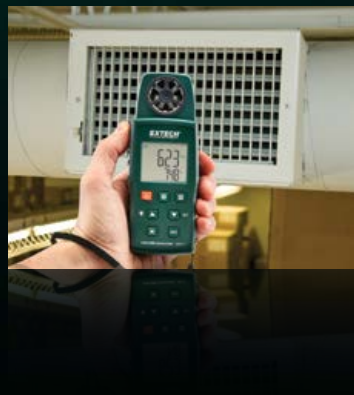


**EXTECH®**

# MEASUREMENT Solutions

Automotive | Building | Electrical | Electronics | Environmental | Health & Safety

HVAC/R | Industrial | Lab & Water Quality | Manufacturing | Plant Maintenance



**TOUGH TOOLS**  
**FOR TOUGH BUDGETS**

[www.extech.com](http://www.extech.com)

# What Do You Need To Measure Today?



**NO MATTER HOW DEMANDING YOUR PROJECT REQUIREMENTS, WE'VE GOT THE SOLUTION TO HELP GET THE JOB DONE!**

EXTECH meters and testers help you ensure uptime, maximize productivity and verify compliance. Whether used as a component of an effective predictive maintenance program or as a key tool for a rapid response repair team, EXTECH instruments are the meters of choice for professionals who need to solve problems.

# Committed To Customers

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Call: +1 603-324-7800  
Email: [orders@extech.com](mailto:orders@extech.com)

## Dedicated Support and Service

As ambassadors of EXTECH products, our Customer Service and Technical support teams are committed to helping our customers around the world with friendly, efficient service.

Have questions about how to use your instruments or how to solve challenging problems on the job? Turn to our support teams.

Our products are backed with a standard full 2-year warranty, and select products up to 3 years, against defects. And when you need help or repairs, we stand by our products for warranty and non-warranty repairs.

## Calibration Traceable to NIST

For demanding applications that require compliance with national standards, Certificates of Calibration are available for many EXTECH meters. NIST-traceable calibration certificates come with full before-and-after data.

We know your EXTECH meters are needed on the job so fast-turnarounds, global shipping, and convenient recertification reminders are hallmarks of our calibration services.

Look for the  icon indicating that NIST-traceable certification is available for a product (see pages 146-147 for a full listing).







# SOLUTIONS FOR

Meeting the needs of professionals in numerous industries and applications, Extech continues to build brand loyalty and trust among electrical contractors, industrial mechanics, facilities maintenance, HVAC/R technicians, sustainability & safety directors, public works managers, building & restoration contractors, and more.

## ELECTRICAL

When electricians and mechanics need test tools for their equipment installation, maintenance, and repair work, Extech meters and testers are up to the task. Use our tools to track down electrical faults and power quality problems, detect live wires before working on repairing cable lines, diagnose motors and controllers, and find emerging issues before damage occurs.



## BUILDING & RESTORATION

Nurturing mold, rot, corrosion, and damage, moisture is a serious threat to structural integrity. Extech moisture & humidity meters monitor both ambient conditions and moisture levels in building materials. This information allows the restoration contractor to make an educated decision when to remove drying equipment. They provide accurate readings of moisture and humidity problems within the structure and help determine amount of water damage in the building. Other meters, such as multimeters and infrared thermometers, also help diagnose and repair key building equipment.



# PROFESSIONALS

## HVAC/R

When HVAC/R technicians need to work on electronic, mechanical, airflow, water, and refrigeration systems, they rely on Extech. Use our versatile tools – airflow meters, thermocouples, IR thermometers, temperature dataloggers, humidity meters, multifunction multimeters and clamp meters, and video borescopes – to perform HVAC/R installations and repairs.



## SAFETY & HEALTH

When sustainability and health become mission-critical, Extech is there with the equipment that helps managers optimize environmental conditions for safety, comfort and savings. Use our products to detect unsafe conditions, monitor indoor air quality for levels of CO/CO<sub>2</sub> levels, locate air distribution imbalances, test water quality, and measure indoor and outdoor sound and light levels.



## FACILITY MAINTENANCE

When plant technicians need to keep their facilities running smoothly, Extech is there with the tools they need. Use our meters to trace intermittent electrical glitches, overhaul bearings, pumps and compressors, perform predictive vibration analysis, measure ambient and component temperature differentials, log indoor humidity levels, and help ensure overall productivity and safety.



Digital Multimeter (DMM) Index Guide

Pick the right Multimeter for your application



**MN Series**  
Compact and affordable Digital Multimeters with choice of Manual Ranging or Autoranging models. Perfect for DIYers, students, hobbyists, mechanics and technicians.  
p. 13



**EX300 Series**  
Mini Digital DMMs with built-in Non-Contact Voltage Detector and numerous electrical functions and temperature.  
p. 6



**EX350 Series**  
These professional True RMS DMMs are loaded with advanced features and functions. Low Impedance (LoZ) mode eliminates false readings caused by ghost voltages. Low Pass Filter (LPF) attenuates high frequencies to reduce noise for accurate readings.  
p. 7



**EX360 Series**  
Professional CAT IV True RMS Multimeters designed for Electrical, HVAC, or Industrial Applications. Advanced LoZ feature eliminates false readings caused by ghost voltages. CAT IV safety rating ensures the highest level of protection.  
p. 8



**EX400A Series**  
Professional Full Size Series Digital Multimeters. Features include Large Digits, True RMS or Averaging, and Type K and/or built-in IR Thermometer.  
p. 9



**EX500 Series**  
Industrial Series Digital DMMs are accurate and rugged. Waterproof, dustproof, drop tested to 2 m (6.5'), and CAT IV safety rated for higher voltage applications. Wireless datalogging model or built-in IR Thermometer.  
p. 10



**MG320 Series**  
Combines a 1000 V Insulation Resistance Tester with Resistance range up to 200 GΩ and a fully-loaded True RMS CAT IV Digital Multimeter.  
p. 12

Look for this symbol: **N** indicating products that are available with optional calibration traceable to NIST. See complete listing on p. 146-167.

EX300 Series Mini Digital Multimeters + Voltage Detector



Integrated Non-Contact Voltage Detector for quickly checking the presence of live wires before testing.

Combination Multimeter with non-contact AC Voltage Detector

- Built-in non-contact AC Voltage Detector with red LED indicator and audible beeper
- Large 1" digits makes display easy to read
- CAT III-600 V, CAT II-1000 V safety rating
- 2-year warranty
- Complete with stand, test leads, protective holster, batteries, general purpose Type K bead wire temperature probe (EX330 only)

Model EX310 (Manual Ranging)

- Battery test 1.5 V and 9 V

Model EX330 (Autoranging)

- Data Hold and Auto Power Off
- Advanced functions include Type K Temperature, Capacitance, and Frequency

| SPECIFICATIONS   | EX310 (MANUAL RANGING)      | EX330 (AUTORANGING)         |
|------------------|-----------------------------|-----------------------------|
| Display Count    | 2000                        | 4000                        |
| Basic Accuracy   | 0.50%                       | 0.50%                       |
| NCV Detector     | 100 to 600 V AC             | 100 to 600 VAC              |
| DC Voltage       | 0.1 mV to 600 V             | 0.1 mV to 600 V             |
| AC Voltage       | 0.1 V to 600 V              | 0.1 mV to 600 V             |
| DC/AC Current    | 0.1 mA to 10 A              | 0.1 μA to 10 A              |
| Resistance       | 0.1 Ω to 2000 kΩ            | 0.1 Ω to 40 MΩ              |
| Capacitance      | —                           | 0.001 nF to 200 μF          |
| Frequency        | —                           | 0.001 Hz to 10 MHz          |
| Temperature      | —                           | -4 to 1382°F (-20 to 750°C) |
| Duty Cycle       | —                           | 0.1 to 99.9%                |
| Diode/Continuity | Yes                         | Yes                         |
| Dimensions       | 5.7x2.9x1.6" (147x76x42 mm) | 5.7x2.9x1.6" (147x76x42 mm) |
| Weight           | 9 oz (260 g)                | 9 oz (260 g)                |

ORDERING

|                |                                                                          |
|----------------|--------------------------------------------------------------------------|
| EX310 <b>N</b> | Manual Ranging 9 Function Mini Multimeter + Non-Contact Voltage Detector |
| EX330 <b>N</b> | Autoranging 12 Function Mini Multimeter + Non-Contact Voltage Detector   |
| 409996         | Vinyl soft case                                                          |
| TP873          | Replacement Bead wire Temperature Probe (-22 to 572°F/-30 to 300°C)      |
| TL803          | Replacement Test Leads                                                   |



## EX350 Series True RMS Multimeters with LPF and LoZ



UL US LISTED CE EX350

EX355  
with Temperature



Low Pass Filter (LPF) ensures accurate AC Voltage measurements on a variable frequency drive.



Verify Temperature output on HVAC units using Model EX355

### Professional meters loaded with advanced features and functions including Low Pass Filter (LPF) and Low Impedance (LoZ)

- True RMS for accurate AC measurements
- 0.5% basic accuracy
- Low Pass Filter (LPF) for accurate measurement of variable frequency drive signals
- LoZ prevents false readings caused by ghost voltages
- Built-in Non-Contact AC Voltage Detector (NCV) with LED indicator
- Data Hold freezes the reading on the display
- Min/Max/Max-Min captures highest and lowest readings and the difference between them
- Relative Mode for Capacitance Zero and offset adjustment
- Continuity and Diode Test
- Auto Power Off conserves battery life
- CAT III-600 V safety rating
- 3-year warranty

#### Model EX350

- 4000 count backlit LCD display
- Complete with test leads and two AA batteries

#### Model EX355

- 6000 count backlit LCD display
- Type K Temperature
- Complete with test leads, two AA batteries, and general purpose bead wire temperature probe

| SPECIFICATIONS       | EX350                                         | EX355                         |
|----------------------|-----------------------------------------------|-------------------------------|
| Display Count        | 4000                                          | 6000                          |
| Basic DCV Accuracy   | ±0.5%                                         | ±0.5%                         |
| NCV Detector         | Yes                                           | Yes                           |
| DC/AC Voltage        | 0.01 mV to 600 V                              | 0.01 mV to 600 V              |
| DC/AC Current        | 0.1 µA to 10.00 A                             | 0.1 µA to 10.00 A             |
| Resistance           | 0.1 Ω to 40.00 MΩ                             | 0.1 Ω to 60.00 MΩ             |
| Capacitance          | 1 pF to 60.00 mF                              | 1 pF to 60.00 mF              |
| Frequency            | 0.001 Hz to 10 MHz                            | 0.001 Hz to 10 MHz            |
| Temperature (Type K) | —                                             | -40 to 1832°F (-40 to 1000°C) |
| Duty Cycle           | 0.1 to 99.9%                                  | 0.1 to 99.9%                  |
| Diode Test           | 3.2 V                                         | 3.2 V                         |
| Continuity           | Audible                                       | Audible                       |
| Dimensions/ Weight   | 6.7x3.2x1.9" (175x81x48.5 mm)/13.1 oz (370 g) |                               |

#### ORDERING

|       |   |                                         |
|-------|---|-----------------------------------------|
| EX350 | N | True RMS Multimeter + NCV               |
| EX355 | N | True RMS Multimeter + NCV + Temperature |
| TL810 |   | Electrical Test Lead Kit                |
| TL803 |   | Standard Test Leads                     |
| TP200 |   | Type K Clamp Probe (212°F/100°C)        |



#### Calibration Traceable to NIST

A NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** next to product part numbers.

EX360 Series CAT IV True RMS Multimeters + NCV + LoZ



Model EX360  
Electrical DMM

Model EX363  
HVAC DMM

Model EX365  
Industrial DMM



Includes test leads, 9 V battery, holster with tilt stand and built-in magnet, and general purpose bead wire temperature probe (Model EX363)

Choose a CAT IV-600 V multimeter designed for Electrical, HVAC, or Industrial Applications with LoZ function for accurate Voltage readings

- True RMS for accurate AC measurements
- LoZ prevents false readings caused by ghost voltages
- Built-in Non-contact AC Voltage Detector (NCV) with LED indicator
- Smart Data Hold freezes the displayed reading and automatically updates the reading and alerts user (audibly and visually) if the measurement changes  $\pm 50$  counts
- Large white LED backlit display with 60-segment analog bargraph for viewing trends
- Peak Hold captures the highest reading
- Relative Mode for Capacitance Zero and offset adjustment
- Continuity beeper with visual alert; Auto Power off with disable
- CAT IV-600 V safety rating
- 2-year warranty

Model EX360 — for Electrical applications

- Frequency and Capacitance measurement

Model EX363 — for HVAC applications

- $\mu$ A function for HVAC flame rod measurements
- Type K Temperature
- Frequency and Capacitance measurement

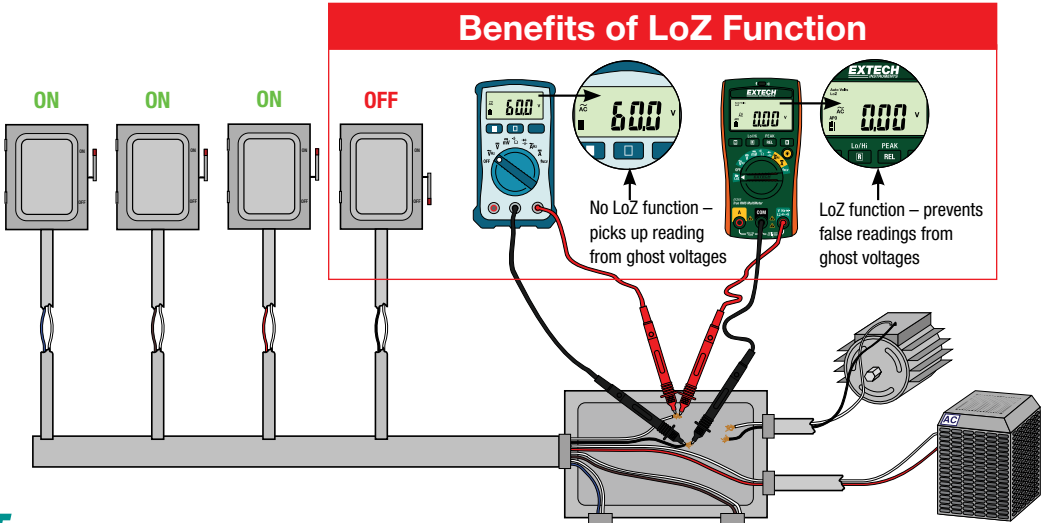
Model EX365 — for Industrial/Commercial applications

- 10 A AC/DC Current measurement with 11 A/1000 V high energy fuse
- Frequency and Capacitance measurement

| SPECIFICATIONS        | EX360                                      | EX363                         | EX365                         |
|-----------------------|--------------------------------------------|-------------------------------|-------------------------------|
| Display Count         | 6000                                       | 6000                          | 6000                          |
| Basic Accuracy (DCV)  | 0.5%                                       | 0.5%                          | 0.5%                          |
| NCV Detector          | Yes                                        | Yes                           | Yes                           |
| DC/AC Voltage         | 0.1 mV to 1000 V                           | 0.1 mV to 1000 V              | 0.1 mV to 1000 V              |
| DC/AC Current         | —                                          | —                             | 1 mA to 10 A                  |
| DC/AC $\mu$ A Current | —                                          | 600 $\mu$ A                   | —                             |
| Resistance            | 0.1 $\Omega$ to 40 M $\Omega$              | 0.1 $\Omega$ to 40 M $\Omega$ | 0.1 $\Omega$ to 40 M $\Omega$ |
| Capacitance           | 1 nF to 10 mF                              | 1 nF to 10 mF                 | 1 nF to 10 mF                 |
| Frequency             | 0.01 Hz to 100 kHz                         | 0.01 Hz to 100 kHz            | 0.01 Hz to 100 kHz            |
| Temperature (Type K)  | —                                          | -40 to 742°F (-40 to 394°C)   | —                             |
| Diode Test/Continuity | Yes                                        | Yes                           | Yes                           |
| Dimensions/ Weight    | 6.5x3.2x1.7" (164x82x44 mm)/5.9 oz (450 g) |                               |                               |

ORDERING

|       |   |                                             |
|-------|---|---------------------------------------------|
| EX360 | N | Electrical CAT IV True RMS Multimeter + NCV |
| EX363 | N | HVAC CAT IV True RMS Multimeter + NCV       |
| EX365 | N | Industrial CAT IV True RMS Multimeter + NCV |



N Indicates products that are available with optional calibration traceable to NIST. See pages 146-147 for a complete listing.



## EX400A Series Professional Multimeters



EX410A

EX430A

EX470A  
DMM+IR Thermometer



Built-in non-contact IR Thermometer allows you to safely perform non-contact temperature scans.



### Models with or without the built-in Infrared Thermometer, auto or manual ranging, True RMS or averaging

- Large backlit LCD display with easy-to-read 1" digits
- Type K thermometer built-in for temperature measurements
- Low current capability: measure down to 0.1  $\mu$ A
- Input fuse protection and mis-connection warnings
- CAT III-600 V safety rating
- Complete with CAT III test leads, multi-position tilt stand and velcro strap for hanging, protective holster with test lead holder, bead wire temperature probe, and 9 V battery

#### Model EX410A (Manual Ranging)

- Averaging multimeter
- 2-year warranty

#### Model EX430A (Autoranging)

- True RMS for accurate AC measurements
- Relative function
- 3-year warranty

#### Model EX470A (Autoranging)

- Built-in non-contact Infrared (IR) Thermometer
- True RMS for accurate AC measurements
- Relative function
- 3-year warranty

| SPECIFICATIONS        | EX410A                                     | EX430A                        | EX470A                        |
|-----------------------|--------------------------------------------|-------------------------------|-------------------------------|
| Display Count         | 2000                                       | 4000                          | 4000                          |
| Temperature (IR)      | —                                          | —                             | 58 to 518°F (-50 to 270°C)    |
| Averaging/True RMS    | Averaging                                  | True RMS                      | True RMS                      |
| Basic Accuracy (VDC)  | $\pm 0.5\%$                                | $\pm 0.3\%$                   | $\pm 0.3\%$                   |
| AC Voltage            | 1 mV to 600 V                              | 0.1 mV to 600 V               | 0.1 mV to 600 V               |
| DC Voltage            | 0.1 mV to 600 V                            | 0.1 mV to 600 V               | 0.1 mV to 600 V               |
| AC Current            | 0.1 $\mu$ A to 10 A                        | 0.1 $\mu$ A to 10 A           | 0.1 $\mu$ A to 10 A           |
| DC Current            | 0.1 $\mu$ A to 10 A                        | 0.1 $\mu$ A to 10 A           | 0.1 $\mu$ A to 10 A           |
| Resistance            | 0.1 $\Omega$ to 20 M $\Omega$              | 0.1 $\Omega$ to 40 M $\Omega$ | 0.1 $\Omega$ to 40 M $\Omega$ |
| Capacitance           | —                                          | 0.01nF to 100 $\mu$ F         | 0.01 nF to 100 $\mu$ F        |
| Frequency             | —                                          | 0.001 Hz to 10 MHz            | 0.001 Hz to 10 MHz            |
| Temperature (Type K)  | -4 to 1382°F (-20 to 750°C)                | -4 to 1382°F (-20 to 750°C)   | -4 to 1382°F (-20 to 750°C)   |
| Duty Cycle            | —                                          | 0.1% to 99.9%                 | 0.1% to 99.9%                 |
| Diode Test/Continuity | Yes                                        | Yes                           | Yes                           |
| Dimensions/ Weight    | 7.4x3.2x2" (187x81x50 mm)/0.75 lbs (342 g) |                               |                               |

#### ORDERING

|        |   |                                                  |
|--------|---|--------------------------------------------------|
| EX410A | N | Manual Ranging Multimeter                        |
| EX430A | N | True RMS Autoranging Multimeter                  |
| EX470A | N | True RMS Autoranging Multimeter + IR Thermometer |
| TL810  |   | Electrical Test Lead Kit                         |
| TL803  |   | Standard Test Leads                              |
| TP200  |   | Type K Clamp Probe (212°F/100°C)                 |
| HG500  |   | Magnetic Hanging Strap                           |



## Extech-exclusive Meters with Built-in IR Thermometer!

Our innovative design incorporates a built-in IR Thermometer. Look for the built-in IR Thermometer logo throughout this catalog.



Multimeters

Clamp Meters

Psychrometers

Humidity Meters

Moisture Meters

Tachometers

Air Flow Meters

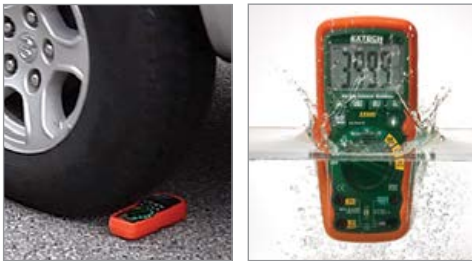
### EX500 CAT IV Heavy Duty True RMS Multimeters



Complete with double molded test leads, magnetic hanging strap, general purpose Type K bead wire temperature probe, soft case, and one 9 V battery



[www.extech.com/video](http://www.extech.com/video)



Waterproof (IP67) rugged double molded design for heavy duty application use

#### Waterproof (IP67)/drop proof (6.5 ft/2 m) rugged design for heavy duty use

- True RMS for accurate AC measurements
- 1000 V input protection on all functions
- Dual sensitivity frequency functions; Diode open circuit voltage of 2.8 V DC
- Auto Power Off with disable feature
- CAT IV-600 V safety rating
- 3-year warranty

#### Model EX505

- 4,000 count backlit LCD
- 0.5% basic accuracy
- Data Hold, Relative, and 10 A max Current

#### Model EX520

- 6000 count—high resolution backlit LCD
- 0.09% basic accuracy
- Min/Max, Data Hold, Relative, and 20 A max Current

#### Model EX530

- 40,000 count—highest resolution backlit LCD
- 0.06% basic accuracy
- Min/Max, Data Hold, Relative, 20 A max Current, and Peak Hold (AC only)

| SPECIFICATIONS         | EX505                                          | EX520                     | EX530                     |
|------------------------|------------------------------------------------|---------------------------|---------------------------|
| Basic Accuracy         | ±0.5%                                          | ±0.09%                    | ±0.06%                    |
| DC Voltage             | 0.1 mV to 1000 V DC                            | 0.1 mV to 1000 V DC       | 0.01 mV to 1000 V DC      |
| AC Voltage             | 0.1 mV to 1000 V AC                            | 1 mV to 1000 V AC         | 0.01 mV to 1000 V AC      |
| DC/AC Current          | 0.1 µA to 10 A                                 | 0.1 µA to 20 A            | 0.01 µA to 20 A           |
| Resistance             | 0.1 Ω to 40 MΩ                                 | 0.1 Ω to 40 MΩ            | 0.01 Ω to 40 MΩ           |
| Capacitance            | 0.01 nF to 100 µF                              | 0.01 nF to 1000 µF        | 0.001 nF to 40 mF         |
| Frequency (electrical) | 5 Hz to 1 kHz                                  | 10 Hz to 400 Hz           | 40 Hz to 400 Hz           |
| Frequency (electronic) | 0.001 Hz to 10 MHz                             | 0.001 Hz to 40 MHz        | 0.001 Hz to 100 MHz       |
| Temperature (Type K)   | -4 to 1382°F/-20 to 750°C                      | -4 to 1382°F/-20 to 750°C | -4 to 1382°F/-20 to 750°C |
| Duty Cycle             | 0.1 to 99.9%                                   | 0.1 to 99.9%              | 0.1 to 99.9%              |
| Diode/Continuity       | Yes/Audible                                    | Yes/Audible               | Yes/Audible               |
| Dimensions/Weight      | 7.25x3.25x2.25" (184x83x57 mm)/12.3 oz (349 g) |                           |                           |

#### ORDERING

|       |                                               |
|-------|-----------------------------------------------|
| EX505 | True RMS Industrial Multimeter (4000 count)   |
| EX520 | True RMS Industrial Multimeter (6000 count)   |
| EX530 | True RMS Industrial Multimeter (40,000 count) |
| TL810 | Electrical Test Lead Kit                      |
| TL805 | Double Injected Test Leads                    |
| HG500 | Magnetic Hanging Strap                        |

### EX505-K Heavy Duty Industrial Multimeter Kit



#### CAT IV Multimeter and AC Voltage Detector With 8 piece test lead kit

- Kit includes EX505 True RMS waterproof (IP67)/drop-proof Multimeter, DV25 Dual Range Non-contact AC Voltage Detector + Flashlight, TL808 8-piece Professional Test Lead Kit, plus professional double-molded test leads, Type K thermocouple bead probe with banana input adaptor, and magnetic hanging strap
- Supplied in a soft carrying case that provides protection and organization for the meters and accessories
- Dimensions: 9.8x8x2" (248x203x51 mm); Weight: 1.2 lbs (544 g)

**Model EX505:** Industrial grade, CAT IV-600 V, 4000 count display, waterproof (IP67), CE/UL listed, drop-proof, rugged multimeter with True RMS functions (see p. 10)

**Model DV25:** Dual Range Non-Contact Voltage (NCV) Detector (24 to 1000 V AC/100 to 1000 V AC) + Flashlight with Audible/ Visual indication, and double-molded housing CAT IV-1000 V, CE/UL (see p. 28)

**Model TL808:** 8-Piece Professional Test Lead Kit with CAT III-1000 V rating

#### ORDERING (VISIT [WWW.EXTech.COM](http://WWW.EXTech.COM) FOR PRODUCT SPECIFICATIONS)

|         |                                      |
|---------|--------------------------------------|
| EX505-K | Heavy Duty Industrial Multimeter Kit |
|---------|--------------------------------------|



**N** Indicates products that are available with optional calibration traceable to **NIST**. See pages 146-147 for a complete listing.

## MM750W Wireless Datalogging CAT IV True RMS Multimeter


**NEW**


Using the wireless feature, Bluetooth® Datalogging Module, and the free ExView® W-Series App, you can transmit readings in real-time to your smart devices, store over 15k readings for wireless transfer to generate a report/data analysis, add notes and readings to photos taken from your smart device camera, and use your smart device as a 2nd display for easy viewing or sharing.

Download the Extech ExView™ W-Series App available on App Store or Google Play. NOTE: iOS/Android device not included.

Apple and the Apple logo are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc. Google Play and the Google Play logo are trademarks of Google LLC.

Using the Wireless connectivity feature, Bluetooth® datalogging module, and free app, you can transmit readings right to your iOS® or Android™ devices

### Multimeter Features

- Wireless DMM function with Bluetooth Datalogging Module transmits readings to iOS and Android devices for remote viewing using the free app
- True RMS for accurate AC measurements
- Type K Temperature function
- Large backlit LCD display
- $\pm 0.6\%$  basic DCV accuracy
- Built-in Non-Contact AC Voltage Detector (NCV)
- AC  $\mu A$  function ideal for HVAC flame rod current measurement
- External clamp adapter input (1 mV=1 A; 600 A AC/DC max)
- MIN/MAX/DIF captures highest & lowest readings and the difference between them
- Relative Mode for Capacitance Zero and offset adjustment
- Data Hold freezes the reading on the display
- Auto Power Off with disable and low battery indicator
- CAT IV-600 V, CAT III-1000 V safety category
- 2 year warranty
- Complete with test leads, general purpose Type K bead wire temperature probe, Wireless Datalogging Module (DAT12), 9 V battery, and soft case

### Wireless Datalogging Features

- Bluetooth Datalogging Module (DAT12) can record over 15k readings and transmit them to a smart device
- Free ExView® W-Series App, provides Wireless Data Streaming with real-time remote viewing of readings
- Adjustable sample rate and file size support most application needs
- Record data directly to phone or tablet
- Programmable High/Low audible alarms
- Export data in Excel® format
- Share data files and snapshots directly from application
- Take snapshots of the measurement area with your connected smart phone or tablet camera to capture measurement-related images and to document date/time stamps and measurement data

| SPECIFICATIONS            | RANGE                                                         | MAX RESOLUTION | BASIC ACCURACY                                  |
|---------------------------|---------------------------------------------------------------|----------------|-------------------------------------------------|
| Display Count             | 6000                                                          |                |                                                 |
| Non-Contact Voltage (NCV) | >100 V AC                                                     |                |                                                 |
| AC Voltage                | 0.1 mV to 1000 V                                              | 0.1 mV         | $\pm 0.6\%$ of rdg $\pm 3$ digits               |
| DC Voltage                | 0.1 mV to 1000 V                                              | 0.1 mV         | $\pm 0.6\%$ of rdg $\pm 2$ digits               |
| AC Current                | 0.1 $\mu A$ to 10.00 A                                        | 0.1 $\mu A$    | $\pm 0.15\%$ of rdg $\pm 5$ digits              |
| DC Current                | 0.1 $\mu A$ to 10.00 A                                        | 0.1 $\mu A$    | $\pm 0.12\%$ of rdg $\pm 5$ digits              |
| AC $\mu A$ Current        | 0.1 $\mu A$ to 6000 $\mu A$                                   | 0.1 $\mu A$    | $\pm 0.15\%$ of rdg $\pm 5$ digits              |
| DC $\mu A$ Current        | 0.1 $\mu A$ to 6000 $\mu A$                                   | 0.1 $\mu A$    | $\pm 0.12\%$ of rdg $\pm 5$ digits              |
| Resistance                | 0.1 $\Omega$ to 60.00 M $\Omega$                              | 0.1 $\Omega$   | $\pm 0.6\%$ of rdg $\pm 2$ digits               |
| Capacitance               | 9.999 nF to 99.99 mF                                          | 0.001 nF       | $\pm 5\%$ of rdg $\pm 5$ digits                 |
| Frequency                 | 9.999 Hz to 55.00 MHz                                         | 0.001 MHz      | $\pm 1.5\%$ of rdg $\pm 3$ digits               |
| Temperature (Type K)      | -40 to 1832°F<br>(-40 to 1000°C)                              | 1°             | $\pm (2\% + 2^\circ F) / \pm (2\% + 2^\circ C)$ |
| Duty Cycle                | 0.1 to 99.9%                                                  | 0.10%          | $\pm 1.2\%$ of rdg $\pm 2$ digits               |
| Diode Test                | 3.000 V                                                       | 0.001 V        | $\pm 10\%$ of rdg $\pm 5$ digits                |
| Continuity                | Audible                                                       |                |                                                 |
| Datalogging (with DAT12)  | 15,360 data points                                            |                |                                                 |
| Dimensions/Weight         | 7.4x3.8x2.2" (188x96x56 mm) / 14.6 oz (415 g) without battery |                |                                                 |

### ORDERING

|        |   |                                                    |
|--------|---|----------------------------------------------------|
| MM750W | N | Wireless Datalogging CAT IV True RMS Multimeter    |
| TL810  |   | Test Lead Kit                                      |
| TL803  |   | Standard Test Leads                                |
| DAT12  |   | Replacement Bluetooth® Wireless Datalogging Module |



MG320/MG325 CAT IV Insulation Tester/True RMS Multimeters



Combines a portable Insulation Tester with a CAT IV True RMS Multimeter

- 5 Test Voltage ranges up to 1000 V
- Polarization Index (PI) and Dielectric Absorption Ratio measurements (DAR)
- Low Resistance measurement with Zero function
- Programmable Timer feature sets the duration of test
- Comparison Mode allows user to set the Pass/Fail values for insulation measurements
- Step Voltage (10% steps at 50% to 120% of range)
- Auto-discharge of voltage test signal
- Lock Power-On function for hands-free operation
- Manually store/recall up to 99 readings
- High voltage and overload indication
- Data Hold to freeze displayed reading
- Auto Power Off and low battery indication
- CAT IV-600 V safety category
- 2-year warranty

Model MG320

- Measures Insulation Resistance to 20 GΩ
- Backlit 6,000 count display with analog bargraph
- Complete with test leads, alligator clip, 6 x AA batteries, and soft case

Model MG325

- Measures Insulation Resistance to 200 GΩ
- Backlit 10,000 count display with analog bargraph
- View the Frequency (45 Hz ~ 400 Hz) of AC Voltage measurements
- Remote probe with built-in TEST button allows for quick on-spot testing
- LED high voltage and LCD overload indication
- Measures Leakage Current, Low Resistance, Capacitance, and Frequency
- Complete with remote probe, test leads, alligator clip, 6 x AA batteries, and soft case

| SPECIFICATIONS           | MG320                                                      | MG325                                                                             |
|--------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Insulation Resistance    | 50 MΩ, 100 MΩ, 200 MΩ, 500 MΩ, 2000 MΩ, 1 GΩ, 10 GΩ, 20 GΩ | 50 MΩ, 100 MΩ, 200 MΩ, 500 MΩ, 2000 MΩ, 1 GΩ, 10 GΩ, 20 GΩ, 50 GΩ, 100 GΩ, 200 GΩ |
| Insulation Test Voltages | 50 V, 100 V, 250 V, 500 V, 1000 V                          | 50 V, 100 V, 250 V, 500 V, 1000 V                                                 |
| AC/DC Voltage            | 600 V                                                      | 600 V                                                                             |
| Leakage Current          | —                                                          | 2000 μA                                                                           |
| Resistance               | 20 kΩ                                                      | 10 MΩ                                                                             |
| Low Resistance           | —                                                          | 100 Ω                                                                             |
| Capacitance              | —                                                          | 500 μF                                                                            |
| Frequency                | —                                                          | 1 kHz                                                                             |
| Continuity               | Audible                                                    | Audible                                                                           |
| Dimensions/ Weight       | 8.9x4.1x2.3" (225x103x59 mm)/1.5 lbs (0.7 kg)              |                                                                                   |

ORDERING

|       |   |                                                                      |
|-------|---|----------------------------------------------------------------------|
| MG320 | N | CAT IV Insulation Tester/True RMS Multimeter                         |
| MG325 | N | CAT IV Insulation Tester/ True RMS Multimeter with Remote Test Probe |



Checking voltage on a lathe and insulation test on pump motor

## DM220 CAT IV Pocket Multimeter + NCV



Includes test leads and two AAA batteries; 2-year warranty

### Autoranging DMM with 4000 count LCD display, NCV and built-in Flashlight

- Non-Contact Voltage detection identifies live circuits
- Rugged double molded housing; CAT IV-600 V, CAT III-1000 V safety rating

| SPECIFICATIONS    | RANGE                                        | MAX RESOLUTION    | BASIC ACCURACY (%RDG)      |
|-------------------|----------------------------------------------|-------------------|----------------------------|
| DC/AC Voltage     | 600 V                                        | 0.1 mV DC/1 mV AC | ±0.8% DC/±1.5% AC          |
| DC/AC Current     | 200 mA                                       | 0.1 µA            | ±2.0% DC/±2.5% AC          |
| NC Voltage        | 100 to 600 VAC                               |                   |                            |
| Resistance        | 40 MΩ                                        | 0.1 Ω             | ±0.8%                      |
| Frequency         | 10 kHz                                       | 0.001 Hz          | ±2.0%                      |
| Capacitance       | 200 µF                                       | 0.001 nF          | ±5.0%                      |
| Duty Cycle        | 0.5 to 99%                                   | 0.5%              | ±(2.0% reading + 5 digits) |
| Diode/Continuity  | Yes/Audible                                  |                   |                            |
| Dimensions/Weight | 4.72x2.2x1.6" (120x55x40 mm)/5.12 oz (145 g) |                   |                            |

### ORDERING

|       |                                |
|-------|--------------------------------|
| DM220 | CAT IV Pocket Multimeter + NCV |
|-------|--------------------------------|

## MN35/MN36 Digital Mini Multimeters



Includes holster with stand, Type K bead wire probe, battery, and test leads; 2-year warranty



### Autoranging or Manual ranging multimeters with Temperature function

- Large easy to read digital display

#### MN35 (Manual Ranging/ 8 Functions)

- 1.5 V and 9 V Battery test

#### MN36 (Autoranging/ 10 Functions)

- AC Current, Capacitance and Frequency measurements

| SPECIFICATIONS | MN35                                         | BASIC ACCURACY | MN36                              | BASIC ACCURACY |
|----------------|----------------------------------------------|----------------|-----------------------------------|----------------|
| DC Voltage     | 600 V (0.1 mV)                               | ±0.5%          | 600 V (0.1 mV)                    | ±0.5%          |
| AC Voltage     | 600 V (0.1 V)                                | ±1.2%          | 600 V (0.1 V)                     | ±1.2%          |
| DC Current     | 10 A (0.1 mA)                                | ±1.5%          | 10 A (0.1 µA)                     | ±1.2%          |
| AC Current     | —                                            | —              | 10 A (0.1 µA)                     | ±1.5%          |
| Resistance     | 20 MΩ (0.1 µΩ)                               | ±0.8%          | 40 MΩ (0.1 µΩ)                    | ±1.2%          |
| Capacitance    | —                                            | —              | 100 µF (0.001 nF)                 | ±3.0%          |
| Frequency      | —                                            | —              | 5 MHz (0.01 Hz)                   | ±1.0%          |
| Temperature    | -4 to 1400°F (1°)<br>-20 to 750°C            | ±(1%+4°)       | -4 to 1400°F (1°)<br>-20 to 750°C | ±(1%+4°)       |
| Battery Test   | 9 V and 1.5 V                                | —              | —                                 | —              |
| Dimensions/Wt  | 5.43x2.83x1.5" (138x72x38 mm)/5.4 oz (153 g) |                |                                   |                |

### ORDERING

|      |                                        |
|------|----------------------------------------|
| MN35 | Manual Ranging Mini Digital Multimeter |
| MN36 | Autoranging Mini Digital Multimeter    |

## 381676A Pen DMM with Non-Contact Voltage Detector



Includes test leads, two alligator clips, two 1.5 V AAA batteries, and soft case

### Autoranging multimeter with non-contact voltage detection

- Autoranging with Data Hold, Range Hold, and Maximum Hold features
- CAT III-600 V; Auto power off, overload and low battery indication
- 2-year warranty

| SPECIFICATIONS      | RANGE                                                                | MAX RESOLUTION | BASIC ACCURACY      |
|---------------------|----------------------------------------------------------------------|----------------|---------------------|
| Non-contact Voltage | >110 V AC                                                            |                |                     |
| AC/DC Voltage       | 200 mV, 2, 20, 200, 600 V                                            | 0.1 mV         | AC: ±0.8%; DC: 0.7% |
| AC/DC Current       | 20 mA, 200 mA                                                        | 0.01 µA        | AC: ±2%; DC: 0.1.5% |
| Resistance (Ω)      | 200, 2 k, 20 k, 200 k, 2 M, 20 MΩ                                    | 0.1 Ω          | ±0.8%               |
| Logic Test          | 0 to 1.5 V (Green LED), 1.5 to 3.5 V (LED off), 3.5 to 5 V (Red LED) |                |                     |
| Diode/Continuity    | Yes/Audible                                                          |                |                     |
| Dimensions/Weight   | 8.2x1.5x1.1" (208x38x29 mm)/4.6 oz (129 g)                           |                |                     |

### ORDERING

|         |                                           |
|---------|-------------------------------------------|
| 381676A | Pen DMM with Non-Contact Voltage Detector |
|---------|-------------------------------------------|

Clamp Meter Index Guide

Pick the right Clamp Meter for your application



**Compact Clamp Series**  
Compact, capable and affordable Clamp Meters are ideal for tight areas. Features range from built-in NCV detection to Autoranging. Ideal for DIYers, mechanics and technicians.  
*p. 17-18*



**Mini Clamp Series**  
Extra-small jaw size clamps for reaching into tight areas while providing high resolution and low-current sensitivity. Choice of Averaging or True RMS models.  
*p. 19-21*



**EX600 HVAC Series**  
Best-in-class multifunctional Clamp Meters. 400 A AC/DC True RMS with dual Type K thermocouple input for differential temperature measurements. Built-in Non-Contact Voltage Detector and multimeter functions plus advanced model with built-in IR Thermometer for surface temperatures.  
*p. 18*



**EX650 Series**  
Professional clamps featuring Low Impedance (LoZ) mode and choice of advanced model with Low Pass Filter (LPF) and Inrush functions. Clamp meters that are fully loaded with multimeter functions.  
*p. 16*



**EX800 Series**  
Professional grade, 1000 A True RMS AC or AC/DC Clamp Meters with built-in non-contact IR Thermometer. Models available with CAT IV rating for AC or AC/DC measurements in high current/voltage areas.  
*p. 15*



**High Current Clamp Meters**  
Powerful clamp meters that can measure high AC current to 1000 A, 1500 A or 3000 A. Choose models with convenient large 11" (28 cm) flex cable jaw size that can fit into tight spaces and around large conductors or traditional 2.0" (52 mm) jaw size with integrated non-contact voltage detector. *p. 22-23*

Look for this symbol: **N** indicating products that are available with optional calibration traceable to NIST. See complete listing on p. 146-147.



Exclusive to EXTECH Professional Grade Clamp Meters + IR Thermometer!

The EX800 Series clamp meters feature a unique, built-in, non-contact Infrared thermometer with laser pointer to monitor temperature and locate hot spots on motors and electrical devices. A large 4000 count LCD display with bright back lighting allows you to see the reading in dim light. The ergonomically designed double-molded housing offers a better grip for one-hand operation. The 1.7" (43 mm) diameter jaw opening is large enough for conductors up to 750 MCM. These meters are fully loaded with DMM functions with included test leads and Type K temperature probe. Models available for CAT IV and CAT III safety rating applications.



Watch the Video  
[www.extech.com/video](http://www.extech.com/video)

| ACCESSORIES (SEE P. 26-27 FOR TEST LEAD ACCESSORIES) |                                                                     |
|------------------------------------------------------|---------------------------------------------------------------------|
| TP873                                                | Replacement Bead Wire Temperature probe (-22 to 572°F/-30 to 300°C) |
| TL803                                                | Standard Test Leads                                                 |

| SPECIFICATIONS               |  |
|------------------------------|--|
| True RMS                     |  |
| Manual/Autoranging           |  |
| Display counts               |  |
| Jaw size/Cable size          |  |
| AC Current (Max Res.)        |  |
| DC Current (Max Res.)        |  |
| Basic ACA Accuracy (% rdg)   |  |
| AC/DC Voltage (Max Res.)     |  |
| Resistance (Max Res.)        |  |
| Capacitance (Max Res.)       |  |
| Frequency (Max Res.)         |  |
| Temperature (Type K)         |  |
| Temperature (IR)             |  |
| Distance to Spot Ratio (IR)  |  |
| Diode (2.8V)/Continuity      |  |
| UL, ETL, CE, Category Rating |  |
| Dimensions/Weight            |  |
| Warranty                     |  |



**N** Indicates products that are available with optional calibration traceable to **NIST**. See pages 146-147 for a complete listing.





