miles per hour 0.8 to 58.3 knots (nautical miles per hour)	0.1 m/sec. 0.1 km/hr 1 ft/min 0.1m/h 0.1 knots	±3 or 4% of full scale
46610-028	Temperature Humidity	Ambient sensor: 32.0 to 122.0°F (0.0 to 50.0°C)	0.1° (°C and °F)	±1.2°C
		Type-K: -148.0 to 2372°F (-100.0 to 1300°C)	0.1° (°C and °F)	±(1% of reading + 1°C)
		10.0 to 95.0% RH	0.1% RH	±4% RH under 70% ±(4% of reading +1.2% RH) over 70%
	Light	0 to 20,000 lux (0 to 2000 foot candles)	1 lux (1 fc)	±5% of reading and ±8 digits



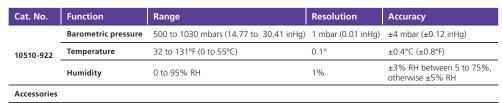
Barometer Selection Chart					
Page No.	52	52	53	53	53
Cat. No.	10510-922	61161-398	89094-760	15551-024	89500-396
Traceable® Certificate Supplied	Yes	Yes	Yes	Yes	Yes
Barometric Pressure Range	500 to 1030 mbars (14.77 to 30.41 inHg)	8.85 to 32.45 inHg 300 to 1100 mbar (hPa)	0.29 to 32.48 inHg 10.0 to 1100 mbar(hPa) 7.5 to 825.0 mmHg	28.1 to 31.7 inHg, 954 to 1073 mbar (hPa) 715 to 805 mmHg	23.62 to 31.01 inHg 800 to 1050 mbar (hPa)
Resolution	1 mbar (0.01 inHg)	0.01 inHg, 1 mbar (hPa)	0.01 inHg, 0.1 and 1 mbar (hPa)	0.05 inHg, 0.5 mbar (hPa), 0.5 mmHg	0.063 inHg, 1 mbar (hPa)
Accuracy	±4 mbar (±0.12 inHg)	±8 mbar at tested points	±4 hPa	±0.5% of reading	±6 mb (890 to 1020 mb)
Temperature Range	32 to 131°F (0 to 55°C)	–10 to 60 °C	0 to 50°C	n/a	−9 to 70°C
Resolution	0.1°	0.1°	0.1°	n/a	0.5°
Accuracy	±0.4°C (±0.8°F)	±1.5°C	±1°C	n/a	±1°C
Battery Replacement	AA	Button-Cell CR2032	AAA	n/a	AAA
Features	Desktop Barometric Pressure, HUMIDITY, Temperature and Time	Hand-held barometer, altimeter, compass, thermometer, stopwatch	Portable, hand-held– Easy operation	Dial displays three scales	Forecasting indicators show conditions for next 12 hrs







- A four-line LCD continuously and simultaneously shows barometric pressure, temperature, relative humidity, barometric pressure trend and time
- Altitude compensation: -100 to 2500 meters
- MIN/MAX readings for barometric pressure, temperature and relative humidity are stored every hour for last 24 hours and are available for recall at the touch of a button
- HI/LO alarms parameters can be set for barometric pressure, temperature, and relative humidity
- Barometric pressure trend shows in bar-chart format the current and past 1/3/6/12 and 24-hour readings
- Computer output allows unit to be connected to a computer using the accessory Computer Data Acquisition System to permanently capture readings
- Supplied: wall mount, flip open stand, batteries, Traceable® Certificate



10510-924 Data Acquisition System Software



# VWR® Traceable® Hand-Held Barometer

# Hand-held multi-tasking barometer is ideal lab partner for any workplace

- Hand-held unit measures altitude, temperature and barometric pressure
- Barometric trend graph delivers present and previous 2/4/6/8/10 and 12-hour readings in bar-chart format
- Barometer pressure readings are updated every 15 minutes
- Includes stopwatch, time-of-day clock and compass
- Supplied: batteries, lanyard, Traceable® Certificate

Cat. No.	Function	Range	Resolution	Accuracy
	Barometric pressure	8.85 to 32.45 inHg; 300 to 1100 mbar	0.01 inHg; 1 mbar	±0.2363 inHg; ±8 mbar
	Temperature	14 to 140°F (-10 to 60°C)	0.1°	±1.5°C
61161-398	Altitude	−2296 to 29520 ft −700 to 9000 meters	0.1 from -500 to 999.9, 1 elsewhere	_
	Stopwatch	1 sec to 23 hrs, 59 min, 59 sec	0.1°	_



# VWR® Traceable® Hygrometer/Thermometer/Barometer/ Dew Point Pen

# Lightweight and compact unit measures humidity, temperature, barometric pressure and dew point

- User selectable dual display shows humidity/temperature, humidity/dew point, barometric pressure/temperature or barometric pressure/humidity
- Portable—easy operation
- MIN/MAX readings recalled at the press of a key
- Supplied: metal clip, battery, Traceable® Certificate

Cat. No.	Function	Range	Resolution	Accuracy
	Barometric Pressure	10.0 to 1100 mbar (hPa); 7.5 to 825.0 mmHg; 0.29 to 32.48 inHg	0.1 and 1 mbar (hPa); 0.1 mmHg; 0.01 inHg	±4 hPa between 550 to 1100 hPa
89094-760	Humidity	10.0 to 95.0% RH	0.1%	±3% RH midrange to ±4% RH elsewhere
	Thermometer	0.0 to 50.0°C	0.1°C	±1°C
	Dew Point	−25.3 to 48.9°C	0.1°	±1°C



# VWR® Traceable® Workstation Barometer with Clock

### Ideal weather watcher and trend setter

- Ideal for recording ambient changes in lab, monitoring conditions affecting sample analysis, and assisting in prediction of weather changes
- Unit includes a barometer, thermometer, clock, altitude adjustment, and weather symbol forecasting symbols
- Adjustable altitude compensation from –900 to 3600 feet (–300 to 1200 meters)
- Barometric trend shows current reading, previous 1, 3, 6, and 12-hour readings in bar chart format
- Supplied: batteries, Traceable® Certificate

Cat. No.	Function	Range	Resolution	Accuracy
90500 305	Barometric pressure	23.62 to 31.01 inHg 800 to 1050 mbar (hPa)	0.063 inHg 1 mbar	±6 mb (890 to 1020 mb); otherwise ±10 mb
89500-396	Temperature	−22 to 158°F −9 to 70°C	0.5°	±1°C (32 to 104°F and 0 to 40°C) ±2°C elsewhere





# **VWR® Traceable® Precision Dial Barometer**

# Highly reliable, place-anywhere barometer delivers meticulous results

- Barometer has response time of 1 to 4 hours and triple scales that provide precise, sensitive measurements of atmospheric pressure
- Adjustable pointer may be set to indicate changes
- Altitude adjustment screw is supplied for use at locations as high as 1000 meters
- Supplied: altitude adjustment screw, stand, wall mount, Traceable® Certificate

Cat. No.	Function	Range	Resolution	Accuracy
15551-024	Barometric pressure	28.1 to 31.7 inHg 945 to 1073 mbar 715 to 805 mmHg	0.05 inHg 0.5 mbar 0.5 mmHg	±0.5% of reading







# **VWR® Traceable® Vane Anemometer Pens**

# Designed for intuitive, easy operation by everyone

- Three units provide airflow/temperature, airflow/temperature/humidity/dewpoint, and airflow/temperature/dew point/barometric pressure
- Constructed to keep dust and dirt out of unit, assuring a long life even in harsh conditions
- Unit recalls MIN/MAX readings and also has a HOLD key allowing user to freeze current reading on display
- Compact design, easy-to-use, MIN/MAX memory
- Supplied: batteries, Traceable® Certificate

Cat. No.	89094-730	89094-732	89094-734
Description	VWR® Traceable® Anemometer/ Thermometer	VWR® Traceable® Anemometer/ Thermometer/Hygrometer/Dew point	VWR® Traceable® Anemometer/ Thermometer/Hygrometer/ Dew point/Barometer
Air Flow Range	0.4 to 30.0 m/s 1.4 to 108.0 km/hr 80 to 5910 ft/min 0.9 to 67.0 mile/hr 0.8 to 58.3 knots	0.4 to 30.0 m/s 1.4 to 108.0 km/hr 80 to 5910 ft/min 0.9 to 67.0 mile/hr 0.8 to 58.3 knots	0.4 to 30.0 m/s 1.4 to 108.0 km/hr 80 to 5910 ft/min 0.9 to 67.0 mile/hr 0.8 to 58.3 knots
Air Flow Resolution	0.1 m/s; 0.1 km/hr;1ft/min 0.1 mile/hr; 0.1 knots	0.1 m/s; 0.1 km/hr;1ft/min 0.1 mile/hr; 0.1 knots	0.1 m/s; 0.1 km/hr;1ft/min 0.1 mile/hr; 0.1 knots
Air Flow Accuracy	±3% full scale under 20 m/s ±4% full scale over 20 m/s	±3% full scale under 20 m/s ±4% full scale over 20 m/s	±3% full scale under 20 m/s ±4% full scale over 20 m/s
Temperature Range	32.0 to 122.0°F (0.0 to 50.0°C)	32.0 to 122.0°F (0.0 to 50.0°C)	32.0 to 122.0°F (0.0 to 50.0°C)
Temperature Resolution	0.1°	0.1°	0.1°
Temperature Accuracy	±0.8°C	±0.8°C	±0.8°C
Humidity Range	_	10.0 to 95.0% RH	10.0 to 95.0% RH
Humidity Resolution	_	0.1%	0.1%
Humidity Accuracy	_	±3 of reading +1	±3 of reading +1
Dew Point Range	_	-13.5 to 120.1°F (-25.3 to 48.9°C)	-13.5 to 120.1°F (-25.3 to 48.9°C)
Dew Point Resolution	_	0.1°	0.1°
Barometric Pressure Range	_	-	10.0 to 1100 hPa 7.5 to 825.0 mmHg 0.29 to 32.48 inHg
Barometric Pressure Resolution	_	_	0.1 and 1hPa 0.1 mmHg 0.01 inHg
Barometric Pressure Accuracy	_	_	±4 hPa