## EX810/EX820 1000 A AC Clamp Meters + IR Thermometer

Choice of manual ranging or autoranging model

- Built-in non-contact IR Thermometer design with laser pointer for locating hot spots
- Diode open circuit voltage of 2.8 V DC
- Peak hold captures transients
- Data Hold, Min/Max, and Auto Power Off
- Complete with test leads, 9 V battery, and case; general purpose Type K probe included with EX820
- Model EX810** - Manual ranging with Averaging AC Voltage and Current measurements
- Model EX820** - Autoranging with True RMS AC Voltage and Current measurements provide accurate readings regardless of waveforms and Type K temperature function



## EX830 1000 A True RMS AC/DC Clamp Meter + IR Thermometer

True RMS AC clamp-on multimeter and DC Current function

- DC Current function to 1000 A
- True RMS AC Voltage and Current measurements provide accurate readings regardless of waveforms
- Built-in non-contact IR Thermometer design with laser pointer for locating hot spots
- Diode open circuit voltage of 2.8 V DC
- Peak hold captures transients
- Data Hold, Min/Max, and Auto Power off
- Complete with test leads, 9 V battery, general purpose Type K probe, and case



## EX840 CAT IV 1000 A True RMS AC/DC Clamp Meter + IR

CAT IV 600 V approval rating assures maximum safety and functionality

- AC/DC Voltage to 1000 V and AC/DC Current to 1000 A
- True RMS AC Voltage and Current measurements
- Built-in non-contact IR Thermometer with laser pointer
- Peak Hold, Data Hold, Min/Max, and Auto Power off
- Includes CAT IV test leads, 9 V battery, Professional test lead set, general purpose Type K probe, and case

### ■ EX810 N | ▲ EX820 N

|                                             |
|---------------------------------------------|
| ■ No   ▲ Yes                                |
| ■ Manual Ranging   ▲ Autoranging            |
| 4000 count backlit LCD                      |
| 1.7" (43 mm); 750 MCM                       |
| 1000 A (0.1 A)                              |
| —                                           |
| ±2.5% (AC)                                  |
| 600 V (0.1 mV)                              |
| 40 MΩ (0.1 Ω)                               |
| 40 mF (0.001 nF)                            |
| 4 kHz (1 Hz)                                |
| ■ No   ▲ -4 to 1400°F (-20 to 760°C)        |
| -58 to 518°F (-50 to 270°C)                 |
| 8:1                                         |
| Yes/Audible                                 |
| UL, CE, CAT III-600 V                       |
| 10.6x4.3x2" (270x110x50 mm)/13.6 oz (386 g) |
| 2 years                                     |

### EX830 N

|                                             |
|---------------------------------------------|
| Yes                                         |
| Autoranging                                 |
| 4000 count backlit LCD                      |
| 1.7" (43 mm); 750 MCM                       |
| 1000 A (0.1 A)                              |
| 1000 A (0.1 A)                              |
| ±2.5% (AC); ±2.5% (DC)                      |
| 600 V (0.1 mV)                              |
| 40 MΩ (0.1 Ω)                               |
| 40 mF (0.001 nF)                            |
| 4 kHz (1 Hz)                                |
| -4 to 1400°F (-20 to 760°C)                 |
| -58 to 518°F (-50 to 270°C)                 |
| 8:1                                         |
| Yes/Audible                                 |
| UL, CE, CAT III-600 V                       |
| 10.6x4.3x2" (270x110x50 mm)/13.6 oz (386 g) |
| 2 years                                     |

### EX840 N

|                                             |
|---------------------------------------------|
| Yes                                         |
| Autoranging                                 |
| 4000 count backlit LCD                      |
| 1.7" (43 mm); 750 MCM                       |
| 1000 A (0.1 A)                              |
| 1000 A (0.1 A)                              |
| ±2.5% (AC); ±2.5% (DC)                      |
| 1000 V (0.1 mV)                             |
| 40 MΩ (0.1 Ω)                               |
| 40 mF (0.001 nF)                            |
| 4 kHz (1 Hz)                                |
| -4 to 1400°F (-20 to 760°C)                 |
| -58 to 518°F (-50 to 270°C)                 |
| 8:1                                         |
| Yes/Audible                                 |
| ETL, CE, CAT IV-600 V; CAT III-1000 V       |
| 10.6x4.3x2" (270x110x50 mm)/13.6 oz (386 g) |
| 3 years                                     |

EX650 Series True RMS 600 A Clamp Meters + NCV



Professional clamps featuring Low Impedance (LoZ) mode and choice of advanced model with Low Pass Filter (LPF) and Inrush functions

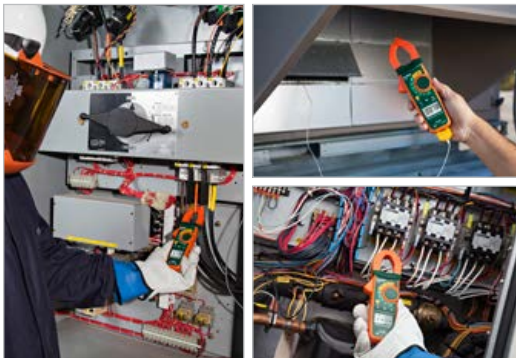
- True RMS for accurate AC measurements
- 1.18" (30 mm) jaw size accommodates conductors up to 350 MCM
- LoZ prevents false readings caused by ghost voltages
- $\mu$ A function for HVAC flame rod Current measurements
- Built-in Non-Contact AC Voltage Detector (NCV) with LED indicator
- 6000 count backlit LCD display
- Data Hold freezes the reading on the display
- Min/Max captures highest and lowest readings
- Relative function
- Convenient LED worklight for viewing in dimly lit area
- Auto Power Off conserves battery life
- 3-year warranty

Model EX650

- 9 Functions including AC Current
- Complete with test leads and 3 AAA batteries

Model EX655

- 12 Functions including AC/DC Current
- Frequency and Type K Temperature
- Low Pass Filter (LPF) for accurate measurement of variable frequency drive signals
- Inrush mode captures current surges during motor startup
- DC ZERO mode
- LCD trending bargraph
- Complete with test leads, general purpose bead wire Temperature probe and 3 AAA batteries



Troubleshoot current output on an electrical panel, verify Temperature output on HVAC units, and quickly detect live voltages with built-in Non-Contact Voltage (NCV) Detector.

| SPECIFICATIONS                   | EX650                                               | EX655                                               |
|----------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| AC Current (Max Res.)            | 6 A, 60 A, 600 A (0.001 A)                          | 60 A, 600 A (0.01 A)                                |
| DC Current                       | —                                                   | 60A ,600A (0.01A)                                   |
| Basic accuracy                   | ACA: $\pm 2.5\%$ of rdg                             | ACA: $\pm 2.5\%$ of rdg;<br>DCA: $\pm 2.5\%$ of rdg |
| AC/DC $\mu$ A Current (Max Res.) | 600 $\mu$ A (0.1 $\mu$ A)                           | 600 $\mu$ A (0.1 $\mu$ A)                           |
| DC Voltage (Max Res.)            | 1000 V (0.1 mV)                                     | 1000 V (0.1 mV)                                     |
| AC Voltage (Max Res.)            | 750 V (1 mV)                                        | 750 V (1 mV)                                        |
| Basic accuracy                   | ACV: $\pm 1.2\%$ of rdg;<br>DCV: $\pm 0.8\%$ of rdg | ACV: $\pm 1.2\%$ of rdg;<br>DCV: $\pm 0.8\%$ of rdg |
| Non-Contact Voltage (NCV)        | 100 to 1000 V                                       | 100 to 1000 V                                       |
| Resistance (Max Res.)            | 60 M $\Omega$ (0.1 $\Omega$ )                       | 60 M $\Omega$ (0.1 $\Omega$ )                       |
| Capacitance (Max Res.)           | 60 mF (0.01 nF)                                     | 60 mF (0.01 nF)                                     |
| Frequency (Max Res.)             | —                                                   | 10 Hz to 1 MHz (0.01 Hz)                            |
| Temperature (Max Res.)           | —                                                   | -40 to 1832°F (1°F)<br>-40 to 1000°C (1°C)          |
| Continuity Beeper                | Yes                                                 | Yes                                                 |
| Diode Test                       | Yes                                                 | Yes                                                 |
| Dimensions                       | 9x3x1.6" (228x77x41 mm)                             | 9x3x1.6" (228x77x41 mm)                             |
| Weight                           | 9.4 oz (265 g)                                      | 9.4 oz (265 g)                                      |

ORDERING

|        |   |                                                         |
|--------|---|---------------------------------------------------------|
| EX650  | N | True RMS 600 A AC Clamp Meter                           |
| EX655  | N | True RMS 600 A AC/DC Clamp Meter                        |
| TL810  |   | Electrical Test Lead Kit                                |
| TL803  |   | Standard Test Leads                                     |
| TP200  |   | Type K Clamp Probe (212°F/100°C)                        |
| 480172 |   | AC Line Splitter (Standard North American 3-prong plug) |

## MA610 600 A Clamp Meter + NCV

**NEW**


### Fully loaded clamp meter with built-in Non-Contact Voltage detector

- 1.2" (30 mm) jaw size accommodates conductors up to 500 MCM
- Built-in Non-Contact Voltage (NCV) detector
- MultiMeter functions include Resistance, Capacitance and Frequency
- Relative Mode for Capacitance
- Data Hold freezes reading on display
- Auto Power Off with disable and Low Battery indication
- Large backlit LCD display
- Complete with test leads, three AAA batteries, and pouch; 2-year warranty

| SPECIFICATIONS            | RANGE                                  | MAX RESOLUTION | BASIC ACCURACY |
|---------------------------|----------------------------------------|----------------|----------------|
| AC Current                | 600.0 A                                | 1 mA           | ±2.0%          |
| DC Voltage                | 600 V                                  | 0.1 mV         | ±0.8%          |
| AC Voltage                | 600 V                                  | 1 mV           | ±1.2%          |
| Non-Contact Voltage (NCV) | 100 to 600 V                           |                |                |
| Resistance                | 40 MΩ                                  | 0.1 Ω          | ±1.0%          |
| Capacitance               | 100 μF                                 | 0.01 nF        | ±4%            |
| Frequency                 | 1 MHz                                  | 0.01 Hz        | ±0.1%          |
| Diode/Continuity          | Yes                                    |                |                |
| Dimensions/Weight         | 9x3x1.6" (228x77x41 mm)/9.3 oz (265 g) |                |                |

### ORDERING

MA610 **N** 600 A AC Clamp Meter + NCV

## MA440/MA443/MA445 400 A Clamp Meters + NCV

**NEW**


Models MA443 and MA445 have Type K Temperature function (probe included) and built-in flashlight

### Three models to choose from, with or without True RMS and AC or AC/DC Current functions

- **Model MA440** with Averaging AC Current function
- **Model MA443 & MA445** feature True RMS AC Current, Temperature, and Max/Min functions and built-in flashlight
- **Model MA445** also measures DC Current and has DC Zero function
- 1.2" (30 mm) jaw size accommodates conductors up to 500 MCM
- Built-in Non-Contact Voltage (NCV) detector
- Relative Mode for Capacitance
- Data Hold freezes reading on display
- Auto Power Off with disable and Low Battery indication
- Large backlit LCD display
- 2-year warranty
- Complete with test leads, three AAA batteries, and pouch; MA443 and MA445 also includes a general purpose Type K Temperature probe

| SPECIFICATIONS     | MA440   MA443                                             | MA445                                                     |
|--------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| AC Current         | 4.000 A, 40.00 A, 400.0 A (1 mA)                          | 40.00 A, 400.0 A (10 mA)                                  |
| DC Current         | —                                                         | 40.00 A, 400.0 A (10 mA)                                  |
| Current accuracy   | AC: ±2.0%   True RMS AC: ±1.8%                            | True RMS AC: ±2.5%, DC: ±2.0%                             |
| DC Voltage         | 400.0 mV, 4 V, 40 V, 400 V 600 V (0.1 mV)                 | 400.0 mV, 4 V, 40 V, 400 V 600 V (0.1 mV)                 |
| AC Voltage         | 4 V, 40 V, 400 V 600 V (0.1 mV)                           | 4 V, 40 V, 400 V 600 V (0.1 mV)                           |
| Basic accuracy     | AC: ±1.2% DC: ±0.8%                                       | AC: ±1.2% DC: ±0.8%                                       |
| Resistance (Ω)     | 400, 4 k, 40 k, 400 k, 4 M, 40 M (0.1 Ω)                  | 400, 4 k, 40 k, 400 k, 4 M, 40 M (0.1 Ω)                  |
| Capacitance        | 40 nF, 400 nF, 4 μF, 40 μF, 400 μF, 4 mF, 40 mF (0.01 nF) | 40 nF, 400 nF, 4 μF, 40 μF, 400 μF, 4 mF, 40 mF (0.01 nF) |
| Frequency          | 10 Hz to 1 MHz (0.01 Hz)                                  | 10 Hz to 1 MHz (0.01 Hz)                                  |
| Temperature        | —   -40 to 1832°F/-40 to 1000°C (1°F/°C)                  | -40 to 1832°F/-40 to 1000°C (1°F/°C)                      |
| Dimensions/ Weight | 9x3x1.6" (228x77x41 mm)/9.3 oz (265 g)                    | 9x3x1.6" (228x77x41 mm)/9.3 oz (265 g)                    |

### ORDERING

MA440 **N** 400 A AC Clamp Meter  
MA443 **N** True RMS 400 A AC Clamp Meter  
MA445 **N** True RMS 400 A AC/DC Clamp Meter



EX600 Series True RMS 400 A Dual Input Clamp Meters + NCV



Built-in dual Type K thermocouple inputs for T1, T2, and T1-T2 differential temperature measurement

- True RMS for accurate AC measurements
- 1.25" (32 mm) jaw opening for conductors up to 500 MCM
- Built-in Non-Contact Voltage (NCV) detector with LED alert
- DC  $\mu$ A multimeter function for HVAC flame rod Current measurements
- DC Current function ideal for automotive, heavy equipment and marine applications
- Built-in non-contact IR Thermometer (model EX623) with laser pointer for locating hot spots with 8 to 1 distance to spot ratio
- 40,000 count multimeter functions for DC Voltage, Resistance, Capacitance, and Frequency for high resolution over wider ranges
- Data Hold plus fast Peak Hold of current surges during motor startup
- Measures motor capacitors to 40,000  $\mu$ F
- Rugged double molded housing
- Auto power off with audible alert and disable function
- Autoranging with manual override
- 2-year warranty
- Complete with CAT III-600 V, double molded test leads, 9 V battery, two general purpose Type K bead wire probes and case

| SPECIFICATIONS                | EX613                              | EX623                              |
|-------------------------------|------------------------------------|------------------------------------|
| AC/DC Current (Max Res.)      | 400.0 A AC/DC (10 mA)              | 400.0 A AC/DC (10 mA)              |
| Basic ACA accuracy            | $\pm 1.5\%$                        | $\pm 1.5\%$                        |
| AC/DC Voltage (Max Res.)      | 600 V (0.1 mV)/600 V (0.01 mV)     | 600 V (0.1 mV)/600 V (0.01 mV)     |
| DC $\mu$ A Current (Max Res.) | 4000 $\mu$ A (0.01 $\mu$ A)        | 4000 $\mu$ A (0.01 $\mu$ A)        |
| Resistance (Max Res.)         | 40.000 M $\Omega$ (0.01 $\Omega$ ) | 40.000 M $\Omega$ (0.01 $\Omega$ ) |
| Capacitance (Max Res.)        | 40 mF (0.01 nF)                    | 40 mF (0.01 nF)                    |
| Frequency (Max Res.)          | 40 MHz (0.001 Hz)                  | 40 MHz (0.001 Hz)                  |
| Temperature - Type K          | -58 to 1832°F (-50 to 1000°C)      | -58 to 1832°F (-50 to 1000°C)      |
| Temperature - IR              | —                                  | -58 to 518°F (-50 to 270°C)        |
| Distance to Spot Ratio        | —                                  | 8:1                                |
| Diode (2.8V)/ Continuity      | Yes                                | Yes                                |
| Duty Cycle                    | 0.5 to 99.0%                       | 0.5 to 99.0%                       |
| Dimensions                    | 9x3.1x1.9" (229x80x49 mm)          | 9x3.1x1.9" (229x80x49 mm)          |
| Weight                        | 10.7 oz (303 g)                    | 10.7 oz (303 g)                    |

ORDERING

|        |   |                                                         |
|--------|---|---------------------------------------------------------|
| EX613  | N | True RMS 400 A AC/DC Clamp Meter                        |
| EX623  | N | True RMS 400 A AC/DC Clamp Meter + IR                   |
| TL810  |   | Electrical Test Lead Kit                                |
| TL803  |   | Standard Test Leads                                     |
| TP200  |   | Type K Clamp Probe (212°F/100°C)                        |
| 480172 |   | AC Line Splitter (Standard North American 3-prong plug) |



Dual Type K Inputs for taking differential temperature readings needed for superheat measurements.



Built-in IR Thermometer for quick and safe non-contact temperature measurements.



Non-Contact Voltage (NCV) Detection.

## 380947 400 A AC/DC True RMS Mini Clamp Meter



Complete with wrist strap,  
2 AA batteries and soft  
case; 2-year warranty



### True RMS mini-clamp with high 1 mA AC current resolution

- Mini 0.9" (23 mm) jaw size for conductors up to 4/0 AWG
- Non-contact Frequency measurements to 10 kHz through the clamp jaws
- 4000 count LCD with fast 40 segment bargraph
- Data Hold and Min/Max
- One touch Auto Zero
- CAT III-300 V safety rating

| SPECIFICATIONS       | RANGE                                  | MAX RESOLUTION | BASIC ACCURACY |
|----------------------|----------------------------------------|----------------|----------------|
| AC Current           | 4 A, 40 A, 100 A, 400 A                | 0.001 A        | ±1.5%          |
| DC Current           | 40 A, 400 A                            | 0.01 A         | ±1.0%          |
| Frequency (Max Res.) | 10 kHz                                 | 0.01 Hz        | ±0.5%          |
| Dimensions/Weight    | 7x1.8x1.3" (178x45x32 mm)/8 oz (225 g) |                |                |

### ORDERING

|        |   |                                       |
|--------|---|---------------------------------------|
| 380947 | N | 400 A AC/DC True RMS Mini Clamp Meter |
|--------|---|---------------------------------------|

## 380941 200 A AC/DC Mini Clamp Meter



Complete with test leads,  
wrist strap, 2 AA batteries  
and soft case; 2-year  
warranty



### High resolution mini clamp with Voltage, Frequency, and Resistance

- Mini 0.9" (23 mm) jaw size for conductors up to 4/0 AWG
- High resolution to 10 mA AC/DC
- 4000 count LCD with fast 40 segment bargraph
- Data Hold and Min/Max
- One touch Auto Zero for DC Current measurements
- CAT III-300 V safety rating

| SPECIFICATIONS    | RANGE                                    | MAX RESOLUTION | BASIC ACCURACY       |
|-------------------|------------------------------------------|----------------|----------------------|
| AC/DC Current     | 40 A, 200 A                              | 0.01A          | ±1.0%                |
| AC/DC Voltage     | 400 V                                    | 0.1V           | AC: ±1.5%; DC: ±1.0% |
| Resistance        | 400 Ω                                    | 0.1 Ω          | ±1.5%                |
| Frequency         | 100 kHz                                  | 0.001 Hz       | ±0.5%                |
| Continuity        | Yes                                      |                |                      |
| Dimensions/Weight | 7x1.75x1.25" (178x45x32 mm)/8 oz (225 g) |                |                      |

### ORDERING

|        |   |                              |
|--------|---|------------------------------|
| 380941 | N | 200 A AC/DC Mini Clamp Meter |
|--------|---|------------------------------|

## MA120 200A AC/DC Mini Clamp Meter + NCV



Complete with two AAA batteries  
and soft case; 2-year warranty



### Clamp meter with built-in AC Voltage detector + flashlight

- Compact 0.7" (17 mm) jaw size allows measurements in tight locations
- DC Current and Zero Function
- Non-Contact AC Voltage (NCV) detector via clamp tip
- 2000 count backlit LCD
- Built-in white LED flashlight
- Data Hold freezes reading on display
- Auto Power Off
- CAT III-300 V safety rating

| SPECIFICATIONS    | RANGE                                   | MAX RESOLUTION | BASIC ACCURACY |
|-------------------|-----------------------------------------|----------------|----------------|
| AC/DC Current     | 200 A                                   | 0.1 A          | ±3.0%          |
| AC Voltage        | NCV                                     |                |                |
| Frequency         | 1 kHz                                   | 0.01 Hz        | ±1.2%          |
| Dimensions/Weight | 7x1.75x1.25" (178x45x32mm)/8 oz (225 g) |                |                |

### ORDERING

|       |   |                                    |
|-------|---|------------------------------------|
| MA120 | N | 200 A AC/DC Mini Clamp Meter + NCV |
|-------|---|------------------------------------|

380950 80 A AC/DC Mini Clamp Meter



True RMS mini-clamp with high 1 mA AC current resolution

- 4000 count LCD display
- 1 mA resolution for accurate low current measurements
- Jaw opens to 0.5" (12.7 mm)
- AC/DC Voltage, Resistance, Frequency, Capacitance, and Duty Cycle
- Diode Test/Continuity Beeper
- Data Hold freezes reading on display
- 2-year warranty
- Complete with test leads, two 1.5 V AAA batteries, and carrying case

| SPECIFICATIONS | RANGE                       | MAX RESOLUTION | BASIC ACCURACY       |
|----------------|-----------------------------|----------------|----------------------|
| AC/DC Current  | 4 A, 80 A                   | 1 mA           | ±2.5%                |
| AC/DC Voltage  | 400 mV to 600 V             | 0.1 mV         | AC: ±2.0%; DC: ±2.5% |
| Resistance     | 400 Ω to 40 MΩ              | 0.1 Ω          | ±1.5%                |
| Frequency      | 5 Hz to 10 MHz              | 0.001 Hz       | ±1.2%                |
| Duty Cycle     | 5 to 99.9%                  | 0.1%           | ±1.2%                |
| Diode          | Yes                         |                |                      |
| Continuity     | Audible                     |                |                      |
| Dimension      | 8.3x2.8x1.5" (210x70x37 mm) |                |                      |
| Weight         | 7 oz (200 g)                |                |                      |

ORDERING

380950 **N** 80 A AC/DC Mini Clamp Meter



480172 AC Line Splitter



Enables user of a clamp meter to measure current on a 2-wire or 3-wire power cord to 15 A

- Fits clamp jaw size 0.75" (19 mm) and above
- Provides easy and safe measurement of current without the need to cut off the plug and separate the conductors
- Plugging the power connector into the Line Splitter separates the hot/live conductor from the neutral (and ground)
- Voltage check function
- Two clamp positions:
  - x1 for direct readings
  - x10 for actual reading multiplied by 10
- CAT II safety rating
- Dimensions: 5.25x2x1" (133x51x25 mm), Weight: 5.8 oz (164.4 g)
- 6-month warranty

ORDERING

480172 AC Line Splitter (Standard North American 3-prong plug)



## MA63 True RMS 60 A AC/DC Clamp Meters + NCV



Quickly detect live voltages with built-in NCV detector before electrical testing. DC Current measurement allows for automotive troubleshooting.

### AC and DC Current meter with high accuracy

- Compact 0.7" (17 mm) jaw size allows measurements in tight locations
- True RMS for accurate readings of noisy, distorted or non-sinusoidal waveforms
- DC Current and DC Zero function
- Variable Frequency Control (VFC): Low pass filter for accurate measurement of variable frequency drive signals
- Built-in Non-Contact Voltage (NCV) detector
- Full range overload protection
- 6000 count backlit LCD display
- Data Hold freezes reading on display
- Low battery indicator and Auto Power Off feature
- CAT III-300 V and CAT II-600 V safety rating
- 2-year warranty
- Complete with test leads, carrying case, and two AAA batteries

| SPECIFICATIONS            | RANGE                                      | MAX RESOLUTION | BASIC ACCURACY |
|---------------------------|--------------------------------------------|----------------|----------------|
| AC Current                | 600 mA, 6000 mA, 60 A                      | 0.1 mA         | ±2.0%          |
| DC Current                | 6000 mA, 60 A                              | 1 mA           | ±2.0%          |
| Non-Contact Voltage (NCV) | 100 to 600 V AC                            |                |                |
| AC Voltage                | 6 V, 60 V, 600 V                           | 1 mV           | ±0.8%          |
| DC Voltage                | 600 mV, 6 V, 60 V, 600 V                   | 0.1 mV         | ±0.7%          |
| Resistance (Ω)            | 600, 6 k, 60 k, 600 k, 6 M, 60 M           | 0.1 Ω          |                |
| Capacitance               | 6.2 nF, 620 μF, 62 mF                      | 1 pF           |                |
| Frequency                 | 10 Hz to 60 kHz                            | 0.001 Hz       |                |
| Diode/Continuity          | Yes                                        |                |                |
| Dimensions/ Weight        | 6.9x2.4x1.3" (175x60x33.5 mm)/6 oz (170 g) |                |                |

### ORDERING

|      |   |                                       |
|------|---|---------------------------------------|
| MA63 | N | True RMS 60 A AC/DC Clamp Meter + NCV |
|------|---|---------------------------------------|

## 380942 30 A AC/40 A DC True RMS Mini Clamp Meter



### Highest 0.1 mA resolution and accuracy at low currents

- 0.9" (23 mm) clamp jaw opening
- Low AC/DC Current measurements with high resolution to 0.1 mA AC and 1 mA DC
- True RMS for accurate readings of noisy, distorted or non-sinusoidal waveforms
- Large 4000 count LCD display with full function indication and fast 40 segment bargraph
- One touch "Auto Zero" for DC Current measurements eliminates the need to turn a knob to zero adjust
- Measure current draw when conducting energy usage audits
- Overload protection to 400 A DC
- Max/Min recall display
- Auto power off with disable feature
- Data Hold freezes reading on display
- 2-year warranty
- Complete with test leads, wrist strap, 2 AA batteries and soft case

| SPECIFICATIONS     | RANGE                                    | MAX RESOLUTION | BASIC ACCURACY |
|--------------------|------------------------------------------|----------------|----------------|
| AC Current         | 400 mA, 4000 mA, 30 A                    | 0.1 mA         | ±1.5%          |
| DC Current         | 4000 mA, 30 A, 40 A                      | 1 mA           | ±2.0%          |
| AC Voltage         | 400 V                                    | 0.1 V          | ±1.5%          |
| DC Voltage         | 400 V                                    | 0.1 V          | ±1.0%          |
| Dimensions/ Weight | 7x1.75x1.25" (178x45x32 mm)/8 oz (225 g) |                |                |

### ORDERING

|        |   |                                                         |
|--------|---|---------------------------------------------------------|
| 380942 | N | 30A AC/40A DC True RMS Mini Clamp Meter                 |
| 480172 |   | AC Line Splitter (Standard North American 3-prong plug) |

HIGH CURRENT CLAMP METERS



Easily fits into tight spaces and large conductors

Flexible Clamp design easily wraps around bus bars and cable bundles.



PQ2071 1-Phase and 3-Phase CAT IV 1000 A AC Power Clamp Meter

Functions including Power and Current; USB interface

- True/Apparent/Reactive Power, plus Power Factor, Active Power and Phase Angle (see p. 43 for details)
- AC+DC  $\mu$ A Current with 10 nA resolution for flame rod tests
- Built-in non-contact Voltage Detector with LED alert
- Store/recall up to 99 data sets
- Data Hold, Max/Min and Auto Power Off
- Software for data analysis
- Complete with test leads, USB cable, PC software, 9 V battery, and carrying case

More Power Meters

See Extech's complete line of power meters on pages 42-43



| SPECIFICATIONS             | PQ2071 <sup>N</sup>                    |
|----------------------------|----------------------------------------|
| True RMS                   | Yes                                    |
| Display counts             | 9999 count LCD with bargraph (backlit) |
| Jaw size/Cable size        | 2.2" (55 mm); 1000 MCM                 |
| AC Current                 | 1000 A                                 |
| DC Current                 | —                                      |
| Max resolution             | 100 mA                                 |
| Basic ACA Accuracy (% rdg) | ±3% rdg                                |
| AC Voltage (Max Res.)      | 750 V (0.1 V)                          |
| DC Voltage (Max Res.)      | —                                      |
| Resistance (Max Res.)      | —                                      |
| Capacitance (Max Res.)     | —                                      |
| Frequency (Max Res.)       | 50 Hz to 200 Hz (1 Hz)                 |
| Temperature                | —                                      |
| Diode/Continuity           | Yes/Audible                            |
| Category Rating            | CAT IV-600 V, CAT III-1000 V           |
| UL/CE                      | CE                                     |
| Dimensions                 | 11.5x3.75x1.5" (292x95x38 mm)          |
| Weight                     | 18.4 oz (522 g)                        |
| Warranty                   | 2 years                                |



<sup>N</sup> Indicates products that are available with optional calibration traceable to NIST. See pages 146-147 for a complete listing.



## MA1500 CAT IV 1500 A AC/DC True RMS Clamp Meter + NCV

Integrated Non-Contact Voltage Detector to quickly check for the presence of live wires before testing

- True RMS for accurate readings of non-sinusoidal waveforms
- Includes Multimeter functions
- Inrush function captures motor startups
- Relative Mode for Capacitance Zero and Offset Adjustment
- Data Hold, Peak Hold, Min/Max, and Auto Power Off
- Complete with test leads, general purpose Type K bead wire temperature probe, 9 V battery and carrying case



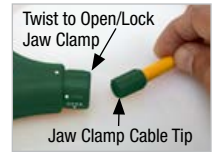
## 380926 CAT IV 2000 A AC/DC Clamp Meter

Full range Multimeter functions with high resolution to 0.1  $\mu$ A/0.1 mV and CAT IV-600 V Safety Rating

- AC/DC Current via clamp with 0.1 A resolution
- Large 2" jaw size fits 750 MCM conductor size
- Data Hold
- Push button Zero adjust improves DC accuracy
- Complete with built-in stand, test leads and 9 V battery



**NEW**



Convenient flexible jaw cable with easy twist lock



## MA3110 CAT IV TRMS 3000 A AC Flexible Clamp Meter

Flexible 11" (28 cm) clamp jaw easily wraps around bus bars and cable bundles

- True RMS for accurate readings of noisy, distorted or non-sinusoidal waveforms
- Autoranging AC Current
- 8mm cable diameter fits into tight spaces and around large conductors
- 6000 count LCD display
- Data Hold freezes reading on display
- Over range and Low battery indicator
- Auto Power Off with disable
- CAT III-1000 V, CAT IV-600 V category safety rating
- Complete with test leads and two AAA batteries

### MA1500 N

|                                            |
|--------------------------------------------|
| Yes                                        |
| 40,000/4000 count LCD w/bargraph (backlit) |
| 2.0" (52 mm); 500MCM                       |
| 1500 A                                     |
| 1500 A                                     |
| 0.01 A                                     |
| $\pm 2.8\%$                                |
| 750 V (0.01 mV)                            |
| 1000 V (0.01 mV)                           |
| 40 M $\Omega$ (0.01 $\Omega$ )             |
| 40 mF (0.01 nF)                            |
| 40 MHz (0.001 Hz)                          |
| -148 to 1832°F (-100 to 1000°C)            |
| Yes/Audible                                |
| CAT IV-600 V                               |
| CE                                         |
| 11.6x4.1x1.9" (294x105x47 mm)              |
| 18.9 oz (536 g)                            |
| 2 years                                    |

### 380926 N

|                                       |
|---------------------------------------|
| Yes                                   |
| 5000 count LCD (backlit)              |
| 2" (50 mm); 750 MCM                   |
| 400.0 A, 2000 A (Clamp); 400 mA (DMM) |
| 400.0 A, 2000 A (Clamp); 400 mA (DMM) |
| 0.1 A (Clamp); 0.1 $\mu$ A (DMM)      |
| $\pm 2\%$                             |
| 1000 V (1 mV)                         |
| 1000 V (0.1 mV)                       |
| 40 M $\Omega$ (0.1 $\Omega$ )         |
| 50 $\mu$ F (10 pF)                    |
| 100 kHz (0.001 Hz)                    |
| —                                     |
| Yes/Audible                           |
| CAT IV-600 V                          |
| CE                                    |
| 10x2.9x1.5" (255x73x38 mm)            |
| 14 oz (380 g)                         |
| 2 years                               |

### MA3110 N

|                                                                    |
|--------------------------------------------------------------------|
| True RMS                                                           |
| 6000 count LCD                                                     |
| 11" (28 cm)                                                        |
| 600 A, 3000 A                                                      |
| —                                                                  |
| 0.1 A (AC)                                                         |
| $\pm 1\%$                                                          |
| 6, 60, 600, 1000 V (1 mV)                                          |
| 6, 60, 600, 1000 V (1 mV)                                          |
| 600, 6 k, 60 k, 600 k, 6 M, 60 M (0.1 $\Omega$ )                   |
| 6n F, 60 nF, 600 nF, 6 $\mu$ F, 60 $\mu$ F, 600 $\mu$ F (0.001 nF) |
| —                                                                  |
| —                                                                  |
| Yes/Audible                                                        |
| CAT IV-600 V, CAT III-1000 V                                       |
| UL, CE, CAT III-1000 V, CAT IV-600 V                               |
| 11.4x5.3x1.1" (290x135x27.8 mm)                                    |
| 7.3 oz (208 g) w/o batteries                                       |
| 2 years                                                            |



PRT200 Non-Contact Phase Rotation Tester



Checks phase sequence and phase status and tests up to 1000 V AC with LED and audible indication

- Fully insulated non-contact alligator clips with wide jaws
- 75 to 1000 V AC input voltage with 45 to 65 Hz frequency range
- LEDs indicate phase orientation (clockwise or counter-clockwise) and whether each phase is live
- Durable housing with mounting magnets
- Adjustable LED brightness switch for making measurements in dimly lit areas or sunlight
- Low battery warning
- Auto Power Off to save battery life when not in use
- CAT IV-600 V safety rating
- Dimensions: 4.7x2.7x1.5" (118x69x38 mm); Weight: 13 oz (370 g)
- 2-year warranty
- Complete with three built-in 30" (76 cm) test leads with large color-coded alligator clips, four AA batteries, and pouch case

ORDERING

|        |                                   |
|--------|-----------------------------------|
| PRT200 | Non-Contact Phase Sequence Tester |
|--------|-----------------------------------|

480400/480403 Motor Rotation and 3-Phase Testers



Check 3-phase sequence and motor rotation

- Tests phase orientation of 3-Phase power sources
- Indicates phase orientation (clockwise or counter-clockwise) and whether each of the 3-Phases is live
- Easy to open alligator clips with wide jaws
- Durable double molded housing
- 2-year warranty
- Complete with cable and 3 large color-coded alligator clips, case, and 9 V battery (for 480403)

480400 3-Phase Tester

- Multi-line LCD Displays; No battery required

480403 Motor Rotation and 3-Phase Tester

- LEDs display motor rotation and phase status
- Indicates rotation direction of motor
- Determine rotation of a motor without contact

| SPECIFICATIONS     | 480400                                      | 480403            |
|--------------------|---------------------------------------------|-------------------|
| Phase Sequence     | Yes                                         | Yes               |
| Voltage            | 40 to 600 V                                 | 40 to 600 V       |
| Frequency          | 15 to 400 Hz                                | 2 to 400 Hz       |
| Motor Rotation     | —                                           | Yes               |
| CE/Category Rating | CE, CAT III-600 V                           | CE, CAT III-600 V |
| Dimensions         | 5.1x2.7x1.25" (130x69x32 mm)/4.5 oz (130 g) |                   |

ORDERING

|        |                                   |
|--------|-----------------------------------|
| 480400 | 3-Phase Rotation Tester           |
| 480403 | Motor Rotation and 3-Phase Tester |

## DL150 True RMS AC Voltage/Current Datalogger



**Datalogs up to 100,000 readings with programmable sample rate from 1 sec to 24 hrs**

- Measure True RMS AC Voltage or Current
- Normal, Peak and Capture (user-specified trigger level) recording modes
- Readings can be downloaded to your PC via the USB interface and analyzed using the included software or exported to a spreadsheet
- LCD indicates time/date, current readings, Min/Max, and whether alarm settings have been exceeded
- Auto Power Off and battery check
- 2-year warranty
- Complete with current clamp, test leads, alligator clips, USB cable, Windows® compatible software, universal AC adaptor (with US, EU, UK, AU plugs), and 4 AAA batteries

| SPECIFICATIONS     | RANGE                                      | RESOLUTION | BASIC ACCURACY   |
|--------------------|--------------------------------------------|------------|------------------|
| AC Current         | 10 to 200 A                                | 0.1 A      | ±(2% rdg ±1 A)   |
| AC Voltage         | 10 to 600 V                                | 0.1 V      | ±(1.5% rdg ±1 V) |
| Memory             | 100,000 points                             |            |                  |
| Sampling Rate      | 1 second to 24 hours                       |            |                  |
| PC Interface       | USB includes software                      |            |                  |
| Dimensions/ Weight | 4.5x2.5x1.3" (114x63x34 mm)/8.7 oz (248 g) |            |                  |

### ORDERING

|       |                                        |
|-------|----------------------------------------|
| DL150 | True RMS AC Voltage/Current Datalogger |
|-------|----------------------------------------|

## DL160 Dual Input True RMS AC Voltage/Current Datalogger



**Datalogs up to 256,000 readings with programmable sample rate from 1 sec to 24 hrs**

- Measures simultaneously:
  - Two True RMS AC Voltage inputs or
  - Two AC Current inputs or
  - One AC Voltage and one AC Current input
- Readings can be downloaded to your PC via the USB interface and analyzed using the included software or exported to a spreadsheet
- LCD indicates time/date, current readings, Min/Max, and whether alarm settings have been exceeded
- Auto Power Off and battery check
- 2-year warranty
- Complete with two Current sensor modules, two Voltage sensor modules, two sets of test leads, two sets of alligator clips, USB cable, Windows® compatible software, universal AC Adaptor (with US, EU, UK, AU plugs), 4 AAA batteries and two 2032 button batteries

| SPECIFICATIONS     | RANGE                                                    | RESOLUTION | BASIC ACCURACY |
|--------------------|----------------------------------------------------------|------------|----------------|
| AC Current         | 10 to 200 A                                              | 0.1 A      | ±(2% rdg ±1 A) |
| AC Voltage         | 10 to 600 V                                              | 0.1 V      | ±(2% rdg ±1 V) |
| Memory             | 262,000 points (single channel), 131,000 (dual channels) |            |                |
| Sampling Rate      | 1 second to 24 hours                                     |            |                |
| PC Interface       | USB includes software                                    |            |                |
| Dimensions/ Weight | 4.5x2.5x1.3" (114x63x34 mm)/8.7 oz (248 g)               |            |                |

### ORDERING

|       |                                                   |
|-------|---------------------------------------------------|
| DL160 | Dual Input True RMS AC Voltage/Current Datalogger |
|-------|---------------------------------------------------|

## TL809 Electronic Test Lead Kit



### Ideal for testing digital circuitry

- Two 42" (1 m) PVC lead extensions with shrouded banana plugs at both ends. CAT III-1000 V rating, UL/CE
- Two modular 4" (102 mm) Heavy Duty test probe handles with 0.16" (4 mm) long banana plug tip with removable category control tip covers, CAT III-1000 V, UL/CE
- Two plunger mini-hooks
- Two alligator clips with removable insulators; UL/CE
- Includes 3 compartment sealable nylon pouch to organize/protect your test leads

#### ORDERING (6-month warranty)

TL809 Electronic Test Lead Kit

## TL810 Electrical Test Lead Kit



### Double Insulated with CAT III-1000 V Rating for your protection

- Two 40" (1 m) PVC lead extensions (1000 V rating) with shrouded banana plugs on both ends; CE
- Two very sharp 0.16" (4 mm) long stainless steel tipped plug-on test probes with removable category control tip covers
- Two stainless steel flat tip test probes (0.6"/15 mm long)
- Two plunger activated retractable jaw clips with a wide 0.75" (19 mm) jaw opening; CE

#### ORDERING (6-month warranty)

TL810 Electrical Test Lead Kit

## TL808-KIT Industrial Test Lead Kit



### 8-Piece Kit – CAT III-1000 V safety rating

- Two 42" (1 m) PVC lead extensions with shrouded banana plugs at both ends, UL listed
- Two modular 4" (102 mm) Heavy Duty test probe handles with 0.16" (4 mm) banana plug tip, UL listed
- Two standard size, alligator clips with insulated rubber boot
- Two extra large, double-insulated, alligator clips with sharp teeth for piercing insulated wire. Jaws open to 0.8" (20 mm)
- Includes pouch that provides storage for the kit and additional space to hold your meter

#### ORDERING (6-month warranty)

TL808-KIT Industrial Test Lead Kit

## TL805 Double Injected Test Leads



### Non-slip comfort grip

- Professional grade test leads. Double coated silicone lead wire with white inner layer. Heavy duty chromium plated brass tips, 0.16" (4 mm) long with removable category control tip covers
- Shrouded, non-twist banana plugs for reduced socket wear. "Superflex" molded strain reliefs for improved cable flexibility. "D" shaped finger guards. Compatible with most multimeters. 10 A capacity. CAT IV-1000 V rating. UL listed
- Optional accessory — Insulated Alligator Clip (TL807C), shown above p. 27

#### ORDERING (6-month warranty)

TL805 Double Injected Test Leads

## TL803 Standard Test Leads



### Protective tip covers for safe storage

- Standard replacement test leads. Shrouded banana connectors, molded strain reliefs. Compatible with most multimeters. 10 A capacity. CAT III-1000 V rating. UL listed.
- Two very sharp 0.16" (4 mm) long tips with removable category control tip covers
- Optional accessory — Insulated Alligator Clip (TL807C) shown above p. 27

#### ORDERING (6-month warranty)

TL803 Standard Test Leads

## TL726 Double Molded Silicone Test Lead Set



### Right angle and straight end flexible leads with shrouded banana plugs

- 63" (1.6 m) long
- Protective collar and insulated sleeve
- 1000 V, 10 A
- CAT IV-600 V; CAT III-1000 V

#### ORDERING (6-month warranty)

TL726 Double Molded Silicone Test Lead Set



## TL806/TL807C Alligator Clips for Test Lead Tips



### Add convenience to your test leads

- TL806 — Extra large, double insulated, CAT III-1000 V clips mate with banana plug patch cords. Jaw opens to 0.8" (20 mm) with sharp teeth for piercing insulated wire. IEC1010 compliant. Optional accessory to TL810 or TL809
- TL807C — Alligator clips with insulated rubber boot fit onto test leads, CAT IV-600 V, CAT III-1000 V; 10 A UL listed. Compatible with TL803 and TL805 test leads

#### ORDERING (6-month warranty)

|        |                                                |
|--------|------------------------------------------------|
| TL806  | Extra Large Alligator Clips for TL810 or TL809 |
| TL807C | Insulated Alligator Clips for TL803            |

## TL708 Alligator Clip Set



### Toothed jaws for solid gripping of fine wires

#### Heavy Duty Large Alligator Clips

- 1000 V, 6 A, CAT IV-600 V; CAT III-1000 V
- 1" (26 mm) jaw length; 1.6" (40 mm) jaw opening; 4.2" (107 mm) overall length

#### ORDERING (6-month warranty)

|       |                                  |
|-------|----------------------------------|
| TL708 | Large Heavy Duty Alligator Clips |
|-------|----------------------------------|

## PQ1000 CAT IV Test Lead Kit



### Set of Four Test Lead Kit for Power Quality Analyzers

- 10 ft test leads (Banana-to-Banana)
- Test probes, Alligator clips, long reach spring loaded clips, and Ergonomic over mold grip
- CAT IV-600 V/CAT III-1000 V
- 3φ 4-wire test lead kit (Black, Red, Blue, Yellow)

#### ORDERING (6-month warranty)

|        |                              |
|--------|------------------------------|
| PQ1000 | 3-Phase 4-Wire Test Lead Kit |
|--------|------------------------------|

## TP870/3/5 Type K Temperature Probes



### Bead wire temperature probes for use with multimeters featuring Type K temperature functions

- Standard Type K connector with choice of different cable lengths and temperature ranges

#### ORDERING (6-month warranty)

|          |                                                                                                                                       |
|----------|---------------------------------------------------------------------------------------------------------------------------------------|
| TP870    | Bead wire with Type K connector (-40 to 482°F/-40 to 250°C), 39" (1 m) cable                                                          |
| TP873    | Bead wire with Type K connector and with banana adaptor (-22 to 572°F/-30 to 300°C), 36" (0.91 m) cable; CE approved                  |
| TP873-5M | TP873 probe with 16.4 ft (5 m) cable                                                                                                  |
| TP875    | High Temperature bead wire probe with Type K connector and banana adaptor, -58 to 1000°F (-50 to 538°C), 39" (1 m) cable; CE approved |

## TP200/TP400 Type K Pipe Clamp Temperature Probes



### Hands-free superheat/sub-cooling temperature measurement without the use of tape or Velcro®

- Spring-loaded jaw for secure grip on pipes; 0.25" (6.35 mm) to 1.5" (38 mm) diameter
- For use with any Thermometer or Multimeter with a Type K input
- TP200: -4 to 200°F (-20 to 93°C) TP400: -4 to 450°F (-20 to 232°C)
- Basic accuracy of ±5%FS (TP200) and ±3.6°F/1.8°C (TP400)
- Complete with attached 36" (0.9 mm) cable and Type K connector

#### ORDERING (6-month warranty)

|       |                                          |
|-------|------------------------------------------|
| TP200 | Type K Temperature Pipe Clamp Probe      |
| TP400 | Type K High Temperature Pipe Clamp Probe |

## Protective Soft Cases



#### ORDERING (6-month warranty)

|        |                                                        |
|--------|--------------------------------------------------------|
| 409992 | Small carrying case 6.25x4.5x1" (159x114x25 mm)        |
| 409996 | Medium carrying case 7.8x5.3x1.6" (197x133x41 mm)      |
| 409997 | Large carrying case 9.5x7x2" (243x178x51 mm)           |
| CA899  | Large case with shoulder strap 10x5x3" (254x127x76 mm) |

## DV23 CAT IV AC Voltage Detector



### CAT IV safety rating with non-contact detection of AC Voltage up to 600 V AC

- Detects AC Voltage from 50 V to 600 V
- CAT IV-600 V safety rating
- Suitable for outlets or against st wire insulation testing
- For use on 50/60 Hz circuits
- Audible and Visual voltage indication
- Dimensions: 6.25x1" (159x25 mm)  
Weight: 1.5 oz (42 g)
- 2-year warranty
- Complete with pocket clip and two AAA batteries

#### ORDERING

DV23 AC Voltage Detector

## DV25 CAT IV Dual Range AC Voltage Detector + Flashlight



### Two selectable ranges for low and high non-contact AC Voltage detection

- 2 ranges: 24 to 1000 V AC and 100 to 1000 V AC
- CAT IV-1000 V safety rating
- Suitable for outlets or against wire insulation testing
- For use on 50/60Hz circuits
- Audible and Visual voltage indication
- Built-in bright flashlight with On/Off button
- Dimensions: 6.25x1" (159x25 mm)  
Weight: 1.48 oz (42 g)
- 2-year warranty
- Complete with pocket clip and two AAA batteries

#### ORDERING

DV25 Dual Range AC Voltage Detector

## DV30 Adjustable AC Voltage Detector with Sensitivity Adjustment



### Non-contact detection of AC Voltage down to 12 V AC

- Detects AC Voltage from 12 V to 600 V
- Audible and visible voltage indication
- Sensitivity adjustment increases or reduces sensor trigger threshold
- Self test function
- CAT III-600 V
- Dimensions: 6.1x1.1x1" (155x28x25 mm)  
Weight: 1.5 oz (42 g)
- 2-year warranty
- Complete with pocket clip and four LR44 button batteries

#### ORDERING

DV30 Adjustable AC Voltage Detector

## DVA30 Combination Non-Contact AC Voltage and Current Detector



### Detects and pinpoints wide range Voltage and Current with Sensitivity Adjustment

- The only two-in-one AC Current (200 mA to 1000 A) and AC Voltage (12 V to 600 V) detector designed for electrical testing
- Loud audible and bright visible current and voltage detect indicators
- Sensitivity adjustment increases or reduces sensor trigger threshold
- CAT III-600 V
- Dimensions: 7.6x1.2x0.9" (192x31x24 mm)  
Weight: 2.1 oz (60 g)
- UL and CE approved; 2-year warranty
- Complete with pocket clip and four LR44 button batteries

#### ORDERING

DVA30 Non-Contact Voltage/Current Detector

## VT30 Multi-function Voltage Tester



### Voltage, Continuity and Phase Testers with Flashlight;

- Large LCD display with digital bargraph
- AC Voltage (0 to 480 V) and DC Voltage (0 to 690 V)
- Meets EN61010-1 CAT IV-600 V and CAT III-600 V safety ratings
- LED indication of AC/DC voltage
- DC Polarity LED indication; Continuity beeper; Low impedance; Double molded housing
- Phase rotation test for motors
- Dimensions: 9.4x3x1.6" (240x78x40 mm); Weight: 8.4 oz (237 g)
- Complete with 2 AAA batteries, protective cap, and soft case; 2-year warranty

#### ORDERING

VT30 Digital Voltage Tester with bargraph



Multifunction Voltage Tester measure Voltage in outlets and conduct a 3-Phase sequence test. Features include a built-in flashlight.

### ET10/ET15 Receptacle Testers



**Choose model with GFC and test for faulty wiring in 3-wire receptacles**

- **Model ET10** — Tests GFCI circuits
- Detects 5 wiring faults: Correct, Open Ground, Open Neutral, Open Hot, Hot/Ground Reverse, and Hot/Neutral Reverse
- Standard North American 3-prong plug
- 2-year warranty

#### ORDERING

|      |                        |
|------|------------------------|
| ET10 | GFCI Receptacle Tester |
| ET15 | Receptacle Tester      |



### CB10-KIT Electrical Troubleshooting Kit



**Handy Electrical Troubleshooting Kit Performs 5 Functions**

- **CB10** Circuit Breaker Finder (see below for details) — quickly locate Circuit Breakers with audible and visual alert; Standard North American 3-prong plug
- **CT20** Continuity Tester/Wire Tracer (p. 30) — Use Continuity Tester for local continuity or for remote wiring identification; Continuity testing via bright flashing LED and loud pulsating beeper
- **DV20** AC Voltage Detector/Flashlight — Non-Contact Detection of AC Voltage from 100 V AC to 600 V AC
- 2-year warranty
- Supplied in a soft carrying case that provides protection and organization for the meters and accessories

#### ORDERING (VISIT [WWW.EXTECH.COM](http://WWW.EXTECH.COM) FOR PRODUCT SPECIFICATIONS)

|          |                                |
|----------|--------------------------------|
| CB10-KIT | Electrical Troubleshooting Kit |
|----------|--------------------------------|

### CB10 Circuit Breaker Finder/Receptacle Tester



**3-in-1 tester to locate fuses, test receptacles and GFCI circuits**

- Plug the Transmitter tester into an outlet and locate the correct breaker at the electrical box
- Manual sensitivity adjustment to pinpoint correct circuit breaker
- Transmitter & Receiver snap together for storage
- Transmitter/Tester:
  - Tests GFCI circuits
  - Tests Reversed/Open Connections,
  - LED indication of 2 test conditions and 6 wiring faults
  - Lights indicating circuit condition
- Dims/Wt: Receiver: 6.4x2.2x1.5" (162x55x38 mm)/4 oz (113 g); Transmitter: 3.25x1.75x1" (83x44x25 mm)/1.6 oz (45 g)
- 2-year warranty
- Complete with one Receiver, one Transmitter tester, and 9 V battery for the Receiver; Standard North American 3-prong plug

#### ORDERING

|      |                        |
|------|------------------------|
| CB10 | Circuit Breaker Finder |
|------|------------------------|



## CT70 GFCI and AC Circuit Analyzer



Test 3-wire standard & GFCI receptacles. Display turns red when a problem is detected.



[www.extech.com/video](http://www.extech.com/video)

### Check for correct wiring of GFCI outlets and circuit breakers

- AC Load Tester
  - Choose loads of 12, 15 and 20 Amps
  - Measures loaded and unloaded AC Line Voltage (90.0 to 240.0 V)
  - Calculates and displays 0.1 to 99.9% Voltage Drop and Line Impedance
  - Displays Peak Line Voltage (350.0 V) and Frequency (45.0 to 65.0 Hz)
- Outlet Tester functions
  - GFCI Trip Current
  - GFCI Trip Time
  - EPD Trip Current
  - Neutral to Ground Voltage
  - Hot, Neutral and Ground Impedance
  - Open or Reversed wiring
  - Available Short Circuit Current (ASCC)
- Over-Temperature protection
- Dimensions/Weight: 8x2.8x2" (203.2x71.1x50.8 mm)/11.2 oz (317.5 g)
- 2-year warranty
- Complete with AC test cord (standard North American 3-prong plug)

### ORDERING

|         |                                                                         |
|---------|-------------------------------------------------------------------------|
| CT70    | AC Circuit Analyzer with GFCI (Standard North American 3-prong plug)    |
| CT70-AC | Replacement AC Power/Tester Cord (Standard North American 3-prong plug) |

## CT20 Continuity Tester Pro/Wire Identifier



[www.extech.com/video](http://www.extech.com/video)

### One person operation for wire and cable testing both local and remote

- Provides positive continuity checks with bright flashing LED and loud pulsating beeper
- Identify wire pairs and cables remotely using external probe
- Wire verification distance up to 10,000 ft (3000 m); cable size of 26 AWG minimum
- Flashing remote probe - two lead, bi-colored (red/ green) LED probe allows a single user to identify up to three wires or cables at a time for correct labeling with only one trip to the other end location
- Great for Electricians and Helpers, Cable TV and Audio System Installers, Alarm Technicians, HVAC Installers, and Auto Repair Technicians
- Dims: 3.6x2.2x1.14" (90x57x29 mm); Wt: 9.2 oz (260 g)
- 2-year warranty
- Includes Remote probe with bi-colored LED for wire identification highlight

### ORDERING

|      |                       |
|------|-----------------------|
| CT20 | Continuity Tester Pro |
|------|-----------------------|

## MD10 Non-contact Magnet Detector + Flashlight



Blue LED for visual indication of magnetic field and bright flashlight allows for viewing in dimly lit areas

### Detects the presence of a magnetic field without contact

- Blue LED lights up for visual magnetic field detection including AC, DC, and permanent magnets
- Magnetic field detection range: 63 H, 98 H, 401 H, 810 H
- Ideal for testing audio speakers, troubleshooting solenoid valves in pneumatic and hydraulic control equipment and testing relays with coils and electrically controlled solenoid valves in vehicles and machinery
- Compact size with pocket clip and built-in bright flashlight with On/Off button
- Dimensions: 6.25x0.8x1" (159x21x25 mm); Weight: 1.7 oz (48 g)
- 2-year warranty
- Complete with two AAA batteries

### ORDERING

|      |                                          |
|------|------------------------------------------|
| MD10 | Non-contact Magnet Detector + Flashlight |
|------|------------------------------------------|

## TG20 Wire Tracer Kit



### Easily trace wires from source to termination

- Transmitter with output cables terminated in modular RJ11 phone connector
- Transmitter injects traceable signal into cables, checks telephone lines, and performs continuity checks
- Non-Contact probe audibly identifies selected wire or cable
- Test for properly operating phone lines
- Adjustable sensitivity control improves wire identification and eliminates false detection
- Continuity test — visible indication
- Dimensions/Weight: Probe - 8.7x2x1.3" (220x50x32 mm)/3.2 oz (91 g); Transmitter - 2.6x2.7x1.1" (65x68x28 mm)/3.2 oz (91 g)
- 2-year warranty
- Complete with Wire Tracer Probe and Transmitter with RJ11 phone connector and pair of alligator clips, and two 9 V batteries

### ORDERING

|      |                 |
|------|-----------------|
| TG20 | Wire Tracer Kit |
|------|-----------------|

## 40180 Tone Generator and Amplifier Probe Kit



### Heavy duty kit with audible tone easily identifies wires or cables

- Insulated inductive probe prevents shorting conductors
- Tests wire trace, continuity test, clear/busy/ringing line test and tip/ring identification
- Alligator clips for non-terminated cables and modular connectors for direct connections to telephone and internet wiring
- Built-in speaker with sensitivity control
- Dimensions: Probe - 9x2.3x1" (228x57x25 mm); Generator - 2.5x2.5x1.5" (64x64x38 mm)/ Weight: 0.6 lbs (272 g)
- 2-year warranty
- Complete with Amplifier probe and Tone Generator with alligator clips and modular RJ11 phone and RJ45 digital connector cables, 9 V batteries and case

### ORDERING

|       |                                        |
|-------|----------------------------------------|
| 40180 | Tone Generator and Amplifier Probe Kit |
|-------|----------------------------------------|

## BT100 Battery Capacity Tester



### AC milliohmmeter checks Battery Condition in seconds while the battery is in service

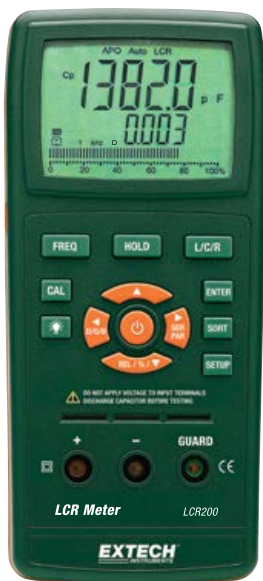
- On-line testing without disconnecting battery
- Datalogger stores up to 999 tests manually or 9600 sets in continuous mode and download readings to your PC with using software (included)
- Simultaneously measures DC Voltage and AC Milliohms
- Long battery life 7 hours; Auto Power Off to save battery
- 2-year warranty
- Complete with software with cable, Kelvin alligator clips, Kelvin test leads, and 6 AAA batteries

| SPECIFICATIONS    | RANGE                                        | RESOLUTION                 | BASIC ACCURACY    |
|-------------------|----------------------------------------------|----------------------------|-------------------|
| Resistance        | 40 mΩ, 400 mΩ, 4 Ω, 40 Ω                     | 10 μΩ, 100 μΩ, 1 mΩ, 10 mΩ | ±(1% rdg ± 10 d)  |
| Voltage           | 4 V, 40 V                                    | 1 mV, 10 mV                | ±(0.1% rdg ± 6 d) |
| Max Input Voltage | 50 V DC                                      | 50 V DC                    |                   |
| Dimensions/ Wt    | 9.75x4x1.75" (250x100x45 mm)/17.5 oz (500 g) |                            |                   |

### ORDERING

|       |                         |
|-------|-------------------------|
| BT100 | Battery Capacity Tester |
|-------|-------------------------|

## LCR200 Passive Component LCR Meter



CE



LCR203 — Optional SMD Tweezer for sorting out SMD components



LCR205 — Optional SMD Component Fixture

### L, C, R measurements with test Frequency up to 100 kHz

- Simultaneous 20,000/2,000 count backlit display of the primary parameter (L, C or R) with the secondary parameter of Q (quality), D (dissipation) R (resistance),  $\theta$  (phase), or ESR (equivalent series resistance)
- Auto Select measurement function with 1 kHz default test frequency
- Five test frequencies
- Set Hi/Lo limits using absolute values or percentage limits
- Relative function, Auto power off with disable, Low battery and over-range indicators
- Parallel or Series equivalent circuit
- Built-in test fixture or use external test leads
- Open and Short calibration removes unwanted stray impedances from the measurement
- 2-year warranty
- Complete with test leads and 9 V battery
- Optional SMD Tweezer (LCR203) and plug-in SMD Component Fixture (LCR205)

| SPECIFICATIONS     | RANGE                                                                                                                                                   | BASIC ACCURACY           |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Inductance         | 20 $\mu$ H, 200 $\mu$ H, 2000.0 $\mu$ H, 20.000 mH, 200.00 mH, 2000.0 mH, 20.000 H, 200.00 H, 2000.0 H                                                  | $\pm(0.5\% \text{ rdg})$ |
| Capacitance        | 20 pF, 200 pF, 2000 pF, 20.000 nF, 200.00 nF, 2000.0 nF, 20.000 $\mu$ F, 200.00 $\mu$ F, 2.0000 mF, 20.00 mF                                            | $\pm(0.5\% \text{ rdg})$ |
| Resistance         | 20.00 $\Omega$ , 200.00 $\Omega$ , 2.0000 k $\Omega$ , 20.000 k $\Omega$ , 200.00 k $\Omega$ , 2.0000 M $\Omega$ , 20.000 M $\Omega$ , 200.0 M $\Omega$ | $\pm(0.5\% \text{ rdg})$ |
| DF (with C)        | 0.000 to 999                                                                                                                                            |                          |
| Q                  | 0.000 to 999                                                                                                                                            |                          |
| Phase              | $\pm 90^\circ$                                                                                                                                          |                          |
| Test Frequency     | 100 Hz/120 Hz/1 kHz/10 kHz/100 kHz                                                                                                                      |                          |
| Dimensions/ Weight | 7.6x3.5x1.6" (193x88x41 mm)/14.8 oz (420 g)                                                                                                             |                          |

### ORDERING

|        |                                        |
|--------|----------------------------------------|
| LCR200 | Passive Component LCR Meter            |
| LCR203 | SMD Tweezer for Model LCR200           |
| LCR205 | SMD Component Fixture for Model LCR200 |

## 380193 Passive Component LCR Meter



Complete with software, cable, test leads with alligator clip, 9 V battery, and protective holster

CE

### Measures Inductance, Capacitance, and Resistance with secondary parameter

- Simultaneous 20,000/10,000 count backlit display of the primary parameter (L, C or R) with the secondary parameter of Q (quality), D (dissipation) or R (resistance)
- Set Hi/Lo limits using absolute values or percentage limits
- Parallel or Series equivalent circuit
- Max/Min/Avg; Auto power off with disable; Automatic blown fuse indication
- Built-in test fixture or use external test leads
- Open and Short Zero removes unwanted stray impedances from the measurement
- Relative mode, zero, or supplied reference
- 2-year warranty

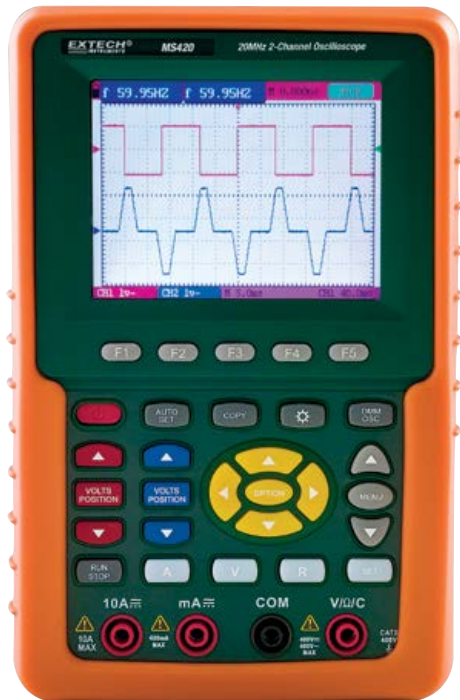
| SPECIFICATIONS    | RANGE                                                                                                                                 | BASIC ACCURACY           |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Inductance        | 2000.0 $\mu$ H, 20.000 mH, 200.00 mH, 2000.0 mH, 20.000 H, 200.00 H, 2000.0 H, 10000 H                                                | $\pm(0.7\% \text{ rdg})$ |
| Capacitance       | 2000.0 pF, 20.000 nF, 200.00 nF, 2000.0 nF, 20.000 $\mu$ F, 200.00 $\mu$ F, 2000.0 $\mu$ F                                            | $\pm(0.7\% \text{ rdg})$ |
| Resistance        | 20.000 $\Omega$ , 200.00 $\Omega$ , 2.0000 k $\Omega$ , 20.000 k $\Omega$ , 200.00 k $\Omega$ , 2.0000 M $\Omega$ , 20.000 M $\Omega$ | $\pm(0.5\% \text{ rdg})$ |
| DF (with C)       | 0 to 0.9999                                                                                                                           | $\pm(0.7\% \text{ rdg})$ |
| Q                 | 0 to 9999                                                                                                                             | $\pm(1.2\% \text{ rdg})$ |
| Test Freq.        | 120 Hz and 1 kHz                                                                                                                      |                          |
| Dimensions/Weight | 7.56x3.58x2.1" (19.2x9.1x5.25 cm)/12.87 oz (365 g)                                                                                    |                          |

### ORDERING

|        |                             |
|--------|-----------------------------|
| 380193 | Passive Component LCR Meter |
| 153117 | 117 V AC adaptor            |



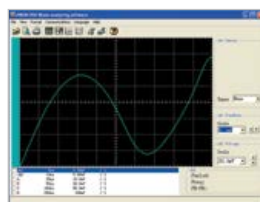
## MS420 20 MHz 2-Channel Digital Handheld Oscilloscope



CE



Includes two 1X/10X oscilloscope probes, test leads, Windows® compatible software, capacitor measuring module, adjustment screwdriver, AC power cord (standard North American 3-prong plug), and carrying case



Software PC screens display analog bargraph and graphical waveform

### 3.8" (96 mm) color LCD display simplifies viewing multiple waveforms

- 20 MHz bandwidth
- Auto-set function optimizes the position, range, timebase, and triggering to assure a stable display of virtually any waveform
- Peak Detect function for 50 ns glitch capture
- XY Mode
- Five Automatic Measurements: Frequency, Duty Cycle, Average, Peak to Peak, RMS
- Waveform Math: Add, Subtract, Multiply, and Divide
- Average Mode for smoothing waveforms
- Persistence Mode for observing dynamic signals
- Store and recall up to 4 waveform screens and setups
- USB interface and PC software for transferring waveforms and data
- 2-year warranty

### SPECIFICATIONS

|                       |                                          |
|-----------------------|------------------------------------------|
| Display Size          | 3.8" (96 mm) color LCD; 320 x 240 pixels |
| Bandwidth             | 20 MHz                                   |
| Real time sample rate | 100 MS/s                                 |
| Risetime              | 17.5 ns                                  |
| Channels              | 2                                        |
| Record Length         | 6 K points per channel                   |
| Glitch Capture        | 50 ns                                    |
| Vertical Sensitivity  | 5 mV to 5 V/div                          |
| Vertical Resolution   | 8 bits                                   |
| Timebase Range        | 5 ns to 5 s/div                          |
| Sample Mode           | Sample, Average, Peak Detect             |
| Trigger Modes         | Free Run, Single Shot, Edge, Video       |
| Trigger Source        | CH1, CH2                                 |
| Trigger Coupling      | AC, DC                                   |
| Input impedance       | 1 M $\Omega$ /20 pF                      |
| Max Input Voltage     | 400 V (peak)                             |
| Cursor Measurement    | Voltage and time                         |

### True RMS Multimeter Functions

|                      |                                                                              |
|----------------------|------------------------------------------------------------------------------|
| AC/DC Voltage        | 400 mV, 4 V, 40 V, 400 V                                                     |
| AC/DC Current        | 40 mA, 300 mA, 20 A                                                          |
| Resistance           | 400 $\Omega$ , 4 k $\Omega$ , 40 k $\Omega$ , 400 k $\Omega$ , 40 M $\Omega$ |
| Capacitance          | 51.2 nF to 100 $\mu$ F                                                       |
| Diode and Continuity | Yes                                                                          |
| PC Interface         | USB cable                                                                    |
| Power Supply         | 6 hours Li-ion rechargeable battery; AC Adaptor/charger                      |
| Dimensions/Weight    | 7x4.4x1.6" (180x113x40 mm)/24.3 oz (690 g)                                   |

### ORDERING

|            |                                                                           |
|------------|---------------------------------------------------------------------------|
| MS420      | 20 MHz 2-Channel Oscilloscope (with Standard North American 3-prong plug) |
| PWRCORD-EU | AC Power Cord with VDE approved schuko plug (two rounded pins)            |
| PWRCORD-UK | AC Power Cord with UK plug BS1363 (three flat pins, grounded)             |



382200/382202 Digital Single Output DC Power Supplies



CE

Adjustable 30 V/1 A and 18 V/3 A supplies with dual LCD displays

- Constant voltage or current
- Dual backlit LCD displays, Short circuit protection, Current limiting, High load/line regulation, Low noise/ ripple, and Banana plug output terminals
- 2-year warranty
- Complete with standard North American (Type B) 3-prong plug AC power cord

| SPECIFICATIONS          | 382200                       | 382202                       |
|-------------------------|------------------------------|------------------------------|
| Display Accuracy (V, A) | ±(1.5% rdg); ±(2% rdg)       | ±(1.5% rdg); ±(2% rdg)       |
| DC Output (V/A)         | 30.0 Volts/ 1.00 Amp         | 18.0 Volts/ 3.00 Amps        |
| Ripple and Noise        | <0.5 mV/<3 mA                | <0.5 mV/<3 mA                |
| Line Regulation         | <0.01% + 3 mV/<0.2% + 3 mA   | <0.01% + 3 mV/<0.2% + 3 mA   |
| Load Regulation         | <0.01% + 2 mV/<0.2% + 3 mA   | <0.01% + 2 mV/<0.2% + 3 mA   |
| Power                   | 115 V/230 V; 50/60 Hz        | 115 V/230 V; 50/60 Hz        |
| Dimensions              | 9.4x4.25x6" (240x108x154 mm) | 9.4x4.25x6" (240x108x154 mm) |
| Weight                  | 4.4 lbs (2 kg)               | 6.6 lbs (3 kg)               |

| ORDERING |                          |
|----------|--------------------------|
| 382200   | DC Power Supply 30 V/1 A |
| 382202   | DC Power Supply 18 V/3 A |

382213 Digital Triple Output DC Power Supply



CE

Adjustable to 30 V/3 A with fixed 5 V and 12 V outputs

- Adjustable Voltage and Current output
- Easy snap terminals for fixed 5 V/0.5 A and 12 V/1 A outputs
- Constant Voltage or Current, Current limiting indicator, Overload and short circuit protection, and Binding post terminals for variable supply
- 2-year warranty
- Complete with standard North American (Type B) 3-prong plug AC power cord

| SPECIFICATIONS            |                                                             |
|---------------------------|-------------------------------------------------------------|
| Display                   | Digital (V&A),3 digit 0.1 res. LCD                          |
| DC Voltage/Current Output | 0 to 30 Volts/ 0 to 3 Amps                                  |
| Ripple and Noise          | <5 mV                                                       |
| Line/Load Regulation      | <0.05%+10 mV                                                |
| Fixed Output Voltage      | 5 V/0.5 A (cont.), 1 A (max); 12 V/0.5 A (cont.), 1 A (max) |
| Power                     | 110/220 V AC 50/60 Hz                                       |
| Dimensions/ Weight        | 6x5.6x9.5" (152x142x242mm)/11 lbs. (5 kg)                   |

| ORDERING        |                                         |
|-----------------|-----------------------------------------|
| 382213 <b>N</b> | Digital DC Power Supply, 115 V/220 V AC |

## DCP36 80 Watt Switching Mode DC Power Supply


**NEW**


CE

Complete with RJ11 cable, alligator clip test leads, an RJ11 terminator plug, and a standard North American (Type B) 3-prong plug AC power cord; 2-year warranty

### 80 W constant power topology and autoranging voltage and current output.

- Dual 4-digit LED display, Front/Rear output terminals, and Lock/Unlock front panel
- Constant Voltage or Current with 3 user programmable presets
- Upper voltage and current limit setting to protect UUT (Unit Under Test)
- Output on/off switch with Power Up Output; On or Off status setting
- Remote Sensing for accurate applied voltage at the load point
- Parallel connection to other units for Master/Slave control

#### SPECIFICATIONS

|                       |                                                                                                          |
|-----------------------|----------------------------------------------------------------------------------------------------------|
| Voltage/Current       | 0.5 to 36 V/0 to 5 A;<br>Autoranging with 80 W maximum output power ( $E \times I = \leq 80 \text{ W}$ ) |
| Accuracy              | $\pm(0.5\% + 5 \text{ counts})$                                                                          |
| Ripple & Noise        | $\leq 35 \text{ mVpp}$                                                                                   |
| Line/ Load Regulation | Line: $\leq 4 \text{ mV}/\leq 10 \text{ mA}$ ; Load: $\leq 30 \text{ mV}/\leq 10 \text{ mA}$             |
| Dimensions/ Weight    | 13x5x2" (330x127x53.5 mm)/4.2 lbs (1.9 kg)                                                               |

#### ORDERING (NOTE: IT MAY BE REQUIRED TO ORDER A DIFFERENT AC POWER CORD TO BE USED IN DIFFERENT COUNTRIES)

|            |                                                                     |
|------------|---------------------------------------------------------------------|
| DCP36      | 80 W Switching Mode DC Power Supply (w/North American 3-prong plug) |
| PWRCORD-EU | AC Power Cord with VDE approved schuko plug (two rounded pins)      |
| PWRCORD-UK | AC Power Cord with UK plug BS1363 (three flat pins, grounded)       |

## 382270 210 Watt Quad Output DC Power Supply



CE

Complete with standard North American (Type B) 3-prong plug AC power cord and 4 pairs of test leads (banana plug to alligator clip); 2-year warranty

### Two fully adjustable 30 V/5 A outputs combined with 2 auxiliary semi adjustable outputs

- Two 0 to 30 V/0 to 5 A outputs with selectable Constant Voltage and Constant Current modes
- Outputs up to 60 V in series mode or 10 A in parallel mode
- Two auxiliary outputs with fixed current of 3 to 6.5 V/3 A and 8 to 15 V/1 A
- Overload and short circuit protection

#### SPECIFICATIONS

|                                |                                                                                           |
|--------------------------------|-------------------------------------------------------------------------------------------|
| Output Voltage (4)/Current (4) | 0 to 30 V, 0 to 30 V, 3 to 6.5 V, 8 to 15 V/ 0 to 5 A, 0 to 5 A, 3 A (fixed), 1 A (fixed) |
| Basic Accuracy                 | $\pm(0.5\% + 2 \text{ digits})$                                                           |
| Load/Line Voltage Regulation   | $\leq 0.02\% + 3 \text{ mV}$                                                              |
| Ripple and Noise               | $< 0.5 \text{ mVrms}$                                                                     |
| Power                          | 100 to 240 V AC, 50/60 Hz                                                                 |
| Dimensions/ Weight             | 10.2x6.3x14.5" (260x160x370 mm)/26.5 lbs (12 kg)                                          |

#### ORDERING

|          |                                                               |
|----------|---------------------------------------------------------------|
| 382270   | Quad Output DC Power Supply                                   |
| 382270-E | Quad Output DC Power Supply (with EU 2-prong plug power cord) |

## 382275/382276 600 Watt Single Output Laboratory Grade DC Power Supply



CE

Complete with standard North American (Type B) 3-prong plug AC power cord; 2-year warranty

### Dual action Voltage/Current controls — push knob for fine/coarse adjustments

- Remote Control for output Voltage/Current and On/Off
- Two user-defined Voltage and Current presets and one 13.8 V/20 A factory preset
- Automatic Constant Current crossover, High RFI immunity and excellent EMI
- Thermostatic Control Fan from zero to full speed

#### SPECIFICATIONS

|                               |                                                       |
|-------------------------------|-------------------------------------------------------|
| Output Voltage/Current (Res.) | 0 to 30 V (100 mV)/ 0 to 20 A (100 mA)                |
| Basic accuracy                | $\pm(0.5\% + 2 \text{ digits})$                       |
| Load/Line Regulation          | Voltage: 50 mV/ 20 mV; Current: 100 mA min/ 50 mA min |
| Ripple and Noise              | $< 5 \text{ mVrms}$                                   |
| Dimensions/ Weight            | 7.9x3.5x8.5" (200x90x215 mm)/5.7 lbs (2.6 kg)         |

#### ORDERING

|        |                                                         |
|--------|---------------------------------------------------------|
| 382275 | Laboratory Grade Switching Mode DC Power Supply (120 V) |
| 382276 | Laboratory Grade Switching Mode DC Power Supply (230 V) |



GRT300 4-Wire Earth Ground Resistance Tester



Color coded test leads with alligator clips and auxiliary earth bars

Includes all hardware necessary to measure earth ground in 4 ranges

- 4-wire, 3-wire, and 2-wire testing
- Earth Ground Resistance in 4 ranges
- Automatic Zero adjustment
- Large dual line LCD
- Autoranging
- Automatic I (current) spike check and Automatic P (potential) spike check
- Test Hold function for easy operation
- AC Earth Voltage
- Data Hold and Auto Power Off features
- Over-range and low battery indication
- 2-year warranty
- Complete with color coded test leads and alligator clips, 4 auxiliary earth bars, hard carrying case, and eight 1.5 V AA batteries

SPECIFICATIONS

|                              |                                                                      |
|------------------------------|----------------------------------------------------------------------|
| Earth Ground Resistance      | 2 Ω/20 Ω/200 Ω/2000 Ω                                                |
| Basic Accuracy               | ±(2% rdg+3 d)                                                        |
| Resolution                   | 0.01 Ω/0.1 Ω/1 Ω/0.01 kΩ                                             |
| Test Current / Frequency     | <2 mA/820 Hz                                                         |
| AC Earth Voltage / Frequency | 0 to 300 V AC/40 to 500 Hz                                           |
| Dimensions/ Weight           | 9.8x7.8x4.3" (250x190x110 mm)/3.15 lbs (1.4 kg) - batteries included |

ORDERING

|        |   |                                           |
|--------|---|-------------------------------------------|
| GRT300 | N | 4-Wire Earth Ground Resistance Tester Kit |
|--------|---|-------------------------------------------|

382252 Earth Ground Resistance Tester Kit



Includes all hardware necessary to measure earth ground in 3 ranges from 20 to 2000 Ω

- Large dual display with backlight and double molded housing
- Test Hold function
- Automatic Zero adjustment
- AC/DC Voltage, Resistance, and Continuity
- Auto Power Off, Over-range and low battery indication
- 2-year warranty
- Complete with test leads, two auxiliary earth bars, carrying case, and six 1.5V AA batteries

| SPECIFICATIONS           | RANGE                                                  | RESOLUTION       | BASIC ACCURACY |
|--------------------------|--------------------------------------------------------|------------------|----------------|
| Earth Ground Resistance  | 20 Ω/200 Ω/2000 Ω                                      | 0.01 Ω/0.1 Ω/1 Ω | ±(2% rdg)      |
| Test Current (Freq.)     | <2.5 mA (820 Hz)                                       | 0.001 mA         | ±2.5%          |
| AC Earth Voltage (Freq.) | 0 to 200 V AC (50 to 400 Hz)                           |                  | ±(3% rdg)      |
| DC Voltage               | 0 to 1000 V                                            | 0.1 V            | ±(0.8% rdg)    |
| Resistance               | 0 to 200 kΩ                                            |                  | ±(1% rdg)      |
| Continuity               | 40 Ω                                                   |                  |                |
| Category rating          | CAT III-1000 V                                         |                  |                |
| Dimensions/ Weight       | 7.9x3.6x2" (200x92x50 mm)/1.5 lbs (700 g) - meter only |                  |                |

ORDERING

|        |   |                                    |
|--------|---|------------------------------------|
| 382252 | N | Earth Ground Resistance Tester Kit |
| 382253 |   | Replacement Earth Bars (2 pk)      |
| 382254 |   | Replacement Set of Test Leads      |

## 382357 Clamp-On Ground Resistance Tester



Verify resistance of cellular and communication tower ground grids

**Enables non-contact measurements of ground conductors without need for auxiliary ground spikes**

- Autoranging ground resistance and True RMS AC Leakage current measurements
- Programmable datalogging with 116 readings
- Programmable Hi/Lo alarm
- 0.9" (23 mm) Jaw size for large ground rods
- Simplifies ground resistance measurements on multiple point ground systems
- Auto power off
- Verification resistors confirm accuracy
- Automatic Self Calibration when powered on
- 9999 Count LCD display with Data Hold
- Electrical Noise Detection feature prevents inaccurate readings
- CAT III-300 V, CAT II-600 V
- 2-year warranty
- Complete with 9 V battery, Resistance check plate, and durable metal storage case

| SPECIFICATIONS            | RANGE                                                      | RESOLUTION | BASIC ACCURACY |
|---------------------------|------------------------------------------------------------|------------|----------------|
| Ground Resistance         | 0.025 to 1500 Ω                                            | 0.002 Ω    | ±1.5%          |
| AC Leakage Current (Trms) | 1 mA                                                       | 0.001 mA   | ±2.5%          |
| AC Current (Trms)         | 0.3 mA to 30.00 A                                          | 0.01 A     | ±2.0%          |
| Resistance Test Frequency | 3.333 kHz                                                  |            |                |
| Operating Temperature     | 32 to 122°F (0 to 50°C)                                    |            |                |
| Dimensions/Weight         | 10.2x4.4x1.9" (258x110x47 mm)/1.5 lbs (700 g) - meter only |            |                |

### ORDERING

|        |   |                                   |
|--------|---|-----------------------------------|
| 382357 | N | Clamp-On Ground Resistance Tester |
|--------|---|-----------------------------------|

## UM200 High Resolution Micro-Ohm Meter



CE

**Provides resolution down to 1 μΩ using 4-wire Kelvin clip test leads**

- 6 ranges with 3 sub-ranges in each current range
- Measurement of resistive and inductive materials
- Auto or Manual ranging
- 5-Digit backlit LCD with high resolution to 1 μΩ
- Built-in comparator for Hi/Lo/Go resistance testing with 20 sets of pre-stored values
- Store/Recall up to 3000 measurements
- 10 A maximum test current
- Cable length measurement (feet or meters)
- USB interface
- 2-year warranty
- Complete with 4-wire cables with Kelvin clip connectors, rechargeable Li-Polymer battery, AC adapter/charger, software and USB cable, and carrying case

| SPECIFICATIONS    | RANGE                                          | RESOLUTION | CURRENT | BASIC ACCURACY |
|-------------------|------------------------------------------------|------------|---------|----------------|
| Resistance        | 60 mΩ                                          | 1 μΩ       | 10 A    | ±(0.25%)       |
|                   | 600 mΩ                                         | 10 μΩ      | 1 A     | ±(0.25%)       |
|                   | 6 Ω                                            | 100 μΩ     | 100 mA  | ±(0.25%)       |
|                   | 60 Ω                                           | 1 mΩ       | 10 mA   | ±(0.25%)       |
|                   | 600 Ω                                          | 10 mΩ      | 1 mA    | ±(0.25%)       |
|                   | 6 kΩ                                           | 100 mΩ     | 100 μA  | ±(0.75%)       |
| Power             | Rechargeable Li-Polymer Battery                |            |         |                |
| Dimensions/Weight | 10.1x6.1x2.2" (257x155x57 mm)/2.6 lbs (1160 g) |            |         |                |

### ORDERING

|           |   |                                    |
|-----------|---|------------------------------------|
| UM200     | N | High Resolution Micro-Ohm Meter    |
| UM200-KTL |   | Replacement Kelvin Clip Test Leads |

## 380580 Battery Powered Milliohm Meter



Complete with 8 AA batteries, and 2 sets of test leads (4 wire with 4 alligator clips, 4 wire with 2 Kelvin alligator clips), and built-in water resistant case with shoulder strap; 2-year warranty



**High accuracy, high resolution portable Milliohm Meter for field use**

- Four terminal Kelvin measurements
- Over-temperature and over-voltage protection
- Auto-Hold and Auto Power Off
- Invalid test indicators prevent inaccurate measurements

| SPECIFICATIONS     | RANGE                                          | RESOLUTION | CURRENT | BASIC ACCURACY |
|--------------------|------------------------------------------------|------------|---------|----------------|
| Resistance         | 200.0 mΩ                                       | 0.1 mΩ     | 100 mA  | ±0.5%          |
|                    | 2000 mΩ                                        | 1 mΩ       | 100 mA  | ±0.5%          |
|                    | 20.00 Ω                                        | 0.01 Ω     | 10 mA   | ±0.5%          |
|                    | 200.0 Ω                                        | 0.1 Ω      | 10 mA   | ±0.5%          |
|                    | 2000 Ω                                         | 1 Ω        | 1 mA    | ±0.5%          |
| Dimensions/ Weight | 9.8x7.5x4.3" (250x190x110 mm)/3.3 lbs (1.5 kg) |            |         |                |

### ORDERING

|        |   |                                      |
|--------|---|--------------------------------------|
| 380580 | N | Battery Powered Milliohm Meter       |
| 380565 |   | Test Leads w/Kelvin clips for 380580 |

## 380560/380562 High Resolution Milliohm Meter



**Benchtop meter provides resolution down to 0.01 mΩ**

- Automatic zero; 5 V test voltage
- Built-in comparator for Hi/Lo/Go resistance testing or selection
- Includes 4-wire cables with Kelvin clip connectors and power cord; 2-year warranty

| SPECIFICATIONS | RANGE                                         | RESOLUTION | CURRENT | BASIC ACCURACY |
|----------------|-----------------------------------------------|------------|---------|----------------|
| Resistance     | 20 mΩ                                         | 0.01 mΩ    | 1 A     | ±0.2%          |
|                | 200 mΩ                                        | 0.1 mΩ     | 1 A     | ±0.2%          |
|                | 2 Ω                                           | 0.001 Ω    | 100 mA  | ±0.2%          |
|                | 20 Ω                                          | 0.01 Ω     | 10 mA   | ±0.2%          |
|                | 200 Ω                                         | 0.1 Ω      | 1 mA    | ±0.2%          |
|                | 2 kΩ                                          | 0.001 kΩ   | 100 μA  | ±0.2%          |
|                | 20 kΩ                                         | 0.1 kΩ     | 10 μA   | ±0.2%          |
| Power          | 110 V AC, 60 Hz or 220 V AC 50 Hz             |            |         |                |
| Dims/Wt        | 11x8.3x3.5" (280x210x90 mm)/4.85 lbs (2.2 kg) |            |         |                |

### ORDERING

|        |   |                                          |
|--------|---|------------------------------------------|
| 380560 | N | High Resolution Milliohm Meter, 110 V AC |
| 380562 | N | High Resolution Milliohm Meter, 220 V AC |
| 380465 |   | Spare Kelvin Clip Test Lead Set          |

## 380460/380462 Precision Milliohm Meter



**Portable Milliohm meter provides resolution to 0.1 mΩ**

- Manual zero display adjust; Over-range indication
- Compact, durable field service housing with protective cover
- Includes 4-wire cables with Kelvin clip connectors and power cord; 2-year warranty

| SPECIFICATIONS    | RANGE                                    | RESOLUTION | MAX VOLTAGE | BASIC ACCURACY |
|-------------------|------------------------------------------|------------|-------------|----------------|
| Resistance        | 200 mΩ                                   | 0.1 mΩ     | 4.4 V DC    | ±0.75%         |
|                   | 2 Ω                                      | 1 mΩ       | 3.6 V DC    | ±0.75%         |
|                   | 20 Ω                                     | 10 mΩ      | 3.6 V DC    | ±0.75%         |
|                   | 200 Ω                                    | 0.1 Ω      | 3.5 V DC    | ±0.75%         |
|                   | 2000 Ω                                   | 1 Ω        | 3.5 V DC    | ±0.75%         |
| Power             | 110VAC, 60Hz or 220VAC, 50Hz             |            |             |                |
| Dimensions/Weight | 6.3x2.8x3.4" (160x120x85mm)/1.5lb (680g) |            |             |                |

### ORDERING

|        |   |                                    |
|--------|---|------------------------------------|
| 380460 | N | Precision Milliohm Meter, 110 VA C |
| 380462 | N | Precision Milliohm Meter, 220 V AC |
| 380465 |   | Spare Kelvin Clip Test Lead Set    |





## 380320 Analog High Voltage Megohmmeter



CE

### Three Insulation Test ranges with live circuit warning

- Insulation Resistance ranges: 100 M $\Omega$ , 200 M $\Omega$ , and 400 M $\Omega$
- Basic accuracy  $\pm 5\%$  of scale
- Three test voltages 250 V, 500 V, and 1000 V
- Lock Power On feature for extended test times
- Fuse protected and automatic discharge circuit
- Measures continuity to 3  $\Omega$ , Resistance to 500  $\Omega$ , and AC Voltage to 600 V
- 1.3 mA short circuit current
- CAT III-1000 V
- Dimensions: 7.9x3.6x2" (200x92x50 mm); Weight: 1.2 lbs (546 g) includes batteries
- 2-year warranty
- Complete with heavy duty test leads, alligator clip test lead, 6 x AA batteries, and hard carrying case

### ORDERING

380320 N Analog High Voltage Megohmmeter

## 380260 Digital Megohmmeter



CE

### 1000 V digital tester with large dual backlit display

- Double molded housing for added durability
- Dual display of Insulation Resistance and Test Voltage
- Backlit large display
- Insulation Resistance ranges: 200 M $\Omega$  and 2000 M $\Omega$  with 0.1 M $\Omega$  max resolution and  $\pm 3\%$  of reading basic accuracy
- 250 V, 500 V, and 1000 V test voltages
- Auto Power Off
- Lo  $\Omega$  function for testing connections
- Lock Power On function for hands-free operation
- Data Hold
- CAT III-1000 V
- Dimensions: 7.8x3.6x1.9" (200x92x50 mm); Weight: 24.6 oz (700 g)
- 2-year warranty
- Complete with heavy duty test leads, alligator clip test lead, hanging strap, carrying case, and 6 x AA batteries

### ORDERING

380260 N Digital Megohmmeter





# Preventative Maintenance Works!

Extech's wide range of Insulation Testers measure up to 500 GΩ with high test voltages up to 10 kV.