# VWR® Traceable® Micro-Anemometer/Thermometer

## Ultra compact micro-design is small in size and big in features

- Water-resistant unit measures air velocity in five user selectable values; meters per minute, feet per second, miles per hour, kilometers per hour and knots
- Readings updated 2 times per second and immediate results provided
- Maximum airflow measured and temperature in F and C also displayed on screen
- Supplied: lanyard, nylon carrying case, battery, Traceable® Certificate

Cat. No.	89094-736
Air Flow Range	0.0 to 30.0 m/s, 0.0 to 98.0 ft/sec, 0.0 to 67.0 mile/hr, 0.0 to 108.0 km/hr, 0.0 to 58.0 knots
Air Flow Resolution	0.1 m/s, 0.1 km/hr, 0.1 ft/sec, 0.1 mile/hr, 0.1 knots
Air Flow Accuracy	±5% full scale
Temperature Range	−20.0 to 80.0°C (−4.0 to 176.0°F)
Temperature Resolution	0.1°
Temperature Accuracy	±1°C

# VWR® Traceable® Hot Wire Anemometer/Thermometer

# Great precision—even at low air velocities

- Handy telescopic probe—expandable from 9½" to three feet—is ideal for hard-to-reach areas
- No-moving-parts anemometer eliminates friction errors—perfect for any environmental test
- Output capability allows unit to be connected to a computer or data logger to monitor/store results
- Supplied: batteries, dual thermistor probes, 40" cable, computer output, Traceable® Certificate

Cat. No.	Air Velocity	Resolution	Accuracy	
	0.2 to 20.0 meters per second	0.1 m/sec.		
	0.7 to 72.0 kilometers per hour			
21800-024	40 to 3940 feet per minute	1 ft/min	±(1% full scale+ 1 digit)	
	0.5 to 44.7 miles per hour	0.1 m/h	<u> </u>	
	0.4 to 38.8 knots (nautical miles per hour)	0.1 knots		
Accessories				
61161-386	Data Acquisition System (for additional information see page 68)			
21800-026	Data Logger (for additional information see page 68)			



# VWR® Traceable® Anemometer/Thermometer

### Double-duty anemometer simultaneously displays air velocity and temperature

- Easy-to-operate anemometer is ideal for use in hoods or outdoors
- MEMORY key allows for recalling highest/lowest readings achieved and HOLD freezes display to record test results
- Unit has computer output capabilities
- Supplied: battery, carrying case, computer output, Traceable® Certificate

Cat. No.	Air Velocity	Resolution	Accuracy
	0.40 to 30.0 meters per second	0.1 m/sec.	
	1.4 to 108.0 kilometers per hour	0.1 km/hr	_
33500-096	80 to 5900 feet per minute	1 ft/min	±3% of full scale
	0.9 to 67.0 miles per hour	0.1 m/h	_
	0.8 to 58.0 knots (nautical miles per hour)	0.1 knots	
Accessories			



**89140-174** Data Acquisition System (for additional information, please see page 68)

# **VWR® Traceable® Digital Anemometer/Thermometer**

# Extraordinarily low-friction design provides a vane that rotates freely in low/high velocities

- Engineered for years of reliable service even in severe or harsh environments
- Reading is updated instantaneously
- Supplied: battery, carrying case, 4-foot cable, flip-open stand, Traceable® Certificate

Cat. No.	Air Velocity	Resolution	Accuracy	
	0.4 to 30.0 meters per second	0.1 m/sec.	- (20) (1 digit) of ground goodings	
33500-090	1.4 to 108.0 kilometers per hour	0.1 km/hr		
	80 to 5910 feet per minute	10 ft/min	±(2% + 1 digit) of speed reading	
	0.8 to 53.3 knots (nautical miles per hour)	0.1 knots	•	







### Accessories (33500-082 through 33500-088 only)

Cat. No.	Description
89140-204	Data Acquisition System (additional information, see page 68)



### Accessorie

	Accessories
Cat. No.	Description
61161-386	Data Acquisition System (additional information, see page 68)
21800-026	Data Logger (for additional information, see page 68)

# VWR® Traceable® Manometer/Pressure/Vacuum Gauge

Quick-response manometer with memory key allows for recalling highest and lowest readings

- Portable unit measures and displays differential pressure/vacuum in 11 different units: psi, mbar, bar, cm/H<sub>2</sub>O, inch/H<sub>2</sub>O, feet/H<sub>2</sub>O, mm/Hg, inch/Hg, kg/cm<sup>2</sup>, oz/inch<sup>2</sup>, kPa
- Printer option provides hard copy of samples number, current reading, date, and time for today's stringent quality-control documentation—user may set unit to repetitively print from 1 second to 2 hours
- Hose fittings on the unit permit hose/tubing with inside diameters from 1/16 to 3/16-inches
- Count-up timer displays up to 99 hours, 59 minutes, 59 seconds
- Supplied: computer output, hose/tubing, batteries, carrying case, paper roll, Traceable®
   Certificate

Cat. No. Non-printing	33500-082	33500-084	33500-086	33500-088
Cat. No. Printing	89094-722			89094-728
Max. Allowed PSI	20	30	60	150
PSI Range	-5.000 to 5.000	-15.00 to 15.00	-30.00 to 30.00	-100.0 to 100.0
PSI Resolution	0.003	0.01	0.02	0.1
mbar Range	-345.0 to 345.0	-1034 to 1034	-2068 to 2068	-6895 to 6895
mbar Resolution	0.2	1	2	4
bar Range	-0.3450 to 0.3450	-1.034 to 1.034	-2.068 to 2.068	-6.895 to 6.895
bar Resolution	0.001	0.001	0.002	0.004
cm/H₂O Range	-351.0 to 351.0	-1055 to 1055	-2109 to 2109	-7031 to 7031
cm/H₂O Resolution	0.2	1	2	4
inch/H₂O Range	-138.0 to 138.0	-415.0 to 415.0	-830.0 to 830.0	-2768 to 2768
inch/H2O Resolution	0.1	0.3	0.5	2
feet/H₂O Range	-12.00 to 12.00	-35.00 to 35.00	-69.00 to 69.00	-231.0 to 231.0
feet/H <sub>2</sub> O Resolution	0.01	0.02	0.04	0.2
mm/Hg Range	-259.0 to 259.0	-776.0 to 776.0	-1551 to 1551	-5171 to 5171
mm/Hg Resolution	0.2	0.5	1	3
inch/Hg Range	-10.00 to 10.00	-31.00 to 31.00	-61.00 to 61.00	-204.00 to 204.00
inch/Hg Resolution	0.01	0.03	0.1	1.0
kg/cm² Range	-0.350 to 0.350	-1.060 to 1.060	-2.110 to 2.110	-7.030 to 7.030
kg/cm² Resolution	0.001	0.001	0.002	0.004
oz/inch² Range	-80.00 to 80.00	-240.0 to 240.0	-480.0 to 480.0	-1600 to 1600
oz/inch² Resolution	0.05	0.2	0.3	1
kPa Range	-34.50 to 34.50	-103.0 to 103.0	-207.0 to 207.0	-690.0 to 690.0
kPa Resolution	0.02	0.1	0.2	0.4

# VWR® Traceable® Pressure/Vacuum Gauge

# Displays answer in eight different units—with accessory computer output

- At the touch of a key the unit may be zeroed
- Memory function recalls highest and lowest readings
- Supplied: transducer sensor, battery, 40" cable, computer output, Traceable® Certificate

Cat. No.	23609-220	23609-222
psi range (resolution)	-14.7 to 725 (1)	-14.70 to 29.0 (0.02)
bar range (resolution)	-1.0 to 50 (0.05)	-1.000 to 2.000 (0.002)
Meter/H₂0 (resolution)	-10 to 509.5 (0.5)	-10.00 to 20.40 (0.02)
Atmospheres range (resolution)	-1.0 to 49.35 (0.05)	-1.000 to 1.974 (0.002)
mm/Hg range (resolution)	-736 to 37500 (50)	-736 to 1500 (2)
inch/Hg range (resolution)	–29 to 1476 (1)	-29 to 59.05 (0.05)
inch H₂0 range (resolution)	-394 to 20050 (20)	-394 to 802 (1)
Kg/cm² range (resolution)	-1 to 50.95 (0.05)	-1.000 to 2.040 (0.002)

# **VWR®** Traceable® Bench Conductivity Meter

# Easy-to-use—simply turn on, insert probe and read results

- Fulfill all official lab analysis regulations for CAP, ASTM, NCCLS, CLSI, ACS, CLIA, AOAC, EPA, APHA, AWWA, WEF, USGS, USP, ISO, and Federal/State regulations
- · Unit automatically encompasses all ranges and selects the most appropriate for the current reading
- Control allows user to store four calibration points using solution standards
- Supplied: adaptor, probe replatinizing current, probe holder arm, battery, Traceable® Certificate

Cat. No.	Measurement	Range					Accuracy
	Micromhos (microsiemens)	0.01 to 20.00	0.1 to 200.0	1 to 2000	10 to 20000	100 to 200000	
61161-362	Megohms	0.001 to 2.000	0.01 to 20.00				±0.3% +1 digit
	Dissolved Solids/ Parts Per Million	0.1 to 20.00	1 to 200	10 to 2000	100 to 20000		
Accessories							
23226-504	Replacement Conductivity Probe– Glass, K=1; Probe range: 0.05 to 200,000 micromhos						
89030-238	Accessory Conductivity Probe – Unbreakable Epoxy, K=1; Probe range: 1.0 to 200,000 micromhos						



# VWR® Traceable® Portable Conductivity Meter

### Quick answers, accurate results

- Automatic range changes; automatic and manual temperature compensation
- Four unique calibration points may be entered into memory utilizing solution standards; settings are stored even when unit is off
- Results are displayed into conductivity (microsiemens) and resistivity (megohms), dissolved solids (parts per million), concentration (user-defined units), salinity (oceanographic units) and temperature (F/C)
- Supplied: probe, cable, battery, Traceable® Certificate

Cat. No.	Measurement	Range					Accuracy
	Micromhos (microsiemens)	0.01 to 20.000	0.1 to 200	1 to 2000	10 to 20000	100 to 200000	· ±0.3% +1 digit
23226-505	Megohms	0.001 to 2.000	0.01 to 20.00				(0.1 to 1999
	Dissolved Solids/ Parts Per Million	0.1 to 20.00	1 to 200	10 to 2000	100 to 20000		Micromhos)
Accessories							
23226-504	Replacement Conductivity Probe– Glass, K=1; Probe range: 0.05 to 200,000 micromhos						
89030-238	Accessory Conduct	tivity Probe– Unbre	eakable Epoxy, I	<=1; Probe rai	nge: 1.0 to 200	,000 micromhos	



# **Traceable to NIST for accuracy**

To assure accuracy an individually serial-numbered Traceable® Certificate is provided from an ISO/IEC 17025:2005 (1750.01) calibration laboratory accredited by A2LA. It indicates traceability to standards provided by NIST (National Institute of Standards and Technology).



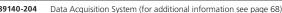


# VWR® Traceable® Expanded Range Conductivity Meter

## **Accurate answers in five seconds**

- · Ideal for checking water purity in stills, deionizers, reverse osmosis; testing glassware rinsing, measuring total dissolved solids, and making solutions
- Meter automatically selects proper range and displays the exact answer
- Compatible with all accreditation analysis requirements—perfect for labs wanting to maintain accreditation
- Unit fulfills requirements for CAP, ASTM, NCCLS, CLSI, ACS, CLIA, AOAC, EPA, APHA, AWWA, WEF, USGS, USP, ISO, and Federal/State regulations
- Supplied: probe, batteries, carrying case, computer output, Traceable® Certificate

Cat. No.	Measurement	Range	Accuracy
89094-958	Conductivity	0.00 to 19.99 microsiemens; 0.0 to 199.9 microsiemens; 0 to 1999 microsiemens; 0 to 19.99 millisiemens; 0 to 199.9 millisiemens	±1.0% +1 digit
	Dissolved Solids	0.00 to 9.99 ppm; 0.0 to 99.9 ppm; 0 to 999 ppm; 0 to 9.99 ppt; 0 to 99.9 ppt	
Accessories			
89140-204	Data Acquisition Syste	m (for additional information see page 68)	





# VWR® Traceable® Dual-Display Conductivity Meter

# Two displays simultaneously show conductivity readings and temperature measurements

- Simultaneously displays temperature and conductivity
- Probe: 6 x ½" diameter, 40" cable
- Supplied: epoxy probe, battery, computer output, Traceable® Certificate

Cat. No.	Conductivity Ranges	Accuracy	Temperature Ranges	Temperature Resolution	Temperature Accuracy		
21800-012	0.0 to 199.9 micromhos 0.001 to 1.999 millimhos 0.01 to 19.99 millimhos	±(2% of full scale plus 1 digit)	32 to 140 °F (0.0 to 60.0 °C)	0.1°	±0.8°C		
Accessories							
61161-386	Data Acquisition System (for additional information, see page 68)						
21800-026	Data Logger (for additional information, see page 68)						
61161-384	Easy-Use Adaptor 115 VAC (see page 79)						



# VWR® Traceable® Pure H<sub>2</sub>O Tester

# Easy-read large digit display

- Meets all lab certification requirements
- Tests water from stills, demineralizers, deionizers, reverse osmosis
- Instant response
- Supplied: epoxy probe, 40" cable, carrying case, battery, Traceable® Certificate

Cat. No.	Range	Accuracy
23609-216	0.1 to 20,000 (microsiemens)	±0.4% of full scale

# VWR® Traceable® Conductivity/TDS/Salinity Pens

# Easiest unit ever designed for routine analysis and quality control

- Three units provide for conductivity, conductivity/total dissolved solids, and salinity
- Simply turn on, insert, and simultaneously read results and temperature-eliminates operator technique errors
- Constructed for severe lab or harsh plant environment use
- · Arrow key allows fast setting to calibration standards that are maintained even when unit is off
- Pens fulfill requirements for CAP, ASTM, NCCLS, CLSI, ACS, CLIA, AOAC, EPA, APHA, AWWA, WEF, USGS, USP, ISO, and Federal/State regulations
- Supplied: battery, Traceable® Certificate

Cat. No.	89094-762	89094-764	89094-766
Conductivity Range	0 to 1999 microsiemens; 0 to 19.99 millisiemens	0 to 1999 microsiemens; 0 to 19.99 millisiemens	_
Dissolved Solid Range	_	0 to 1999 parts per million; 0 to 19.99 parts per thousand	_
Salinity Range (NaCL)	_	_	0.00 to 10.00 ppt; 10.1 to 70.0 ppt
Resolution	1 microsiemen	1 microsiemen/ 1 part per million	0.01 ppt
Accuracy	±1% full scale + 1 digit	±1% full scale + 1 digit	±2% full scale + 1 digit
Temperature Range	0.0 to 50.0°C/ 32.0 to 122.0°F	0.0 to 50.0°C/ 32.0 to 122.0°F	0.0 to 50.0°C/ 32.0 to 122.0°F
Temperature Resolution	0.1°	0.1°	0.1°
Temperature Accuracy	±0.5°	±0.5°	±0.5°
Settable Temp. Coefficient	0.0 to 4.0% per °C	0.0 to 4.0% per °C	=
Automatic Temp. Compensation	20 and 25°	20° and 25°	25°
Total Dissolved Solids Factor	-	0.4 to 1.00	-
Use with Calibration Standards	400 microsiemens to 19.99 millisiemens	400 microsiemens to 19.99 millisiemens; 400 ppm to 19.99 ppt	0.20 to 7.00%



89094-764 89094-766

# **Electrode Holder**

# Holds electrodes safely and securely in any position

- Fingertip control raises, lowers, and pivots 360 degrees allowing placement of the electrode holder wherever desired
- Holds electrodes safely and securely in any position
- Weighted base stabilizes holder and electrode arm articulates at three points so electrodes always remain vertical

Cat. No.	Supplied
34105-859	21-inch metal arm, 8-inch diameter metal base, probe holder







# VWR® Traceable® Conductivity Standards (CRM)

# Highest accuracy available assuring reliable results

- Certified Reference Material
- 100% compatible with all conductivity meters
- Each bottle is labeled for calibrating conductivity, resistivity and dissolved solids
- Accuracy at 25°C is ±0.25 microsiemens for 1, 5, 10 microsiemen solution or ±0.25% for other solutions or the uncertainty noted on the certificate
- Supplied: 16 ounce container, step-by-step calibration instructions, individual temperature compensation charts, traceability information, Traceable® Certificate

# VWR® Traceable® One-Shot™ Conductivity Standards (CRM)

## Calibration within disposable container eliminates contamination

- Certified Reference Material
- 100% compatible with all conductivity meters
- Accuracy: certificate stated uncertainty, or ±0.25 microsiemen or ±0.25%
- Supplied: 6-pack 100 ml container, step-by-step calibration instructions, individual temperature compensation charts, traceability information, Traceable® Certificate

Traceable® Conductivity Standards, Certified Reference Material Accredited ISO Guide 34 (1750.02), ISO Guide 35, ISO Guide 31, ISO/IEC 17025 (1750.01) Cat. No. Cat. No. Individually Tested Cat. No. TDS/PPM Microsiemens/Micromhos Megohms 100 ml One-Shot™ (6-pack) 16 oz. bottle 16 oz. bottle 36934-134 36934-136 0.66 12777-828 46610-040 12777-832 5 0.2 3.3 23226-567 46610-030 23226-650 10 0.1 6.6 23226-651 23226-589 46610-032 100 0.01 66 46610-034 23226-603 23226-652 1000 0.001 666 62344-936 46610-042 62344-938 1413 0.00071 933 46610-036 23226-625 23226-653 10000 0.0001 6666 100000 23226-647 46610-038 23226-654 0.00001 66666 150000 89030-246 89030-260 89140-190 0.000006 100000 89030-262 89140-192 200000 133333 89030-248 0.000005 61161-356 Assortment (one each of above One-Shot™, except 12777-832, 89140-190, 89140-192)