## MG310 Compact Digital Insulation Tester

Measurements up to 1000 V with Insulation Resistance to 5.5 GΩ

- 250 V, 500 V, and 1000 V test voltages
- AC Voltage measurement from 30 to 600 V
- Large 2000 count dual display with backlight
- Polarization Index measurement (PI)
- Dielectric Absorption Ratio measurement (DAR)
- 10 MΩ internal resistance test
- Low Resistance measurement with Zero function
- Continuity beeper
- High voltage and overload indication
- Auto-discharge and voltage output warning functions
- Low battery indication
- Complete with test leads, alligator clips, 6 x AA batteries, hard cover, and soft carrying case



## 380363 Digital Insulation Tester

Autoranging insulation measurements to 10 GΩ plus manual datalogging stores up to 9 data sets

- 250 V, 500 V and 1000 V test voltages
- Large LCD display with analog bargraph
- Low Resistance function for testing connections
- Automatic discharge
- AC/DC Voltage measurement up to 999 V
- Auto Power Off
- Manual data record and read function (9 sets)
- Live circuit display warning and beeper
- Complete with carrying case, test leads, and 6 x AA batteries

| SPECIFICATIONS                  | MG310 <span>N</span>                          | 380363 <span>N</span>                         |
|---------------------------------|-----------------------------------------------|-----------------------------------------------|
| Insulation Resistance (max res) | 0 to 99.9 MΩ (0.01 Ω), 100 M to 5.5 GΩ (1 MΩ) | 4 M, 40 M, 400 M, 4000 MΩ, 10 GΩ (1kΩ)        |
| Basic Accuracy                  | ±5% rdg                                       | ±3%                                           |
| Insulation Test Voltages        | 250 V, 500 V, 1000 V                          | 250 V, 500 V, 1000 V                          |
| Voltage Test                    | 600 V AC only                                 | 999 V AC only                                 |
| Low Resistance Test             | 0 to 200 Ω                                    | 0 to 40 Ω                                     |
| CE                              | CE                                            | CE                                            |
| Dimensions/Weight               | 6x4x2.8" (150x100x71 mm)/1.5 lbs (0.7 kg)     | 9.3x4.6x2.1" (235x116x54 mm)/1.15 lbs (520 g) |
| Warranty                        | 2 years                                       | 2 years                                       |



## MG320/MG325 CAT IV Insulation Tester/TRMS Multimeters

**Autoranging Insulation measurement up to 20 GΩ (MG320) or 200 GΩ (MG325)**

- Polarization Index (PI) and Dielectric Absorption Ratio measurements (DAR)
- Low Resistance function with Zero mode
- Comparison Mode to set Pass/Fail values for insulation
- Step Voltage (10% steps at 50% to 120% of range)
- Auto-discharge of voltage test signal
- Lock Power-On function
- Store/recall 99 readings
- Backlit display with bargraph
- Includes test leads, alligator clip, 6 AA batteries, and case; remote probe w/MG325

### MG325 Additional Features:

- View the Frequency of AC Voltage measurements
- Remote probe with built-in TEST button allows for quick on-spot testing
- LED high voltage and LCD overload indication
- See p. 12 for DMM specs



## 380395/380396 Digital High Voltage Insulation Tester

**High test Voltages up to 5 kV and Insulation Resistance to 60 GΩ**

- Four Test Voltages to 5000 V
- Large 6000 count display with bargraph and backlight
- Polarization Index (PI) measurement
- Dielectric Absorption Ratio measurement
- 1 to 15 minute Timer function for Insulation Resistance measurements
- AC/DC Voltage from 0 to 600 V with Max/Min, Peak and Relative functions
- Autoranging and timer function
- Indication of output voltage and discharge voltage
- Auto-discharge and voltage output warning function
- Auto Power Off and battery check
- Includes test leads, 8 x C batteries, and heavy duty case; **Model 380395** with 110 V AC adaptor  
**Model 380396** with 220 V AC adaptor



## MG500 Digital High Voltage Insulation Tester

**High test Voltages up to 10 kV with Insulation Resistance to 500 GΩ**

- Test Voltages of 500 V to 10 kV (adjustable in 500 V steps)
- Polarization Index (PI) measurement
- Dielectric Absorption Ratio (DAR) measurement
- EnerSave™ limits test duration to 10 seconds to save energy
- Auto-discharge and voltage output warning function
- CAT III-300 V category rating
- Complete with built-in heavy duty carrying case with cover, test leads, alligator clips, and 8 x C batteries

### ■ MG320 N | ▲ MG325 N

■ ▲ 50 M, 100 M, 200 M, 500 M, 2000 MΩ, 1 G, 10 G, 20 GΩ (0.001 MΩ);

▲ additional ranges 50 G, 100 G, 200 GΩ

±3%

50 V, 100 V, 250 V, 500 V, 1000 V

600 V AC/DC

■ 0.01 to 20 kΩ | ▲ 0.01 to 100 Ω

CE

8.9x4.1x2.3" (225x103x59 mm)/1.5 lbs (0.7 kg)

2 years

### ■ 380395 N | ▲ 380396 N

6 M, 60 M, 600 MΩ, 6 G, 60 GΩ (1 kΩ)

±2.5%

500 V, 1000 V, 2500 V, 5000 V

600 V AC only

0 to 600 Ω

CE

7.8x5.8x3.4" (198x148x86 mm)/3.2 lbs (1.4 kg)

2 years

### MG500 N

800 kΩ to 500 GΩ (1 kΩ) Autoranging

±5%

500 V to 10 kV (adjustable in 500 V steps)

—

—

CE

13x10.2x6.3" (330x260x160 mm)/7.9 lbs (3.6 kg)

2 years

### SPECIFICATIONS

Insulation Resistance (max res)

Basic Accuracy

Insulation Test Voltages

Voltage Test

Low Resistance Test

CE

Dimensions/Weight

Warranty



# 382100/PQ3450 3-Phase Power Quality Analyzer/Dataloggers

Choice of 1200 A kit (382100) or model with optional 200 A, 1200 A, and 3000 A ranges (PQ3450)

- **Model 382100 Kit**— includes three 1200 A Clamp probes
- **Model PQ3450** (meter does not include clamp probes) — optional 200 A, 1200 A Current Clamps or 3000 A Flexible Current Clamp Probes available
- **PQ3450 kits** (include Clamp probes) — See ordering section for available kits: PQ3450-2 (200 A range), PQ3450-12 (1200 A range), and PQ3450-30 (3000 A range)
- Large, dot-matrix, sun readable, numerical, backlit LCD
- Captured measurements can be imported directly into Excel via the SD memory card
- Adjustable Current Transformer CT (1 to 600) and Potential Transformer PT (1 to 1000) ratio for high power distribution systems
- Log up to 30,000 reading on a removable SD memory card in MS Excel® format
- Wide sampling rate range (2 seconds to 2 hours)
- Built-in Clock and Calendar and easy-to-use on-screen menu
- Banana style input jacks and easy-to-hold rugged over molded housing
- Complete with 4 voltage leads with alligator clips (PQ1000), 8 AA batteries, SD memory card, Universal AC adaptor (100 to 240 V), and carrying case; Clamp probes are only included with kits.
- 2-year warranty

| SPECIFICATIONS                | RANGE                                                                              | BASIC ACCURACY |
|-------------------------------|------------------------------------------------------------------------------------|----------------|
| AC Voltage (True RMS)         | 600.0 V                                                                            | ±(0.5% rdg)    |
| AC Current                    | Model 382100: 1200 A<br>Model PQ3450: 3000 A (dependent on Clamp Probe range used) | ±(0.5% rdg)    |
| Active Power (MW)             | 9.999 MW                                                                           | ±(1.0% rdg)    |
| Apparent Power (MVA)          | 9.999 MVA                                                                          | ±(1.0% rdg)    |
| Reactive Power (MVAR)         | 9.999 MVAR                                                                         | ±(1.0% rdg)    |
| Power Factor                  | 0.00 to 1.00                                                                       | ±0.04          |
| Frequency Range               | 45 Hz to 65 Hz                                                                     | ±0.1 Hz        |
| Phase                         | -180° to +180.0°                                                                   | ±1°            |
| Current Clamp input           | 200 mV, 300 mV, 500 mV;<br>1 V, 2 V, 3 V; user-adjustable                          | ±(0.5% rdg)    |
| Active Power Energy (MWH)     | 0.0 kWh to 9.999 MWH                                                               | ±(2.0% rdg)    |
| Apparent Power Energy (MVAH)  | 0.0 kVAh to 9.999 MVAH                                                             | ±(2.0% rdg)    |
| Reactive Power Energy (MVARH) | 0.0 kVARh to 9.999 MVARH                                                           | ±(2.0% rdg)    |
| Datalogging                   | 30,000 data (2 GB SD Card)                                                         |                |
| CE/CAT rating                 | CE/CAT III-600 V                                                                   |                |
| Dimensions/ Weight            | 8.86x4.92x2.52" (225x125x64 mm)/2.2 lbs (1010 g)                                   |                |

## ORDERING

|                                |                                                                                |
|--------------------------------|--------------------------------------------------------------------------------|
| 382100                         | 1200 A 3-Phase Power Analyzer/Datalogger Kit (includes 1200 A Clamp Probes)    |
| PQ3450                         | 3000 A 3-Phase Power Analyzer/Datalogger (Meter does not include Clamp Probes) |
| PQ1000                         | Replacement Voltage Test Leads with Alligator and Plunger Clips (4 leads)      |
| <b>PQ3450 Kits</b>             |                                                                                |
| PQ3450-2 <span>N</span>        | 200 A Power Analyzer Kit: PQ3450 with PQ34-2                                   |
| PQ3450-12 <span>N</span>       | 1200 A Power Analyzer Kit: PQ3450 with PQ34-12                                 |
| PQ3450-30 <span>N</span>       | 3000 A Power Analyzer Kit: PQ3450 with PQ34-30                                 |
| <b>Clamp Probes for PQ3450</b> |                                                                                |
| PQ34-2                         | 200 A Current Clamp Probes (Set of 3)                                          |
| PQ34-12                        | 1200 A Current Clamp Probes (Set of 3)                                         |
| PQ34-30                        | 3000 A, Flexible Current Probes (Set of 3)                                     |



Model 382100 includes 1200 A Clamp Probes and accessories

## PQ3450 Kits Available

Model PQ3450 (meter) can measure up to 3000 A with optional clamp probes. Clamp Probes not included unless ordered as a Kit (PQ3450-2, PQ3450-12, and PQ3450-30). See ordering section.

**Clamp Probes** Choose clamp probes ranging from 200 A to 3000 A and flexible vs traditional jaw. See below.



## Optional Clamp Probes for PQ3450



**PQ34-2:** 200 A Current Clamp Probes with 0.8" (19 mm) jaw opening



**PQ34-12:** 1200 A Current Clamp Probes with 2" (50 mm) jaw opening



**PQ34-30:** 3000 A Flexible Current Clamp Probes (24"/600 mm) for wrapping around busbars.

## PQ3350-1/PQ3350-3 3-Phase Power Quality & Harmonics Analyzers



CE



Includes (3) flexible current clamps, (4) voltage leads with alligator clips and retractable plunger clips, 8 AA batteries, universal AC adaptor, software, USB interface cable, and case; 2-year warranty.

### Power Measurements and Analysis + Datalogging of single and 3-phase/3-wire or 3-phase/4-wire systems; CAT III-600 V safety rating

- **Model PQ3350-1** (1200 A 12" flexible current clamp probes)
- **Model PQ3350-3** (3000 A 24" flexible current clamp probes)
- Large backlighting LCD displays up to 35 parameters in one screen
- Clamp-on True RMS power measurements with on-screen Harmonics display
- Simultaneous display of Voltage and Current waveforms
- Analysis of Total Harmonic Distortion (THD-F)
- Maximum Demand (MDkW, MW, kVA, MVA) with programmable period
- Adjustable CT ratio (1 to 600) and VT ratio (1 to 3000)
- 3-phase Voltage or Current Unbalanced Ratio (VUR, AUR) and unbalanced factor
- Calculated Unbalanced Current through Neutral Line (In)
- Capture 28 Transient events with programmable threshold (%)
- USB interface w/software to download Waveforms, Power Parameters & Harmonics

| SPECIFICATIONS                | RANGES                                                                                                                   | BASIC ACCURACY                              |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| AC Voltage (True RMS)         | 600 V                                                                                                                    | ±0.5% rdg                                   |
| AC Current (True RMS)         | 100 A, 1000 A, 3000 A*                                                                                                   | ±0.5% rdg                                   |
| Active Power (kW)             | 9.999 MW                                                                                                                 | ±1% rdg                                     |
| Apparent Power (kVA)          | 9999 kVA                                                                                                                 | VA=Vrms x Arms                              |
| Reactive Power (kVAR)         | 9999 kVAR                                                                                                                | VAR= sqr (VA <sup>2</sup> -W <sup>2</sup> ) |
| Power Factor                  | 0.0 to 1.00                                                                                                              | ±1.5% rdg                                   |
| Frequency                     | 45 to 65 Hz                                                                                                              | 0.1 Hz                                      |
| Phase                         | -180.0°~ 0°~ 180.0°                                                                                                      | ±1°                                         |
| Harmonics/ Crest Factor       | 1 to 99/ 1.00 to 99.99                                                                                                   | ±2%/ ±5%                                    |
| Active Power Energy (kWh)     | 0 mWh to 999,999 kWh                                                                                                     |                                             |
| Reactive Power Energy (kVARh) | 0.0 kVARh to 100 0 MWh                                                                                                   |                                             |
| Datalogging                   | 52,428 records (1P2W)/17476 records (3P4W)                                                                               |                                             |
| Dimensions/Weight             | Meter: 10.1x6.1x2.3" (257x155x57 mm)/2.5 lbs (1160 g)<br>Clamp: 2.2" (55 mm), 2.5x1.0" (64x24 mm) busbar/1.3 lbs (600 g) |                                             |

\* Using PQ3220 Current Probe (included with PQ3350-3 kit)

### ORDERING

|          |   |                                                               |
|----------|---|---------------------------------------------------------------|
| PQ3350-1 | N | 1200 A 3-Phase Power Harmonics Analyzer Kit (includes PQ3210) |
| PQ3350-3 | N | 3000 A 3-Phase Power Harmonics Analyzer Kit (includes PQ3220) |
| PQ1000   |   | Voltage Test Leads with Alligator and Plunger Clips (4 leads) |

## PQ2071 True RMS 1000 A AC 1-/3-Phase Power Clamp Meter



Includes test leads, USB cable, PC software, 9V battery, and carrying case; 2-year warranty.

CE

### Measures AC Current, Frequency, and Power; USB interface with software

- Dual backlit LCD display with bargraph
- Built-in non-contact Voltage Detector with LED alert
- Manually store/recall up to 99 data sets
- Data Hold, Max/Min, and Auto Power Off
- CAT IV-600 V, CAT III-1000 V safety rating

| SPECIFICATIONS                 | RANGES                                        |
|--------------------------------|-----------------------------------------------|
| Jaw size/Cable size            | 2.2" (55 mm); 1000 MCM                        |
| True Power (max res.)          | 750 kW (10 W)                                 |
| Basic Accuracy (ACA)           | ±3% rdg                                       |
| Apparent Power/ Reactive Power | 750 kVA (10 kVA)/ 750 kVAR (10 VAR)           |
| Power Factor                   | Yes                                           |
| Phase Angle (φ)                | -180° to 180° (1°)                            |
| Active Power Energy            | 9999 kWh (0.001 kWh)                          |
| AC/DC Current (True RMS)       | 1000 A AC (100 mA)                            |
| AC/DC Voltage (True RMS)       | 750 V AC (0.1 V)                              |
| Frequency (max res.)           | 50 Hz to 200 Hz (1 Hz)                        |
| Dimensions/Weight              | 11.5x3.75x1.5" (292x95x38 mm)/18.4 oz (522 g) |

### ORDERING

|        |   |                                                 |
|--------|---|-------------------------------------------------|
| PQ2071 | N | True RMS 1000 A AC 1-/3-Phase Power Clamp Meter |
|--------|---|-------------------------------------------------|

480846 8 GHz RF EMF Strength Meter



High frequency radiation measurement from 10 MHz to 8 GHz

- For electromagnetic field strength measurement including mobile phone base station antenna radiation, RF power measurement for transmitters, wireless LAN detection/installation, wireless communication applications and microwave leakage
- Measurement optimized for 900 MHz, 1800 MHz, 2.7 GHz, 3.5 GHz and 8 GHz
- Non-directional (isotropic) measurement with 3-channel (triaxial) measurement probe
- Max Hold and Average functions
- Manual store/recall up to 99 sets
- Level exceed audible alarm with user selectable threshold
- 2-year warranty
- Complete with 9 V battery and carrying case

| SPECIFICATIONS             | RANGE                                                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------------|
| Frequency range            | 10 MHz to 8 GHz                                                                                       |
| Directional Characteristic | Isotropic, 3-dimensional                                                                              |
| Measurement Ranges         | 20 mV/m to 108.0 V/m;<br>53 µA/m to 286.4 mA/m;<br>1 µW/m² to 30.93 W/m²;<br>0 µW/cm² to 3.093 mW/cm² |
| Resolution                 | 0.1 mV/m, 0.1 µA/m, 0.1 µW/m², 0.001 µW/cm²                                                           |
| Dimensions/Weight          | 2.6x2.4x9.7" (67x60x247 mm)/8.8 oz (250 g)                                                            |

ORDERING

|        |                                 |
|--------|---------------------------------|
| 480846 | RF EMF Strength Meter (8.0 GHz) |
|--------|---------------------------------|



480836 3.5 GHz RF EMF Strength Meter



Radiation measurement in the 50 MHz to 3.5 GHz frequency range

- For electromagnetic field strength measurement of mobile phones, cell phone and base stations, microwave leakage
- Measurement optimized for 900 MHz, 1800 MHz and 2.7 GHz
- Non-directional (isotropic) measurement with three-channel (triaxial) measurement probe
- Max Hold and Average functions
- Manual store/recall up to 99 sets
- Level exceed audible alarm with user selectable threshold
- 2-year warranty
- Complete with 9 V battery and carrying case

| SPECIFICATIONS             | RANGE                                                                                              |
|----------------------------|----------------------------------------------------------------------------------------------------|
| Frequency range            | 50 MHz to 3.5 GHz                                                                                  |
| Directional Characteristic | Isotropic, 3-dimensional                                                                           |
| Measurement Ranges         | 20 mV/m to 108 V/m;<br>53 µA/m to 286 mA/m;<br>1 µW/m² to 30.93 mW/m²;<br>0 µW/cm² to 3.093 mW/cm² |
| Resolution                 | 0.1 mV/m, 0.1 µA/m, 0.1 µW/m², 0.001 µW/cm²                                                        |
| Dimensions/Weight          | 2.4x2.4x9.3" (60x60x237 mm)/7.1 oz (200 g)                                                         |

ORDERING

|        |                                 |
|--------|---------------------------------|
| 480836 | RF EMF Strength Meter (3.5 GHz) |
|--------|---------------------------------|





## EMF510 EMF/ELF Meter



**NEW**

CE

**Measures energy from electromagnetic fields (EMF) and electrical signals and is sensitive to extremely low frequency levels (ELF)**

- Measure EMF/ELF levels in milliGauss (mG) or microTesla ( $\mu$ T) up to 2000 mG (200  $\mu$ T) with two ranges to choose from
- Built-in single axis sensor provides basic accuracy reading of  $\pm 5\%$
- 30 to 300 Hz bandwidth
- Backlit display to view in dimly lit areas
- Data Hold and Min/Max functions
- Auto power off with disable
- Tripod mount (tripod is not included)
- Ideal for monitoring power lines, electrical appliances, fans and blowers, and electrical circuits
- 2-year warranty
- Complete with wrist strap and 3 AAA batteries

| SPECIFICATIONS     | RANGE                                    | MAX RESOLUTION                | BASIC ACCURACY                                 |
|--------------------|------------------------------------------|-------------------------------|------------------------------------------------|
| Range              | 200.0/2000 mG;<br>20.00/200.0 $\mu$ T    | 0.1/1 mG;<br>0.01/0.1 $\mu$ T | $\pm(5\%+3 \text{ digits}) @ 50/60 \text{ Hz}$ |
| Bandwidth          | 30 to 300 Hz                             |                               |                                                |
| Number of Axes     | Single axis                              |                               |                                                |
| Dimensions/ Weight | 4.2x2.3x1" (107x58x25 mm)/5.6 oz (160 g) |                               |                                                |

### ORDERING

|        |               |
|--------|---------------|
| EMF510 | EMF/ELF Meter |
|--------|---------------|



## 480823 EMF/ELF Meter



CE

**Measure electromagnetic field radiation levels from fans, electrical appliances, wiring, and power lines**

- ELF frequency bandwidth of 30 to 300 Hz  
Single axis - sampling 2.5 times per second
- Large 1/2" LCD (1999 count) display of Electromagnetic Field (EMF) level in milliGauss or microTesla
- Accurate measurements to 4% over a measuring range of 0.1 to 199.9 mGauss (0.01 to 19.99  $\mu$ Tesla)
- Dims: 5.2x2.8x1" (132x71x25 mm); Weight: 6 oz (170 g)
- 2-year warranty
- Complete with 9 V battery

### ORDERING

|        |                             |
|--------|-----------------------------|
| 480823 | Electromagnetic Field Meter |
| 409992 | Soft pouch carrying case    |

EMF450 Multi-Field EMF Meter



Convenient 3-in-1 EMF meter with easy-to-navigate menu and audible alarm

- Multi-Field measurements: Magnetic Field, Electric Field, Radio Frequency Strength
- Magnetic Field Triple Axis Sensor (X, Y, Z)
- 2.4" (240x320 pixels) color TFT display with adjustable screen brightness
- Store up to 20 RF historical records
- Data Hold and Auto Power Off with disable feature
- Five languages: English, Traditional/Simplified Chinese, Japanese, Spanish
- 2-year warranty
- Complete with 3 AAA batteries and USB power supply cable

| SPECIFICATIONS                  | RANGE                                      | MAX RESOLUTION | BASIC ACCURACY    |
|---------------------------------|--------------------------------------------|----------------|-------------------|
| Magnetic Fields (50/60 Hz)      | 20/200/2000 mG                             | 0.02/0.1/1 mG  | ±(15%+100 digit)  |
|                                 | 2/20/200 µT                                | 0.02/0.1/1 µT  |                   |
| Electric Fields (50/60 Hz)      | 50 V/m to 2000 V/m                         |                | ±(7%+50 digit)    |
| RF Strength (50 MHz to 3.5 GHz) | 0.02 µW/cm² to 554.6 mW/m²                 | 0.02 µW/m²     |                   |
|                                 | 0.02 µW/cm² to 55.4 µW/cm²                 | 0.002 µW/cm²   |                   |
|                                 | 36.1 mV/m to 14.46 V/m                     | 0.2 mV/m       |                   |
|                                 | 0.02 mA/m to 38.35 mA/m                    | 0.2 µA/m       |                   |
|                                 | -51 dB to 16 dBm                           | 2 dB           | ±2 dB at 2.45 GHz |
|                                 |                                            |                |                   |
| Dimensions/ Weight              | 4.5x2.4x0.8" (115x60x21 mm)/4.2 oz (120 g) |                |                   |

ORDERING

|        |                       |
|--------|-----------------------|
| EMF450 | Multi-Field EMF Meter |
|--------|-----------------------|

EMF300 Microwave Leakage Detector



Designed to measure high frequency radiation levels emitted from household and commercial microwave ovens

- 0 to 1.999 mW/cm² measurement range
- <2 db accuracy (1 mW/cm² @ 2.45 GHz ± 50 MHz)
- Audible alarm if level is >1 mW/cm²
- 2.45 GHz calibration frequency
- EMF values from 30 MHz to 3 GHz can also be measured for reference only
- Peak Hold function captures highest value
- Overrange indicator
- Dimensions: 6x2.7x1.4" (152x69x36.3 mm); Weight: 7 oz (202 g)
- 2-year warranty
- Complete with 9 V battery

ORDERING

|        |                            |
|--------|----------------------------|
| EMF300 | Microwave Leakage Detector |
|--------|----------------------------|



## MF100/SDL900 AC/DC Magnetic Field Meters



Both meters include a uniaxial magnetic probe sensor with cover and hard case; 2-year warranty. MF100 also includes 9 V battery; SDL900 with SD memory card, Universal AC Adaptor with plugs (US, EU, UK, AU), and 6 AA batteries.

### Measure AC and DC Magnetic Field with Uniaxial Hall Effect sensor with ATC

- N pole/S pole indicator
- Zero button for DC measurement
- Data Hold, Min/Max, and Auto Power Off with disable

### SDL900 Additional Features

- Memory stores 99 readings manually and datalogging feature records readings with date and time stamp on an SD card (included) in Excel® format

| SPECIFICATIONS         | RANGE                                                                                                    | MAX RESOLUTION  | BASIC ACCURACY |
|------------------------|----------------------------------------------------------------------------------------------------------|-----------------|----------------|
| DC milli Tesla         | 300.00 mT, 3000.0 mT                                                                                     | 0.01 mT, 0.1 mT | ±(5% + 10 d)   |
| DC Gauss               | 3000.0 G, 30,000 G                                                                                       | 0.1 G, 1 G      | ±(5% + 10 d)   |
| AC milli Tesla         | 150.00 mT, 1500.0 mT                                                                                     | 0.01 mT, 0.1 mT | ±(5% + 20 d)   |
| AC Gauss               | 1500.0 G, 15,000 G                                                                                       | 0.1 G, 1 G      | ±(5% + 20 d)   |
| AC Bandwidth           | 50 Hz/60 Hz                                                                                              |                 |                |
| Sampling Rate (SDL900) | 1 to 3600 seconds (adjustable)                                                                           |                 |                |
| Dimensions/ Weight     | MF100: 7.8x2.7x1.2" (195x68x30 mm)/9.5 oz (270 g)<br>SDL900: 7.1x2.9x1.9" (182x73x48 mm)/10.7 oz (303 g) |                 |                |

### ORDERING

|        |                                       |
|--------|---------------------------------------|
| MF100  | AC/DC Magnetic Field Meter            |
| SDL900 | AC/DC Magnetic Field Meter/Datalogger |

## DT Series Laser Distance Meters



Complete with 2 AAA batteries and wrist strap; 2-year warranty

### Laser distance measurement that can also calculates area and volume and has Stakeout function that accurately marks the distance between studs

- Three models: DT40M (131 ft/40 m), DT60M (196 ft/60 m), DT100M (330 ft/100 m)
- Automatically calculates Area and Volume
- Indirect measurement using Pythagorean theorem
- Continuous mode with min/max function
- Displays Sum (+) / Difference (-) of multiple readings
- Front or rear edge reference
- Memory automatically stores 20 data points
- Stakeout function for accurately marking distances between studs and fence posts
- Built-in bubble level
- Large quad-LCD display with backlit feature; Auto Power Off

| SPECIFICATIONS     | DT40M                                      | DT60M                       | DT100M                       |
|--------------------|--------------------------------------------|-----------------------------|------------------------------|
| Measurement Range  | 2" to 131 ft (0.05 to 40 m)                | 2" to 196 ft (0.05 to 60 m) | 2" to 330 ft (0.05 to 100 m) |
| Accuracy           | ±0.08" (±2 mm)                             | ±0.08" (±2 mm)              | ±0.08" (±2 mm)               |
| Resolution         | 0.0", 0.00 ft, 0.000 m                     | 0.0", 0.00 ft, 0.000 m      | 0.0", 0.00 ft, 0.000 m       |
| Area calculation   | 99,999 ft², 99,999 m²                      | 99,999 ft², 99,999 m²       | 99,999 ft², 99,999 m²        |
| Volume calculation | 99,999 ft³, 99,999 m³                      | 99,999 ft³, 99,999 m³       | 99,999 ft³, 99,999 m³        |
| Dimensions/Weight  | 4.6x2.2x1.3" (116x56x32 mm)/3.5 oz (100 g) |                             |                              |

### ORDERING

|        |                                     |
|--------|-------------------------------------|
| DT40M  | Laser Distance Meter (131 ft/40 m)  |
| DT60M  | Laser Distance Meter (196 ft/60 m)  |
| DT100M | Laser Distance Meter (330 ft/100 m) |





# Tough, Reliable and Accurate

InfraRed thermometers provide non-contact, point-and-shoot temperature measurements ensuring safety and accuracy on the job. Extech also offers a robust IR thermometer with waterproof IP65 rating and is drop-tested to 3 meters.

**N** NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** next to product part numbers.



**N** Indicates products that are available with optional calibration traceable to **NIST**. See pages 146-147 for a complete listing.



## IR400 630°F (332°C), 8:1, Compact Laser IR Thermometer

Compact thermometer with MIN/MAX readings

- MAX/MIN features display highest and lowest values
- Built-in laser pointer identifies target area
- LCD display with backlight
- Automatic Data Hold when trigger released
- Fixed 0.95 emissivity covers 90% of surface applications
- Auto Power Off
- Complete with 9 V battery and pouch



## IRT600 662°F (350°C), 12:1, IR Thermal Condensation Scanner

Measures Temperature and Humidity then calculates Dew Point and warns when conditions for mold growth exist

- Great for processes that require surface temperature control and monitoring
- Green LED changes to Yellow, indicating moderate potential for mildew formation, and then to Red, for high potential, as the surface temperature reading gets closer to and then equals the calculated Dew Point reading
- Dual lasers indicate ideal measuring distance where the two lasers converge to a 1" target spot
- 150 millisecond IR Temperature response time
- Max hold
- LCD display with backlight
- Includes 9 V battery and pouch

| SPECIFICATIONS               | IR400 <b>N</b>                             | IRT600 <b>N</b>                            |
|------------------------------|--------------------------------------------|--------------------------------------------|
| IR Temperature (Non-contact) | -4 to 630°F (-20 to 332°C)                 | -22 to 662°F (-30 to 350°C)                |
| Basic Accuracy               | ±2% of reading +4°F/2°C                    | ±(1% of reading + 2.7°F/1.5°C)             |
| Max. Resolution              | 0.1°F/°C                                   | 0.1°F/°C                                   |
| Emissivity                   | 0.95 fixed                                 | 0.95 fixed                                 |
| Distance to Spot Ratio       | 8:1                                        | 12:1                                       |
| Air Temperature              | —                                          | 32 to 122°F (0 to 50°C)                    |
| Humidity                     | —                                          | 20 to 80% RH                               |
| Dew Point                    | —                                          | -22 to 212°F (-30 to 100°C)                |
| Waterproof                   | —                                          | —                                          |
| Drop proof                   | —                                          | —                                          |
| CE approved                  | Yes                                        | Yes                                        |
| Dimensions/ Wt               | 6.3x3.2x1.6" (160x82x42 mm)/6.3 oz (180 g) | 6.6x3.2x2.3" (168x82x58 mm)/5.7 oz (163 g) |
| Warranty                     | 2 years                                    | 2 years                                    |



## 42510A 1200°F (650°C), 12:1, Compact Laser IR Thermometer

Compact thermometer with high accuracy and wide Temperature range

- Wide Temperature measurement range from -58 to 1200°F (-50 to 650°C)
- Adjustable high/low visual and audible alarm
- Adjustable emissivity for better accuracy on different surfaces
- MAX/MIN features display highest and lowest values
- Built-in laser pointer identifies target area
- LCD display with backlight
- Over-range indicator
- Data Hold and Auto Power Off
- Complete with 9 V battery and pouch



Display color changes when reading is outside Hi/Low set points

## IR270 1202°F (650°C), 12:1, IR Thermometer with Color Alert

Fast responding, programmable alarm with red or blue display alert and audible alarm

- Great for processes that require temperature control and monitoring
- User programmable Hi/Low alarms with audible beeper — tri-color LCD display changes to Blue backlight when reading goes below low alarm setting and Red backlight when reading exceeds High set point
- Record/Recall up to 20 readings
- Adjustable emissivity for better accuracy on different surfaces
- MAX/MIN/AVG/DIF functions
- Built-in laser pointer identifies target area
- LCD display with backlight
- Data Hold, Auto Power Off, and Low battery indication
- Complete with 9 V battery and pouch



Waterproof (IP65) and rugged 3 meter drop proof design

## IR320 1202°F (650°C), 12:1, Waterproof IR Thermometer with Color LED Alarm

Programmable high and low alarms with red (HI) and blue (LOW) visual LED alert

- Dual laser pointer identifies target area between the two points (~1"/25 mm diameter of measured area)
- Adjustable emissivity for better accuracy on different surfaces
- Programmable high and low alarm set points
- Lock function for continuous temperature measurement without pressing the trigger
- Waterproof (IP65 rating) with 3 m drop-proof protection
- MAX/MIN/AVG/DIF functions
- LCD display with backlight
- Tripod mount for hands-free operation (Tripod not included)
- Data Hold, Auto Power Off, and Low battery indication
- Complete with 9 V battery and pouch

### 42510A N

|                                            |
|--------------------------------------------|
| -58 to 1200°F (-50 to 650°C)               |
| ±(1% of reading + 2°F/1°C)                 |
| 0.1°F/°C                                   |
| 0.1 to 1.00 (adjustable)                   |
| 12:1                                       |
| —                                          |
| —                                          |
| —                                          |
| —                                          |
| —                                          |
| Yes                                        |
| 6.3x3.2x1.6" (160x82x42 mm)/6.4 oz (180 g) |
| 3 years                                    |

### IR270 N

|                                             |
|---------------------------------------------|
| -4 to 1202°F (-20 to 650°C)                 |
| ±(1% of reading + 2°F/1°C)                  |
| 0.1°F/°C                                    |
| 0.1 to 1.00 (adjustable)                    |
| 12:1                                        |
| —                                           |
| —                                           |
| —                                           |
| —                                           |
| —                                           |
| Yes                                         |
| 7.1x4.2x1.6" (180x107x40 mm)/5.3 oz (150 g) |
| 3 years                                     |

### IR320 N

|                                             |
|---------------------------------------------|
| -4 to 1202°F (-20 to 650°C)                 |
| ±(1% of reading + 2°F/1°C)                  |
| 0.1°F/°C                                    |
| 0.10 to 1.00 (adjustable)                   |
| 12:1                                        |
| —                                           |
| —                                           |
| —                                           |
| IP65                                        |
| Drop tested to 3 meters                     |
| Yes                                         |
| 7.4x4.6x2.2" (189x118x55 mm)/6.3 oz (180 g) |
| 3 years                                     |

### SPECIFICATIONS

|                              |
|------------------------------|
| IR Temperature (Non-contact) |
| Basic Accuracy               |
| Max. Resolution              |
| Emissivity                   |
| Distance to Spot Ratio       |
| Air Temperature              |
| Humidity                     |
| Dew Point                    |
| Waterproof                   |
| Drop proof                   |
| CE approved                  |
| Dimensions/ Wt               |
| Warranty                     |



# Fast responding, wide temperature ranges

Extech's IR thermometers accurately detect temperatures at far distances, and the 100 ms response time enables faster hot spot scanning.

## ACCESSORIES

(See p. 52 for more Type K probes)

|          |                                                                   |
|----------|-------------------------------------------------------------------|
| BATT-37V | Rechargeable 3.7 V Battery                                        |
| TP870    | Type K Bead wire Probe (-40 to 482°F/ -40 to 250°C)               |
| 871515   | Type K, 4" (100 mm) General Probe (-32 to 1292°F/ -200 to 700°C)  |
| 881602   | Type K, 6" (100 mm) Surface Probe (-58 to 1472°F/ -50 to 800°C)   |
| 881603   | Type K, 6" (150 mm) Immersion Probe (-58 to 1292°F/ -50 to 700°C) |



Type K Thermometer

## IR267 1112°F (600°C), 12:1, IR Thermometer with Type K Input

Displays Air Temperature and IR or Type K

- Wide temperature range for non-contact InfraRed and Type K thermocouple measurements
- Measures Ambient (Air) Temperature
- Adjustable emissivity for better accuracy on different surfaces
- Adjustable high/low visual and audible alarm
- MAX/MIN/A VG and DIF for differential temperature reading
- LCD display with backlight
- Built-in laser pointer
- Data Hold, Auto Power Off, and Low battery indication
- Complete with 9V battery and general purpose Type K bead wire probe

For a variety of Type K Thermocouple temperature probes see below and p. 52



## 42512 Dual Laser, 1832°F (1000°C), 30:1, IR Thermometer

Fast response and accurate measurements

- Dual laser simplifies distance-to-target ratio—no more calculations!
- Accurate measurements at 30" (762 mm) distance
- Fast 150 millisecond instantaneous response for capturing spikes in temperature
- Max mode captures and holds rapidly changing temperatures
- Lock function for continuous readings
- White backlit dual LCD display
- Adjustable emissivity increases measurement accuracy for different surfaces
- Double molded housing
- Adjustable High/Low set points with audible alarm alerts user when temperature exceeds the programmed set points
- Complete with carrying case and 9 V battery

| SPECIFICATIONS               | IR267                                                    | 42512 <b>N</b>                            |
|------------------------------|----------------------------------------------------------|-------------------------------------------|
| IR Temperature (Non-contact) | IR: -58 to 1112°F (-50 to 600°C);                        | IR: -58 to 1832°F (-50 to 1000°C)         |
| Type K Temperature (Contact) | Type K: -58 to 2498°F (-50 to 1370°C)                    | —                                         |
| Air Temperature              | —                                                        | —                                         |
| Humidity                     | —                                                        | —                                         |
| Basic Accuracy               | IR: ±2% rdg or 4°F (2°C);<br>Type K: ±1.5% rdg + 2°F/1°C | IR: ±(1% of rdg + 2°F/1°C)                |
| Max. Resolution              | 0.1°F/°C                                                 | 0.1°F/°C                                  |
| Emissivity                   | 0.1 to 1.00 (adjustable)                                 | 0.10 to 1.00 (adjustable)                 |
| Distance to Spot Ratio       | 12:1                                                     | 30:1                                      |
| CE approved                  | Yes                                                      | Yes                                       |
| Dimensions/Weight            | 6.0x4.7x1.7" (153x120x42 mm)/4.9 oz (138 g)              | 5.7x4x1.6" (146x104x43 mm)/5.7 oz (163 g) |
| Warranty                     | 3 years                                                  | 3 years                                   |





## 42545 1832°F (1000°C), 50:1, with Alarm, IR Thermometer

50:1 distance to target ratio

- Highest 50 to 1 distance to target ratio measures smaller surface areas at greater distances
- Widest Temperature range from -58 to 1832°F (-50 to 1000°C)
- Adjustable high/low alarm alerts user visually and audibly when temperature exceeds programmed limits
- Adjustable emissivity for better accuracy on different surfaces
- MIN/MAX/AVG/DIF features display highest, lowest, average, and MAX minus MIN values
- Large backlit display
- Built-in laser pointer
- Automatic Data Hold
- Auto Power Off
- Complete with 9 V battery and hard carrying case



Type K Thermometer

## 42570 3992°F (2200°C), 50:1, Dual Laser, IR Thermometer

Fast response (100 ms) with high accuracy plus Type K input and USB interface

- High 50:1 distance to target ratio measures smaller surface areas at greater distances
- Dual laser targeting indicates ideal measuring distance when two laser points converge to 1" target spot
- Fast 100 ms response time
- Tripod mounting feature and Lock function for continuous measurements
- Stores up to 100 readings
- Backlit LCD with bargraph
- MAX/MIN/AVG/DIF functions
- Adjustable emissivity
- Adjustable High/Low set points with audible alarm
- Complete with general purpose Type K bead wire probe, USB cable and PC software, tripod, 9 V battery and case

For a variety of Type K Thermocouple temperature probes see p. 50, 52



Upload stored images/videos to a PC for further analysis or report documentation.