# **Redi-Stor™ Conductivity Probe Storage Solution**

# Eliminates probe contamination and preserves probe cleanliness

- Redi-Stor™ is ideal solution for storing conductivity probes
- It preserves probe's cleanliness, eliminates growths found when storing in water only, and maintains probe for immediate use with no conditioning
- Supplied: 16 ounce container, step-by-step calibration instructions

 Cat. No.
 Size

 62344-940
 16 oz. bottle

# VWR® Traceable® pH\ORP Meter

### Simply dip into solution and read pH or ORP

- Triple display shows pH or ORP measurement, temperature and time\date
- Compact (water-resistant-IP67) instrument fits in the palm of your hand
- Ideal for wastewater, water quality and environmental applications
- Twenty-five point memory storage with time/date stamp
- Supplied: detachable probe, battery, probe cover, Traceable® Certificate, carrying case, Traceable® One-Shot™ pH Buffer Standards (CRM) 6-Pack Assortment

Cat. No.	Measurement	Range	Resolution	Accuracy	
	рН	0.00 to 14.00 pH	0.01 pH	±0.02 pH	
10530-802	ORP	-1800 to 1800 mV	0.1mV <1000mV (1mV ≥1000mV)	±20 mV	
,	Temperature	32 to 140°F (0 to 60°C) (switchable)	0.1° (1° when >100°)	±1°C	
Accessories					
10530-804	Probe Extension Cable				
10530-806	Replacement Probe				





# Traceable to NIST for accuracy

To assure accuracy an individually serial-numbered Traceable® Certificate is supplied from manufacturer with both bottles and One-Shots™ to indicate traceability to standards provided by NIST (National Institute of Standards and Technology) and/or a National Standards Laboratory. A2LA accredited certification provides highest achievable level of quality assurance, documentation, and accuracy. Certified Reference Materials are produced by an A2LA accredited ISO 34 certified reference material producer and by an A2LA accredited ISO/IEC 17025 (1750.01) calibration laboratory. Additional accreditations include ISO 31 (certificate content), and ISO 35 (statistical analysis), and ISO 9001 (certified quality manufacturer).

# Traceable® pH Buffer Standards (CRM)

# The most accurate pH Standards available anywhere

- 100% compatible with all makes and instruments and electrodes
- Select values manufactured to IUPAC (International Union of Pure and Applied Chemistry) formulation—features long term buffer stability and buffer resistance to temperature changes during pH meter calibration
- Only Certified Reference Material meets all test requirements for Federal, State, and local agencies
- Triple-layered proprietary packaging—aluminum foil, PET and low-density polyethylene bag—prevents contamination by permeable gases and provides 2-year shelf life
- Each 16 ounce bottle or six pack single-use 100ml container is supplied with an individual temperature compensation chart, traceability information, Traceable® Certificate

Traceable® pH Buffer Standards Certified Reference Material (CRM) (CLEAR)

Traceable pri barre			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Size	Accuracy	Cat. No.	pH Value
		10053-726	4.005
16 oz. bottle	25°C is ±0.010 pH	10053-728	7.000
16 OZ. DOTTIE		10053-730	7.416
		10053-732	10.012
		10053-734	4.005
100 ml One-Shot™	3506 : 0 040 !!	10053-736	7.000
(6-pack)	25°C is ±0.010 pH	10053-738	7.416
		10053-740	10.012
			•





Traceable® pH Buffer Standards Certified Reference Material (CRM) (COLOR)

Traceable pri burier Standards Certified Reference Material (Chim) (COLON)					
Size	Accuracy	Color	Cat. No.	pH Value	
		Red	10769-166	4.005	
16 oz. bottle	25°C is ±0.010 pH	Yellow	10769-112	7.000	
		Blue	10769-110	10.012	
		Red	10769-172	4.005	
100 ml One-Shot™ (6/pk)	25°C is ±0.010 pH	Yellow	10769-174	7.000	
(0, p.,)		Blue	10769-168	10.012	
One-Shot™ Assortment (6/pk)	-	Red/Yellow/Blue	10769-170	4.005-10.012	





Easy-to-use meter simultaneously displays oxygen concentration and temperature

- Instrument recalls highest, lowest and average readings at the touch of a button
- Output for exporting data
- Computer output allows connection to a computer or data logger for monitoring and keeping results
- Supplied: probe, 40" cable, two replacement probe heads, electrolyte solution, battery, computer output, carrying case, Traceable® Certificate

Cat No.	Description	Range	Resolution	Accuracy	
	Dissolved oxygen measurement	0.00 to 20.00 mg/L	0.1 mg/L	±0.4 mg/L	
	DO measurement % air saturation	0.00 to 100%	0.1%	±0.7% mg/L	
21800-022	Temperature measurement	0.0 to 60°C 0.1°		±1.5°F/0.8°C	
21800-022	Automatic temperature compensation	mg/l mode: 0.0 to 60.0°C, % air mode: 0.0 to 60.0°C			
	Salinity compensation 0 to 39%				
	Altitude compensation 0 to 3900 m				
Accessories					
61161-386	Data Acquisition System (for additional information, see page 68)				
61161-384	Easy-Use Accessory Adaptor 115 VAC (see page 79)				
21800-026	Data Logger (for additional information, see page 68)				

All Traceable® products are provided with a Traceable® Calibration Certificate from an ISO/IEC 17025:2005 (1750.01) calibration laboratory. Timer, thermometer, hygrometer, barometer, tachometer, gauge pressure, differential pressure, scale, balance, conductivity cell, conductivity solution, conductivity meter, pH solution, salinity meter, dissolved oxygen meter, UV light meter, light meter, and caliper certificates are accredited by the American Association for Laboratory Accreditation (A2LA).



# VWR® Traceable® Moisture Meter

# Displays moisture content of material such as wood/wood products

- Recalls highest, lowest and average readings at the touch of a button
- Meter's memory contains nine types of materials with their calibrations
- Provides automatic and manual temperature compensation
- Establishes reference moisture readings
- Supplied: probe, ten spare pins, battery, computer output, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy			
21800-020	9.0 to 30.0% moisture	0.1%	±(4% of reading plus 5 digits)			
Accessories	ries					
61161-386	Data Acquisition System (for additional information, see page 68)					
21800-026	Data Logger (for additional information, see page 68)					
61161-384	Easy-Use Accessory Adaptor 115 VAC (see page 79)					

# VWR® Traceable® Light Meter Pen

# Hand-held light meter designed for fast, simple readings

- Tough ABS plastic housing with O-ring seal and membrane keypad keeps out dust and dirt, assuring a long life in severe lab or harsh plant environments
- · HOLD key freezes reading on display
- Supplied: batteries, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	
89094-706	0 to 1,860 Foot Candles	0.1 Foot Candles	LEO/ of roading plus E	
89094-706	0 to 20,000 Lux	1 Lux	- ±5% of reading plus 5	

# VWR® Traceable® Dual-Range Light Meter

## Cable allows placing sensor anywhere

- Unit recalls highest, lowest, and average reading; and includes color-correction filter
- Analog output for strip and chart recorders (0.1 millivolts per digit)
- Supplied: 2 inch diameter photocell, 40" cable, battery, recorder output, Traceable® Certificate

Cat. No.	Measurement	Range	Resolution	Accuracy
		0 to 1,999 lux	1 lux	±5% reading + 10 lux
	Lux	2000 to 19,999 lux	10 lux	±5% reading + 100 lux
62244.044		20,000 to 50,000 lux	100 lux	±5% reading + 100 lux
62344-944		0 to 199.9 Fc	0.1 Fc	±5% reading + 1 Fc
	Foot Candles	200 to 1999 Fc	1 Fc	±5% reading + 10 Fc
	•	2000 to 5000 Fc	10 Fc	±5% reading + 100 Fc

**61161-384** Easy-Use Accessory Adaptor 115 VAC (see page 79)





# VWR® Traceable® Dual-Display Light Meter

Dual display shows lux or foot-candles, or percent differential from a reference point, and selected light source—daylight, tungsten, fluorescent or mercury

- Unit recalls highest, lowest and average readings; also includes a HOLD key to freeze the display
- Computer output allows connection to a computer or data logger for monitoring and keeping results
- Supplied: 2" diameter photo cell, 40" cable length, battery, computer output, Traceable® Certificate

Cat. No.	Measurement	Range	Resolution	Accuracy
		0 to 1,999 lux	1 lux	
	Lux	2,000 to 19,999 lux	10 lux	<del>-</del>
21800-014		20,000 to 50,000 lux	100 lux	- +4.5% full scale
21800-014		0 to 199.9 Fc	0.1 Fc	±4.5% Tull Scale
	Foot Candles	200 to 1,999 Fc	1 Fc	
		2,000 to 5,000 Fc	10 Fc	
Accessories				
61161-386	Data Acquisition System (for additional information see page 68)			
21800-026	Data Logger (for additional information see page 68)			
61161-384	Easy-Use Accessory Adaptor 115 VAC (see page 79)			



# **Traceable® Light Meters/Sound Meter/Tachometer**



# VWR® Traceable® Ultraviolet Light Meter

# Reads and records UV wavelengths at three different ranges

- Precise photo-diode, color-correction filter
- Unit recalls highest, lowest and average readings; also includes a HOLD key to freeze display
- Computer output allows for connecting to a computer or data logger for monitoring and keeping results
- Supplied: ¾" diameter photocell, 40" cable, battery, computer output, carrying case, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy		
	0 to 199.9 μW/cm <sup>2</sup>	0.1 μW/cm²	±4 μW/cm² + 1μW/cm²		
21800-016	200 to 1.999 mW/cm <sup>2</sup>	0.001 mW/cm <sup>2</sup>	±0.04 mW/cm <sup>2</sup> + 0.01 mW/cm <sup>2</sup>		
	2.00 to 19.99 mW/cm <sup>2</sup>	0.01 mW/cm <sup>2</sup>	±0.4 mW/cm <sup>2</sup> + 0.1 mW/cm <sup>2</sup>		
Accessories					
61161-386	Data Acquisition System (for additional information, see page 68)				
21800-026	Data Logger (for additional information, see page 68)				
61161-384	Easy-Use Adaptor (see page 79)				



# VWR® Traceable® Sound Level Meter

## Three decibel ranges for greater precision

- Response time can be adjusted by user to fast (0.2 seconds) or slow (1.5 seconds)
- Memory date-hold function stores highest readings achieved for later display
- Fulfills OSHA requirements for sound monitoring
- Recorder jack for capturing AC and DC 10 mV/dB data
- Provides weightings for both A (frequencies from 500 to 10 kilohertz) and C (frequencies from 30 to 10 kilohertz) to meet IEC 651 Type-2 standards
- Supplied: battery, carrying case, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Response time
	low (35.0 to 80.0 dB)			
12777-836	medium (50.0 to 100.0 dB)	0.1 dB	±2dB	fast (0.2 seconds) slow (1.5 seconds)
	high (80.0 to 130.0 dB)	_		,



# **VWR® Traceable® Digital Laser Tachometer**

# Use this high accuracy tachometer to read speeds of centrifuges, motors, and stirrers

- Touchless, no contact operation is safe and easy
- Laser pin-point accuracy anywhere from two to seventy-eight inches away from any rotating object
- Supplied: batteries, self-adhesive reflecting tabs, internal light, carrying case, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
23609-212	10 to 99,999 RPM	0.1 below 1000, and 1 above	±1 RPM or 0.05%

# VWR® Traceable® Touchless/Contact Digital Tachometer

# Unique memory feature permits recalling highest, lowest and last reading

- Takes only 3 seconds for most readings
- Includes contact readings with a rotating spindle as well as touchless operation
- Supplied: batteries, self-adhesive reflecting tabs, internal light, cone for RPM, wheel of surface speeds, carrying case, Traceable® Certificate

Cat. No.	Range	e Resolution Accuracy	
23609-214	0 to 999.9 RPM	0.1 RPM	±0.05% of reading + 0.1 RPM
	1000.00 to 99999 RPM	1 RPM	±0.05% reading + 1 RPM



# VWR® Traceable® Tachometer with Red LED Pointer

# LED allows proper alignment for measurement

- Simple, touchless operation provides accurate readings in 2 seconds
- Optical no-contact measurements
- Supplied: battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy
	10 to 99.99 RPM	0.001 RPM	±0.04% of reading + 0.02 RPM
46610-048	100.00 to 999.99 RPM	0.01 RPM	±0.04% of reading + 0.2 RPM
40010-048	1000.00 to 9999.99 RPM	0.1 RPM	±0.04% of reading + 2 RPM
-	10000 to 99999 RPM	1 RPM	±0.04% of reading + 22 RPM



# **VWR® Traceable® Tachometer Touch**

# **Lightweight and portable**

- Precision quartz crystal insures stable and repeatable results
- Any rotating surface may be touched by the cone convex tip, funnel concave tip or speed wheel for instant results
- Designed to measure centrifuges, pumps, rollers, shafts, gears, motors, and moving surfaces
- Short sampling time provides answers in two seconds
- Low battery condition is indicated on the display
- Supplied: battery, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	
46610-046	0 to 99.999 RPM	0.001 RPM	±0.04% reading + 0.01 RPM	
	100.00 to 999.99 RPM	0.01 RPM	±0.04% reading + 0.1 RPM	
	1000.0 to 9999.9 RPM	0.1 RPM	±0.04% reading + 1 RPM	
	10000 to 99999 RPM	1 RPM	±0.04% reading + 10 RPM	

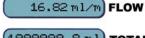


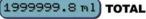
# **Traceable® Meters/Pumps**











# **VWR® Traceable® Battery Tester**

### Checks alkaline, carbon, silver-oxide, mercury, nickel-cadmium and other batteries

- Simple color-coded scale immediately indicates battery conditions
- Provides true resistive load readings—real world usage; tests under actual operating conditions
- Gold-plated printed circuit board and silver-plated switches ensure accuracy and long life
- Supplied: 271/2" cable, test leads, Traceable® Certificate

Cat No.	Range	Number of ranges	Accuracy
62379-529	1.35 to 12 volts	13	±5%

# VWR® Traceable® Digital Auto-Range Multimeter

## Designed specifically for checking electrical functions of scientific equipment in labs

- Features an audible beep for checking continuity, ensuring instant detection of shorts/opens in probes, cables, or circuit boards
- Supplied: Traceable® Certificate, case, batteries, needle probes, alligator clips

Cat No.	Range	Accuracy
23609-210	1 millivolt to 400 volts; AC/DC; 0.1 to 2,000,000 ohms	2 units, or 2% of the reading

# VWR® Traceable® Ultra-Low Flow Meter

### Shows current flow or total accumulated flow

- Compact, fully contained, ready to operate, no assembly required
- Simple four-key operation (Flow/Total, Units, Zero, Power)
- May be used with fluid temperatures from 32 to 122°F (0 to 50°C) and includes a viscosity compensation correction option
- Supplied: power adaptor, battery connector, ABS plastic case, Traceable® Certificate

Cat No.	Range	Accuracy
	4 to 30.00 milliliters/minutes	
	0.004 to 0.030 liters/minute	
	4.00 to 30.00 cubic centimeters/minute	
89140-172	0.135 to 1.01 fluid ounces/minute	±2% full scale with liquid temperatures of 20 to 30° C; otherwise, ±4% full scale
	0.001050 to 0.00742 gallons/minute	
	0.140 to 1.05 fluid imperial ounces/minute	
	0.00088 to 0.00659 imperial gallons/minute	

# **Variable-Speed Peristaltic Tubing Pump**

# Compact, variable-flow, bi-directional pump offers adjustable flow delivery

- Ideal for use with conductivity flow-thru cells, liquid chromatography, collecting fractions, pH/circulating fluids or buffers in baths, and moving corrosive materials
- Five different tubing sizes provide fine resolution with a wide flow range; revolution of one roller delivers a precisely measured volume specific to the tubing size and motor speed
- Fluid contacts only tubing for contamination-free pumping
- Tubing may be used with fluid temperatures from -80 to 500°F (-62 to 260°C)
- Pump has a purge/prime switch for high-speed emptying/filling, reverses at touch of a switch
- Supplied: silicone tubing, polypropylene fittings/nipples, AC adaptor, accessory battery connector

Cat No.	Flow rate range
61161-354	0.005 to 1.8 ml/minute
70730-064	0.03 to 8.20 ml/minute
70730-062	0.4 to 85.0 ml/minute
57951-016	4.0 to 600 ml/minute



# Variable-Flow Chemical Transfer Pump

# Designed specifically for pulseless fluid transfer at variable flow rates

- Pumps fluids with a viscosity to 200 centipoises
- May be used with fluid temperatures from -40 to 200°F (-40 to 93°C)
- Pump has a purge/prime switch for emptying/filling; also reverses for ease in draining tubing
- Barbed inlet/outlet ports use any type of tubing with an inside diameter of 3/16-inches
- Chemical-resistant, wetted parts are Dupont Delrin®, 304 stainless-steel, Viton®, and Dupont Teflon®
- May be used with up to 120 feet of tubing for remote sampling
- Supplied: 115 VAC UL-rated wall power supply

Cat No.	Flow rate range
23609-170	4.25 ounces to 0.625 gallon (120 to 2,250 ml) per min



# Made of zero maintenance, chemical resistant Kynar®/Viton®

- Prevents damage to equipment, pumps, and flow systems by preventing blackflow; may be autoclaved
- Use with acids, bases, water, chemical processing, alcohols
- Use for liquids, gases, pressure, vacuum applications
- Operating ranges are 0 to 50 PSI and -40 to 126°C

Cat No.	Quantity	Overall Size	Use Tubing I.D size
89094-708		1¼-inch	0.125"
89094-710	C to L		0.187"
89094-712	─ 6/pk		0.25"
89094-714	<del>_</del>		0.375"

# **Hose/Tubing Clamps**

# For use with all types of rubber and plastic tubing

- Made of chemical/corrosion-resistant, non-conducting nylon
- One-piece, reusable clamp squeezes shut for a leak proof seal pressing the side releases the clamp
- May be chemically or gas-sterilized for biomedical or food applications
- Use within temperature range: 32 to 194°F (0 to 90°C)

Cat. No.	Quantity	Inside Clamp Diameter
89030-264	100/pk	0.360 to 0.406" (9.14 to 10.31 mm)
89030-204	100/pk	0.410 to 0.468" (10.41 to 11.89 mm)
89030-206	100/pk	0.475 to 0.536" (12.07 to 13.61 mm)
89030-208	100/pk	0.538 to 0.608" (13.67 to 15.44 mm)
89030-210	100/pk	0.597 to 0.665" (15.16 to 16.89 mm)
89030-212	100/pk	0.670 to 0.780" (17.02 to 19.81 mm)
46610-002	100/pk	0.730 to 0.830" (18.54 to 21.08 mm)
89030-214	100/pk	0.870 to 0.975" (22.10 to 24.77 mm)
89030-216	100/pk	0.953 to 1.093" (24.21 to 27.76 mm)
89030-218	100/pk	1.031 to 1.187" (26.21 to 30.15 mm)
89030-220	100/pk	1.250 to 1.425" (31.75 to 36.20 mm)
89030-222	100/pk	1.406 to 1.610" (35.71 to 40.90 mm)
21732-000	65/pk (assortment)	0.246 to 1.610" (6.25 to 40.90 mm)