## VIR50 3992°F (2200°C), 50:1, Dual Laser, Video IR Thermometer

2.2" Color TFT LCD and built-in camera with a microSD card for capturing images (JPEG) and videos

- Dual laser targeting indicates ideal measuring distance when two laser points converge to 1" target spot
- Fast 150 ms response time
- Color LED bargraph
- Type K and Air Temperature and Relative Humidity functions
- Adjustable emissivity
- Adjustable High/Low set points with audible alarm
- MAX/MIN/AVG/DIF functions
- Tripod mounting feature and Lock function for continuous measurements
- USB interface
- Includes microSD card, general purpose Type K bead wire probe, USB cable, rechargeable 3.7 V battery (BATT-37V), and case

For a variety of Type K Thermocouple temperature probes see p. 50, 52

| 42545 N                                                        | 42570 N                                                        | VIR50 N                                                              | SPECIFICATIONS               |
|----------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------|------------------------------|
| IR: -58 to 1832°F (-50 to 1000°C)                              | IR: -58 to 3992°F (-50 to 2200°C)                              | IR: -58 to 3992°F (-50 to 2200°C)                                    | IR Temperature (Non-contact) |
| —                                                              | Type K: -58 to 2498°F (-50 to 1370°C)                          | Type K: -58 to 2498°F (-50 to 1370°C)                                | Type K Temperature (Contact) |
| —                                                              | —                                                              | Air: 32 to 122°F (0 to 50°C)                                         | Air Temperature              |
| —                                                              | —                                                              | 0 to 100% RH                                                         | Humidity                     |
| IR: 2% rdg + 4°F/2°C<932°F (500°C); 3% + 9°F/4°C>932°F (500°C) | IR: ±(1% of rdg + 2°F/1°C)<br>Type K: ±(1.5% of rdg + 5°F/3°C) | IR: ±(1% of rdg + 2°F/1°C)<br>Type K: ±(0.5% + 2.7°F/1.5°C); RH: ±5% | Basic Accuracy               |
| 0.1°F/°C                                                       | 0.1°F/°C                                                       | 0.1°F/°C; 1% RH                                                      | Max. Resolution              |
| 0.1 to 1.00 (adjustable)                                       | 0.1 to 1.00 (adjustable)                                       | 0.10 to 1.00 (adjustable)                                            | Emissivity                   |
| 50:1                                                           | 50:1                                                           | 50:1                                                                 | Distance to Spot Ratio       |
| Yes                                                            | Yes                                                            | Yes                                                                  | CE approved                  |
| 9x3.9x2.2" (230x100x56 mm)/10.2 oz (290 g)                     | 8x6.1x2" (204x155x52 mm)/11.3 oz (320 g)                       | 7.4x6.0x2.2" (189x152x57 mm)/17.4 oz (494 g)                         | Dimensions/Weight            |
| 3 years                                                        | 3 years                                                        | 3 years                                                              | Warranty                     |



# More Capabilities for Better Diagnostics

Our thermocouple thermometers deliver accurate temperature readings and easy, one-button Delta-T calculations and feature high/low alarms, dual and triple displays, data functions, and datalogging.

| ACCESSORIES (See p. 27 for additional temperature probes) |                                                                         |
|-----------------------------------------------------------|-------------------------------------------------------------------------|
| TP200                                                     | Type K, Clamp Probe (-4 to 200°F/-20 to 93°C)                           |
| TP870                                                     | Type K, Bead Wire Probe (-40 to 482°F/-40 to 250°C)                     |
| TP882                                                     | Type K, Penetration Probe (-50 to 1000°F/-45 to 538°C)                  |
| 871515                                                    | Type K, 4" (100 mm) General Probe (-32 to 1292°F/-200 to 700°C)         |
| 881605                                                    | Type K, 8" (203 mm) General Probe (-328 to 1292°F/-200 to 700°C)        |
| 881603                                                    | Type K, 6" (150 mm) Immersion Probe (-58 to 1292°F/-50 to 700°C)        |
| 881602                                                    | Type K, 6" (100 mm) Surface Probe (-58 to 1472°F/-50 to 800°C)          |
| 872502                                                    | Type J, Bead Wire Probe (-328 to 392°F/-200 to 200°C)                   |
| 801515                                                    | Type J, 4" (100 mm) General Purpose Probe (-328 to 842°F/-200 to 450°C) |



See desktop or Pocket style Temperature Indicators on p. 56-57



## TM100 Type J/K Single Input Thermometer

Side-mounted controls allow for convenient one-handed operation

- Large backlit LCD display
- Wide temperature range with 0.1°/1° resolution
- Readout in °F, °C, or K (Kelvin)
- Data Hold function freezes reading on display
- Max/Min/Avg readings with relative time stamp
- Offset key used for zero function to make relative measurements
- Auto Power Off with disable feature
- Complete with general purpose Type K bead wire temperature probe and 9 V battery. (Optional temperature probes available on left accessories chart and p. 27)

| SPECIFICATIONS       | TM100 <sup>N</sup>              |
|----------------------|---------------------------------|
| Single or Dual Input | Single                          |
| Type K °F (°C)       | -328 to 2501°F (-200 to 1372°C) |
| Type J °F (°C)       | -346 to 2012°F (-210 to 1100°C) |
| Basic Accuracy       | ±0.15% rdg                      |
| Resolution           | 0.1°/1°                         |
| Datalogging          | —                               |
| CE approved          | Yes                             |
| Dimensions           | 8.7x2.5x1.1" (220x63x28 mm)     |
| Weight               | 7 oz (200 g)                    |
| Warranty             | 2 years                         |



## EA11A EasyView® Type K Single Input Thermometer

Large dual LCD display with  
0.3% accuracy and memory

- Simultaneously displays current temperature and Max/Min/Avg or stored memory location
- Selectable units of °F and °C
- Manually store/recall up to 150 readings
- Data Hold and Auto Power Off
- Records MAX /MIN/AVG readings for later recall
- Complete with built-in stand, protective holster, general purpose Type K bead wire probe, and 6 AAA batteries. (Optional temperature probes available on p. 27, 52)



## EA10 EasyView® Type K Dual input Thermometer with Dual readings

Big backlit display with relative and  
elapsed time indication

- Displays [T1 and T2] or [T1-T2 and T1] or [T1-T2 and T2]
- Selectable units of °C/°F or Kelvin
- Timer function displays elapsed time plus the time when MAX/MIN readings are taken
- OFFSET key used for zero function to make relative measurements
- Data hold and Auto Power Off
- Complete with built-in stand, protective holster, two general purpose Type K bead wire temperature probes, and 6 AAA batteries. (Optional temperature probes available on p. 27, 52)



## EA15 EasyView® 7 Thermocouple Datalogger

Internal memory stores up to  
8800 data sets

- Seven Thermocouple type selections: K, J, T, E, R, S, N
- Large backlit display
- Stores Time, T1 and T2
- Manual push-button datalogging or automatic with programmable sample rate of 3 to 355 seconds per reading
- Manual record/recall of data
- Data Hold and Auto Power Off
- MAX/MIN/AVG or MAX/MIN with elapsed time
- Complete with two general purpose Type K bead wire temperature probes, Windows® compatible software, USB cable, protective holster, case, and 6 AAA batteries. (Optional temperature probes available on p. 27, 52)

### EA11A N

Single  
-58 to 1999°F (-50 to 1300°C)  
—  
±0.3% rdg  
0.1°/1°  
—  
Yes  
5.9x2.8x1.3" (150x72x35 mm)  
8.3 oz (235 g)  
2 years

### EA10 N

Dual  
-200 to 1999°F (-200 to 1360°C)  
—  
±0.3% rdg  
0.1°/1°  
—  
Yes  
6x2.8x1.5" (152x72x37 mm)  
8.3 oz (235 g)  
2 years

### EA15 N

Dual  
-200 to 1994°F (-150 to 1090°C)  
-200 to 1999.9°F (-150 to 1370°C)  
±0.05% rdg  
0.1°  
8800 readings  
Yes  
5.91x2.83x1.38" (150x72x35 mm)  
8.3 oz (235 g)  
2 years





# Track Temperature Trouble with Extech

4-Channel Datalogger Thermometer records measurements on an SD Card and easily transfers readings to an Excel® spreadsheet for analysis

| ACCESSORIES (See p. 27 and 52 for additional temperature probes) |                                                                         |
|------------------------------------------------------------------|-------------------------------------------------------------------------|
| TP200                                                            | Type K, Clamp Probe (-4 to 200°F/-20 to 93°C)                           |
| TP870                                                            | Type K, Bead Wire Probe (-40 to 482°F/-40 to 250°C)                     |
| TP882                                                            | Type K, Penetration Probe (-50 to 1000°F/-45 to 538°C)                  |
| 801515                                                           | Type J, 4" (100 mm) General Purpose Probe (-328 to 842°F/-200 to 450°C) |
| 850185                                                           | RTD Temperature Probe for SDL200 (86 to 482°F/30 to 250°C)              |
| 409997                                                           | Soft Vinyl Carrying Case (for 421502)                                   |
| UA100-240                                                        | 100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)                       |



See desktop or Pocket style Temperature Indicators on p. 56-57



## 421502 Type J/K, Dual Input Thermometer with Alarms

Dual J or K input with dual display, relative and programmable High/Low audible alarms

- Widest range with highest 0.05% accuracy
- Rugged design for field use
- Large dual LCD displays T1, T2 or T1-T2, plus Elapsed Time
- Differential temperature between Type J, Type K, or both Type J and K
- MIN/MAX/AVG readings
- Data Hold and Relative functions
- Programmable Hi/Lo audible alarms
- Complete with two general purpose Type K bead wire temperature probes, protective holster with stand, and 9 V battery

| SPECIFICATIONS    | 421502 N                                   |
|-------------------|--------------------------------------------|
| Number of Inputs  | Dual                                       |
| Type K °F (°C)    | -328 to 2498°F (-200 to 1370°C)            |
| Type J °F (°C)    | -328 to 1922°F (-200 to 1050°C)            |
| Basic Accuracy    | ±0.05% rdg                                 |
| Max. Resolution   | 0.2°F/0.1°C                                |
| Datalogging       | —                                          |
| CE approved       | Yes                                        |
| Dimensions/Weight | 7.63x3.6x2.1" (192x91x53 mm)/13 oz (365 g) |
| Warranty          | 2 years                                    |



## SD200 3-Channel Temperature Datalogger

Records data on an SD card in Excel® format for easy transfer to a PC for analysis

- Triple LCD simultaneously displays 3 Type K Temperature channels
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto
- Complete with 6 AAA batteries, SD card, Universal AC Adaptor, 3 general purpose Type K bead wire temperature probes, and mounting bracket



## SDL200 4-Channel Datalogging Thermometer

4-Channel datalogging with 6 Thermocouple types (J, K, E, T, R, S) and 2-Channel datalogging with RTD (PT100Ω) probes

- Displays [T1, T2, T3, T4] or [T1-T2]
- Datalogs using SD card (included)
- User programmable sampling rate from 1 to 3600 seconds
- Records readings with real date and time stamp
- Manual store/recall of up to 99 records
- Min/Max and Data Hold functions
- Offset adjustment used for zero function to make relative measurements
- Auto Power Off with disable
- Complete with four general purpose Type K bead wire temperature probes, SD card, hard case, and 6 AA batteries; Optional AC Adaptor (UA100-240) and RTD probe (850185)



## TM500 12-Channel Datalogging Thermometer

12-Channel datalogging with 6 Thermocouple types (J, K, E, T, R, S)

- Simultaneously displays CH1 to CH8 or CH9 to CH12
- Offset adjustment used for zero function or to make relative measurements
- Stores 99 readings manually and dataloggs using SD card (included)
- Records readings with date and time stamp
- User programmable sampling rate: 1 to 3600 seconds
- Min/Max and Data Hold functions
- Auto Power Off with disable function
- Built-in PC interface with optional software
- Complete with 8 AA batteries, twelve general purpose Type K bead wire temperature probes, SD card, and hard carrying case

### SD200 N

|                                              |
|----------------------------------------------|
| Triple                                       |
| -58 to 2372°F (-100 to 1300°C)               |
| —                                            |
| ±(0.5% + 1°F/ 0.5°C)                         |
| 0.1°                                         |
| 4 GB SD memory card included for datalogging |
| Yes                                          |
| 5.2x3.1x1.3" (132x80x32 mm)/10 oz (285 g)    |
| 2 years                                      |

### SDL200 N

|                                              |
|----------------------------------------------|
| Quad                                         |
| -148 to 2372°F (-100 to 1300°C)              |
| -148 to 2102°F (-100 to 1200°C)              |
| ±0.4% rdg                                    |
| 0.1°/1°                                      |
| 4 GB SD memory card included for datalogging |
| Yes                                          |
| 7.2x2.9x1.9" (182X73X48 mm)/17.6 oz (500 g)  |
| 3 years                                      |

### TM500 N

|                                                                          |
|--------------------------------------------------------------------------|
| Twelve                                                                   |
| -148 to 2372°F (-100 to 1300°C)                                          |
| -148 to 2102°F (-100 to 1150°C)                                          |
| ±0.4% rdg (+1.8°F/+1°C) Types J,K,E,T<br>±0.5% rdg (+2°F/+1°C) Types R,S |
| 0.1°/1°                                                                  |
| 4 GB SD memory card included for datalogging                             |
| Yes                                                                      |
| 8.9x4.9x2.5" (225x125x64 mm)/2.1 lbs (944 g)                             |
| 2 years                                                                  |

## TM26 Waterproof Food Thermometer – NSF Certified



NSF certified for measuring in liquids, pastes, and semi-solid food. Ideal for use in food industry, agriculture, and laboratories. Built-in magnet for mounting on metal surfaces.

**NSF certified Food Thermometer with long stainless steel penetration probe for measuring in liquids, pastes, and semi-solid food**

- NSF certified for measuring food
- 4.1" (105 mm) Stainless steel penetration probe with 5 ft (1.5 m) cable
- Measures Temperature from -40°F to 392°F (-40°C to 200°C)
- Audible and visual alarm alerts when temperature level is higher or lower than the user programmed High/Low set points
- LCD displays Temperature reading, alarm indicator and high or low alarm icons
- $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$  basic accuracy with  $0.1^{\circ}$  max resolution
- Displays Min/Max reading with reset function
- Data Hold freezes current reading on display
- Low battery indication
- Unit has magnetic back and can be mounted on a metal surface, used on a desktop with included foot stand, or wall mounted
- Waterproof housing and sensor designed to meet IP65
- Dimensions: 3.4x2.2x1.2" (86x57x30 mm)  
Weight: 3.2 oz (90 g)
- 2-year warranty
- Complete with magnetic back, foot stand, temperature sensor, and a CR2032 3 V button battery

### ORDERING

|      |                             |
|------|-----------------------------|
| TM26 | Waterproof Food Thermometer |
|------|-----------------------------|

*NSF Certified - ensure public health, food safety requirements and standards are met and that products are designed and constructed in a way that promote food safety*

## TM55 Waterproof Pocket Fold-Up Food Thermometer – NSF Certified



Adjustable folding probe ( $0^{\circ}$  to  $180^{\circ}$ ) angle

**Dishwasher safe construction (IP65) with folding stainless steel probe is NSF certified for measuring liquids, pastes, and semi-solid food**

- Measures from -40 to 482°F (-40 to 250°C) with 2.4" (61 mm) stainless steel probe
- Fast response time at  $< 5$  seconds in moving liquid
- Large LCD display with  $0.1^{\circ}$  resolution
- Basic accuracy:  $\pm 1^{\circ}\text{F}/0.5^{\circ}\text{C}$
- Auto power off (with disable) after 1 hour or when probe is placed in stored position
- Probe can be positioned from  $0^{\circ}$  (storage) to  $180^{\circ}$  angle
- Ultrasonically welded housing (waterproof IP65 rated) with anti-microbial additive
- Built-in magnetized strip attaches to refrigerator
- Dishwasher safe (top rack)
- Dimensions: 4.6x1.5x0.8" (116x38x20 mm); Weight: 1.5 oz (41.2 g)
- 2-year warranty
- Complete with CR2032 battery

### ORDERING

|      |                                            |
|------|--------------------------------------------|
| TM55 | Waterproof Pocket Fold-Up Food Thermometer |
|------|--------------------------------------------|



2.4" (61 mm) folding stainless steel probe (NSF certified) for measuring in liquids, pastes, and semi-solid food. Ideal for use in food industry, agriculture, and laboratories.



## TM20 Waterproof Temperature Indicator



### Audible and visual alarm with High/Low set points

- 0.78" (20 mm) stainless steel probe with 9.6ft (2.9 m) cable
- Measures from -40 to 158°F (-40 to 70°C)
- $\pm 1.8^\circ\text{F}/1^\circ\text{C}$  basic accuracy
- 0.1° resolution
- Min/Max and Data Hold
- Magnetic back
- Waterproof (IP65) housing
- Dimensions: 3.4x2.2x1.2" (86x57x30 mm)
- Weight: 3.2 oz (90 g)
- 2-year warranty
- Complete with magnetic back, foot stand, probe, and one CR2032 3V button battery

#### ORDERING

|      |                                  |
|------|----------------------------------|
| TM20 | Waterproof Temperature Indicator |
|------|----------------------------------|

## 39240 Waterproof Thermometer



### Pocket-size with MAX/MIN recording

- 2.75" (70 mm) Stainless steel stem
- Data Hold and Auto power off
- Range: -40 to 392°F (-40 to 200°C)
- Basic accuracy:  $\pm 2^\circ\text{F}/1^\circ\text{C}$
- Resolution: 0.1°/1°
- Dimensions: 5.9x0.8x0.7" (150x20x18 mm); Weight: 0.7 oz (20 g)
- 2-year warranty
- Complete with one LR44 button battery and protective cover

#### ORDERING

|       |                        |
|-------|------------------------|
| 39240 | Waterproof Thermometer |
|-------|------------------------|

## 401014 Indoor/Outdoor Thermometer



### Built-in memory stores Minimum and Maximum Temperature readings

- Large LCD displays 1" (25 mm) digits for indoor/outdoor temperature
- Indoor Range: 14 to 140°F (-10 to 60°C)
- Outdoor Range: -58 to 158°F (-50 to 70°C)
- Basic accuracy:  $\pm 1.8^\circ\text{F}/1^\circ\text{C}$
- Resolution: 0.1°F/°C
- Dimensions: 4.4x4x0.9" (112x102x22 mm); Weight: 6.5 oz (186 g)
- 2-year warranty
- Complete with weatherproof temperature sensor with 9.6 ft (3 m) thin cable, stand, AAA battery, and wall mounting bracket

#### ORDERING

|        |                                      |
|--------|--------------------------------------|
| 401014 | Big Digit Indoor/Outdoor Thermometer |
|--------|--------------------------------------|

## 392050 Penetration Dial Thermometer



### Sharp stainless steel probe measures temperature in air, liquids & semi-solids

- 5" (130 mm) probe with 2" (54 mm) dial
- Range: -58 to 302°F (-50 to 150°C)
- Basic accuracy:  $\pm 2^\circ\text{F}/1^\circ\text{C}$
- Resolution: 0.1°/1°
- ON/OFF switch saves battery life
- Auto Power Off after 1 hour
- Weight: 1 oz (29 g)
- 2-year warranty
- Complete with 1.5 V LR44 battery

#### ORDERING

|        |                              |
|--------|------------------------------|
| 392050 | Penetration Dial Thermometer |
|--------|------------------------------|

## 401014A Indoor/Outdoor Temperature Alert



### Displays indoor/outdoor temperatures and user programmable High/Low alarm for outdoor (external probe) temperature

- Large LCD with easy-to-read 1" (25 mm) digit size
- Temperature Range: Indoor (built-in sensor): 14 to 140°F (-10 to 60°C)
- Outdoor (external probe): -58 to 158°F (-50 to 70°C)
- 0.1°F/°C resolution and basic accuracy of  $\pm 1.8^\circ\text{F} (\pm 1^\circ\text{C})$
- User programmable High/Low audible alarms for Outdoor Temperature
- Memory stores Min/Max readings
- Water resistant/splash proof sensor with 9.6 ft (3 m) of thin cable for remote temperature measurements
- Dimensions: 4.4x4x0.9" (112x102x22 mm); Weight: 6.5 oz (186 g)
- 2-year warranty
- Complete with internal and attached remote temperature sensor with cable, built-in stand, AAA battery, and wall mounting bracket

#### ORDERING

|         |                                            |
|---------|--------------------------------------------|
| 401014A | Big Digit Indoor/Outdoor Temperature Alert |
|---------|--------------------------------------------|



## TH30 USB Dual Temperature Datalogger



Includes Probe and USB cover



### Records T1 (Air Temp) and T2 (External Probe Temp) with date/time stamp

- Compact size housing with built-in NTC thermistor and external temperature probe
- Displays readings from -22 to 158°F (-30 to 70°C); Accuracy:  $\pm 1.0^\circ\text{F}$  ( $\pm 0.5^\circ\text{C}$ )
- User programmable settings: 6 languages, sample rate, start delay time, alarm delay time, high/low alarm range, and security feature
- Status Indication via Red and Green LEDs; Max/Min function
- Start button begins continuous datalogging until memory is full at 48,000 readings (24,000 for each parameter: T1 and T2), or when Stop button is pressed
- Bookmark 8 locations in a data recording log with a press of the Mark button
- Long battery life (approx. 3 month continuous reading)
- Generates a PDF report or Excel® spreadsheet when plugged into a PC
- Dimensions/ Weight: 4.3x1.6x0.75" (110x40x19 mm)/1 oz (90 g)
- 2-year warranty
- Complete with (2) CR2032 batteries, cover/stand, TP830 probe, and hanger

### ORDERING

|       |                                                                                                            |
|-------|------------------------------------------------------------------------------------------------------------|
| TH30  | USB Dual Temperature Datalogger                                                                            |
| TP830 | 0.78" (2 cm) Stainless Steel Thermistor Probe w/ 39" (1 m) cable (-22 to 158°F/-30 to 70°C)                |
| TP832 | 5.9" (15 cm) Stainless Steel Thermistor Probe with handle and 43" (1.1 m) cable (-22 to 158°F/-30 to 70°C) |

## THD5 USB Single Use Temperature Datalogger



Includes 10 dataloggers

### Portable, one-time use USB Temperature Datalogger (USB 2.0 connector)

- Convenient credit card-sized housing with USB 2.0 connector and NTC thermistor for one-time use in datalogging accurate temperature measurements
- Waterproof (IP65) when in sealed plastic bag
- User programmable settings: language, sample rate, start delay time, alarm delay time, high/low alarm range, and security feature
- Status Indication via Red and Green LEDs
- Start button begins datalogging until memory is full or when Stop button is pressed
- Bookmark 8 locations in a data recording log with a press of the Mark button
- Automatically generates a PDF report with data and trending graph when plugged into a PC after datalogging is completed (Adobe® Reader® software is required)
- Complete with 10 datalogging units; each with a CR2032 button battery (approx. 1-year life) and plastic bag; 2-year warranty

NOTE: Each datalogger is good for one-time use

| SPECIFICATIONS         | RANGE                                                | RESOLUTION | BASIC ACCURACY                                |
|------------------------|------------------------------------------------------|------------|-----------------------------------------------|
| Temperature            | -22 to 158°F (-30 to 70°C)                           | 0.1°       | $\pm 1.8^\circ\text{F}$ ( $1^\circ\text{C}$ ) |
| Datalogging interval   | 30 s, 5 min, 10 min, 30 min, 60 min, 90 min, 120 min |            |                                               |
| Start/Alarm Delay Time | 0, 5 min, 30 min, 45 min, 60 min, 90 min, 120 min    |            |                                               |
| Alarm Mode             | Single Event, Cumulative, Disable                    |            |                                               |
| Languages              | English, German, French, Italian, and Spanish        |            |                                               |
| Memory Storage         | 8,192 readings                                       |            |                                               |
| Dimensions/Weight      | 3.2x1.7x0.1" (80x43x2.5 mm)/0.4 oz (10 g)            |            |                                               |

### ORDERING

|      |                                            |
|------|--------------------------------------------|
| THD5 | USB Temperature Datalogger (10 units/pack) |
|------|--------------------------------------------|



Ideal for monitoring temperature readings for food, pharmaceuticals, and other cold chain goods during shipment.



A. Plug into a PC to adjust the settings (requires Adobe® Reader® software) B. Put the Datalogger back inside plastic bag and seal the opening, then place in an area where temperature is to be monitored and press START for the unit to start recording C. When datalogging duration is completed, plug back into a PC where it will automatically generate a PDF report.

## TH10 USB Temperature Datalogger



Datalogs up to 32,000 Temperature readings and has USB interface for easy data downloading to a PC

- Selectable data sampling rate: 2 seconds to 24 hours
- User-programmable alarm thresholds
- Measures from -40 to 158°F (-40 to 70°C); Accuracy:  $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$
- 1-year battery life
- Dimensions: 5.1x1.1x0.9" (130x30x25 mm); Weight: 1 oz (20 g)
- 2-year warranty
- Complete with 3.6 V Lithium battery, protective USB cap, mounting bracket, and Windows® compatible software for analysis

### ORDERING

|       |                                   |
|-------|-----------------------------------|
| TH10  | USB Temperature Datalogger        |
| 42299 | 3.6 V Lithium Battery (pack of 2) |

## 45702 Hygro-Thermometer Clock



Combines three displays for Time, Temperature, and Humidity

- Clock display 12/24 hour time
- MAX/MIN with "reset" function
- Simultaneous display of Time, Temperature (14 to 140°F/-10 to 60°C) and Humidity (10 to 85% RH)
- Max resolution: 0.1°, 1% RH
- Basic Accuracy:  $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$  and  $\pm 6\%$  RH
- Temperature is °C/°F switchable
- Programmable clock alarm
- Dimensions: 4.3x2.8x0.8" (109x71x20 mm); Weight: 4 oz (113 g)
- 2-year warranty
- Complete with stand, wall mounting bracket, and one AAA battery

### ORDERING

|        |                         |
|--------|-------------------------|
| 445702 | Hygro-Thermometer Clock |
|--------|-------------------------|

## CTH10A Large Wall Mount Radio Controlled Clock/Calendar + Hygro-Thermometer



4.3" (109 mm) digit time display receives Time Code from NIST Radio Station

- Receives Time Code from NIST Radio Station WWVB (North American region) to maintain accuracy within 1 second (North America region)
- Signal indicator displays signal strength in 3 levels to indicate successful synchronization
- LCD displays Time, Relative Humidity (20 to 99% RH), Temperature (32 to 122°F/0 to 50°C), Year, Month, Date, and Day
- Max resolution: 0.1°, 1% RH
- Basic Accuracy:  $\pm 2^{\circ}\text{F}/1^{\circ}\text{C}$  and  $\pm 6\%$  RH
- Time can be displayed as 12 or 24 hour format
- Large 4.3" (109 mm) digit clock display can be easily viewed from a distance
- Automatically adjusts for daylight savings time (DST)
- Programmable Alarm Clock with Snooze feature
- Built-in stand for desktop or wall-mount
- Dimensions: 16.8x11.5x1.3" (426x292x32 mm); Weight: 21.4 oz (608 g)
- 2-year warranty
- Complete with built-in stand and three C size batteries

### ORDERING

|        |                                                 |
|--------|-------------------------------------------------|
| CTH10A | Radio Controlled Wall Clock + Hygro-Thermometer |
|--------|-------------------------------------------------|



## 445703/445715 Big Digit Hygro-Thermometers



445703

445715 with remote probe



Optional 445715-NISTL includes certificate of Traceability to NIST at 75%. For Certificate of Traceability to NIST at 2 points (33% and 75%), order 445715-NIST

### 1" Digits on large dual LCD display for easy viewing

- Large dual LCD simultaneously displays Temperature (14 to 140°F/-10 to 60°C) and Humidity (10 to 99% RH), plus MAX/MIN with reset function with Max resolution of 0.1° and 1%
- **Model 445703** is designed with built-in Humidity and Temperature sensor with  $\pm 1.8^\circ\text{F}/1^\circ\text{C}$  and  $\pm 5\%$  RH basic accuracy
- **Model 445715** includes remote probe with 18" (457 mm) cable and probe with  $\pm 1.8^\circ\text{F}/1^\circ\text{C}$  and  $\pm 4\%$  RH basic accuracy; probe clips on side of meter; certificate of calibration traceable to NIST available; Rear calibration adjustment pot
- Dims: 4.3x3.9x0.78" (109x99x20 mm); Wt: 6 oz (169 g); 2-year warranty
- Complete with built-in stand, wall mount bracket, and AAA battery; Model 445715 also includes remote sensor. Optional calibration salt bottles (RH300-CAL)

### ORDERING

|                 |                                           |
|-----------------|-------------------------------------------|
| 445703          | Big Digit Hygro-Thermometer               |
| 445715 <b>N</b> | Big Digit Remote Probe Hygro-Thermometer  |
| RH300-CAL       | 33% & 75% RH Calibration Kit (for 445715) |

## 445814/445815 Humidity Alerts



445814

445815 with remote probe



These Humidity Alerts have audible and visual alarm that warn when conditions for mold growth exist (bad for health) or when low humidity conditions for static electricity exist.

### Programmable Alarm warns when Humidity level is too high or too low

- %RH audible and visual alarm alerts when humidity is higher or lower than HI/LO set points, plus Max/Min with reset function
- Simultaneous display of Temperature (14 to 140°F/-10 to 60°C) and Humidity (10 to 99% RH)
- Max resolution: 0.1°, 1%; Basic Accuracy:  $\pm 1.8^\circ\text{F}/1^\circ\text{C}$  and  $\pm 4\%$  RH
- Displays Dew Point temperature
- Rear calibration adjustment pot for Humidity and Temperature
- Warns when conditions for mold growth exist (bad for health) or air too dry (static)
- Dims: 4.3x3.9x0.78" (109x99x20 mm); Wt: 6 oz (169 g)
- Complete with built-in stand, wall mount bracket, sensor and one AAA battery; 2-year warranty; optional calibration salt bottles (RH300-CAL)
- **Model 445814** is designed with built-in Humidity and Temperature sensor
- **Model 445815** includes remote probe with 18" (457 mm) cable and probe clip on side of meter and offers certificate of calibration traceable to NIST

### ORDERING

|                 |                                           |
|-----------------|-------------------------------------------|
| 445814          | Humidity Alert                            |
| 445815 <b>N</b> | Humidity Alert II                         |
| RH300-CAL       | 33% & 75% RH Calibration Kit (for 445815) |

## 445713/445713-TP Big Digit Indoor/Outdoor Hygro-Thermometers



445713

445713-TP  
Ideal for below  
freezing temperature



### Monitor Indoor/Outdoor Humidity and Temperature

- Model 445713-TP with wider Temperature ranges and longer cable length
- External Temperature Probe:  
445713: 14 to 140°F (-10 to 60°C); 445713-TP: -58 to 158°F (-50 to 70°C)
- Internal Temperature Sensor:  
445713: 14 to 140°F (-10 to 60°C); 445713-TP: 32 to 122°F (0 to 50°C)
- Internal Relative Humidity Range:  
445713: 10 to 99% RH; 445713-TP: 20% to 99% RH
- Basic accuracy of  $\pm 1.8^\circ\text{F}$  ( $\pm 1.0^\circ\text{C}$ ),  $\pm 5\%$  RH
- Max/Min with "reset" function
- Dimensions: 4.3x3.9x0.78" (109x99x20 mm); Weight: 6 oz (169 g)
- Includes built-in stand, wall mounting bracket, and a 1.5 V AAA battery; 2yr warranty
- 445713 includes outdoor sensor with 35" (89 cm) cable
- 445713-TP includes outdoor sensor with 9.75 ft (3 m) cable

### ORDERING

|           |                                                               |
|-----------|---------------------------------------------------------------|
| 445713    | Big Digit Indoor/Outdoor Hygro-Thermometer with Remote Probe  |
| 445713-TP | Indoor/Outdoor Hygro-Thermometer with Wide Range Remote Probe |



**N** Indicates products that are available with optional calibration traceable to **NIST**. See pages 146-147 for a complete listing.

## RHM15/RHM16 Mini Hygro-Thermometer Monitors



Mini-sized housing is ideal for monitoring Humidity/Temperature levels in musical instrument cases, humidors, computer server rooms, labs, office areas, and wine cellars

**Monitor Temperature and Humidity to gauge proper heat and moisture levels in an area and it also records high and low extremes during the day**

- Simultaneous display of Temperature and Humidity (10 to 99% RH)
- Model RHM15 measures from 14 to 140°F  
Model RHM16 measures from -10 to 60°C
- Basic Accuracy:  $\pm 1.8^\circ\text{F}/1^\circ\text{C}$  and  $\pm 5\%$  RH
- MAX/MIN with reset function
- Dims: 2x1.5x0.63" (51x38x16 mm); Wt: 0.8 oz (24 g)
- 2-year warranty
- Complete with stand and LR44 battery

### ORDERING

|       |                                                  |
|-------|--------------------------------------------------|
| RHM15 | Mini Hygro-Thermometer Monitor (%RH and °F only) |
| RHM16 | Mini Hygro-Thermometer Monitor (%RH and °C only) |

## 42275 Humidity and Temperature Datalogger Kit



**Compact, powerful and easy to use with USB interface**

- Water resistant Humidity (0 to 100% RH) and Temperature (-40 to 185°F/-40 to 85°C) Datalogger Kit records up to 16,000 readings (8,000 readings/parameter)
- Resolutions: 0.1% RH, 0.1°F/°C; Basic accuracy:  $\pm 3\%$  RH,  $\pm 1^\circ\text{F}$  ( $\pm 0.6^\circ\text{C}$ )
- Real time clock with date and time and Logs data for days, weeks or months
- Three start methods: Scheduled, immediate or magnetic
- Multiple Dataloggers (42270) can be programmed and data downloaded from one single docking station
- Programmable sampling rate from 1 sec to 12 hrs plus Hi/Lo limits with alarm indication
- 42275 – 4.9x3.8x2" (123.8x95.3x51 mm); 9 oz (254 g)
- 2-year warranty
- Includes Windows® 7, 8.1, and 10 compatible software, docking station, and one 42270 datalogger

### ORDERING

|       |                                                       |
|-------|-------------------------------------------------------|
| 42275 | Humidity/Temperature Datalogger Kit with PC Interface |
| 42270 | Humidity/Temperature Datalogger for 42275             |
| 42299 | Replacement 3.6 V Lithium batteries (2pk)             |

## 42299 3.6 V Lithium Batteries



**Package of 2 (1/2 AA size bobbin cell), primary, non-rechargeable**

- High voltage response, stable during most of the lifetime of the application
- Wide operating temperature range (-60°C/+85°C)
- Low self-discharge rate (less than 1% per year of storage at +20°C)
- Superior resistance to atmospheric corrosion; Hermetic glass-to-metal sealing
- Stainless steel container and end caps (low magnetic signature)
- Non-flammable electrolyte
- Compliant with IEC 60086-4 safety standard and IEC 60079-11 intrinsic safety standard (class T4 assignment)
- Underwriters Laboratories (UL) Component Recognition
- Non-restricted for transport/Non-assigned to Class 9 according to the UN Recommendations
- Complete with two 3.6 V Lithium batteries

### ORDERING

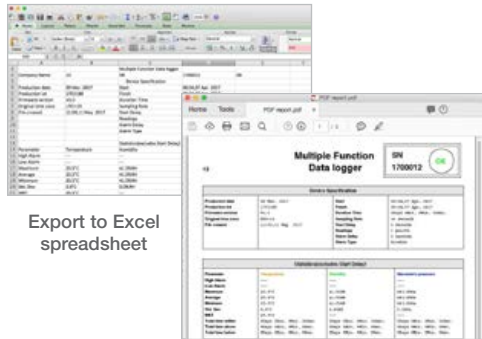
|       |                                 |
|-------|---------------------------------|
| 42299 | 3.6 V Lithium Battery (pk of 2) |
|-------|---------------------------------|

# RHT30/RHT35 USB Humidity/Temperature/Pressure Dataloggers



Includes USB cover/tilt stand

CE



Export to Excel spreadsheet

Generate PDF reports

**Datalogs Humidity and Temperature, and RHT35 model also records Barometric Pressure with built-in MEMS sensor**

- Compact size housing with built-in NTC thermistor and capacitive humidity sensor designed with standard USB connector for easy data downloading to a PC
- User programmable settings: 6 languages, sample rate, start delay time, alarm delay time, high/low alarm range, and security feature
- Status Indication via Red and Green LEDs; Max/Min function
- Start button begins continuous datalogging until memory is full or by pressing Stop
- Bookmark 8 locations in a data recording log with a press of the Mark button
- Long battery life (approx. 3 month continuous reading)
- Generates a PDF report or Excel® spreadsheet when plugged into a PC
- 2-year warranty
- Complete with (2) CR2032 batteries, USB cover (can be used as a stand), wall mounting screw, and built-in hanger

| SPECIFICATIONS                         | RANGE                                                                                                                                                | RESOLUTION         | BASIC ACCURACY  |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|
| Humidity                               | 0.1 to 99.9% RH                                                                                                                                      | 0.1% RH            | ±3% RH          |
| Temperature (Air)                      | -22 to 158°F (-30 to 70°C)                                                                                                                           | 0.1°               | ±1.0°F (±0.5°C) |
| Barometric Pressure (Model RHT35 only) | 300 to 1100 hPa (8.9 to 32.5 inHg)                                                                                                                   | 0.1 hPa (0.1 inHg) | ±3 hPa          |
| Datalogging interval                   | 30 seconds to 2 hours                                                                                                                                |                    |                 |
| Memory                                 | RHT30 - Humidity: 24 K points, Temperature: 24 K points<br>RHT35 - Humidity: 16 K points, Temperature: 16 K points, Barometric Pressure: 16 K points |                    |                 |
| Dimensions/Weight                      | 4.3x1.6x0.75" (110x40x19 mm)/1 oz (90 g)                                                                                                             |                    |                 |

## ORDERING

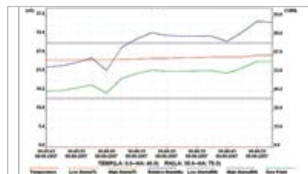
|       |                                                         |
|-------|---------------------------------------------------------|
| RHT30 | USB Humidity/Temperature Datalogger                     |
| RHT35 | USB Humidity/Temperature/Barometric Pressure Datalogger |



# RHT10/TH10 Humidity and Temperature USB Dataloggers



CE



Monitors Temperature & Humidity (RHT10) levels. USB plugs into a PC for data analysis with software



42299 — Replacement long lasting Lithium batteries

**Two models to choose from, with USB interface for easy data download**

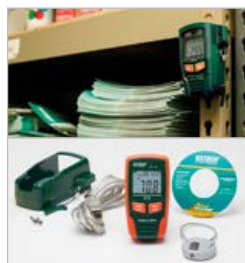
- **Model RHT10** datalogs 16,000 Temperature/ 16,000 RH readings; Dew point indication and calculate Grains Per Pound (grams per kilogram) up to 1120 GPP (160 g/kg) via included Windows® compatible software
- **Model TH10** datalogs 32,000 Temperature readings
- Selectable data sampling rate: 2 seconds to 24 hours
- User-programmable alarm thresholds for RH and Temperature
- Humidity: 0 to 100% RH (Model RHT10 only), Accuracy: ±3% RH; Temperature: -40 to 158°F (-40 to 70°C), Accuracy: ±1.8°F/1°C
- 1-year battery life; Dimensions: 5.1x1.1x0.9" (130x30x25 mm)/Wt: 1 oz (20 g)
- 2-year warranty;
- Completes with 3.6 V Lithium battery, protective USB cap, mounting bracket, and Windows® compatible software

## ORDERING

|       |                                                         |
|-------|---------------------------------------------------------|
| RHT10 | Humidity and Temperature USB Datalogger                 |
| TH10  | Temperature USB Datalogger                              |
| 42299 | 3.6 V Lithium Battery (pk of 2) - see p. 61 for details |



## RHT20 Humidity and Temperature Datalogger



Complete with 3.6 V Lithium battery, mounting bracket with combination lock, and Windows® compatible analysis software



### Datalogs 16,000 Humidity and 16,000 Temperature readings

- USB interface for easy setup and data download to a PC
- Monitors Humidity & Temperature levels in warehouse, storage rooms, freezers, shipping vans, and offices
- Dew point indication via Windows® compatible software (included)
- Selectable data sampling rate: 1 second to 24 hours
- User-programmable alarm thresholds for RH and Temperature
- LCD displays current readings, Min/Max, and alarm status  
Humidity: 0 to 100% RH, 0.1% RH resolution, Accuracy: ±3% RH;  
Temperature: -40 to 158°F (-40 to 70°C), 0.1°F/°C resolution, Accuracy: ±1.8°F/1°C
- 3-month battery life; Dimensions: 3.7x1.9x1.2" (94.4x48.9x31.2 mm)/Wt: 3.2 oz (90.7 g)
- 2-year warranty

### ORDERING

|       |                                     |
|-------|-------------------------------------|
| RHT20 | Humidity and Temperature Datalogger |
|-------|-------------------------------------|

## 42280 Humidity and Temperature Datalogger



### Records up to 16,000 readings with USB interface for downloading to a PC

- Programmable from keypad or PC, Selectable data sampling rate, and User programmable audible and visual alarms
- Measurement ranges: 0 to 100% RH and -4 to 144°F (-20 to 70°C); Resolution: 0.1% RH, 0.1°F/°C; Basic accuracy: ±3% RH, ±1°F/0.6°C
- Dimensions/Weight: 4.75x3.5x1.5" (120.7x88.9x38.1 mm)/5.7oz (163 g)
- 2-year warranty
- Complete with Windows® compatible software, USB cable, Universal AC adaptor with 4 plugs (US, EU, UK, AUS), and four AA batteries

### ORDERING

|           |                                     |
|-----------|-------------------------------------|
| 42280     | Temperature and Humidity Datalogger |
| RH300-CAL | 33% and 75%RH Calibration Kit       |

## RH520A Humidity and Temperature Chart Recorder



PC software included



[www.extech.com/video](http://www.extech.com/video)

### Best value graphical datalogger in the market that's easy to set up & operate

- Simultaneous numerical & graphical display of Humidity (10.0 to 95.0% RH) and Temperature (-20.0 to 140.0°F/-28.0 to 60.0°C) readings, plus Time and Date
- Basic Accuracy: ±3% RH; ±1.8°F (±1°C)
- Includes PC software that calculates and graphs Dew Point, Wet Bulb, and GPP (grains per pound)
- Large dual graphical LCD displays with adjustable vertical and horizontal resolution
- Internal memory records up to 49,000 data points and can be transferred to a PC
- Audible and visual alarm with Hi/Low setpoints
- Output socket can be used with user's external alarm module
- Dimensions: 5x7.7x0.9" (129x195x22 mm); Weight: 12.6 oz (357 g)
- 2-year warranty
- Complete with built-in stand, detachable probe with 3 ft (1 m) cable, RS-232 cable, RS-232 to USB adaptor, PC software, 100-240 V AC 50/60 Hz adaptor, and 3 AA batteries

### ORDERING

|            |                                                                                    |
|------------|------------------------------------------------------------------------------------|
| RH520A     | Humidity+Temperature Chart Recorder (110 V adaptor w/standard North American plug) |
| RH520A-220 | Humidity+Temperature Chart Recorder (220 V adaptor w/ 3 flat pin plug, grounded)   |
| RH520A-240 | Humidity+Temperature Chart Recorder (240 V adaptor w/ 2 rounded pin plug)          |
| RH522      | Replaceable Humidity/Temperature Probe                                             |

RH200W Multi-Channel Wireless Hygro-Thermometer Kit



FC CE

WIRELESS Transmitter

One Base Station can connect up to 8 Wireless Transmitters (RH200W-T) that are placed within 93 ft (30 m) away from the base. Ideal for multi-room environmental monitoring for manufacturing facilities, restaurants, offices, homes, greenhouses, and storage/archive buildings.