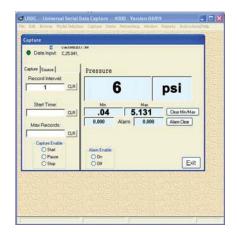


# Tight-Ties™

# One-piece, self-locking ties made of chemical-resistant Nylon™







# **Computer Data Acquisition System with USB Cable**

Easily keeps track of results: thermometers, hygrometers, barometers, light meters, anemometers, manometers, dissolved oxygen, conductivity and more

- Allows up to eight unique Traceable® meters to simultaneously capture data and send it to directly to email to any smartphone or computer
- Readings are saved to a file that can be viewed, printed as-is, or merged in a report or spreadsheet format
- Data continues to be collected in background even when user works on other software programs
- 24/7 audible/visual alarm reminds user to check on data
- Supplied: Windows CD, 6-foot cable—USB, serial, meter connections

Data Acquisition		Page	
System Cat. No.	Product Description	No.	Product Cat. No.
61161-386	Traceable® Pressure/Vacuum Gauge	56	23609-220/23609-222
61161-386	Traceable® Dual-Display Light Meter	63	21800-014
61161-386	Traceable® Ultraviolet Light Meter	64	21800-016
89140-204	Traceable® Manometer/Pressure/Vacuum Gauges	56	33500-082/33500-088
33500-092	Traceable® Digital Thermometer	11	61220-601
89140-174	Traceable® Memory Wide-Range Thermometer	19	77776-716
33500-092	Traceable® Humidity/Temperature/Dew Point Meter	50	35519-020/35519-041
89140-174	Traceable® General-Purpose Hygrometer/Thermometer	48	35519-043
61161-386	Traceable® RTD Platinum Thermometer	12	23609-228
61161-386	Traceable® Double Thermometer	58	23226-656
61161-386	Traceable® Dual-Display Conductivity Meter	58	21800-012
61161-386	Traceable® Humidity/Thermometer	49	61161-382
61161-386	Traceable® Moisture Meter	62	21800-020
61161-386	Traceable® Infrared Digital Thermometer	44	4315
61161-386	Traceable® Dissolved Oxygen Meter	62	21800-022
61161-386	Traceable® Hot Wire Anemometer/Thermometer	55	21800-024
89140-174	Traceable® Anemometer/Thermometer	55	389140-172-096
89140-204	Traceable® Expanded Range Conductivity Meter	58	89094-958
89140-204	Traceable® Memory Hygrometer/Thermometer	49	389140-172-098



# **Data Logger**

For use with Traceable® meters featuring computer output

- Complete DAS-4<sup>™</sup> System captures and stores up to 8000 bytes—over 1000 readings
- Readings may be taken at intervals from 1 second to 99 hours

Cat. No.	Supplied
21800-026	Windows CD, 3-foot cable—USB, serial, and instrument connections, batteries

# **VWR® Traceable® Digital Calipers**

# Ideal for measuring inside diameter, outside diameter and depth

- Designed for laboratory use, measures in inches and millimeters
- Zero button instantly sets unit to zero when jaws are at any position—permits, without calculations, setting a Floating Zero™ or reference point to read "greater than or less than results with a minus sign displayed"
- No lubrication is ever required on the ultra-smooth slide bar, runs on the supplied battery for 10,000 hours
- Supplied: carrying case, battery, Traceable® Certificate

Cat. No.	62379-531	12777-830	36934-152	36934-154
Material	Stainle	ss-steel	Carbo	n Fiber
Measuring range	6"/150mm	8"/200mm	4"/100mm	6"/150mm
Resolution	0.0005 in	ch/0.01mm	0.01 inc	h/0.1mm
Accuracy	±0.001 inch	or ±0.03mm	±0.01 inch	or ±0.2mm
Depth Bar	Υ	'es	N	lo
Thumb roller/Lock screw	Yes No		lo	
Non-metallic/ non-conductive	1	lo	Y	es
Dimensions	9 x 3 inches	11 x 3 inches	7 x 2½ inches	9½ x 3 inches
Weight	5 ounces	6 ounces	1 ounce	2 ounces



# VWR® Traceable® SpatulaBalance™

### Unique spatula both scoops material and displays weight

- Three position soft-touch keys in the handle tares (sets to zero), holds (freezes display) and changes grams to ounces
- Scoop detaches from balance for dishwasher-safe cleaning
- Markings on see-through scoop are graduated from 5 to 30 milliliters in 5 milliliter increments for weighing liquids with ease
- Supplied: batteries, detachable scoop, Traceable® Certificate

Cat. No.	Range	Resolution	Accuracy	Scoop capacity
89047-296	0 to 300.0 g (0 to 10.580 oz)	0.1 g (0.005 oz)	±0.2 g or ±0.25%	32 ml/1.1 fl. oz (vol: 32 cm³/1.95 inch³)
Accessories				
10154-388	30 ml replacement scoop			
10154-390	40 ml replacement scoop			

# **VWR®** Rapid Flash Freezing Spray

# A freezer in a can - Instant Cold

- Use for ultra-rapid freezing of fresh tissue, cooling of liquids to force precipitates prior to filtration, and chilling of field samples.
- Five-inch polyethylene "snorkel" pinpoints freezing power exactly where needed
- Only Rapid Flash Freezing Spray™ is 100% triple filtered pure gas
- Contains an EPA (Environmental Protection Agency) designated substitute for ozone-depleting HFCs and CFCs (chlorofluorocarbons)

Cat. No.	Temperature	Flammable	Corrosive	Quantity
16650-029	Cools to -50°C	No	No	6/case





# Wipes/Wash Bottles





21910-111

21910-110







# **Cheesecloth Wipes**

Ideal for wiping cuvettes, microscopes, glassware, syringes, pipettes and pH electrodes

- Meets all cleanliness specifications of USP (United States Pharmacopoeia) and Federal Specification CCC-G-101c
- Pure wipes absorb 6 times their weight of solvents and aqueous solutions
- Certified to be 100% pure cotton of reagent-grade quality and purity
- Can be used as a filtering material due to their inertness to harsh solvent

Cat. No.	Size	Quantity
21910-105	9 inch-square pad (8-ply) unfolds to approximately 18 x 36 inch	60/dispenser box
21910-107	4 inch-square pad (8-ply) unfolds to approximately 7 x 14 inches	200/box
46610-054	36 inches wide	100-yard bolt

# **Clean-Wipes**™

# New universal clean-up tool

- Lint-free, strong, nonwoven soft cloths will not scratch surfaces
- Pre-moistened Clean Wipes™ clean even the dirtiest parts
- Ideal for wiping optical parts, microscopes and lenses
- Individually dispensed, reclosable container, snap-on sealed top eliminates contamination, dust, and dirt

Cat. No.	Liquid Solution	Quantity/canister
21910-110	70% reagent-grade isopropyl alcohol and 30% reagent-grade deionized water	100 wipes
21910-111	100% pure reagent-grade deionized water	100 wipes
21910-009	Dry—user adds any solution	100 wipes

# Optic™ Glass Wipes

### Made of lint-free microfiber cloth

- Nonwoven, lint-free cloth is pre-moistened with a unique formulation—easily removes oil, grease and lint
- Designed specifically for wiping goggles, eyeglasses, lenses, microscopes and fume hood windows
- Individually dispensed, 6 x 9-inch wipes are handy and ready for instant use

Cat. No.	Quantity/canister
23609-168	100 wipes

# **Adjustable Spray Wash Bottles**

# Convenient double headed design—adjustable spray nozzle

- Chemical-resistant and virtually unbreakable bottles are made of high-density polyethylene (HDPE), sprayer is made of polypropylene
- Bottles may be gas or chemically sterilized, dishwasher safe
- Double-headed feature (Cat. No. 16650-049) eliminates removing a dripping pump and allows refilling in seconds through a separate opening

Cat. No.	Features	Volume	Quantity
16650-049	Double-headed	1000ml	1
23609-182	Adjustable spray nozzle	240ml	3/pack

# Spray-Anywhere™ Adjustable Sprayer

### Polypropylene sprayer changes any bottle into spray bottle

- Adjustable spray for any application fine-mist, needle or big-stream
- Entire unit may be gas or chemically sterilized, dishwasher-safe

Cat. No.	Hose length	Bung Diameter
15551-018	32 inches	1.25 inches

# **Humidity Sponge™**

# Turns any container into a desiccator

- Non toxic desiccant—perfect for drugs, food, electronics, optics, and equipment
- Bags are guaranteed to retain 16% moisture by weight, typical results are 37% moisture absorption
- Desiccant meets US FDA requirements—certified ISO Class 5 (Class M3.5) cleanroom-compatible
- Indicator Sponge shows when moisture capacity has been reached

Cat. No.	Description	Size	Quantity
61161-319	Humidity Sponge™ Regenerable	3 x 3 x ¼ inch	40/pack
61161-321	Humidity Sponge™ Indicator	3 x 3 x ¼ inch	40/pack