Connect up to 8 wireless transmitters to remotely measure Temperature and Humidity levels up to 98 ft (30 m) away

- Base Station LCD with Auto-Night Light displays local and up to eight remote Temperature/Humidity readings either auto-cycle or manual mode from the wireless transmitters
- Easy-to-read 1.3" (33 mm) oversized digits
- Min/Max recording with reset
- Indoor Comfort icons displayed on Base Station indicating too cold, comfortable, or too hot/humid conditions
- Trend arrows indicate rising, steady or falling of the Temperature/Humidity readings
- Snow icon appears when remote temperature is 37.4°F (3°C) or below
- Transmitter LED flashes to indicate normal operation
- Transmitters can be mounted up to 98 ft (30 m) from the base station
- Operates at 433 MHz; FCC approved
- 2-year warranty
- Complete with a base station with 4 AA batteries and one transmitter with 2 AA batteries. Additional remote Transmitters (RH200W-T) sold separately (up to 8 transmitters can be wirelessly connected to the base)

| SPECIFICATIONS                            | RANGE                                                                            | MAX RESOLUTION | BASIC ACCURACY |
|-------------------------------------------|----------------------------------------------------------------------------------|----------------|----------------|
| Temperature Indoor Base Station           | 23 to 122°F (-5 to 50°C)                                                         | 0.1°F/°C       | ±1.8°F (1°C)   |
| Temperature Remote Transmitter (RH200W-T) | -40°F to 140°F (-40°C to 60°C)                                                   | 0.1°F/°C       | ±1.8°F (1°C)   |
| Relative Humidity                         | 1 to 99% RH                                                                      | 1% RH          | ±5% RH         |
| Wireless Sensor Signal                    | 433 MHz                                                                          |                |                |
| Number of Remote Transmitters             | Base Station can connect up to 8 Transmitters (RH200W-T)                         |                |                |
| RF Transmission Range                     | 98 ft (30 m)                                                                     |                |                |
| Dimensions                                | Base: 5.1x4.4x1.1" (130x112x27.5 mm); Transmitter: 4.5x2.4x1.6" (113x61x39.5 mm) |                |                |
| Weight                                    | Base: 10.4 oz (295 g); Transmitter: 4.8 oz (136 g)                               |                |                |

ORDERING

|          |                                                                                    |
|----------|------------------------------------------------------------------------------------|
| RH200W   | Multi-Channel Wireless Hygro-Thermometer (one each - Base Station and Transmitter) |
| RH200W-T | Wireless Hygro-Thermometer Transmitter                                             |



## WTH600-KIT Wireless Weather Station Kit



**WIRELESS**  
**Transmitter**



Extech's Weather Station helps you plan your day-to-day outdoor activities that may be affected by weather conditions including businesses involved with construction, agriculture, and recreation.

Complete with one Base Station with 3 AA batteries and one Transmitter with 3 AA batteries; 2-year warranty.

**Outdoor Wireless Transmitter, with 5 built-in sensors, sends data wirelessly to the indoor Base Station to display current weather conditions**

- Model WTH600-KIT - Operates at 915 MHz; FCC approved
- Model WTH600-E-KIT - Operates at 868 MHz; CE approved

### Indoor Base Station Features:

- Weather Forecast displays Sunny, Partially Cloudy, Cloudy, Rainy, Stormy, or Snowy
- Barometric pressure in Relative or Absolute readings
- Displays Rain Rate, Daily, Weekly, Monthly and Total Rainfall (in inches or mm)
- Bar chart displays rainfall (past 5 days) or pressure changes (1, 3, 6, 12, 24 hrs)
- Measures Indoor Temperature/Humidity and indicates comfort level and Dew Point
- Max/Min readings with time-date stamps
- Hourly records for the past 24 hours
- Hi/Lo alert setting with flashing amber LED indicator
- LED backlight display shows low battery indicator and signal strength indication
- Clock display with date and weekday (5 languages : EN/DE/FR/IT/ES)
- Clock alarm function and Ice-Alert

### Outdoor Transmitter Features:

- Outdoor weatherproof (IP67) transmitter with 5 built-in sensors measuring Wind Speed, Wind Direction, Rainfall, Temperature, and Humidity
- Long-range transmission up to 450 ft (150 m) to the Indoor Base Station
- Measures Gust or Average Wind Speed in (mph, m/s, km/h, knots)

*NOTE: Check country frequency to select the correct model to use the Radio Controlled Clock feature. All other regions, user can manually set the clock mode.*

| SPECIFICATIONS                       | RANGE                                                                                                          | MAX RESOLUTION   | BASIC ACCURACY  |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------|-----------------|
| <b>Wireless Indoor Base Station</b>  |                                                                                                                |                  |                 |
| Frequency                            | WTH600-KIT: 915 MHz<br>WTH600-E-KIT: 868 MHz                                                                   |                  |                 |
| Temperature                          | -40 to 158°F (-40 to 70°C)                                                                                     | 0.1°             | ±2°F (±1°C)     |
| Relative Humidity                    | 20 to 90% RH                                                                                                   | 1% RH            | ±5% RH          |
| Barometer                            | 15.95 to 32.48 inHg                                                                                            | 0.01 inHg        | ±0.12 inHg      |
|                                      | 405 to 825 mmHg                                                                                                | 0.1 mmHg         | ±3 mmHg         |
|                                      | 540 to 1100 hPa                                                                                                | 1 hPa            | ±4 hPa          |
| Dew Point (Calculated)               | -40 to 158°F (-40 to 70°C)                                                                                     | 0.1°             |                 |
| Weather forecast                     | Sunny/Clear, slightly Cloudy, Cloudy, Rainy, Rainy/Stormy and Snowy                                            |                  |                 |
| <b>Radio Controlled Atomic Clock</b> |                                                                                                                |                  |                 |
| Synchronization                      | Auto or disabled                                                                                               |                  |                 |
| Clock display                        | HH:MM:SS / Weekday                                                                                             |                  |                 |
| Hour format                          | 12 hr AM/PM or 24 hr                                                                                           |                  |                 |
| Calendar                             | MM/DD                                                                                                          |                  |                 |
| Languages (weekday)                  | EN, FR, DE, ES, IT                                                                                             |                  |                 |
| Time signal                          | WWVB                                                                                                           |                  |                 |
| Time zones                           | PST, MST, CST, EST, AST, NST                                                                                   |                  |                 |
| DST (daylight savings)               | AUTO / OFF                                                                                                     |                  |                 |
| <b>Wireless Outdoor Transmitter</b>  |                                                                                                                |                  |                 |
| Temperature                          | -40 to 176°F (-40 to 80°C)                                                                                     | 0.1°             | ±1.0°F (±0.5°C) |
| Relative Humidity                    | 1 to 99% RH                                                                                                    | 1% RH            | ±3% RH          |
| Wind Speed                           |                                                                                                                |                  |                 |
| m/s                                  | 0 to 50 m/s                                                                                                    | 0.1 m/s          | ±6%             |
| km/h                                 | 0 to 180 km/h                                                                                                  | 0.1 km/h         | ±6%             |
| MPH                                  | 0 to 112 MPH                                                                                                   | 0.1 MPH          | ±6%             |
| knots                                | 0 to 97 knots                                                                                                  | 0.1 knots        | ±6%             |
| Wind Direction                       | 16 points                                                                                                      |                  |                 |
| Wind Chill                           | -40 to 158°F (-40 to 70°C)                                                                                     | 0.1°             | ±1°F (±2°C)     |
| Heat Index                           | 78.8 to 122°F (26 to 50°C)                                                                                     | 0.1°             |                 |
| Rain Gauge                           | 0 to 393.7" (0 to 9999 mm)                                                                                     | 0.0157" (0.4 mm) | ±7% or 1 tip    |
| Dimensions                           | Indoor Base Station: 4.7x7.5x0.9" (120x190x22 mm);<br>Outdoor Transmitter: 13.5x15.5x5.5" (343.5x393.5x136 mm) |                  |                 |
| Weight                               | Indoor Base Station: 13.1 oz. (370 g) with batteries;<br>Outdoor Transmitter: 23.7 oz. (673 g) with batteries  |                  |                 |

| ORDERING     | (Check country frequency compatibility before ordering)                        |
|--------------|--------------------------------------------------------------------------------|
| WTH600-KIT   | Wireless Weather Station Kit - 915 MHz (one each - Base Station & Transmitter) |
| WTH600-E-KIT | Wireless Weather Station Kit - 868 MHz (one each - Base Station & Transmitter) |





## Quick & Easy

Need a quick check on humidity levels in water restoration, HVAC system, or environmental conditions for safety & comfort? Extech's got a variety of Hygro-Thermometers ranging from simple pen style to compact design and advanced handheld models. Whatever your job demands, we've got the right meter for you to get it done quickly without compromising on quality!



**RH300-CAL**  
**33% and 75% RH Calibration Reference**  
Calibration kit for calibrating Humidity Meters/  
Indicators

- Optional Calibration kit for calibrating Humidity Indicators (445580, RH300, 445715 and 445815)
- 33% RH and 75% RH bottles
- Bottle designed with small opening for snugged fit of the sensor
- Includes 33% RH and 75% RH calibration bottles

**N** NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** next to product part numbers.

### SPECIFICATIONS

|                   |
|-------------------|
| Sensor Type       |
| Humidity          |
| Dew Point         |
| Temperature (Air) |
| Temperature (IR)  |
| Basic Accuracy    |
| Max. Resolution   |
| CE approved       |
| Dimensions        |
| Warranty          |



## 445580 Humidity/ Temperature Pen

Compact, Digital Hygro-Thermometer, ideal for field use

- Simultaneous display of Temperature (°C/°F) and Relative Humidity
- MAX/MIN and Data Hold
- Built-in self calibration utility allows for field calibrations using optional Relative Humidity calibration bottles (RH300-CAL)
- Complete with meter, pocket clip and 3 V lithium battery



## RH210 Compact Hygro-Thermometer

Economic handheld meter with large dual LCD displays Temperature and Humidity or Dew Point simultaneously

- Compact design features large dual display of Temperature and Humidity or Dew Point
- Uses precision capacitance sensor
- Min/Max function stores & recalls highest and lowest readings
- Data Hold function freezes reading on display
- Auto Power Off with disable feature
- Low battery indication
- Complete with probe and 39" (1 m) cable, 9 V battery, and soft case



## RH101 Hygro-Thermometer + IR

Humidity, Air Temperature plus IR for non-contact Temperature measurements

- Large backlit LCD dual display
- Primary and Secondary displays: Primary display is user selectable for IR or Humidity; Secondary displays ambient temperature
- InfraRed thermometer has built-in laser pointer, 8:1 distance to target ratio, and fixed 0.95 emissivity
- Auto Power Off, MAX and Data Hold
- Remote humidity sensor with 39" (1 m) coiled cable measures both humidity and ambient temperature
- Over-range indication
- Complete with built-in stand, holster, Humidity/Temperature probe, 9 V battery, and carrying case

### 445580 N

|                                         |
|-----------------------------------------|
| Capacitance                             |
| 10 to 90% RH                            |
| —                                       |
| 14 to 122°F (-10 to 50°C)               |
| —                                       |
| ±5% RH, ±1.5°                           |
| 0.1%, 0.8°                              |
| Yes                                     |
| 5.7x1.2x1" (145x30x25 mm)/2.3 oz (65 g) |
| 2 years                                 |

### RH210

|                                                           |
|-----------------------------------------------------------|
| Capacitance                                               |
| 10 to 95% RH                                              |
| -13.5 to 120.0°F (-25.3 to 48.9°C)                        |
| 32 to 122°F (0 to 50°C)                                   |
| —                                                         |
| ±3% RH; ±1.5°F/±0.8°C (Air);<br>±2.2°F/±1.2°C (Dew Point) |
| 0.1%, 0.1°                                                |
| Yes                                                       |
| 5.3x2.4x1.3" (135x60x33 mm)/9.3 oz. (264 g)               |
| 2 years                                                   |

### RH101

|                                                   |
|---------------------------------------------------|
| Capacitance                                       |
| 10 to 95% RH                                      |
| —                                                 |
| -4 to 140°F (-20 to 60°C)                         |
| -58 to 932°F (-50 to 500°C)                       |
| ±3.5% RH; ±2% or ±4°F/2°C (IR);<br>±3°F/2°C (Air) |
| 0.1%, 0.1°                                        |
| Yes                                               |
| 5.9x2.95x1.57" (150x75x40 mm)/7 oz (200 g)        |
| 2 years                                           |



# Must-Have Tools for IAQ

Regulating humidity and temperature is a critical part of ensuring indoor air quality (IAQ) in residential, commercial offices, manufacturing and healthcare. Extech psychrometers are a key tool for rapid diagnostics & IAQ problem solving.

**N** NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** next to product part numbers.

| ACCESSORIES |                                          |
|-------------|------------------------------------------|
| 589250      | RS-232 PC cable for RH350                |
| 589250-USB  | USB PC cable for RH350                   |
| RH-CAP      | Replacement Protective Cap (5-pack)      |
| RH-SCREEN   | Vent Cap for RH390/RH490/HD500 (5-pack)  |
| RH300-CAL   | 33% and 75% RH Calibration Kit for RH300 |
| RH350-CAL   | 33% and 75% RH Calibration Kit for RH350 |
| TP890       | Thermistor Temperature Probe for RH300   |

| SPECIFICATIONS                        | RH300 <b>N</b>                                       |
|---------------------------------------|------------------------------------------------------|
| Sensor Type                           | Capacitance                                          |
| Dew Point                             | -90.4 to 122°F (-68.0 to 49.9°C)                     |
| Wet Bulb                              | -6.9 to 122°F (-21.6 to 49.9°C)                      |
| Humidity (Basic Accuracy)             | 0 to 100% RH (±3% RH)                                |
| Mixing Ratio                          | —                                                    |
| Internal Temperature (Basic Accuracy) | -4 to 122°F /-20 to 50°C (±1.8°F/±1°C)               |
| External Temperature (Basic Accuracy) | Thermistor: -4 to 158°F/-20 to 70°C (±1.8°F or ±1°C) |
| PC Interface                          | —                                                    |
| Memory/Datalogging                    | —                                                    |
| CE Approved                           | Yes                                                  |
| Dimensions/Weight                     | 7x1.9x1" (178.5x48.4x24.7 mm)/3.3 oz (95 g)          |
| Warranty                              | 2 years                                              |



## RH300 Digital Psychrometer

Temperature Probe for differential measurements

- Simultaneous display of % RH, Temperature and Dew Point or Wet Bulb or Probe Temperature
- Calculates T1-T2 differential (Air Temperature minus External Probe Temperature) using optional probe (TP890) and T2-Dew Point
- Data Hold and Auto Power Off
- MAX/MIN readings
- Optional TP890 probe for Differential Temperature
- Complete with 2 AAA batteries; Optional 33% and 75% RH Calibration Kit (RH300-CAL)





## RH350 Dual Input Psychrometer

Two Type K External Probe inputs for Superheat plus memory

- Superheat differential measurements: T1-T2, Air-T1, and T1-Dew Point
- Backlit LCD displays 3 parameters: %RH and Temperature with either Dew Point, Wet Bulb or Type K
- PC interface – 407752 software available for download at [www.extech.com](http://www.extech.com) and optional cable 589250 or 589250-USB sold separately
- Stores up to 99 data points
- MAX/MIN with time stamp+AVG
- Data Hold, Auto Power Off
- Complete with 2 general purpose Type K bead wire probes, 4 AAA batteries; Optional 33% and 75% RH Calibration Kit (RH350-CAL)



## RH390/RH490 Precision Psychrometers

Highest 2% RH accuracy with Fast 30 second Response Time

- Dual backlit display
- Simultaneous display of:
  - Humidity/Temperature
  - Humidity/Dew Point
  - Humidity/Wet Bulb
- Fast 30 second response time
- Slim design with rubberized sides for better grip and for one-hand operation
- **Model RH490** measures Grains Per Pound (grams per kilogram) to 1120 GPP (160 g/kg)
- Complete with carrying case and 9 V battery



## RHT510 Digital Psychrometer

Type K input for measuring temperature up to 2372°F (1300°C)

- Measures Temperature (Air/Type K) and Relative Humidity
- Calculates Wet Bulb and Dew Point
- Backlit LCD to view in dimly lit areas
- Min/Max readings
- Data Hold
- Auto Power Off with disable
- Tripod mount (tripod not included)
- Complete with wrist strap, general purpose Type K bead wire Temperature probe, and 3 AAA batteries. See other optional Type K temperature probes available on p. 27, 52.

### RH350 N

|                                                                |
|----------------------------------------------------------------|
| Capacitance                                                    |
| -90.4 to 122°F (-68.0 to 49.9°C)                               |
| -6.9 to 122°F (-21.6 to 49.9°C)                                |
| 0 to 100% RH (±3% RH)                                          |
| —                                                              |
| -4 to 122°F/-20 to 50°C (±1.8°F/±1°C)                          |
| Type K: -328 to 2498°F/-200 to 1370°C (±0.3% or 1.8°F or ±1°C) |
| Optional software & cable (589250)                             |
| 99 readings                                                    |
| Yes                                                            |
| 9x2.2x1.7" (230x57x44 mm)/5.3 oz (153 g)                       |
| 2 years                                                        |

### ■ RH390 N | ▲ RH490 N

|                                                                               |
|-------------------------------------------------------------------------------|
| Capacitance                                                                   |
| -22 to 199°F (-30 to 100°C)                                                   |
| 32 to 176°F (0 to 80°C)                                                       |
| 0 to 100% RH (±2% RH)                                                         |
| ■ No   ▲ 0 to 1120 GPP (grains per pound); 0 to 160 g/kg (grams per kilogram) |
| -22 to 199°F/-30 to 100°C (±1.8°F/1°C)                                        |
| —                                                                             |
| —                                                                             |
| Yes                                                                           |
| 7.8x1.7x1.3" (200x45x33 mm)/7 oz (200 g)                                      |
| 2 years                                                                       |

### RHT510 N

|                                                               |
|---------------------------------------------------------------|
| Capacitance                                                   |
| -13.5 to 120.0°F (-25.3 to 49.0°C)                            |
| 22.2 to 120°F (-5.4 to 49.0°C)                                |
| 10 to 95% RH (±4% RH)                                         |
| —                                                             |
| 32 to 122°F/0 to 50°C (±2.5°F/1.2°C)                          |
| Type K: -148°F to 2372°F/-100°C to 1300°C (±0.4% + 1.8°F/1°C) |
| —                                                             |
| —                                                             |
| Yes                                                           |
| 6x2.3x1" (153x58x25 mm)/5.6 oz (160 g)                        |
| 2 years                                                       |



## Improve Indoor Air Quality

Accurately diagnosing problems related to barometric pressure, humidity and temperature levels is essential to effective HVAC/mechanical repair. Extech makes it easy with durable, accurate, and easy-to-use environmental meters.

**N** NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** next to product part numbers.

### ACCESSORIES

|           |                                                 |
|-----------|-------------------------------------------------|
| RH-CAP    | Replacement Protective Cap (5-pack)             |
| RH-SCREEN | Vent Cap for RH390/RH490/HD500 (5-pack)         |
| UA100-240 | 100-240 V AC Adaptor w/4 plugs (US, EU, UK, AU) |



**N** Indicates products that are available with optional calibration traceable to **NIST**. See pages 146-147 for a complete listing.



## HD500 Psychrometer + 30:1 InfraRed Thermometer

Combination Humidity meter, Type K thermometer, and InfraRed Thermometer

- Built-in IR Thermometer for non-contact surface temperature measurements
- 30:1 distance to target ratio
- 0.95 fixed emissivity to cover 90% of surface applications
- Type K Thermometer for contact temperature measurement
- Highest 2% RH accuracy
- Large triple LCD backlit display
- USB port includes PC software
- Auto Power Off
- Complete with general purpose Type K bead wire probe, PC software, USB cable, built-in stand, case, and 9 V battery

| SPECIFICATIONS                        | HD500 <b>N</b>                               |
|---------------------------------------|----------------------------------------------|
| Sensor Type                           | Capacitance                                  |
| Dew Point                             | -90.4 to 140°F (-68 to 60°C)                 |
| Wet Bulb                              | -6.88 to 140°F (-21.6 to 60°C)               |
| Humidity (Basic Accuracy)             | 0 to 100% RH (±2% RH)                        |
| Barometric Pressure                   | —                                            |
| Internal Temperature (Basic Accuracy) | -14 to 140°F/-10 to 60°C (±4°F/±2°C)         |
| External Temperature (Basic Accuracy) | Type K: -148 to 2501°F/-100 to 1372°C (±3%)  |
| IR Temperature (Basic Accuracy)       | -58 to 932°F/-50 to 500°C (±2% or ±4°F/±2°C) |
| PC Interface                          | Yes                                          |
| Memory/Datalogging                    | —                                            |
| CE Approved                           | Yes                                          |
| Dimensions/Weight                     | 10x2.9x2" (255x75x50 mm)/12.2 oz (350 g)     |
| Warranty                              | 3 years                                      |



Includes SD memory card

## SDL500 Psychrometer/ Hygro-Thermometer Datalogger

Date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC

- Humidity, Temperature, Dew Point & Wet Bulb functions
- Selectable data sampling rate: 1 to 3600 seconds
- Manually store/recall up to 99 readings
- Large backlit dual LCD
- Record/Recall MIN, MAX readings
- Data Hold plus Auto Power Off with disable function
- Includes 6 x AA batteries, SD card, case and Humidity probe; Optional Universal AC Adaptor UA100-240, also see p. 27, 52 for optional Type K and J Thermocouple probes



Includes SD memory card

## SD500 Hygro-Thermometer Datalogger

Records data on an SD card in Excel® format

- Dual LCD displays Relative Humidity and Temperature readings
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 5 to 600 seconds or Auto
- Complete with 6 AAA batteries, SD card, Universal AC Adaptor, and mounting bracket



Includes SD memory card

## SD700 Hygro-Thermometer Datalogger plus Barometric Pressure

Records data on an SD card in Excel® format

- Triple LCD displays Barometric Pressure, Temperature, and Relative Humidity
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 5 to 600 seconds or Auto
- Complete with 6 AAA batteries, SD card, Universal AC Adaptor, and mounting bracket

### SDL500 N

Capacitance  
-13.5 to 120.1°F (-25.3 to 48.9°C)  
-6.9 to 122°F (-21.6 to 50°C)  
5% to 95% RH (±3% RH)  
—  
32 to 122°F/0 to 50°C (±1.8°F/±1°C)  
Type K: -148 to 2372°F / -100 to 1300°C  
Type J: -148 to 2192°F / -100 to 1200°C  
±(0.4% + 1.8°F/1°C)  
—

Datalogs using SD memory card

Yes  
7.2x2.9x1.9" (182x73x48 mm)/23 oz (655 g)  
3 years

### SD500 N

Capacitance  
—  
—  
10 to 90% RH (±4% RH)  
—  
32 to 122°F/0 to 50°C (±1.8°F/0.8°C)  
—  
—

Datalogs using SD memory card

Yes  
5.2x3.1x1.3" (132x80x32 mm)/9.9 oz (282 g)  
2 years

### SD700

Capacitance  
—  
—  
10 to 90% RH (±4% RH)  
10 to 1100 hPa; 7.5 to 825 mmHg; 0.29 to 32.48 inHg  
32 to 122°F/0 to 50°C (±1.8°F/0.8°C)  
—

Datalogs using SD memory card

Yes  
5.2x3.1x1.3" (132x80x32 mm)/9.9 oz (282 g)  
2 years





## Redefining Heat Index Meters

Whether it's for the job site or for your athletes, heat stress is critical. Use Extech's Heat Index Meters to monitor safe conditions during hot and humid days.

**N** NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** next to product part numbers.



### HW30 Heat Index Stopwatch

Digital UP/DOWN timer displays Temperature, Humidity, and Heat Index

- User programmable Heat Index alarm
- Stopwatch/chronograph mode with 1/100th second resolution
- Fastest/Slowest/Average Lap recall
- 99 lap counter with 30 lap/split memory
- 10 hour countdown timer with audible beeper warning for the last 5 seconds
- Programmable alarm
- Calendar mode displays day, month, and date
- 12 or 24 hour clock operation
- Complete with 39" (1 m) lanyard and one 3V CR2032 battery
- HW30-NISTL - Limited NIST available for time function only

#### ACCESSORIES

407752 Software and Cable for HT30

| SPECIFICATIONS                    | HW30 <b>N</b>                              |
|-----------------------------------|--------------------------------------------|
| Heat Index                        | 70 to 122°F (22 to 50°C)                   |
| Temperature                       | 14 to 122°F (-10 to 50°C)                  |
| Humidity                          | 1 to 99% RH                                |
| Dew Point                         | —                                          |
| Wet Bulb                          | —                                          |
| Wet Bulb Globe Temperature - WBGT | —                                          |
| Timing capacity                   | 9 hrs, 59 mins, and 59 secs                |
| Basic Accuracy                    | ±5 seconds/day, ±5% RH, ±3°F (1.5°C)       |
| CE approved                       | Yes                                        |
| Dimensions/Weight                 | 7.6x0.8x1.8" (192x30x45 mm)/3.8 oz (108 g) |
| Warranty                          | 2 years                                    |



**N** Indicates products that are available with optional calibration traceable to **NIST**. See pages 146-147 for a complete listing.



## RH25 Heat Index Psychrometer

Convenient pen style psychrometer monitors Heat Index during hot humid days

- Built-in multiparameter sensor measures Heat Index, WBGT, Humidity, Ambient Temperature, Temperature, Dew Point and Wet Bulb
- User Programmable Heat Index/WBGT alarm
- Heat Index function measures how hot it feels when Humidity is combined with temperature, air movement, and radiant heat
- Wet Bulb Globe Temperature (WBGT) function considers the effects of temperature, humidity, and direct or radiant sunlight
- Min/Max/Average
- Data Hold
- Auto Power Off with disable
- Complete with CR2032 battery)



## HT30 Heat Stress WBGT Meter

Wet Bulb Globe Temperature (WBGT) considers the effects of temperature, humidity and direct or radiant sunlight

- Heat Stress Index measures how hot it feels when humidity is combined with temperature, air movement, and radiant heat
- Black Globe Temperature (TG) monitors the effects of direct solar radiation on an exposed surface
- In/Out Function displays the WBGT value with or without direct sun exposure
- Auto Power Off with disable
- Built-in RS-232 interface with optional PC software (407752)
- Complete with two AAA batteries



## HT200 Heat Stress WBGT Meter

Accurately determine the Heat Stress level

- Heat Stress Index measures how hot it feels when humidity is combined with temperature, air movement, and radiant heat
- Black Globe Temperature (TG) monitors the effects of direct solar radiation on an exposed surface
- In/Out function displays the WBGT value with or without direct sun exposure
- WBGT high/low alarm settings
- Memory stores 50 readings
- Backlit LCD
- Min/Max, Data Hold, and Auto Power Off with disable
- Complete with 9 V battery and hard case

| RH25                                      | HT30 <span>N</span>                                                                    | HT200                                                                                        |
|-------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| -50.8 to 401°F (-46 to 205°C)             | —                                                                                      | —                                                                                            |
| -4 to 122°F (-20 to 50°C)                 | Black Globe : 32 to 176°F (0 to 80°C)                                                  | TG-Black Globe: 32 to 176°F (0 to 80°C);<br>TA-Air : 32 to 122°F (0 to 50°C)                 |
| 0 to 99.9%RH                              | 0 to 100% RH                                                                           | 1 to 99%RH                                                                                   |
| -108.4 to 122°F (-78 to 50°C)             | —                                                                                      | -31.5 to 120.1°F (-35.3 to 48.9°C)                                                           |
| -4 to 122°F (-15 to 50°C)                 | —                                                                                      | -6.9 to 122°F (-21.6 to 50°C)                                                                |
| -20.2 to 130°F (-29 to 54.5°C)            | 32 to 122°F (0 to 50°C)                                                                | w/o sunlight: 32 to 138°F (0 to 59°C);<br>w/sunlight: 32 to 132°F (0 to 56°C)                |
| —                                         | —                                                                                      | —                                                                                            |
| ±3% RH, ±1°F/0.6°C                        | ±3% RH, ±1.8°F/1.0°C (TA), ±4°F/2°C (TG)                                               | ±3% RH, ±1.8°F/1°C (WBGT w/o sun); ±2.7°F/1.5°C (w/sun) ±1.5°F/0.8°C (TA), ±1.1°F/0.6°C (TG) |
| Yes                                       | Yes                                                                                    | Yes                                                                                          |
| 5.5x1.4x0.7" (140x35x18 mm)/1.8 oz (50 g) | 10x1.9x1.1" (254x49x30 mm)/4.8 oz (136 g)<br>Ball: 1.6" (40 mm) dia, 1.4" (35 mm) high | Meter: 11.8x2.8x2" (300x70x50 mm)<br>Ball: 2" (50 mm) diameter/7.8 oz (220 g)                |
| 2 years                                   | 2 years                                                                                | 2 years                                                                                      |



## Find Moisture Problems Fast

Extech delivers a wide moisture meter selection for a variety of industries measuring moisture in wood and building materials. These meters are used by woodworking professionals, disaster restoration, and water damage professionals.



### M050 Compact Moisture Meter

Easy-to-operate with display icons that indicate the levels of moisture content plus audible alert feature

- Displays moisture level in wood and building materials such as wall board, sheet rock, cardboard, plaster, concrete, and mortar
- Audible Alert — Tone rate beeps faster as the moisture level increases
- Icons display low, medium and high levels of moisture content
- Replaceable threaded measurement electrode pins
- Easy-to-use, compact-sized design
- Data Hold freezes reading on display
- Built-in battery level check and measurement verification test
- Auto Power Off conserves battery power
- Complete with replacement pins, protective cap, and 9 V battery

#### ACCESSORIES

|            |                                              |
|------------|----------------------------------------------|
| MO50-PINS  | Replacement pins for MO50 (10 pins)          |
| MO200-PINS | Replacement pins for MO210 & MO230 (50 pins) |
| MO220-PINS | Replacement pins for MO220 (50 pins)         |

#### SPECIFICATIONS

|                   |                                         |
|-------------------|-----------------------------------------|
| Sensor Type       | Contact Pins                            |
| Moisture Content  | 5 to 50% (Wood); 1.5 to 33% (Materials) |
| Max. Resolution   | 0.1%                                    |
| Temperature       | —                                       |
| Relative Humidity | —                                       |
| CE approved       | Yes                                     |
| Dimensions        | 6.7x2.6x1.2" (170x65x30 mm)             |
| Weight            | 4.2 oz (120 g) without battery          |
| Warranty          | 2 years                                 |

#### M050





## M0210 Pocket Size Moisture Detector

Large dual graphical LCD displays moisture in wood and other building materials

- 2-in-1 Digital LCD readout and analog bargraph
- Measures Wood Moisture and Building Material Moisture
- Use on wall board, sheet rock, cardboard, plaster, concrete, and mortar
- Self-contained, pocket sized meter with belt clip
- Replaceable threaded measurement electrode pins
- Impact proof housing
- Auto Power Off conserves battery energy
- Built-in battery check and measurement verification test
- Complete with protective cap, replacement pins, and three CR-2032 button batteries



## M0230 Pocket Moisture/Hygro-Thermometer

Large dual graphical LCD displays moisture in wood and other building materials plus Air Temperature and Relative Humidity

- Simultaneous digital readout of moisture content plus ambient temperature or humidity with analog bargraph display of moisture, Max moisture values, and programmable wet/dry indication
- Use on wood, paper, wall board, sheet rock, cardboard, plaster, concrete, and mortar
- Memory contains 3 wood groups and 4 building material groups with calibrations for approximately 150 species of wood and 19 building material types
- Index Mode with programmable high and low values can be used to quickly locate moisture with comparative measurement
- Replaceable threaded measurement electrode pins
- Impact proof housing
- Auto Power Off conserves battery energy
- Built-in battery check and measurement verification test
- Complete with protective cap, replacement pins, and three CR-2032 button batteries



## M0220 Wood Moisture Detector

Specifically designed for monitoring moisture in wood

- Memory contains 8 wood groups with calibrations for approximately 170 species of wood
- Measurements can be taken using the integral pin electrodes or a heavy duty remote probe (included)
- Automatically temperature compensated (ATC) readings when used with the temperature probe (included)
- Built-in calibration check
- Replaceable measurement electrode pins
- User adjustable Auto Power Off (1 to 9 minutes) with disable
- Low battery indication
- Includes remote moisture probe, Temperature probe, protective cap, replacement pins, pouch case, and 2 AAA batteries

### M0210

Contact Pins  
6 to 44% (Wood); 0.2 to 2.0% (Materials)  
1% (Wood) / 0.1% (Materials)  
—  
—  
Yes  
5.1x1.6x1.0" (130x40x25 mm)  
3.5 oz (100 g)  
2 years

### M0230

Contact Pins  
0 to 75% (Wood); 0.1 to 24% (Materials)  
1% (Wood) / 0.1% (Materials)  
Air: -40 to 158°F (-40 to 70°C)  
0 to 100% RH  
Yes  
6.25x2.5x1.2" (159x63.5x30.5 mm)  
3.5 oz (100 g)  
2 years

### M0220

Contact Pins  
6 to 44% (Wood)  
±1% (Wood)  
Included Probe for ATC: -31 to 176°F (-35 to 80°C)  
—  
Yes  
7x1.9x1.2" (180x50x31 mm)  
6.1 oz (175 g)  
2 years



## Locate Moisture Efficiently and Non-destructively

When you need to scan an area for potential moisture problems without damaging the surface, Extech offers integrated flat surface pinless sensor or ball-shaped sensor that can glide through a large area in a short time without making a mark. It is easy to measure into corners and around baseboards.



### M053 Pinless Moisture Meter

Non-invasive moisture measurements on wood and other building materials with virtually no surface damage

- Pinless moisture measurement depth to <0.8" (20 mm)
- Displays moisture level in wood and building materials such as wall board, sheet rock, cardboard, plaster, concrete, and mortar
- Audible Alert — Tone rate beeps faster as the
- Icons display low, medium and high levels of moisture content
- Easy-to-use, compact-sized design
- Data Hold freezes reading on display
- Built-in battery level check and measurement verification test
- Auto Power Off conserves battery power
- Complete with 9 V battery and wrist strap

| SPECIFICATIONS              | M053                                                              |
|-----------------------------|-------------------------------------------------------------------|
| Pinless Moisture (relative) | 0 to 99.9% (Wood); 0 to 56.5% (Building materials)                |
| Max Resolution              | 0.1%                                                              |
| Measurement Depth           | <0.8" (20 mm)                                                     |
| CE approved                 | Yes                                                               |
| Dimensions/Weight           | 6.7x2.6x1.2" (170x65x30 mm) / 4.2 oz (120 g) battery not included |
| Warranty                    | 2 years                                                           |



## M0280 Pinless Moisture Meter

**Non-invasive moisture content of building materials and wood**

- Quickly indicates the moisture content of materials
- Select from 10 wood types and measurement ranges
- LCD displays % moisture of wood or material being tested
- Measurement depth to 0.8" (20 mm) below the surface
- Automatic internal test and calibration
- Electro-magnetic testing technology
- Low battery indication
- Complete with 9 V battery and pouch



## M057 Pinless Moisture Meter

**Non-invasive moisture measurement depth to <4" (100 mm)**

- Displays moisture level in wood and building materials such as wall board, sheet rock, tiles, cardboard, plaster, concrete, and mortar
- Audible Alert — Tone rate beeps faster as the moisture level increases
- Icons display low, medium and high levels of moisture content
- Easy-to-use, compact-sized design
- Data Hold freezes reading on display
- Built-in battery level check and measurement verification test
- Auto Power Off conserves battery power
- Complete with 9 V battery and wrist strap



## M0257 Pinless Moisture Meter

**Fast response pinless moisture readings on tiles, building materials and wood from depth of 0.8" to 1.6"**

- Relative pinless moisture reading for non-invasive measurement
- Multifunction backlit triple LCD display
- Pinless measurement depth from 0.8" (20 mm) to 1.6" (40 mm) below the surface
- High frequency sensing technology
- Automatic Data Hold
- Two adjustable alarm levels with audible beeper and visual (flashing "RISK" or "WET") indicators
- Automatic calibration (in dry air) when meter is powered on
- Low battery indication
- Auto Power Off
- Complete with 3 AA batteries and pouch

### M0280

0 to 99% (check Group No. of the Wood/ Building Materials to determine the range)

0.1%

<0.8" (20 mm)

Yes

7.6x0.8x1.8" (192x30x45 mm)/  
3.8 oz (108 g)

2 years

### M057

0.1 to 99.9% (Wood/Building Materials)

0.1%

<4" (100 mm)

Yes

8.3x2.8x1.3" (210x70x33 mm) /  
5.5 oz (155 g) battery not included

2 years

### M0257

0.0 to 100

0.1

0.8" to 1.6" (20 to 40 mm)

Yes

9.25x2.5x1.1" (235x63x28 mm);  
7.7 oz (218 g)

2 years





# One Meter with Flexibility Measuring Moisture

Whether you need to measure moisture level using direct penetration pin-type method or detect moisture scanning a surface with non-invasive pinless sensor, Extech's got the right Moisture Meter for you. The combination of both pin and pinless sensor technology gives you the flexibility for your moisture measurements. Advanced models also offer remote specialty moisture probes to access hard to reach areas.

| ACCESSORIES |                                                                                      |
|-------------|--------------------------------------------------------------------------------------|
| MO50-PINS   | Replacement pins (10 pins)                                                           |
| MO200-PINS  | 50 Replacement pins                                                                  |
| MO-P1       | Replacement Moisture pin probe with 30" (76.2 cm) cable & RJ45 Connector (for MO265) |

| SPECIFICATIONS                   |
|----------------------------------|
| Pinless Moisture                 |
| Pin-type Moisture (remote probe) |
| Max Resolution                   |
| CE approved                      |
| Dimensions/Weight                |
| Warranty                         |





## M055 Combination Pin/Pinless Moisture Meter

Easy-to-operate with display icons that indicate the levels of moisture content plus audible alert feature

- Displays moisture level in wood and building materials such as wall board, sheet rock, cardboard, plaster, concrete, and mortar
- Audible Alert — Tone rate beeps faster as the moisture level increases
- Icons display low, medium and high levels of moisture content
- Replaceable threaded measurement electrode pins
- Easy-to-use, compact-sized design
- Data Hold freezes reading on display
- Low battery indicator
- Auto Power Off conserves battery power
- Complete with two pins (installed on meter), protective cap, and 9 V battery; order MO50-PINS for replacement pins



Tri-color LED bargraph

## M0260 Combination Pin/Pinless Moisture Meter

Monitor moisture in wood and other building materials with virtually no surface damage

- %WME (wood moisture equivalent) pin moisture reading
- Relative pinless moisture reading for non-invasive measurement
- Digital LCD readout with backlighting feature and tri-color LED bargraph
- Quickly indicates the moisture content of materials
- Pinless measurement depth to 0.75" (19 mm) below the surface
- Electro-magnetic sensing technology
- Built-in calibration check
- Replaceable pins
- Low battery indication
- Cap protects pins during storage and can be snapped on to the side of the housing during use
- Complete with two pins (installed on meter), 9 V battery, protective cap, and case; order MO200-PINS for replacement pins



## M0265 Combination Pin/Pinless Moisture Meter with Remote Probe

Measure moisture in wood or other building materials with pinless or pin type technology

- Remote pin probe included to measure moisture in difficult to access areas
- %WME (wood moisture equivalent) pin moisture reading
- Relative pinless moisture reading for non-invasive measurement
- Digital LCD readout with backlighting feature and tri-color LED bargraph
- Quickly indicates the moisture content of materials
- Pinless measurement depth to 0.75" (19 mm) below the surface
- Electro-magnetic sensing technology
- Built-in calibration check
- Low battery indication
- Storage cap protects pins
- Complete with two pins (installed on meter), remote pin probe (MO-P1), 9 V battery, protective cap, and case; order MO200-PINS for replacement pins

### M055

|                                                         |
|---------------------------------------------------------|
| 0 to 99%                                                |
| 5 to 50% (Wood); 1.5 to 33% (Materials)                 |
| 0.1%                                                    |
| Yes                                                     |
| 6.7x2.6x1.2" (170x65x30 mm) /4.2 oz (120 g) w/o battery |
| 2 years                                                 |

### M0260

|                                              |
|----------------------------------------------|
| 0 to 99 (relative)                           |
| 6.0 to 94.8% WME                             |
| 0.1/0.1%                                     |
| Yes                                          |
| 8x2.3x1.7" (203x58.4x43.2 mm)/7.2 oz (204 g) |
| 2 years                                      |

### M0265

|                                              |
|----------------------------------------------|
| 0 to 99 (relative)                           |
| 6.0 to 94.8% WME                             |
| 0.1/0.1%                                     |
| Yes                                          |
| 8x2.3x1.7" (203x58.4x43.2 mm)/7.2 oz (204 g) |
| 2 years                                      |

# MO290/MO295 Pinless Moisture Psychrometer + IR Thermometer



Pinless Moisture



Moisture Probe



Humidity/Temperature

See below for optional specialty moisture probes to expand your meter's measurement capabilities!

## Multi-parameter Moisture meters with built-in IR Thermometer

- Measure moisture content of materials/wood types with Pinless technology without damaging the surface; Use remote Pin-type probe for contact moisture readings
- Simultaneously displays Moisture and Air Temperature, IR Temperature, or Humidity with automatic backlight feature
- Pinless measurement depth to 0.75" (19 mm) below the surface
- Built-in Humidity/Temperature probe measures Relative Humidity and Air Temperature and calculates Grains Per Pound (GPP)/(g/kg), Dew Point (DP), and Vapor Pressure
- Programmable high/low Moisture and Humidity alarms
- Non-contact IR Thermometer with 8:1 field of view and 0.95 fixed emissivity
- Automatic calculation of differential Temperature (IR - DP) for condensation point
- Min/Max function and Data Hold feature
- Auto Power Off to save battery life
- Low battery indication
- 2-year warranty
- Complete with MO290-P pin moisture probe (3 ft/ 0.9 m cable length), 9 V battery, and hard carrying case

## Model MO295 Additional Features

- Manually store/recall up to 20 labeled readings
- Displays fast analog bargraph

## SPECIFICATIONS

|                   |                                                                 |
|-------------------|-----------------------------------------------------------------|
| Moisture          | Pinless: 6 to 99.9 (Relative); Pin-type with Probe: 0 to 99.9%  |
| Max Resolution    | 0.1, 0.1°F/°C                                                   |
| Humidity          | 0 to 100% RH                                                    |
| Temperature (Air) | Air: -20 to 170°F (-29 to 77°C); IR: -4 to 392°F (-20 to 200°C) |
| Vapor Pressure    | 0 to 20.0 kPa                                                   |
| Dew Point         | -22 to 199°F (-30 to 100°C)                                     |
| Mixing ratio      | 0 to 999 GPP (0 to 160 g/kg)                                    |
| Dimensions/Weight | 6.5x2.8x1.5" (165x70x38 mm)/7.4 oz (210 g)                      |

## ORDERING (SEE BELOW FOR OPTIONAL SPECIALTY MOISTURE PROBES)

|                |                                                            |
|----------------|------------------------------------------------------------|
| MO290          | Pinless Moisture Psychrometer + IR Thermometer             |
| MO295 <b>N</b> | Pinless Moisture Psychrometer + IR Thermometer with Memory |
| MO-SCREEN      | Vent Cap for MO290 and MO295 (5-pack)                      |
| RH-CAP         | Replacement Protective Cap (5-pack)                        |

# Moisture Probes and Pins (for MO290 & MO295)



MO290-BP



MO290-EP



MO290-HP



MO290-P

## Penetrating Moisture Probes for use with select Extech Moisture Meters

- Specialty Moisture probes with RJ45 connector compatible with Extech Moisture Meters MO290 and MO295
- 6-month warranty for the moisture probes

## ORDERING (Below Probes for MO290 and MO295)

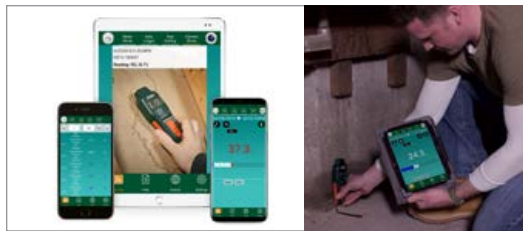
|               |                                                                                                       |
|---------------|-------------------------------------------------------------------------------------------------------|
| MO290-P       | Replacement Moisture pin probe with 30" (76.2 cm) cable & RJ45 Connector                              |
| MO290-BP      | Moisture Baseboard Probe (Dual fixed flat pins with 4.1"/10.5 cm pin length) with 30" (76.2 cm) cable |
| MO290-EP      | Extension Probe with 30" (76.2 cm) cable and 4 pins                                                   |
| MO290-PINS-EP | 12 Replacement pins (6) 3.5"/8.9 cm & (6) 6.5"/16.5 cm pin depth) and 2 lock nuts for MO290-EP probe  |
| MO290-EXT     | 11.8" (30 cm) Extenders (set of 2) for MO290-EP probe                                                 |
| MO290-HP      | Hammer Probe includes 4 pins — 1.6" (4 cm) pin depth                                                  |
| MO290-PINS-HP | 20 Replacement pins — 1.6" (4 cm) pin depth, 2 lock nuts for MO290-HP probe                           |



## M055W Wireless Datalogging Pin/Pinless Moisture Meter


**NEW**


Bluetooth®  
FCC E



Using the wireless feature, Bluetooth® Datalogging Module, and the free ExView® W-Series App, you can transmit readings in real-time to your smart devices, store over 15k readings for wireless transfer to generate a report/data analysis, add notes and readings to photos taken from your smart device camera, and use your smart device as a 2nd display for easy viewing or sharing.

Download the Extech ExView™ W-Series App available on App Store or Google Play. NOTE: iOS/Android device not included.

Apple and the Apple logo are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc. Google Play and the Google Play logo are trademarks of Google LLC.

Using the Wireless connectivity feature, Bluetooth® datalogging module, and free app, you can transmit readings right to your iOS® or Android™ devices

### Moisture Meter Features

- Displays moisture level in wood and building materials
- Non-invasive Pinless moisture measurement to a max. depth of 1" (25 mm)
- Audible Alert (beep rate increases as moisture level increases)
- Icons display low, medium and high moisture range
- Built-in Pin-Mode accuracy test; Data Hold and Auto Power Off
- Ideal for building restoration, and other applications where it is critical to detect moisture in flooring, tiles, and beneath carpeting
- Complete with two pins (installed on meter), protective cap, Wireless Datalogging Module (DAT12), 9 V battery, and soft case; 2-year warranty

### Wireless Datalogging Features

- Bluetooth® Datalogging Module (DAT12) can record over 15k readings and transmit them to a smart device
- Free ExView® W-Series App, provides Wireless Data Streaming with real-time remote viewing of readings
- Adjustable sample rate and file size support most application needs
- Programmable High/Low audible alarms
- Color coded log reporting for easy identification of Alarm events
- Share data files and snapshots directly from application; Export data in Excel® format
- Take snapshots of the measurement area with your connected smart phone or tablet camera to capture measurement-related images and to document date/time stamps and measurement data

| SPECIFICATIONS                | PIN                                                             | PINLESS                                              |
|-------------------------------|-----------------------------------------------------------------|------------------------------------------------------|
| Sensor Type                   | Contact Pins (Electrical Resistance)                            | Pinless sensor (Capacitance Sensing)                 |
| Wood Moisture Range           | 5 to 50.0% (0.1% resolution)                                    | 0.1 to 99.9% (0.1% resolution)                       |
| Other Building Materials      | 1.5 to 33.0% (0.1% resolution)                                  | 0.1 to 99.9% (0.1% resolution)                       |
| Basic Accuracy                | ± (3% reading + 5 digits)                                       | —                                                    |
| Measurement Depth             | ~0.3" (8 mm) depth w/ 0.4" (10 mm) pins                         | 1" (25 mm) depth                                     |
| Wood Moisture Icon Levels     | Low: 5 to 11.9%; Med: 12 to 15.9%; High: 16 to 50%              | Low: 0 to 16.9%; Med: 17 to 29.9%; High: 30 to 99.9% |
| Building Material Icon Levels | Low: 1.5 to 16.9%; Med: 17 to 19.9%; High: 20 to 33%            | Low: 0 to 16.9%; Med: 17 to 29.9%; High: 30 to 99.9% |
| iOS/Android compatibility     | iOS 8.0 and higher/ Android 4.3 and higher                      |                                                      |
| Datalogging (with DAT12)      | 15,360 data points                                              |                                                      |
| Dimensions/Weight             | 6.7x2.6x1.2" (170x65x30 mm)/4.2 oz (120 g) battery not included |                                                      |

### ORDERING

|           |                                                    |
|-----------|----------------------------------------------------|
| M055W     | Wireless Datalogging Pin/Pinless Moisture Meter    |
| M050-PINS | Replacement pins (10 pins)                         |
| DAT12     | Replacement Bluetooth® Wireless Datalogging Module |

## M0750 Soil Moisture Meter



Includes 8" (20 cm) stainless steel moisture probe

**Heavy duty 8" (20 cm) stainless-steel moisture probe measures moisture content in soil**

- Soil moisture content measurement from 0 to 50%
- Min/Max records minimum and maximum moisture readings
- Data hold to freeze reading on display
- Water resistant housing
- Dimensions: 14.7x1.6x1.6" (374x40x40 mm); Weight: 9.4 oz (267 g)
- 2-year warranty
- Complete with moisture probe, 4 x AAA batteries, and sensor cap

### ORDERING

|       |                     |
|-------|---------------------|
| M0750 | Soil Moisture Meter |
|-------|---------------------|





## Compact & Fully Loaded

Pocket-sized meters that are fully loaded with functions ranging from 3-in-1 to 7-in-1 models that include Air Velocity, Temperature, and Humidity measurements to calculating Air Volume, Wet Bulb, and Dew Point. Affordable, light weight, and easy-to-use!



### 45118 Mini Thermo-Anemometer

3-in-1 meter

- Measure air velocity and temperature, and calculate windchill
- Adjustable averaging function of 5, 10, or 13 second intervals
- Housing extends to 9" (229 mm)
- Tripod mount (tripod not included)
- Data Hold with Auto Power Off
- Replaceable low friction vane
- Water resistant housing floats
- Complete with CR2032 lithium battery and 43" (1.09 m) lanyard

| ACCESSORIES |                                                                |
|-------------|----------------------------------------------------------------|
| 45116       | Mini Impeller (2 pk) for 45118                                 |
| 45156       | Mini Impeller (2 pk) for 45158, 45168CP                        |
| EN100-V     | Mini Impeller (2 pk) for AN510                                 |
| TP870       | Type K Bead Wire Temperature Probe (-40 to 482°F/-40 to 250°C) |

See p. 27 to 52 for additional temperature probes

| SPECIFICATIONS                | 45118                                      |
|-------------------------------|--------------------------------------------|
| ft/min (res.)                 | 100 to 5500 ft/min (20)                    |
| m/s (res.)                    | 0.5 to 28 m/s (0.1)                        |
| km/h (res.)                   | 1.8 to 100.6 km/h (0.7)                    |
| MPH (res.)                    | 1.1 to 62.5 MPH (0.2)                      |
| knots (res.)                  | 1.0 to 54.3 knots (0.3)                    |
| Beaufort Force (res.)         | 1 to 17 BF (1)                             |
| Air Volume CFM/CMM            | —                                          |
| Temperature                   | 0 to 122°F/ -18 to 50°C (0.1°)             |
| Relative Humidity (res.)      | —                                          |
| Wet Bulb                      | —                                          |
| Dew Point                     | —                                          |
| Basic Accuracy                |                                            |
| Airflow                       | ±3% of reading                             |
| Temperature/Relative Humidity | ±1.8°F, ±1°C                               |
| CE approved                   | Yes                                        |
| Dimensions/Weight             | 5.25x2.75x0.75" (133x70x19 mm)/3 oz (95 g) |
|                               | Vane: ~1" (26 mm) D                        |
| Warranty                      | 2 years                                    |



## 45158 Mini Thermo-Anemometer

5-in 1 meter

- Measure air velocity, temperature, and relative humidity, and calculate windchill and dew point
- Adjustable averaging function of 5, 10, or 13 second intervals
- Housing extends to 9" (229 mm)
- Tripod mount (tripod not included)
- Data Hold with Auto Power Off
- Replaceable low friction vane
- Water resistant housing floats
- Complete with CR2032 lithium battery and 43" (1.09 m) lanyard



## 45168CP Mini Thermo-Anemometer with Built-in Compass

7-in-1 meter

- Built-in Compass provides wind direction and 360° readings
- Delta T (Air Temperature - DP)
- Max function
- Housing extends to 9" (229 mm)
- Auto Power Off with disable
- Water resistant housing floats and drop-tested to 6 feet
- Replaceable vane (45156)
- Tripod mount (tripod not included)
- Complete with CR2032 lithium battery and lanyard



**NEW**

## AN510 CMM/CFM Anemometer + Type K

4-in-1 meter

- Large LCD displays Air Velocity and Air Temperature, Air Flow, or Type K Temperature reading
- Replaceable low friction ball bearing mini vane wheel to retain high accuracy
- Backlit display to view in dimly lit areas
- Data Hold and Min/Max functions
- Auto Power Off with disable
- Tripod mount (tripod not included)
- Complete with wrist strap, general purpose Type K bead wire probe, and three AAA batteries

| 45158                                      | 45168CP                                                                    | AN510                                                                             |
|--------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 100 to 5500 ft/min (20)                    | 60 to 3937 ft/min (2)                                                      | 80 to 3937 ft/min (1)                                                             |
| 0.5 to 28 m/s (0.1)                        | 1.1 to 20 m/s (0.1)                                                        | 0.4 to 20 m/s (0.1)                                                               |
| 1.8 to 100.6 km/h (0.7)                    | 0.8 to 72.0 km/h (0.1)                                                     | 1.4 to 72 km/h (0.1)                                                              |
| 1.1 to 62.5 MPH (0.2)                      | 0.5 to 44.7 MPH (0.1)                                                      | 0.9 to 44.7 MPH (0.1)                                                             |
| 1.0 to 54.3 knots (0.3)                    | 0.4 to 38.8 knots (0.1)                                                    | 0.8 to 38.8 knots (0.1)                                                           |
| 1 to 17 BF (1)                             | 1 to 8 BF (1)                                                              | —                                                                                 |
| —                                          | —                                                                          | 0.847 to 1,271,300 CFM/0.024 to 36,000 CMM (0.001)                                |
| 0 to 122°F/-18 to 50°C (0.1°)              | Air: 5 to 122°F/-15 to 50°C (0.1°)<br>Windchill: -4 to 122°F (-20 to 50°C) | Air: ±2.5°F/0 to 50°C (0.1°);<br>Type K: -148°F to 2372°F/-100°C to 1300°C (0.1°) |
| 10% to 95% (1%)                            | 0.1% to 99.9% (0.1%)                                                       | —                                                                                 |
| —                                          | 23°F to 122°F (-5 to 50°C)                                                 | —                                                                                 |
| 32 to 122°F (0 to 50°C)                    | -4°F to 122°F (-20 to 50°C)                                                | —                                                                                 |
| ±3% of reading                             | ±3% FS                                                                     | ±3% FS                                                                            |
| ±1.8°F, ±1°C/±5% RH                        | ±1.8°F, ±1°C ±3% RH                                                        | Air: ±2.5°F (±1.2°C)<br>Type K: ±(0.4% + 1.8°F); ±(0.4% + 1°C)                    |
| Yes                                        | Yes                                                                        | Yes                                                                               |
| 5.25x2.75x0.75" (133x70x19 mm)/3 oz (95 g) | 5.51x1.77x0.98" (140x45x25 mm)/3 oz (95 g)                                 | 5.5x1.8x1.2" (141x4 x20 mm)/5.6 oz (160 g)                                        |
| Vane: ~1" (26 mm) D                        | Vane: ~1" (25.4 mm) D                                                      | Vane : ~1" (27 mm) D                                                              |
| 2 years                                    | 2 years                                                                    | 2 years                                                                           |



# Versatile and Durable Tools For HVAC/R

Extech equips HVAC/R professionals with rugged, accurate tools for measuring airflow, air velocity and air/surface temperatures. Extech’s thermo-anemometers are available with vane/propeller probes as well as telescoping, hot-wire probes for small openings or hard-to-reach areas.

Watch the  
**Video**

[www.extech.com/video](http://www.extech.com/video)

AN200 only.

**ACCESSORIES**

407001-PRO    Data Acquisition Software and USB Cable

See p. 109 for software information



**N** Indicates products that are available with optional calibration traceable to **NIST**. See pages 146-147 for a complete listing.



## AN100 CFM/CMM Thermo-Anemometer

**Large backlit display of Airflow or Air Velocity**

- Simultaneous display of Ambient Temperature and Air Flow or Air Velocity
- Up to 8 easy to set area dimensions stored in internal memory (ft<sup>2</sup> or m<sup>2</sup>)
- 20 point AVG for Air Flow
- Low friction 2.83" D (72 mm) ball bearing vane wheel
- Data Hold, MIN/MAX, Auto Power Off
- Complete with vane sensor on 3.9 ft (120 cm) cable, 9 V battery, protective rubber holster, and case

| SPECIFICATIONS                        | AN100 <b>N</b>                            |
|---------------------------------------|-------------------------------------------|
| Air Velocity (Max Res.)               |                                           |
| ft/min                                | 80 to 5900 ft/min (1)                     |
| m/sec                                 | 0.4 to 30.00 m/sec (0.01)                 |
| km/h                                  | 1.4 to 108.0 km/h (0.1)                   |
| MPH                                   | 0.9 to 67.0 MPH (0.1)                     |
| knots                                 | 0.8 to 58.0 knots (0.1)                   |
| Temperature (Max Res.)                | 14 to 140°F/ -10 to 60°C (0.1°)           |
| Temperature (IR)                      | —                                         |
| Air Flow (CFM = ft <sup>3</sup> /min) | 0 to 9999 CFM (1)                         |
| Air Flow (CMM = m <sup>3</sup> /min)  | 0 to 9999 CMM (1)                         |
| Basic Accuracy                        | ±3%rdg; ±2°F (±1°C)                       |
| PC Interface                          | —                                         |
| Datalogger                            | —                                         |
| CE approved                           | Yes                                       |
| Dimensions/Weight                     | 7x2.9x1.3" (178x74x33 mm)/1.6 lbs (700 g) |
| Warranty                              | 2 years                                   |





## AN200 CFM/CMM Thermo- Anemometer + IR Thermometer

**Built-in InfraRed Thermometer  
for Non-contact Temperature  
measurements**

- IR Thermometer quickly takes non-contact temperature measurements up to 932°F (500°C) with 8:1 distance-to-spot ratio and laser pointer
- Simultaneous display of Ambient Temperature and Air Flow or Air Velocity
- Up to 8 easy-to-set area dimensions stored in internal memory (ft<sup>2</sup> or m<sup>2</sup>)
- 20 point AVG for Air Flow
- Low friction 2.83" D (72 mm) ball bearing vane wheel
- Data Hold, MIN/MAX, Auto Power Off
- Complete with vane sensor on 3.9 ft (120 cm) cable, 9 V battery, protective rubber holster, and case



## 407113 High Temperature CFM Metal Vane Anemometer

**Withstands temperatures to 175°F  
(80°C) and airspeed to 6890 ft/min**

- Display Air Flow (CFM) or Air Velocity plus Temperature
- Air Flow displayed in 3 modes: Instantaneous value, Up to 20 point average, or 2/3 flow value
- Record and Recall MIN/MAX
- Data Hold plus Auto Power Off
- Built-in PC interface
- Optional Data Acquisition software 407001-PRO - see details on p. 109
- Includes metal vane sensor with 3.9 ft (120 cm) cable, 9 V battery, holster with stand, and hard case



## 407119 Hot Wire CFM/ CMM Anemometer

**Accurately measures Air Flow  
(CFM/ CMM) or Air velocity plus  
Temperature**

- Air velocity measurements as low as 40 ft/min
- Telescoping probe extends up to 3 ft (940 mm) long
- Measures air volume in CFM (ft<sup>3</sup>/min) and CMM (m<sup>3</sup>/min) plus Temperature simultaneously
- Air Flow displayed in 2 modes as an instantaneous value or up to 20 point average
- Record and Recall MIN/MAX
- Data Hold plus Auto power off
- Optional Data Acquisition software 407001-PRO - see details on p. 109
- Complete with telescoping probe with 5.5 ft (167.6 cm) cable, and four AA batteries

### AN200 N

|                                           |
|-------------------------------------------|
| 80 to 5900 ft/min (1)                     |
| 0.4 to 30.00 m/sec (0.01)                 |
| 1.4 to 108.0 km/h (0.1)                   |
| 0.9 to 67.0 MPH (0.1)                     |
| 0.8 to 58.0 knots (0.1)                   |
| 14 to 140°F/-10 to 60°C (0.1°)            |
| -58 to 500°F/-50 to 260°C (0.1°/1°)       |
| 0 to 999,999 CFM (0.1)                    |
| 0 to 999,999 CMM (0.1)                    |
| ±3%rdg; ±2°F (±1°C)                       |
| —                                         |
| —                                         |
| Yes                                       |
| 7x2.9x1.3" (178x74x33 mm)/1.6 lbs (700 g) |
| 2 years                                   |

### 407113 N

|                                            |
|--------------------------------------------|
| 100 to 6890 ft/min (1)                     |
| 0.5 to 35 m/sec (0.1)                      |
| 1.8 to 126.0 km/h (0.1)                    |
| 1.1 to 78.3 MPH (0.1)                      |
| 1.0 to 68.0 knots (0.1)                    |
| 32 to 175°F (0.1°)/0 to 80°C (0.1°)        |
| —                                          |
| 0 to 999,900 CFM (0.001)                   |
| 0 to 999,900 CMM (0.001)                   |
| ±2% rdg; ±1.5°F (±0.8°C)                   |
| Optional 407001-PRO Software               |
| —                                          |
| Yes                                        |
| 7x2.9x1.3" (178x74x33 mm)/1.35 lbs (612 g) |
| 3 years                                    |

### 407119 N

|                                           |
|-------------------------------------------|
| 40 to 3346 ft/min (1)                     |
| 0.2 to 17 m/sec (0.1)                     |
| 0.7 to 61.2 km/h (0.1)                    |
| 0.9 to 38.0 MPH (0.1)                     |
| 0.4 to 33.0 knots (0.1)                   |
| 32 to 122°F (0.1°)/ 0 to 50°C (0.1°)      |
| —                                         |
| 0 to 1,271,200 CFM (0.001)                |
| 0 to 36,000 CMM (0.001)                   |
| ±2%rdg; ±1.5°F (±0.8°C)                   |
| Optional 407001-PRO Software              |
| —                                         |
| Yes                                       |
| 7x2.9x1.3" (178x74x32 mm)/1.1 lbs (482 g) |
| 3 years                                   |

## SDL300/SDL310/SDL350 Thermo-Anemometer/Dataloggers



**Three models to choose from with different sensor size and design to either withstand high temperature environment or measure low level air velocity**

- Datalogger date/time stamps and stores readings on the included SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 1 to 3600 seconds (1 hour)
- Manually store/recall up to 99 readings
- Type K/J Thermocouple input for high temperature measurements
- Large (9999 count) LCD displays Air Velocity and Temperature simultaneously
- Record/Recall MIN, MAX readings
- Data Hold plus Auto Power Off with disable function
- Optional 407001-PRO software with USB cable allows user to live stream data from meter to a PC based computer/laptop while storing the collected data for later use in generating a graph or report. See p. 109 for details.
- Complete with 6 x AA batteries, SD card, sensor with 3.9 ft (120 cm) cable, and hard carrying case; (See p. 27 and 52 for optional Type K and J Thermocouple probes)
- 3-year warranty

### SDL300 Metal Vane Additional Functions

- 2% velocity accuracy via low friction ball bearing vane wheel on 39" (1 m) cable
- Metal Vane withstands temperatures to 158°F (70°C) and air velocity to 6900 ft/min

### SDL310 Vane Additional Functions

- 2% velocity accuracy via low friction ball bearing vane wheel on 39" (1 m) cable
- Measures Air Temperature to 122°F (50°C) and air velocity to 4930 ft/min

### SDL350 Hot Wire Additional Functions

- Air Velocity meter with telescoping probe designed to fit into HVAC ducts and other small openings and can read down to 40 ft/min
- Probe extends up to 7.05 ft (215 cm) maximum length with cable

| SPECIFICATIONS           | SDL300                                                                | SDL310                  | SDL350                  |
|--------------------------|-----------------------------------------------------------------------|-------------------------|-------------------------|
| ft/min                   | 60 to 6900 ft/min                                                     | 80 to 4930 ft/min       | 40 to 3940 ft/min       |
| m/sec                    | 0.3 to 35 m/s                                                         | 0.4 to 25 m/s           | 0.2 to 25 m/s           |
| km/h                     | 1.0 to 126.0 km/h                                                     | 1.4 to 90.0 km/h        | 0.7 to 72 km/h          |
| MPH                      | 0.7 to 78.2 MPH                                                       | 0.9 to 55.9 MPH         | 0.5 to 45 MPH           |
| knots                    | 0.6 to 68 knots                                                       | 0.8 to 48.6 knots       | 1 to 31 knots           |
| Air Flow (CFM = ft³/min) | —                                                                     | —                       | 0 to 1,907,000 CFM      |
| Air Flow (CMM = m³/min)  | —                                                                     | —                       | 0 to 54,000 CMM         |
| Basic Accuracy           | 2% rdg                                                                | 2% rdg                  | 5% rdg                  |
| Temperature (air)        | 32 to 158°F (0 to 70°C)                                               | 32 to 122°F (0 to 50°C) | 32 to 122°F (0 to 50°C) |
| <b>Common Features</b>   |                                                                       |                         |                         |
| Temperature (Type J/K)   | J: -148 to 2192°F (-100 to 1200°C)/K: -148 to 2372°F (-100 to 1300°C) |                         |                         |
| Datalogging              | Store readings on SD memory card (included)                           |                         |                         |
| Dimensions/Weight        | 7.2x2.9x1.9" (182X73X48 mm)/17.2 oz (487 g)                           |                         |                         |

### ORDERING

|            |   |                                                                  |
|------------|---|------------------------------------------------------------------|
| SDL300     | N | Metal Vane Thermo-Anemometer/Datalogger                          |
| SDL310     | N | Vane Thermo-Anemometer/Datalogger                                |
| SDL350     | N | Hot Wire CFM/CMM Thermo-Anemometer/Datalogger                    |
| UA100-240  |   | 100-240 V AC Adaptor with 4 plugs (US, EU, UK, AU)               |
| 407001-PRO |   | Data Acquisition Software and USB Cable (see p. 109 for details) |



## Vane Versus Hot Wire

Which sensor type should you choose? For many technicians, it is ultimately a matter of preference but there are some distinguishing factors to keep in mind. Vane anemometers are very useful for fast, accurate measurements of air velocity. The ultra compact size of a hot wire anemometer probe makes it easy to access small openings such as louvered vents. Telescoping hot wire probes are also useful for reaching high locations.

## AN300/AN310 Large Vane CFM/CMM Thermo-Anemometers



**4" (10 cm) large vane allows for more precise readings on larger size ducts; choose models that also measure Air Volume and Humidity**

- Fast responding sensors measure Air Velocity and Air Flow
- Built-in thermistor for air temperature
- Multipoint and timed average calculations
- Min/Max, Data Hold, and Auto Power Off
- Optional Air Flow Cone Kit (AN300-C) allows HVAC technicians to be freed from the hassle of calculating dimensions and allow for quick and easy airflow measurements for these common duct sizes; Adaptor size: Round 8.26" (210 mm) and Square 13.6" (346 mm)
- Complete with four AAA batteries and hard case
- 2-year warranty

### AN310 Additional Functions:

- Measures Relative Humidity and calculates Wet Bulb and Dew Point

| SPECIFICATIONS     | AN300                                    | AN310                     |
|--------------------|------------------------------------------|---------------------------|
| m/s                | 0.2 to 30 m/s                            | 0.2 to 30 m/s             |
| ft/min             | 40 to 5900 ft/min                        | 40 to 5900 ft/min         |
| Basic Accuracy     | ±1.5%                                    | ±1.5%                     |
| CFM/CMM            | 0 to 99,999                              | 0 to 99,999               |
| Temperature        | -4 to 140°F (-20 to 60°C)                | -4 to 140°F (-20 to 60°C) |
| Basic Accuracy     | ±1.1°F (0.6°C)                           | ±1.1°F (0.6°C)            |
| Humidity           | —                                        | 0.1 to 99.9% RH           |
| Basic Accuracy     | —                                        | ±3% RH                    |
| Wet Bulb           | —                                        | -4 to 140°F (-20 to 60°C) |
| Dew Point          | —                                        | 23 to 140°F (-5 to 60°C)  |
| Dimensions/ Weight | 10.6x4.2x2" (269x106x51 mm)/7 oz (200 g) |                           |

### ORDERING

|         |   |                                            |
|---------|---|--------------------------------------------|
| AN300   | N | Large Vane CFM/CMM Thermo-Anemometer       |
| AN310   | N | Large Vane CFM/CMM Anemometer/Psychrometer |
| AN300-C |   | Airflow Cone and Funnel Adapters           |

## AN340 CMM/CFM Anemometer/Psychrometer Datalogger



**Telescoping probe with 18 mm diameter mini vane sensor easily fits into air vents and can extend length of probe to 3.3 ft (1 m) long**

- Measures Air Velocity, Air Flow, Air Temperature, Humidity, Dew Point and Wet Bulb with built-in Automatic Temperature Compensation (ATC)
- Manually store/recall up to 99 readings and automatically datalog up to 12,000 readings (2000 readings for each parameter) with 12/24 hour time and date stamp
- Select data sampling rate from 1 s to 4 hr: 59 min: 59 s
- Min/Max/Avg, Data hold, and Auto Power Off with disable
- Built-in PC interface
- Complete with external mini vane probe, Windows® compatible software, USB cable, 6 AAA batteries, and hard carrying case
- 2-year warranty

### SPECIFICATIONS

|             |                           |                |
|-------------|---------------------------|----------------|
| m/s         | 0.5 to 20 m/s             | ±3%            |
| ft/min      | 100 to 3940 ft/min        | ±3%            |
| Temperature | -4 to 140°F (-20 to 60°C) | ±1.1°F (0.6°C) |
| Humidity    | 0.1 to 99.9% RH           | ±3% RH         |
| Wet Bulb    | -4 to 158°F (-20 to 70°C) |                |
| Dew Point   | -4 to 140°F (-20 to 60°C) |                |
| CFM/CMM     | 0 to 99,999               |                |

### ORDERING

|       |   |                                                      |
|-------|---|------------------------------------------------------|
| AN340 | N | Mini Vane CMM/CFM Anemometer/Psychrometer Datalogger |
|-------|---|------------------------------------------------------|





# Go Beyond Airflow Measurements

Extech's compact multi-function environmental meters couple all-in-one versatility with accurate diagnostics. Extech helps you get results with fewer tools.



## EN510 Environmental Meter

10-in-1 meter

- Auto-rotating display
- Measures Air Velocity, Air Flow, Temperature (Air/Type K), Humidity, Wet Bulb, Dew Point, Heat Index, Wind Chill, and Light
- Replaceable low friction ball bearing mini vane wheel to retain high accuracy
- Measure light levels in Foot-Candle (Fc) or Lux units using a precision photo diode with cosine and color correction filter
- Backlit display to view in dimly lit areas
- Data Hold and Min/Max functions
- Auto Power Off with disable
- Tripod mount (tripod not included)
- Complete with wrist strap, general purpose Type K bead wire probe, and three AAA batteries

| ACCESSORIES |                                                                      |
|-------------|----------------------------------------------------------------------|
| EN100-TP    | RTD Temperature Probe (14 to 158°F/-10 to 70°C)                      |
| EN100-V     | Mini impeller (2 pk) for EN100 and EN150                             |
| UA100-240   | 100-240V AC Adaptor w/ 4 plugs (US, EU, UK, AU)                      |
| 407001-PRO  | Data Acquisition Software and USB cable (see p. 109 for details)     |
| TP870       | Type K Bead Wire Temperature Probe (-40 to 482°F/-40 to 250°C)       |
| TP873       | Type K Bead Wire Temperature Probe (-22 to 572°F/-30 to 300°C)       |
| TP875       | Type K Bead Wire High Temperature Probe (-58 to 1000°F/-58 to 538°C) |

See p. 27 and 52 for additional temperature probes

| SPECIFICATIONS                   | EN510                                                                                 |
|----------------------------------|---------------------------------------------------------------------------------------|
| ft/min (res.)                    | 80 to 3937 ft/min (1)                                                                 |
| m/s (res.)                       | 0.4 to 20 m/s (0.1)                                                                   |
| km/h (res.)                      | 1.4 to 72 km/h (0.1)                                                                  |
| MPH (res.)                       | 0.9 to 44.7 MPH (0.1)                                                                 |
| knots (res.)                     | 0.8 to 38.8 knots (0.1)                                                               |
| Air Volume CFM/CMM               | 0.847 to 1,271,300 CFM/0.024 to 36,000 CMM (0.001)                                    |
| Temperature                      | Air: 32 to 122°F/0 to 50°C (0.1°)<br>Type K: -148°F to 2372°F/-100°C to 1300°C (0.1°) |
| Relative Humidity (res.)         | 10 to 95% RH (0.1%)                                                                   |
| Heat Index                       | 32 to 212°F/0 to 100°C (0.1°)                                                         |
| Wet Bulb                         | 22.2 to 120°F/-5.4 to 49.0°C (0.1°)                                                   |
| Dew Point                        | -13.5 to 120.0°F/-25.3 to 49.0°C (0.1°)                                               |
| Wind chill                       | 15 to 112°F/-9.4 to 44.2°C (0.1°)                                                     |
| Light Level                      | 0 to 1860 Fc/0 to 20,000 Lux (0.1)                                                    |
| Sound Level (res.) - A weighting | —                                                                                     |
| Basic Accuracy                   |                                                                                       |
| Airflow                          | ±3% FS                                                                                |
| Temperature/Relative Humidity    | Air: ±2.5°F (±1.2°C), Type K: ±(0.4% + 1.8°F/1°C)/±0.4% RH                            |
| Light/Sound                      | ±5%                                                                                   |
| CE approved                      | Yes                                                                                   |
| Dimensions/Weight                | 6.0x2.3x1" (153x58x25 mm)/5.6 oz (160 g)<br>Vane: ~1" (27 mm) D                       |
| Warranty                         | 2 years                                                                               |



## 45170 Environmental Meter

### 4-in-1 meter

- Auto-rotating display
- Measures Air Velocity, Temperature (Air/Type K), Humidity, and Light
- Low friction vane wheel
- Capacitance humidity sensor
- Type K input (Probe sold separately - see p. 27, 52, and 88)
- Measure light levels in Foot-Candle (Fc) or Lux units using a precision photo diode with cosine and color correction filter
- MAX/MIN and Data hold
- Complete with wrist strap and 9 V battery



## EN100 Environmental Meter

### 11-in-1 meter

- Auto-rotating display
- Replaceable low friction vane
- Measure light levels in Foot-Candle (Fc) or Lux units using a precision photo diode with cosine and color correction filter
- Barometric Pressure and Altitude functions
- Data Hold and Auto Power Off
- Complete with built-in sensors, wrist strap, and CR2032 battery. (Optional EN100-TP probe measures to 158°F/70°C)



## EN300 Environmental Meter

### 5-in-1 Meter & PC interface

- Auto-rotating display
- Low friction vane wheel
- Capacitance humidity sensor
- Thermistor for ambient temperature and Type K input (Probe sold separately - see p. 27, 52, and 88)
- Measure light levels in Foot-Candle (Fc) or Lux units using a precision photo diode with cosine and color correction filter
- Sound Level measurement meets IEC 61672 Class 2
- MAX/MIN and Data hold
- Complete with 6 AAA batteries; Optional AC adaptor UA100-240 and software 407001-PRO (see p. 109 for software details)

| 45170                                                                                        | EN100                                                                    | EN300                                                                             |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 80 to 5910 ft/min (1)                                                                        | 80 to 3940 ft/min (1)                                                    | 80 to 5910 ft/min (1)                                                             |
| 0.4 to 30 m/s (0.1)                                                                          | 0.4 to 20 m/s (0.1)                                                      | 0.4 to 3 m/s 0 (0.1)                                                              |
| 1.4 to 108.0 km/h (0.1)                                                                      | 1.4 to 72 km/h (0.1)                                                     | 1.4 to 108.0 km/h (0.1)                                                           |
| 0.9 to 67.0 MPH (0.1)                                                                        | 0.9 to 45 MPH (0.1)                                                      | 0.9 to 67.0 MPH (0.1)                                                             |
| 0.8 to 58.3 knots (0.1)                                                                      | 0.8 to 38.8 knots (0.1)                                                  | 0.8 to 58.3 knots (0.1)                                                           |
| —                                                                                            | 0.847 to 1,271,300 CFM/0.024 to 36,000 CMM (0.001)                       | —                                                                                 |
| Thermistor: 32 to 122°F/0 to 50°C (0.1°)<br>Type K: -148°F to 2372°F/-100°C to 1300°C (0.1°) | Air: 32 to 122°F/0 to 50°C (0.1°)<br>RTD: 14 to 158°F/-10 to 70°C (0.1°) | Air: 32 to 122°F/0 to 50°C (0.1°)<br>Type K: -148 to 2372°F/-100 to 1300°C (0.1°) |
| 10 to 95% RH (0.1%)                                                                          | 10 to 95% RH (0.1%)                                                      | 10 to 95% RH (0.1%)                                                               |
| —                                                                                            | 32 to 212°F (0 to 100°C)                                                 | —                                                                                 |
| —                                                                                            | 22.3 to 120.2°F (-5.4 to 49.0°C)                                         | —                                                                                 |
| —                                                                                            | -13.5 to 120.2°F (-25.3 to 49.0°C)                                       | —                                                                                 |
| —                                                                                            | 15.1 to 111.6°F (-9.4 to 44.2°C)                                         | —                                                                                 |
| 0 to 1860 Fc (0.1)/0 to 20,000 Lux (1)                                                       | 0 to 1860 Fc (0 to 20,000 Lux)                                           | 0 to 1860 Fc (0.1)/0 to 20,000 Lux (1)                                            |
| —                                                                                            | —                                                                        | 35 to 130 dB (0.1 dB)                                                             |
| ±3% FS                                                                                       | ±3% FS                                                                   | ±3% FS                                                                            |
| Air: ±2.5°F (±1.2°C), Type K: ±(1%+2°F/1°C) of rdg/<br>±4% RH                                | ±2.5°F (±1.2°C)/±4%RH of rdg                                             | Air: ±2.5°F (±1.2°C), Type K: ±(1%+2°F/1°C) of rdg/<br>±4% RH                     |
| Light: ±5% of reading                                                                        | —                                                                        | Light: ±5% of reading/Sound: ±1.4 dB                                              |
| Yes                                                                                          | Yes                                                                      | Yes                                                                               |
| 6.1x2.4x1.3" (156x60x33 mm)/5 oz (160 g)                                                     | 4.7x1.7x0.7" (120x45x20 mm)/5.6 oz (160 g)                               | 9.8x2.8x1.3" (248x70x34 mm)/11.8 oz (335 g)                                       |
| Vane: 1.2" (30.5 mm) D                                                                       | Vane: 1.2" (31 mm) D                                                     | Vane: 1.2" (31 mm) D                                                              |
| 2 years                                                                                      | 2 years                                                                  | 2 years                                                                           |

## VPC300 Certified Video Particle Counter with built-in Camera



Use the included Windows® compatible software to generate reports with videos, photos, and data points.



**Unique built-in camera for capturing videos and photos that are stored onto internal memory or a microSD card (not included)**

- Simultaneously measure and display 6 channels of particle sizes (down to 0.3 µm), Air Temperature, Humidity, Dew Point and Wet Bulb
- 2.8" TFT Color LCD display
- Built-in 320x240-pixel camera takes videos (3 GP) and photo images (JPEG) and records them in internal 74 MB memory
- Internal memory stores 5000 records (date, time, counts, humidity, temperature, sample volumes, and location label) and 20 minutes of video
- Selectable sample time, count data, and programmable delay
- MAX, MIN, DIF, AVG record, Date/time setup controls
- Auto Power Off
- Language selection: English, French, German, Spanish
- Meter is calibrated traceable to NIST
- Tripod mount for continuous recording
- Mini-USB port connection
- microSD card slot in battery compartment (card not included; max size 8 GB)
- 2-year warranty
- Complete with NIST-traceable calibration certificate, Universal AC Adapter/Charger with multiple plugs, USB cable, PC software, tripod, filter, 7.4 V NiMH battery, and hard case

### SPECIFICATIONS

|                        |                                                  |
|------------------------|--------------------------------------------------|
| Particle Size Channels | 0.3, 0.5, 1.0, 2.5, 5.0, 10 µm                   |
| Flow Rate              | 0.1 ft³ (2.83 L/min) controlled by internal pump |
| Count Modes            | Cumulative, Differential, Concentration          |
| Counting Efficiency    | 50% @ 0.3 µm; 100% for particles > 0.45          |
| Coincidence Loss       | 5% @ 2,000,000 particles per ft³                 |
| Air Temperature        | -14 to 140°F (-25 to 60°C); Accuracy: ±2°F/1°C   |
| Relative Humidity      | 0 to 100% RH; Accuracy: ±3% RH (40% to 60% RH)   |
| Dew Point/ Wet Bulb    | 32 to 122°F (0 to 50°C)                          |
| Dimensions/Weight      | 9.4x 3x2.2" (240x75x57 mm)/1.26 lbs (570 g)      |

### ORDERING (NOTE: Order replacement battery with meter due to dangerous goods shipping restrictions for individual batteries)

|           |                                                                   |
|-----------|-------------------------------------------------------------------|
| VPC300    | Video Particle Counter                                            |
| VPC-BATT  | Replacement 7.4 V NiMH battery                                    |
| VPC-ADPTR | Universal AC Adapter/Charger with multiple plugs (US, EU, UK, AU) |

## RD300 Refrigerant Leak Detector

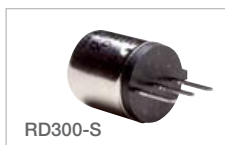


**User-selectable High/Medium/Low sensitivity levels. Ideal for detecting standard refrigerant leaks from air-conditioning units and cooling systems**

- Detects all standard refrigerants using a heated diode sensor
- LED light at probe tip (with on/off switch) for working in dimly lit areas
- LEDs display user-selectable High/Medium/Low levels with sensitivity of 0.25/0.50/0.99 oz per yea
- Audible and Visual alert with mute button; Low battery indicator
- Field replaceable sensor (SD300-S)
- Dimensions: 7.2x2.8x1.6" (184x70x40 mm); Weight: 10 oz (280 g)
- 2-year warranty
- Complete with sensor tip and LED light, leak test bottle, 9 V battery, and hard case

### ORDERING

|         |                                     |
|---------|-------------------------------------|
| RD300   | Refrigerant Leakage Detector        |
| RD300-S | Replacement Heated Diode Sensor Tip |



**N** Indicates products that are available with optional calibration traceable to **NIST**. See pages 146-147 for a complete listing.



## RD200 Refrigerant Leak Detector



CE

**User-selectable High/Low sensitivity levels. Ideal for detecting standard refrigerant leaks from air-conditioning units and cooling systems**

- Detects all standard refrigerants using a heated diode sensor
- User-selectable sensitivity level:
  - Low - 1.05 oz (30 g) per year
  - High - 0.2 oz (6 g) per year
- Multi-colored LED light bar indicates the level of refrigerant leakage detected
- 19.8" (50.2 cm) flexible gooseneck retains its shape and provides easy access in difficult to reach locations
- Audible and Visual alert
- Low battery indicator
- Convenient field replaceable sensor (RD200-S)
- Leak Test Bottle included for a quick and easy self test on meter performance
- Dims: Meter - 7.3x2.8x1.4" (185x72x35 mm); Sensor with Gooseneck - 20.5" (520 mm) long, Probe Diameter - 0.32" (8 mm); Weight: 12 oz (340 g)
- 2-year warranty
- Complete with sensor (installed), leak test bottle, 9 V battery, and hard carrying case

### ORDERING

|         |                                     |
|---------|-------------------------------------|
| RD200   | Refrigerant Leak Detector           |
| RD200-S | Replacement Refrigerant Leak Sensor |

## EZ40 EzFlex™ Combustible Gas Leak Detector



CE

**Quickly identifies and pinpoints gas leaks**

- 16" (406 mm) gooseneck for easy access into hard to reach locations
- High sensitivity
- One hand operation with thumb controlled sensitivity adjustment, to eliminate background gas levels
- Visible and audible alarm at 10% (LEL) Lower Explosive Limit for methane
- Locate the smallest leaks
- Complete with 3 "C" batteries; 2-year warranty

### SPECIFICATIONS

|                                     |                                              |
|-------------------------------------|----------------------------------------------|
| Pump driven field calibration range | 10 ppm                                       |
| Sensor type                         | Solid State                                  |
| Alarm                               | Visible and Audible @ 10% LEL for Methane    |
| Warm-up                             | Approx. 1 minute                             |
| Response Time                       | < 2 seconds (up to 40% LEL)                  |
| Duty Cycle                          | Intermittent                                 |
| Battery life                        | 8 hours continuous use typical               |
| Dimensions/Weight                   | 8.7x2.83x1.8" (221x72x46 mm)/18.4 oz (520 g) |

### ORDERING

|      |                                       |
|------|---------------------------------------|
| EZ40 | ExFlex™ Combustible Gas Leak Detector |
|------|---------------------------------------|

## FG100 Combustible Gas Leak Detector



CE

**Fast response detection of flammable gas leakage**

- Detects flammable gases: LNG - Liquefied Natural Gas (1000 to 6500 ppm) and LPG - Liquefied Propane Gas (500 to 6500 ppm)
- Highly sensitive detection circuitry with audible and visual alarm
- LED indicators for gas leakage and static discharge
- Continuous operation up to 4 hours
- Dimensions/Weight: 6.5x0.8" (164x21 mm)/0.9 oz (25 g)
- Complete with pocket clip and two AAA batteries; 2-year warranty

### ORDERING

|       |                               |
|-------|-------------------------------|
| FG100 | Combustible Gas Leak Detector |
|-------|-------------------------------|

## CO260 Indoor Air Quality CO/CO<sub>2</sub> Meter/Datalogger



**NEW**



CE

**Automatic Baseline Calibration (ABC) with disable for use in areas with continuously elevated CO<sub>2</sub> levels (>400 ppm)**

- Manually step through readings of CO, CO<sub>2</sub>, Dew Point, Wet Bulb, Air Temperature, and Relative Humidity on large backlit LCD with real time clock
- Built-in maintenance free NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- Programmable CO warning level with audible alarm
- Calculates statistical weighted averages of TWA (8 hour time weighted average) and STEL (15 minute short term exposure limit)
- Pressure compensation adjustment for measuring CO<sub>2</sub> at altitudes other than sea level
- Manually store/recall 99 readings
- Continuous datalogging up to 32k readings
- USB interface with PC software for further data analysis
- Min/Max, Data Hold, and Auto Power Off with disable
- 2-year warranty
- Complete with 4 AA batteries, USB cable, PC software and hard case
- Optional 33% and 75% RH calibration bottles (RH300-CAL)

| SPECIFICATIONS                    | RANGE                                      | RESOLUTION | BASIC ACCURACY                                       |
|-----------------------------------|--------------------------------------------|------------|------------------------------------------------------|
| Carbon Monoxide (CO)              | 0 to 1,000 ppm                             | 1 ppm      | ±10ppm<100 ppm,<br>±10% 101-500 ppm,<br>±20%>500 ppm |
| Carbon Dioxide (CO <sub>2</sub> ) | 0 to 9,999 ppm                             | 1 ppm      | ±30 ppm+5% reading                                   |
| Temperature                       | -5 to 140°F (-20 to 60°C)                  | 0.1°       | ±1°F/0.6°C                                           |
| Humidity                          | 0.1 to 99.9% RH                            | 0.1%       | ±3% RH                                               |
| Wet Bulb                          | 23 to 140°F (-5 to 59.9°C)                 | 0.1°       | Calculated                                           |
| Dew Point                         | -4 to 140°F (-20 to 59.9°C)                | 0.1°       | Calculated                                           |
| Dimensions/Weight                 | 7.9x2.7x2.3" (200x70x57 mm)/6.7 oz (190 g) |            |                                                      |

## ORDERING

|           |                                                        |
|-----------|--------------------------------------------------------|
| CO260     | Indoor Air Quality CO/CO <sub>2</sub> Meter/Datalogger |
| RH300-CAL | 33% and 75% RH Calibration Kit                         |

## CO250 Indoor Air Quality CO<sub>2</sub> Meter



Measure CO<sub>2</sub> level in office buildings to ensure proper ventilation.