# **Desi-Vac™ Vacuum Pump Containers**

## Achieves a vacuum of better than 200 inches of water with built-in pump

- Ideal for drying, preserving, storing and even shipping sample
- Vacuum pump built into the top removes air with manual strokes
- Release key on top allows air into the container to remove lid

Cat. No.	Size	Volume
62344-926	4½ x 5 inches	42 in <sup>3</sup> (700 cc)
62344-930	5 x 7¼ inches	91 in <sup>3</sup> ( 1500 cc)
36934-144	8½ x 7 x 7¼ inches	183.1 in³ (3 liter)

# **Anti-Static Static-Away™ Brushes**

### Eliminates possibility that static will damage sensitive lab work

- Washable, natural hair and synthetic conductive fibers simply remove static as it cleans
- Ideal for cleaning film, slides, optics, cuvettes, microscopes, electronics, monitors
- Brushes allow access to difficult places and eliminate touching critical equipment

Cat. No.	Brush width	Handle length
15551-016	2½-inch	1½-inch
89094-716	1-inch	5-inch
89094-718	2-inch	5-inch
89094-720	3-inch	6-inch

# **Dust'it™ Blower**

# **Environmentally friendly—no aerosols**

- Powerful bulb duster forcibly blows away dust, lint and dirt by providing high-pressure jets of air exactly where desired
- One-way inlet valve at top stops air/dust from being drawn through tip
- Non-conductive plastic sleeve-tip prevents scratches and permits cleaning optical lenses, slides, circuit boards, cuvettes

Cat. No.	Description
36934-142	Dust'it™ Blower

# **Ultrasonic Automatic Measuring Meter**

# Measure any space without needing a tape measure

- Simply point and shoot to measure distance, area, and volume
- One-key operation automatically performs length, area, or volume calculations
- Memory permits computing areas and volumes from stored measurements
- Supplied: battery, carrying case

Cat. No.	Range	Resolution	Accuracy
37000-412	2 to 50 feet (0.61 to 15.24 meters)	1 inch and 0.01 meters	1% ±1 digit









62344-926 62344









# **Laser Key-Chain**

# Key-chain makes it easy to carry anywhere

- Laser is designed specifically for slide presentations, wall charts, field use
- Pointer's brilliance works equally well in daylight or dark
- Output is 4 mW with a range of 400 feet

Cat. No. Supplied

46610-058 battery, key-chain



# **Key-Chain Micro-Laser Pointer**

# Laser is perfect for slide presentations, wall charts and lectures

- Laser range is 300 feet
- Brilliant red light at highly visible 650 nm wavelength with a beam diameter of 3.5 mm

Cat. No. Supplied

62344-942 battery, key-chain



# Write-On™ Aluminum Tags

# Features a soft center that takes messages on both sides

- Extremely durable and suited for use in moist environments within the range of -40 to 300°F (-40 to 148°C)
- Can be written on the ordinary ballpoint pen
- Handy size of 3.125 x 1.125 inches makes it ideal for tagging valves, tubing, samples, and cylinders.

 Cat. No.
 Supplied

 36419-213
 48 tags, wires



# Glassware Rescuer™

# Half-round/half-flat shape smooths jagged edges

- Saves glassware, recovers beakers, and preserves flasks with handy industrial diamond file
- Makes glassware safe for use
- Size: 1/4-inch file diameter, 4 inch file length, 8 inches overall

Cat. No. Features
62344-924 Nonskid, faceted handle is easy to hold



# **Liquid Alarm**

# Inexpensive guard for your valuable experiments and samples

- Loud alarm sounds for 30 hours when spills and overflows occur
- For detection when drums, tanks or flasks are close to overfilling
- Perfect reminder for an unattended filling container
- Red LED flashes

Cat. No. Supplied
61161-273 battery, 10-foot cable

# **Knife Set**

# Strong carbon-steel blades

- Heavy-duty cutting edges
- Fine cutting performance—ideal for work in any environment
- Eight handles, 47 blades, wet/dry sharpening stone, sturdy plastic case

Cat No.	Supplied

36394-000 8 handles; 47 blades (carbon-steel)



# Micro Spatulas, 4-pack

# Small yet mighty flat-ended stainless-steel blades

- Four sizes: 0.1, 0.3, 0.5, 1.0 mm (0.004 to 0.04 inches)
- Overall length is 2½-inch (6 cm)

Cat. No.	Supplied
57951-010	4 each micro spatulas (stainless-steel)



# Compact tool—folds closed to prevent injury

- Features a file, pick, bottle-opener, saw, large and small Phillips screwdrivers, knife blade, inch/millimeter ruler, scraper, needle-nosed pliers, grippers, wire cutters
- Size: 4 inches when closed, weight: 10¼ ounces

Cat. No.	Supplied
61161-376	labtool, carrying case



### Fourteen tools for hundreds of uses

- Features: pliers/gripper, wire stripper, wire cutter, ruler, small knife, large knife, serrated knife, punch, flat head, screwdriver, Phillips screwdriver, bottle opener, needle, saw, and serrated stripper
- Size: 3½ inches long when closed, weight: 7 ounces

Cat. No.	Supplied
21800-056	labtool, carrying case



# Mini-Labtool™ with Key-Chain

# Tool chest on a key-chain

- Features: pliers/gripper, wire stripper, wire cutter, knife, flat head screwdriver, Phillips screwdriver, scissors, file, saw, bottle opener, can opener, and key-chain
- Unit measures just 21/2 inches when closed, weight: 3 ounces

Cat. No.	Supplied
21800-058	labtool, carrying case, key-chain















# **Permanent Marking Pen Assortment**

# No-smear pens can write on almost anything—perfect for marking samples

- Perfect for marking lab samples, microscope slides, photographic slides, glass and plastic beakers, and plastic sample bags
- Permanent ink dries quickly and is water-resistant and fade proof
- Writes on all surfaces including glass, film, wood, plastic, metal, rubber, and porcelain

Cat. No.	Color and Quantity	Line width
52877-810	6 black, 2 red, 2 blue, 2 green	
52877-842	Black 6/pack	
52877-864	Red 6/pack	0.3 mm
52877-886	Blue 6/pack	
52877-900	Green 6/pack	

# Scientific Technical Pen Assortment

# Precision pens are perfectly balanced

- Smooth-flowing, fade-proof ink is patented formulation
- Available in narrow 0.2mm lines for sharp, precise and clear writing
- Instant-drying ink eliminates smearing and bleeding

Cat. No	Quantity	Line width	Color
52899-131	6	0.2mm	Black
52899-164	6	0.4mm	Black
52899-197	6	0.2mm	Red
52899-222	6	0.4mm	Red
52899-255	6	0.2mm	Blue
52899-288	6	0.4mm	Blue
52899-313	6	0.2mm	Green
52899-346	6	0.4mm	Green

Cat. No.	Quantity	Line width	Color
	3	0.2mm	Black
	3	0.4mm	Black
52899-109	1	0.2mm	Red
	1	0.4mm	Red
	1	0.2mm	Blue
	1	0.4mm	Blue
	1	0.2mm	Green
	1	0.4mm	Green

# Microscope Slide Holders/Cabinet

# Numbered reference lines for any ID system

- Sort, classify, and arrange slides—slides stay clean, untouched
- Compatible with all makes of slides
- Tabbed, 3x5-inch cards with protective frame ensures safe and clean protection of specimens

Cat. No.	Quantity	Storage capacity
48457-107	12/pk	48 slides (3 x 1-inch slides)
48457-129	1 each steel cabinet	100 slide holders (400 slides)

# Lab Label Maker™

# Quickly/easily makes labels for chemicals, bottles, shelves, lab equipment

- Self-adhesive colored tape sticks to glass, plastic, metal, rubber, or wood
- Raised white letters on 0.375-inch wide tape are readable from 8 feet

Cat. No.	Description	Size	
89094-696	<b>14-696</b> Lab Label Maker™ (supplied: 2 (red & blue) rolls of Label Tape) — — —		_
Accessories			
89094-698	Lab Label Tape™ Black, 4 roll/pk	0.375" x 118 in.	9.5 x 3000 mm
89094-700	Lab Label Tape™ Red, 4 roll/pk	0.375" x 118 in.	9.5 x 3000 mm
89094-702	Lab Label Tape™ Blue, 4 roll/pk	0.375" x 118 in.	9.5 x 3000 mm
89094-704	Lab Label Tape™ Green. 4 roll/pk	0.375" x 118 in.	9.5 x 3000 mm

# **Mini-Dolly Folding Cart**

# Made from high-impact ABS plastic with chrome-plated steel durability

- Cart folds to a compact-size making it easy to store
- Super-glide wheels swivel for complete maneuverability
- Supplied with bungee cords

Cat. No.	Weight Capacity	Size
61161-316	265 lbs	Platform: 17¾ x 25½ inches



# Easily move heaviest lab chemicals, drum and glassware cases

- Folds up for easy storage to a compact briefcase-size
- Sturdy aluminum alloy construction
- Supplied with bungee cords
- Rubber bumpers on all corners protect walls from accidental nicks

Cat. No.	Weight Capacity	Size
62344-932	330 lbs	Handle (adjustable): 27 or 30 inches; platform extends: 18 to 28 inches; width: 16 inches



# Folds to a compact size for easy storage

- Made of aluminum alloy
- Moves cartons, chemicals, gas cylinders easily
- Supplied with bungee cords

Cat. No.	Weight Capacity	Size	
62344-934	220 lbs	28 inches (lower position) and 42 inches (extended) flip-down platform: 14 x 91/2 inches	

# **Illuminated Microscope**

# View slides at any site with a large viewing area

- Hand-held unit is perfect for inspection, quality control, field use, clinical observation, cloth/paper examination, and plant studies
- View slides in field with snap-on attachment
- Adjustable light source directs the bulb onto the exact area being examined
- Adjustable focus control knob allows for crisp viewing
- Supplied: battery, vinyl supply case (model 36934-111 only)

Cat. No.	Magnification	Features	Size/Weight	
36934-113	60X to 100X	illuminated, snap-on slide holder	5½ x 1½ x inches, 3 ounces	
36934-111	30X	illuminated	5½ x 1½ x inches 3 ounces	







36934-113



36934-117

# **Illuminated Magnifiers**

# Powerful lighted magnifiers provide perfect-focus and defined view of surface details

- Features start-of-the-art LED lamps and provide even light over surface being observed
- Low-power consumption and high-efficiency lamps improve battery life and performance

Cat. No.	Magnification	Magnifying lens size	Features
36934-115	2X with 4X spot	3-inch diameter	illuminated, hand-held
36934-117	4X	1¾-inch diameter	illuminated, hand-held
36934-119	8X	1 inch diameter	non-illuminated, hand-held



36934-115

# Magnifier Lamp (2x)

# Sliding shutter cover provides lens protection when not in use

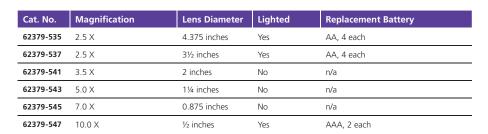
- Useful in inspection, electronics, quality control, sample examination, and biological analysis
- Brilliant LED light closely resembles daylight for optimal color detection and clarity
- Large viewing area (4 x 2½ inches) is easy to read and arm extension is 31 inches
- Clamps vertically or horizontally to top or side of any edge

Cat. No.	Magnification	Features
10048-662	2X	supplied with clamp to affix to any bench or table

# Hands-Free<sup>™</sup> Fold-up Magnifiers

# White ruler markings in both inches and millimeters assist with measuring

- All glass optics assure perfect focus with zero distortion
- Designed specifically for use in quality control, labs, food, electronics, manufacturing
- Hands-Free<sup>™</sup> Magnifiers allow two-handed examination of objects
- Folds up for compact storage





# **Hand Tally Counter**

# **Counting made easy**

- Numbers instantly and automatically return to zero with a twist of the reset knob
- Protective window seals out dust, dirt and humidity
- Corrosion-proof stainless-steel for long-life

Cat. No.	Counting quantity	Supplied
23609-102	9999	loop for lanyard



# Counter-Pen™

# The ideal cell growth colony counter

- Combination marker and digital counter designed for the lab and plant
- Sound and count occur simultaneously when black mark is made with felt-tipped pen
- Essential for counting cell growth on petri dishes, inventory parts, and tally samples received
- Pen marks hold place if interrupted and counter holds total

(	Cat. No.	Counting quantity	Size	Supplied
- 2	21800-060	99,999	6 x 0.66 inches	replaceable pen, cap, battery

# **Digital Counter**

# Fail-safe design eliminates accidental resetting

- Easy-to-read LCD and solid construction
- Hold in your hand or sits on the bench
- Case: o-ring-sealed, ABS plastic

Cat. No.	Counting quantity	Size	Supplied
77776-674	99,999	2.63 x 1.66 x 0.83 inches, weight: 1 ounce	battery

# **Digital Counter with Key-Chain/Wrist-Strap**

# Designed for easy-use and fail-safe counting

- ABS plastic construction with water-resistant seal
- Carry anywhere

Cat. No.	Counting quantity	Size	Supplied
21800-062	99,999	1.875 x ½ inches, weight is less than an ounce	metal clip, wrist-strap, battery

# **Metric Converter**

# Change lab measurements to US or metric in an instant

- Fast and convenient
- Provides fast and accurate answers for 126 metric conversions
- Supplied: battery, automatic flip-open LCD cover, bench top stand

Cat. No.	Functions	Size
40500-011	converts: length area volume weight liquid energy and temperature	3 x 33/x 1/2 inches weight: 2 gunces

# **Compact-Size Metric Converter**

# Converts length, area, volume, weight, liquid, energy, temperature

- Fast and convenient
- 126 types of metric conversions
- Supplied: battery, protective case

Cat. No.	Functions	Size
15551-122	converts: length, area, volume, weight, liquid, energy, temperature	4¼ x ½ x 2½ inches, weight: 1 ounce















# **Big-Digit Solar-Powered Calculator**

# Environmentally friendly, never again buy a battery

- Performs all arithmetic operations (add, subtract, multiply, divide), and features memory, percent, and floating decimal point
- Large digits allow effortless readings
- Supplied: solar-panel, battery, protective case design

Cat. No.	Functions
15551-118	add, subtract, multiply, divide, memory, percent, and floating decimal point



# **Scientific Calculator**

## Performs over 50 scientific functions

- Scientific calculator performs 99% of lab's routine and not-so-routine calculations
- Three-key memory and forever-memory store data when the unit is off
- Supplied: solar-panel, battery, protective case design

Cat. No.	Functions
15551-112	memory, roots, logs, trigs, hex; statistical: standard deviation, mean, sum of squares, sum of data



# **Solar Desktop Calculator**

## Solar-powered unit can be read in any light

- Large 8 or 12-digit easy-to-read display is angled to eliminate reflected glare
- Supplied: solar-panel, battery

Cat. No.	Digits	Functions
23609-236	8	add, subtract, multiply, divide, percent, 3-key memory, square root, floating decimal point
46610-052	12	add, subtract, multiply, divide, percent, 3-key memory, square root, floating decimal point





89038-238 89094-776

# Clipboard/Calculator

# Perfect for keeping notes

- Clip securely holds forms, notes, and schedules
- Opening in back allows unit to be hung on wall
- Eight-digit, solar-powered calculator performs 99% of lab's routine calculations
- Calculator functions: add, subtract, multiply, divide, chain calculation, constants, powers, reciprocal values, percent calculations, square root, and memory
- Supplied: pen, Traceable® Certificate (only 89094-776)

Cat. No.	Description	Feature	Feature specifications
89038-238	Clipboard/Calculator with Measuring Tape	Retractable Tape Measure	Range: 60 inches and 150 cm
89094-776	Clipboard/Calculator with Traceable® Timer	Countdown Mode, Loud Beeping Alarm for 60 seconds Countdown, Stopwatch	Range: 100 hours to 1 second Resolution: 1 second Accuracy: 0.005%

# **Clear Plastic Lab Wrap**

# Ultra-clean film ensures sample purity and eliminates contamination

- Low tangle, high cling, ultra-clean film designed for lab
- Metal tear-off bar for ease in achieving exact size needed
- Unique flaps prevent roll from leaving box

Cat. No.	Dimensions
46610-056	12 inches wide x 100 feet



# Lamp moves in all directions and places light exactly where needed

- Beam closely resembles daylight for correct color detection
- Designed specifically to reduce distortion, increase contrast, and give visual clarity up to 40% greater than typical lamps

Cat. No.	Arm Length	Supplied	Weight
23609-166	20 inches	35-watt soft-white Halogen light,	8 pounds
23609-162	31 inches	7 pound 7 inch base, white reflector,	
Accessories			
89030-200	Replacement Halogen Bull	0	





# **Accessories**

Cat. No.	Description	Use with Cat. No.	Product Page No.
61161-384		62344-944	63
	Easy-Use Accessory Adaptor 115 VAC adaptor for use when battery operation is not possible.	21800-014	63
		21800-016	64
		23609-228	12
		21800-012	58
		21800-020	62
		21800-022	62
89030-250		61220-601	22
	<b>AC Adaptor</b> For use when battery operation is not possible.	35519-020/35519-041	50
		89369-138/89369-140	22
389140-172-100	33% Calibration Standard with calibration instructions	35519-050/389140-172-098	49
389140-172-102	75% Calibration Standard with calibration instructions	35519-050/389140-172-098	49



# Traceable® Certificates

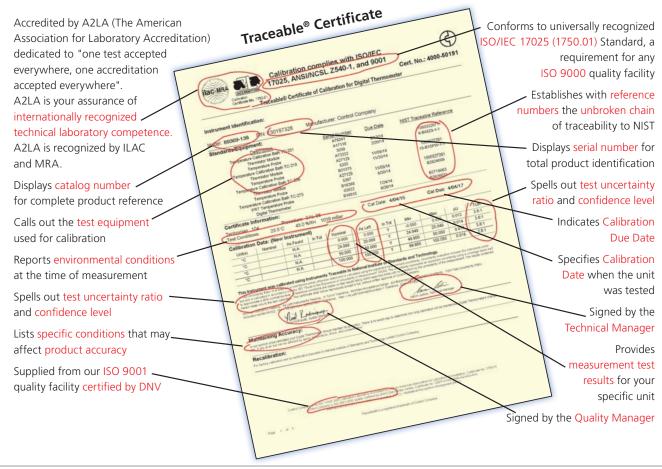


# VWR® Traceable® Certificate assures accurate lab tests

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A2LA is widely recognized internationally through bilateral and multilateral agreements and through its participation in the International Laboratory Accreditation (ILAC) and Multilateral Recognition Arrangement (MRA). Through Control Company's A2LA Accreditation, Traceable® Certificates are internationally recognized by accreditation agencies, governments, industrial companies, biomedical companies, universities, and hospitals in over 75 countries throughout Europe, the Middle East, North America, South America, Asia, and Africa.

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