CE

**Measures Carbon Dioxide (CO<sub>2</sub>), Temperature, Humidity, Dew Point, and Wet Bulb and calculates statistical 8 hour and 15 minute time weighted averages**

- Checks for Carbon Dioxide (CO<sub>2</sub>) concentrations, measures Temperature and Relative Humidity, and displays calculated Dew Point and Wet Bulb
- Calculates statistical weighted averages of TWA (8-hour time weighted average) and STEL (15-minute short term exposure limit)
- Maintenance free NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- Backlit triple LCD display and user programmable audible alarm
- RS-232 interface, software and cable included to analyze data on a PC
- 2-year warranty
- Complete with software and cable, 4 AA batteries, and case
- Optional 33% and 75% RH calibration bottles (RH300-CAL)

| SPECIFICATIONS                    | RANGE                                       | RESOLUTION |
|-----------------------------------|---------------------------------------------|------------|
| Carbon Dioxide (CO <sub>2</sub> ) | 0 to 5,000 ppm                              | 1 ppm      |
| Temperature                       | 14 to 140°F (-10 to 60°C)                   | 0.1°F/°C   |
| Humidity                          | 0.0 to 99.9% RH                             | 0.1% RH    |
| Dimensions/Weight                 | 7.9x2.7x2.3" (200x70x57 mm)/6.7 oz. (190 g) |            |

## ORDERING

|           |                                          |
|-----------|------------------------------------------|
| CO250     | Indoor Air Quality CO <sub>2</sub> Meter |
| RH300-CAL | 33% and 75% RH Calibration Kit           |

## CO240 Indoor Air Quality CO<sub>2</sub> Meter



CE

### Dual display of CO<sub>2</sub> level and Humidity, Temperature, Dew Point, or Wet Bulb

- Maintenance free NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- Audible CO<sub>2</sub> warning alarm when concentration level exceeds high user set point
- Min/Max CO<sub>2</sub> value recall function
- Software for on-line (real-time) data streaming to a PC
- Automatic Baseline Calibration function
- Data hold, Low battery indicator, and Auto Power Off (with disable) function
- Tripod mount (tripod sold separately)
- Complete with six AAA batteries, USB cable, PC software, and soft case; 2-year warranty

| SPECIFICATIONS                    | RANGE                           | RESOLUTION | BASIC ACCURACY     |
|-----------------------------------|---------------------------------|------------|--------------------|
| Carbon Dioxide (CO <sub>2</sub> ) | 0 to 9,999 ppm                  | 1 ppm      | ±(5% rdg + 75 ppm) |
| Temperature (Air)                 | 14 to 122°F (-10 to 50°C)       | 0.1°F/°C   | ±2.0°F (1.0°C)     |
| Relative Humidity                 | 10 to 90% RH                    | 0.1% RH    | ±5% RH @ 25°C      |
| Dew Point                         | -99.2 to 118°F (-72.9 to 47°C)  | 0.1°F/°C   |                    |
| Wet Bulb                          | 12.2 to 118.8°F (-11 to 48.2°C) | 0.1°F/°C   |                    |
| Dimensions                        | 8.3x2.4x1.6" (211x60x40 mm)     |            |                    |
| Weight                            | 6.4 oz (181.4 g)                |            |                    |

### ORDERING

|       |                                          |
|-------|------------------------------------------|
| CO240 | Indoor Air Quality CO <sub>2</sub> Meter |
|-------|------------------------------------------|

## EA80 Indoor Air Quality CO<sub>2</sub> Meter/Datalogger



Includes 6 AAA batteries, PC cable, and Windows® compatible software; 2-year warranty

CE

### Measures CO<sub>2</sub> level, Temperature, Humidity, Dew Point and Wet Bulb

- Checks for Carbon Dioxide (CO<sub>2</sub>) concentrations, measures Temperature and Relative Humidity, and displays calculated Dew Point and Wet Bulb
- Maintenance free dual wavelength NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- Continuous (20,000 sets) or manual (99 sets) datalogging
- Data hold, Max/Min with Time stamp, Alarm, and Auto Power Off
- Easy calibration in fresh air

| SPECIFICATIONS                    | RANGE                                      | RESOLUTION | BASIC ACCURACY                              |
|-----------------------------------|--------------------------------------------|------------|---------------------------------------------|
| Carbon Dioxide (CO <sub>2</sub> ) | 0 to 6,000 ppm                             | 1 ppm      | ±3% of rdg or ±50 ppm, whichever is greater |
| Temperature                       | -4 to 140°F (-20 to 60°C)                  | 0.1°F/°C   | ±0.9°F (±0.5°C)                             |
| Humidity                          | 10 to 95%                                  | 0.1%       | ±3% RH @ 25°C                               |
| Dimensions/Weight                 | 5.3x2.8x1.2" (135x72x31 mm)/8.2 oz (235 g) |            |                                             |

### ORDERING

|      |                                                     |
|------|-----------------------------------------------------|
| EA80 | Indoor Air Quality CO <sub>2</sub> Meter/Datalogger |
|------|-----------------------------------------------------|

## SD800 CO<sub>2</sub>/Humidity/Temperature Datalogger



Includes sensor with 11.4" (290 mm) cable (wired to meter), 6 AAA batteries, SD memory card, Universal AC adaptor, and mounting bracket; 2-year warranty

CE

### Records data on an SD card in Excel® format to transfer to a PC for analysis

- Checks for Carbon Dioxide (CO<sub>2</sub>) concentrations
- Maintenance free dual wavelength NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- Triple LCD simultaneously displays CO<sub>2</sub>, Temperature and Relative Humidity
- Selectable data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto

| SPECIFICATIONS                    | RANGE                                         | RESOLUTION | BASIC ACCURACY                           |
|-----------------------------------|-----------------------------------------------|------------|------------------------------------------|
| Carbon Dioxide (CO <sub>2</sub> ) | 0 to 4,000 ppm                                | 1 ppm      | ±40 ppm (<1000 ppm); ±5% rdg (>1000 ppm) |
| Temperature                       | 32 to 122°F (0 to 50°C)                       | 0.1°F/°C   | ±1.8°F/0.8°C                             |
| Humidity                          | 10 to 90% RH                                  | 0.1% RH    | ±4% RH                                   |
| Datalogging                       | Datalogs using 4 GB SD memory card (included) |            |                                          |
| Dimensions/Weight                 | 5.2x3.1x1.3" (132x80x32 mm)/9.9 oz (282 g)    |            |                                          |

### ORDERING

|       |                                                  |
|-------|--------------------------------------------------|
| SD800 | CO <sub>2</sub> /Humidity/Temperature Datalogger |
|-------|--------------------------------------------------|



## CO210 Desktop Indoor Air Quality CO<sub>2</sub> Monitor/Datalogger



CE

**Measures Carbon Dioxide (CO<sub>2</sub>), Air Temperature and Humidity with user adjustable high/low alarms and datalogs up to ~5k readings**

- Checks for Carbon Dioxide (CO<sub>2</sub>) concentrations (0 to 9,999 ppm) and displays Temperature (14 to 140°F/-10 to 60°C) and Relative Humidity (0.1 to 99.9%) readings
- Datalogs up to 5333 points for each parameter and can be downloaded to a PC using included Windows® compatible software and cable
- Maintenance free NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- Indoor Air Quality displayed in ppm with Good, Normal, Poor indication
- Displays Year, Month, Date, and Time
- Max/Min CO<sub>2</sub> value recall function
- Auto Baseline Calibration (minimum CO<sub>2</sub> level over 7.5 days) or manual calibration in fresh air
- Dimensions/Weight: 4.6x4x4" (117x102x102 mm)/7.2 oz (204 g)
- Complete with Universal AC adaptor, PC software and cable; 2-year warranty

### ORDERING

|       |                                                               |
|-------|---------------------------------------------------------------|
| CO210 | Desktop Indoor Air Quality CO <sub>2</sub> Monitor/Datalogger |
|-------|---------------------------------------------------------------|

## CO220 Desktop Indoor Air Quality CO<sub>2</sub> Monitor



CE

**User-adjustable visual/audible alarm and calculates Dew Point and Wet Bulb**

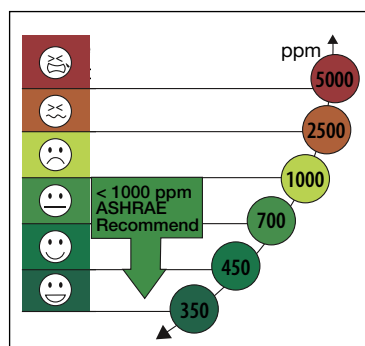
- Maintenance free NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- Audible CO<sub>2</sub> warning alarm when concentration level exceeds high/low user set point
- Displays Year, Month, Date, and Time
- Min/Max CO<sub>2</sub> value recall function
- Manually store/recall 99 readings
- Calculates statistical weighted averages of TWA (8 hour Time Weighted Average) and STEL (15-minute Short Term Exposure Limit)
- Ips% (Liters per second per person) and cfm/p (cubic feet per minute per person)
- Automatic Baseline Calibration function
- Includes Universal AC adaptor (UA100-240) and multiple plug types; 2-year warranty

| SPECIFICATIONS                    | RANGE                                      | RESOLUTION | BASIC ACCURACY        |
|-----------------------------------|--------------------------------------------|------------|-----------------------|
| Carbon Dioxide (CO <sub>2</sub> ) | 0 to 9,999 ppm                             | 1 ppm      | ±(5% rdg +50 ppm)     |
| Temperature                       | 14 to 140°F (-10 to 60°C)                  | 0.1°F/°C   | ±1.0°F (0.6°C)        |
| Humidity                          | 0.1 to 99.9% RH                            | 0.1% RH    | ±3% (10 to 90%) @25°C |
| Dew Point                         | -94 to 140°F (-70 to 60°C)                 | 0.1°F/°C   |                       |
| Wet Bulb                          | 14 to 140°F (-10 to 60°C)                  | 0.1°F/°C   |                       |
| Ips%                              | -1428 to 51 Ips%*                          | 1%         |                       |
| cfm/p                             | -30 to 1 cfm/p*                            | 1 cfm/p    |                       |
| Dimensions/Weight                 | 6.1x3.4x3.2" (155x87x81 mm)/5.8 oz (165 g) |            |                       |

\*Ranges are calculated from 0 to 1000ppm

### ORDERING

|       |                                                    |
|-------|----------------------------------------------------|
| CO220 | Desktop Indoor Air Quality CO <sub>2</sub> Monitor |
|-------|----------------------------------------------------|



Six facial icons indicating CO<sub>2</sub> concentration level for indoor air quality.

## CO100 Desktop Indoor Air Quality CO<sub>2</sub> Monitor



CE

**Measures Carbon Dioxide (CO<sub>2</sub>), Air Temperature and Humidity with user-adjustable visual and audible alarm**

- Checks for Carbon Dioxide (CO<sub>2</sub>) concentrations (0 to 9,999 ppm) and displays Temperature (14 to 140°F/-10 to 60°C) and Relative Humidity (0.1 to 99.9%) readings
- Maintenance free NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- Indoor Air Quality displayed in ppm with Good (0 to 800 ppm), Normal (800 to 1200 ppm), Poor (>1200 ppm) indication
- Visible and Audible CO<sub>2</sub> warning alarm
- Displays Year, Month, Date, and Time
- Max/Min CO<sub>2</sub> value recall function
- Complete with Universal AC adaptor; 2-year warranty

### ORDERING

|       |                                                    |
|-------|----------------------------------------------------|
| CO100 | Desktop Indoor Air Quality CO <sub>2</sub> Monitor |
|-------|----------------------------------------------------|

## CO10 Carbon Monoxide (CO) Meter



CE

**Check CO level in all environments up to 1000 ppm**

- Ergonomic pocket size housing
- One-button operation
- Utilizes a stabilized electrochemical gas specific (CO) fast response sensor
- Easy to read 1999 count backlit displays CO levels from 0 to 1000 ppm
- 1 ppm resolution; ±5% or ±10 ppm basic accuracy (whichever is greater)
- Audible alarm starting at 35 ppm with continuous beeping when above 200 ppm
- Memory stores 10 readings
- Backlight for low light conditions
- Max Hold and Data hold buttons
- Auto Power Off
- Dimensions/Weight: 6.3x2.2x1.57" (160x56x40 mm)/6.35 oz (180 g)
- 2-year warranty
- Complete with 9 V battery, protective rubber holster, and carrying case

### ORDERING

|      |                       |
|------|-----------------------|
| CO10 | Carbon Monoxide Meter |
|------|-----------------------|

## VFM200 VOC/Formaldehyde (CH<sub>2</sub>O or HCHO) Meter



CE

**Measures VOC (Volatile Organic Compound) and Formaldehyde concentrations in real-time**

- Backlit LCD displays TVOC (Total Volatile Organic Compound) and HCHO (Formaldehyde) concentrations simultaneously in real-time
- Built-in fast response, high accuracy fuel cell Formaldehyde sensor
- Adjustable audible and visible high/low alarms; Auto Power Off
- Complete with rechargeable battery and Universal AC Adaptor/Charger (multi-plugs US, EU, UK, and AU); 2-year warranty

| SPECIFICATIONS                           | RANGE                                     | RESOLUTION                    | BASIC ACCURACY |
|------------------------------------------|-------------------------------------------|-------------------------------|----------------|
| TVOC                                     | 0.00 to 9.99 ppm (mg/m <sup>3</sup> )     | 0.01 ppm (mg/m <sup>3</sup> ) | ±5% FS         |
| Formaldehyde (CH <sub>2</sub> O or HCHO) | 0.00 to 5.00 ppm (mg/m <sup>3</sup> )     | 0.01 ppm (mg/m <sup>3</sup> ) | ±5% FS         |
| Response Time                            | <2 s                                      |                               |                |
| Power Supply                             | Rechargeable battery and AC adaptor       |                               |                |
| Charge Time                              | ~3 hours                                  |                               |                |
| Dimensions/Weight                        | 6.5x2.4x1" (165x60x25 mm)/1.3 lbs (584 g) |                               |                |

### ORDERING

|        |                        |
|--------|------------------------|
| VFM200 | VOC/Formaldehyde Meter |
|--------|------------------------|

HD350 Pitot Tube Anemometer + Differential Manometer



Includes pitot tube with two 33.5" (85 cm) connection hoses



Pitot Tube measures Air Velocity/Airflow in difficult-to-reach or tight locations where a vane anemometer won't fit

- Simultaneous display of Pressure, Air Velocity or Air Flow plus Temperature
- ±0.7252 psi range
- 5 selectable units of pressure measurement
- Max/Min/Avg recording and Relative time stamp
- Data Hold and Auto Power Off functions
- Large LCD display with backlighting
- Zero function for offset correction or measurement
- Store/Recall up to 99 readings in each mode
- USB port includes software
- 3-year warranty
- Complete with Windows® compatible software with cable, 9 V battery, pitot tube with two 33.5" (85 cm) connection hoses, 100-240 V universal AC Adaptor with multiple plugs, and hard carrying case

| SPECIFICATIONS       | RANGE                                                                                                                          | MAX RESOLUTION          | BASIC ACCURACY |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------|
| Pressure             |                                                                                                                                |                         |                |
| psi                  | 0.7252 psi                                                                                                                     | 0.0001 psi              | ±0.3% FS       |
| mbar                 | 50.00 mbar                                                                                                                     | 0.01 mbar               | ±0.3% FS       |
| inH <sub>2</sub> O   | 20.07 inH <sub>2</sub> O                                                                                                       | 0.01 inH <sub>2</sub> O | ±0.3% FS       |
| mmH <sub>2</sub> O   | 509.8 mmH <sub>2</sub> O                                                                                                       | 0.01 mmH <sub>2</sub> O | ±0.3% FS       |
| Pa                   | 5000 Pa                                                                                                                        | 1 Pa                    | ±0.3% FS       |
| Linearity/Hysteresis | ±0.29 FS                                                                                                                       |                         |                |
| Maximum Pressure     | 10 psi                                                                                                                         |                         |                |
| Air Velocity/Flow    |                                                                                                                                |                         |                |
| ft/min               | 200 to 15733 ft/min                                                                                                            | 1 ft/min                | ±1% FS         |
| m/s                  | 1 to 80.00 m/s                                                                                                                 | 0.01 m/s                | ±1% FS         |
| km/h                 | 3.5 to 288.0 km/h                                                                                                              | 0.1 km/h                | ±1% FS         |
| MPH                  | 2.25 to 178.66 MPH                                                                                                             | 0.01 MPH                | ±1% FS         |
| knots                | 2.0 to 154.6 knots                                                                                                             | 0.1 knots               | ±1% FS         |
| CFM/CMM              | 0 to 99,999 CFM (CMM)                                                                                                          | 0.001 CFM (CMM)         | ±1% FS         |
| Temperature          | 32.0 to 122.0°F (0 to 50°C)                                                                                                    | 0.1°                    | ±3°F/1.5°C     |
| Dimensions/Weight    | Meter: 8.2x2.9x1.9" (210x75x50 mm)/12 oz (340 g);<br>Pitot Tube: 15.4x7.7" (390x195 mm); Diameter: 0.32" (8 mm)/7.2 oz (204 g) |                         |                |

ORDERING

|       |                                                |
|-------|------------------------------------------------|
| HD350 | Pitot Tube Anemometer + Differential Manometer |
|-------|------------------------------------------------|



## HD700 Series Differential Pressure Manometers



### Low Range/High Resolution Gauge or Differential Pressure

- Three models to choose from: Model HD700 ( $\pm 2$  psi range), Model HD750 ( $\pm 5$  psi range), and Model HD755 ( $\pm 0.5$  psi range)
- 11 selectable units of measure
- MAX/MIN recording and Relative time stamp
- Data Hold and Auto Power Off
- Zero function for offset correction or measurement
- Large LCD display with backlighting
- USB port includes PC software
- 3-year warranty
- Complete with 9 V battery, Windows® compatible software with USB cable, 100-240 V Universal AC adaptor, connection hose, built-in stand, and hard case

| SPECIFICATIONS     | HD700                                               | HD750                                              | HD755                                               |
|--------------------|-----------------------------------------------------|----------------------------------------------------|-----------------------------------------------------|
| psi                | 2 psi (0.001 psi)                                   | 5 psi (0.001 psi)                                  | 0.5 psi (0.001 psi)                                 |
| inH <sub>2</sub> O | 55.40 inH <sub>2</sub> O (0.01 inH <sub>2</sub> O)  | 138.3 inH <sub>2</sub> O (0.1 inH <sub>2</sub> O)  | 13.85 inH <sub>2</sub> O (0.01 inH <sub>2</sub> O)  |
| mbar               | 137.8 mbar (0.1 mbar)                               | 344.7 mbar (0.1 mbar)                              | 34.47 mbar (0.01 mbar)                              |
| kPa                | 13.78 kPa (0.01 kPa)                                | 34.47 kPa (0.01 kPa)                               | 3.447 kPa (0.001 kPa)                               |
| inHg               | 4.072 inHg (0.001 inHg)                             | 10.18 inHg (0.01 inHg)                             | 1.018 inHg (0.001 inHg)                             |
| mmHg               | 103.4 mmHg (0.1 mmHg)                               | 258.5 mmHg (0.1 mmHg)                              | 25.85 mmHg (0.01 mmHg)                              |
| ozin <sup>2</sup>  | 32 ozin <sup>2</sup> (0.01 ozin <sup>2</sup> )      | 80 ozin <sup>2</sup> (0.01 ozin <sup>2</sup> )     | 8.00 ozin <sup>2</sup> (0.01 ozin <sup>2</sup> )    |
| ftH <sub>2</sub> O | 4.616 ftH <sub>2</sub> O (0.001 ftH <sub>2</sub> O) | 11.53 ftH <sub>2</sub> O (0.01 ftH <sub>2</sub> O) | 1.154 ftH <sub>2</sub> O (0.001 ftH <sub>2</sub> O) |
| cmH <sub>2</sub> O | 140 cmH <sub>2</sub> O (0.1 cmH <sub>2</sub> O)     | 350.1 cmH <sub>2</sub> O (0.1 cmH <sub>2</sub> O)  | 2.59 cmH <sub>2</sub> O (0.01 cmH <sub>2</sub> O)   |
| kgcm <sup>2</sup>  | 0.140 kgcm <sup>2</sup> (0.001 kgcm <sup>2</sup> )  | 0.351 kgcm <sup>2</sup> (0.001 kgcm <sup>2</sup> ) | 0.035 kgcm <sup>2</sup> (0.001 kgcm <sup>2</sup> )  |
| bar                | 0.137 bar (0.001 bar)                               | 0.344 bar (0.001 bar)                              | 0.034 bar (0.001 bar)                               |
| Basic Accuracy     | $\pm 0.3\%$ FS                                      | $\pm 0.3\%$ FS                                     | $\pm 0.3\%$ FS                                      |
| Dimensions/Weight  | Meter: 8.2x2.9x1.9" (210x75x50 mm)/9.8 oz (280 g)   |                                                    |                                                     |

### ORDERING

|       |   |                                           |
|-------|---|-------------------------------------------|
| HD700 | N | Differential Pressure Manometer (2 psi)   |
| HD750 | N | Differential Pressure Manometer (5 psi)   |
| HD755 | N | Differential Pressure Manometer (0.5 psi) |

## 407910 Heavy Duty Differential Pressure Manometer



### Wide range dual input with multiple units and RS-232 interface

- Dual differential inputs with internal sensors
- Wide ( $\pm 802$  inches of water) measurement range with high resolution to 0.5 inch
- Displays 8 types of pressure units
- Zero function for offset measurements
- Data Hold, Auto power off, and MAX/MIN
- Built-in PC interface — optional 407001-PRO Data Acquisition Software (see p. 109 for details)
- 3-year warranty
- Complete with 2 quick-disconnect fittings, 9 V battery, protective holster with stand, and case

| SPECIFICATIONS     | RANGE                                          | RESOLUTION               | BASIC ACCURACY |
|--------------------|------------------------------------------------|--------------------------|----------------|
| psi                | $\pm 29$ psi                                   | 0.02 psi                 | $\pm 1\%$ FS   |
| mbar               | $\pm 2000$ mbar                                | 1 mbar                   | $\pm 2\%$ FS   |
| kg/cm <sup>2</sup> | $\pm 2.040$ kg/cm <sup>2</sup>                 | 0.001 kg/cm <sup>2</sup> | $\pm 1\%$ FS   |
| mmHg               | $\pm 1500$ mmHg                                | 1 mmHg                   | $\pm 1\%$ FS   |
| inHg               | $\pm 59.05$ inHg                               | 0.05 inHg                | $\pm 1\%$ FS   |
| mH <sub>2</sub> O  | $\pm 20.40$ mH <sub>2</sub> O                  | 0.01 mH <sub>2</sub> O   | $\pm 1\%$ FS   |
| inH <sub>2</sub> O | $\pm 802.0$ inH <sub>2</sub> O                 | 0.5 inH <sub>2</sub> O   | $\pm 1\%$ FS   |
| Atmosphere         | $\pm 1.974$ atm                                | 0.001 atm                | $\pm 1\%$ FS   |
| Dimensions/Weight  | Meter: 7x2.9x1.3" (178x74x33 mm)/12 oz (350 g) |                          |                |

### ORDERING

|            |   |                                            |
|------------|---|--------------------------------------------|
| 407910     | N | Heavy Duty Differential Pressure Manometer |
| 409997     |   | Soft Vinyl Carrying Case                   |
| 407001-PRO |   | Data Acquisition Software and Cable        |



## SDL710/SDL720/SDL730 Differential Pressure Manometers/Dataloggers



CE

Includes six AA batteries, Universal AC Adapter with plugs (US, EU, UK, AU), SD memory card, two quick coupler plugs, and hard case; 3-year warranty

### Dual differential inputs with internal sensors and datalogs using an SD card

- Three models to choose from: SDL710 ( $\pm 2.9$  psi range), SDL720 ( $\pm 29$  psi range), and SDL730 ( $\pm 101.5$  psi range)
- Stores 99 readings manually
- Datalogger date/time stamps and stores readings on an SD card (included) in Excel® format for easy transfer to a PC
- Record/Recall Max/Min readings
- Data Hold and Auto power off with disable
- Large LCD display with backlighting
- Zero function for offset correction or measurement

| SPECIFICATIONS     | SDL710 (MAX RES)                                     | SDL720 (MAX RES)                                     | SDL730 (MAX RES)                                     |
|--------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|
| mbar               | 200 mbar (0.1 mbar)                                  | 2000 mbar (1 mbar)                                   | 7000 mbar (5 mbar)                                   |
| psi                | 2.9 psi (0.001 psi)                                  | 29 psi (0.01 psi)                                    | 101.5 psi (0.05 psi)                                 |
| kg/cm <sup>2</sup> | 0.204 kg/cm <sup>2</sup> (0.001 kg/cm <sup>2</sup> ) | 2.040 kg/cm <sup>2</sup> (0.001 kg/cm <sup>2</sup> ) | 7.135 kg/cm <sup>2</sup> (0.005 kg/cm <sup>2</sup> ) |
| mmHg               | 150 mmHg (0.1 mmHg)                                  | 1500 mmHg (1 mmHg)                                   | 5250 mmHg (5 mmHg)                                   |
| inHg               | 5.905 inHg (0.002 inHg)                              | 59.06 inHg (0.02 inHg)                               | 206.7 inHg (0.1 inHg)                                |
| mH <sub>2</sub> O  | 2.04 mH <sub>2</sub> O (0.001 mH <sub>2</sub> O)     | 20.40 mH <sub>2</sub> O (0.01 mH <sub>2</sub> O)     | 71.35 mH <sub>2</sub> O (0.05 mH <sub>2</sub> O)     |
| inH <sub>2</sub> O | 80.2 inH <sub>2</sub> O (0.05 inH <sub>2</sub> O)    | 802 inH <sub>2</sub> O (0.5 inH <sub>2</sub> O)      | 2810 inH <sub>2</sub> O (2 inH <sub>2</sub> O)       |
| atm                | 0.197 atm (0.001 atm)                                | 1.974 atm (0.001 atm)                                | 6.905 atm (0.005 atm)                                |
| hPa                | 200 hPa (0.1 hPa)                                    | 2000 hPa (1 hPa)                                     | 7000 hPa (5 hPa)                                     |
| kPa                | 20k Pa (0.01kPa)                                     | 200 kPa (0.1 kPa)                                    | 700 kPa (0.5 kPa)                                    |
| Dimensions/Weight  | 7.5x2.7x1.8" (190x68x45 mm)/0.59 lbs (265g)          |                                                      |                                                      |

### ORDERING

|        |                                                                  |
|--------|------------------------------------------------------------------|
| SDL710 | Differential Pressure Manometer/Datalogger (2.9 psi/200 mbar)    |
| SDL720 | Differential Pressure Manometer/Datalogger (29 psi/2000 mbar)    |
| SDL730 | Differential Pressure Manometer/Datalogger (101.5 psi/7000 mbar) |

## SDL700 Pressure Meter/Datalogger



Optional Pressure Transducers available in:  
30 psi (PT30)  
150 psi (PT150)  
300 psi (PT300)

CE

### Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC

- Accepts interchangeable transducers with ranges of 30, 150, 300 psi (transducers sold separately)
- Meter automatically senses plug-in transducer's range and calibration
- Selectable data sampling rate: 1 to 3600 seconds
- Internal memory stores 99 readings; External data storage on an SD card (included)
- Large backlit dual LCD
- MIN/MAX, Data Hold, and Auto Power Off functions
- Complete with 6 x AA batteries, SD memory card, and hard carrying case; 3-year warranty. Optional AC adaptor.

| SPECIFICATIONS     | 30 psi                                             | 150 psi                          | 300 psi                          |
|--------------------|----------------------------------------------------|----------------------------------|----------------------------------|
| bar                | 0.002 to 2 bar                                     | 0.01 to 10 bar                   | 0.02 to 20 bar                   |
| psi                | 0.02 to 29 psi                                     | 0.2 to 145 psi                   | 0.2 to 290 psi                   |
| kg/cm <sup>2</sup> | 0.002 to 2.040 kg/cm <sup>2</sup>                  | 0.01 to 10.19 kg/cm <sup>2</sup> | 0.02 to 20.40 kg/cm <sup>2</sup> |
| mmHg               | 2 to 1500 mmHg                                     | 10 to 7500 mmHg                  | 20 to 15000 mmHg                 |
| inHg               | 0.05 to 59.05 inHg                                 | 0.2 to 295.2 inHg                | 0.5 to 590.5 inHg                |
| mH <sub>2</sub> O  | 0.02 to 20.40 mH <sub>2</sub> O                    | 0.1 to 101.9 mH <sub>2</sub> O   | 0.2 to 204.0 mH <sub>2</sub> O   |
| inH <sub>2</sub> O | 1 to 802 inH <sub>2</sub> O                        | 5 to 4010 inH <sub>2</sub> O     | 10 to 8020 inH <sub>2</sub> O    |
| atm                | 0.002 to 1.974 atm                                 | 0.01 to 9.87 atm                 | 0.02 to 19.74 atm                |
| hPa                | 2 to 2000 hPa                                      | 10 to 10000 hPa                  | 20 to 20000 hPa                  |
| kPa                | 0.2 to 200.0 kPa                                   | 1 to 1000 kPa                    | 2 to 2000 kPa                    |
| Dimensions/Weight  | Meter: 7.2x2.9x1.9" (182x73x48 mm)/17.3 oz (490 g) |                                  |                                  |

### ORDERING

|           |                                                    |
|-----------|----------------------------------------------------|
| SDL700    | Pressure Meter/Datalogger                          |
| PT30      | 30 psi Pressure Transducer                         |
| PT150     | 150 psi Pressure Transducer                        |
| PT300     | 300 psi Pressure Transducer                        |
| UA100-240 | 100-240 V AC Adaptor with 4 plugs (US, EU, UK, AU) |

## 475055 High Capacity Force Gauge with PC Interface



CE

### 220 lbs (100 kg), Tension, and Compression

- Tension or Compression, Peak hold and Zero functions
- Large LCD with back light feature and Positive/Reverse display for easy readability
- PC interface and optional data acquisition software (407001-PRO see p. 109)
- 2-year warranty
- Complete with tension and compression adaptors, six AA 1.5 V batteries, and case
- Optional AC Adaptors available (see below for ordering)

#### SPECIFICATIONS

|                       |                                                                   |
|-----------------------|-------------------------------------------------------------------|
| Range                 | 220 lbs, 100 kg, 980 Newtons                                      |
| Basic Accuracy (23°C) | ±(0.5% rdg)                                                       |
| Resolution            | 0.05 lbs, 0.05 kg, 0.2 Newtons                                    |
| Overload capacity     | 150 kg                                                            |
| Update Rate           | Fast mode 0.2 seconds; Slow mode 0.6 seconds                      |
| Full scale deflection | <1 mm                                                             |
| Transducer type       | Load cell                                                         |
| Dimensions/ Weight    | Meter: 8.5x3.5x1.8" (215x90x45 mm)/0.61 lbs (278 g) w/o batteries |

#### ORDERING

|            |   |                                                    |
|------------|---|----------------------------------------------------|
| 475055     | N | High Capacity Force Gauge with PC Interface        |
| 407001-PRO |   | Data Acquisition Software and Cable                |
| 153117     |   | 117 V AC Adaptor                                   |
| UA100-240  |   | 100-240 V AC Adaptor with 4 plugs (US, EU, UK, AU) |

## 475040/475044 Digital Force Gauges



CE

### Push/Pull measurements in kg, lbs, oz, and Newton units

- 5 digit 0.4" (10 mm) LCD with reversible display feature to match viewing angle
- Zero Adjust, Peak Hold, and selectable Fast/Slow response feature
- Over-range, low battery, and advanced function indication
- 2-year warranty
- Complete with hook adaptor for tension, compression adaptors (flat, cone and chisel head), 5" (127 mm) extension rod, 6 AA batteries, and hard carrying case

#### SPECIFICATIONS

|                       | 475040                                      | 475044 (HIGH CAPACITY)          |
|-----------------------|---------------------------------------------|---------------------------------|
| Range                 | 176 oz, 5000 g, 49 Newtons                  | 44 lbs, 20 kg, 196 Newtons      |
| Basic Accuracy (23°C) | ±(0.4%)                                     | ±(0.5%)                         |
| Resolution            | 0.05 oz, 1 g, 0.01 Newtons                  | 0.01 lbs, 0.01 kg, 0.05 Newtons |
| Overload capacity     | 10 kg                                       | 30 kg                           |
| Update Rate           | Fast mode 0.2 secs; Slow mode 0.6 secs      |                                 |
| Full scale deflection | 2.00 mm                                     |                                 |
| Transducer type       | Load cell                                   |                                 |
| Dimensions/ Weight    | 8.5x3.5x1.8" (215x90x45 mm)/1.4 lbs (650 g) |                                 |

#### ORDERING

|           |   |                                                                 |
|-----------|---|-----------------------------------------------------------------|
| 475040    | N | Digital Force Gauge                                             |
| 475044    | N | High Capacity Force Gauge                                       |
| 479097    |   | Accessory Kit (2 ea.- hook, flat, cone, & chisel head adaptors) |
| UA100-240 |   | 100-240 V AC Adaptor with 4 plugs (US, EU, UK, AU)              |





# Reliable, Easy to Use, and Accurate

Check for proper indoor and outdoor light levels to comply with OSHA regulations.



## LT505 Pocket Light Meter

Integrated sensor measures light intensity up to 40,000 Fc (400,000 Lux)

- Measure light levels in Foot-candle (Fc) or Lux units using a precision photo diode with cosine and color correction filter
- Zero/Calibration function
- Data Hold
- Min/Max function
- Auto Power Off with disable
- Tripod mount (tripod not included)
- Complete with light sensor cover, two AAA batteries, and pouch



## LT510 Light Meter

Backlit display and integrated sensor measures light intensity up to 1860 Fc (20,000 Lux)

- Measure light levels in Foot-candle (Fc) or Lux units using a precision photo diode with cosine and color correction filter
- Zero function
- Backlit LCD to view in dimly lit areas
- Data Hold and Min/Max functions
- Auto Power Off with disable
- Tripod mount (tripod not included)
- Complete with light sensor cover, wrist strap, and three AAA batteries

**N** NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** next to product part numbers.



| SPECIFICATIONS           | LT505                                      | LT510                                     |
|--------------------------|--------------------------------------------|-------------------------------------------|
| Fc Range                 | 99.99, 999.9, 9999, 40,000 Fc              | 1860 Fc                                   |
| Lux Range                | 999.9, 9999, 99,990, 400,000 Lux           | 20,000 Lux                                |
| Max. Resolution          | 0.01 Fc/0.1 Lux                            | 0.1 Fc/1 Lux                              |
| Basic Accuracy           | ±3% rdg + 3 digits                         | ±5% rdg                                   |
| Cosine & Color Corrected | Yes                                        | Yes                                       |
| Analog output            | —                                          | —                                         |
| CE approved              | Yes                                        | Yes                                       |
| Dimensions/Weight        | 5.3x1.9x0.2" (133x48x23 mm)/8.8 oz (250 g) | 5.5x1.8x1.2" (141x45x20 mm)/5.6oz (160 g) |
| Warranty                 | 2 years                                    | 2 years                                   |



## 401025 Foot Candle/Lux Meter

Includes analog output and fast/slow response feature

- Accurately displays light level in terms of Fc or Lux over three ranges
- Select fast (1 second) or slow (2 seconds) response time
- Analog output of 1 mV per count for capturing readings to a recorder
- Complete with 9 V battery, light sensor with protective cover and 47" (1.2 m) cable, and built-in stand



## LT300 Light Meter

Digital and Analog display of light in Fc or Lux

- Wide range to 40,000 Foot-candles or 400,000 Lux with high resolution to 0.01 Fc/Lux
- Relative mode indicates change in light levels
- Peak mode captures highest reading
- Remote light sensor on 12" (305 mm) coiled cable — expandable to 24" (609 mm)
- Utilizes precision photo diode and color correction filter
- Cosine and color corrected measurements
- MIN/MAX and Data Hold
- Large LCD display with analog bargraph
- Backlight for readings in low light levels
- Complete with 9 V battery, light sensor with protective cover, protective holster, and pouch



## EA30 EasyView® Big Digit, Wide range Light Meter

Measures high intensity light up to 40,000 Fc and 400,000 Lux, is ideal for outdoor applications

- Compact and rugged design with large display and bargraph
- Relative function for zero or difference from reference value
- Peak captures short light pulses to 100  $\mu$ Seconds
- Data Hold and MIN/MAX readings
- Auto Power Off, Zero function
- Complete with built-in stand, light sensor and protective cover with 39" (1 m) coiled cable, protective holster, 6 AAA batteries, and carrying case

### 401025 N

200, 2000, 5000 Fc  
2000, 20000, 50000 Lux  
0.1 Fc/1 Lux  
 $\pm 5\%$  FS  
Yes  
Yes  
Yes  
6.4x2.8x1.2" (163x70x30 mm)/8.3 oz (220 g)  
2 years

### LT300 N

40,000 Fc  
400,000 Lux  
0.01 Fc/Lux  
 $\pm 5\%$  rdg  
Yes  
—  
Yes  
5.9x2.95x1.57" (150x75x40 mm)/7 oz (200 g)  
2 years

### EA30 N

40, 400, 4000, 40,000 Fc  
40, 400, 4000, 40,000, 400,000 Lux  
0.01 Fc/Lux  
 $\pm 3\%$  rdg + 0.5% FS  
Yes  
—  
Yes  
5.9x2.8x1.4" (150x72x33 mm)/8.3 oz (235 g)  
2 years

### SPECIFICATIONS

Fc Range  
Lux Range  
Max. Resolution  
Basic Accuracy  
Cosine & Color Corrected  
Analog output  
CE approved  
Dimensions/Weight  
Warranty



# Bright Solutions from Extech

Extech light meters deliver accurate, repeatable readings and feature big-digit displays, wide-range models, ruggedized designs, as well as memory and datalogging capabilities.



## 407026 Heavy Duty Light Meter with PC Interface

Enhance accuracy by selecting one of four lighting types plus PC interface

- % displays differential from reference point
- “ZERO” Re-Calibration
- Enhance accuracy by selecting lighting type Tungsten/Daylight, Fluorescent, Sodium, Mercury
- MAX/MIN/AVG, Data Hold, and Auto Power Off
- Built-in PC serial interface with optional 407001-PRO Data Acquisition software (see p. 109 for details)
- Complete with 9 V battery, light sensor, and protective cover with 45" (1.1 m) cable, and protective holster with stand

### ACCESSORIES

|            |                                                    |
|------------|----------------------------------------------------|
| UA100-240  | 100-240 V AC Adaptor with 4 plugs (US, EU, UK, AU) |
| 407001-PRO | Data Acquisition Software and USB Cable            |

See p. 109 for software information

**N** NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** next to product part numbers.

### SPECIFICATIONS

|                          | 407026 <b>N</b>                           |
|--------------------------|-------------------------------------------|
| Fc Range                 | 200, 2000, 5000 Fc                        |
| Lux Range                | 2000, 20000, 50000 Lux                    |
| Max. Resolution          | 0.1Fc/1 Lux                               |
| Basic Accuracy           | ±4% FS                                    |
| Cosine & Color Corrected | Yes                                       |
| Temperature (Type J/K)   | —                                         |
| PC Interface             | Optional 407001-PRO Software (see p. 109) |
| Datalogging              | Optional 407001-PRO Software (see p. 109) |
| CE approved              | Yes                                       |
| Dimensions               | 7x2.9x1.3" (178x74x33 mm)                 |
| Weight                   | 1.6 lbs (726 g)                           |
| Warranty                 | 3 years                                   |



**N** Indicates products that are available with optional calibration traceable to **NIST**. See pages 146-147 for a complete listing.



## HD450 Light Meter Datalogger

Automatically stores up to 16,000 readings or manually store/recall up to 99 readings

- Records in a continuous mode up to 16,000 readings
- Wide range to 40,000 Fc or 400,000 Lux
- Cosine and color corrected measurements
- Utilizes precision silicon photo diode and spectral response filter
- Peak mode (10 ms) captures highest reading
- Relative mode indicates change in light levels
- Heavy duty, rugged double molded housing
- Built-in USB port
- Complete with light sensor and cover with 39" (1 m) cable, Windows® compatible software, USB cable, built-in stand, case, and 9 V battery



## EA33 EasyView® Light Meter with Memory

Advanced illuminance functions for taking measurements in direct sunlight

- Wide measurement range to 99,990 Fc (999,900 Lux)
- Luminous intensity (candela) calculations
- Store and recall up to 50 measurements, includes relative or real time clock stamp
- Ripple function excludes the effect of stray light from the primary light source measurement
- Auto Power Off with disable
- Multiple point average function
- Timed-Hold, Relative in absolute value or % deviation, and Comparator function with high/low alarms
- Complete with built-in stand, light sensor and protective cover with 36" (0.9 m) coiled cable, protective holster, 6 AAA batteries, and case



## SDL400 Light Meter/Datalogger

Datalogger date/time stamps and stores readings on an SD card in Excel® format

- Wide range: 10,000 Fc/100k Lux
- Cosine and color-corrected measurements
- Utilizes precision photo diode and spectral response filter
- Selectable data sampling rate: 1 to 3600 seconds (1 hour)
- Internal memory stores 99 readings manually
- Large backlit LCD
- Type K/J Thermocouple input
- MIN/MAX and Data Hold
- "ZERO" Re-Calibration
- Auto Power Off with disable function
- Complete with 6 x AA batteries, SD card, hard case, and light sensor with protective cover; Optional Universal AC Adaptor UA100-240 and Type K and J Thermocouple probes (see p. 27 and 52)

### HD450 N

40, 400, 4000, 40k Fc  
400, 4000, 40k, 400k Lux  
0.01 Fc/0.1 Lux  
±5%  
Yes  
—  
USB with software included  
Manual: 99 readings  
Continuous: 16,000 readings  
Yes  
6.7x3.1x1.6" (170x80x40 mm)  
13.7 oz (390 g)  
3 years

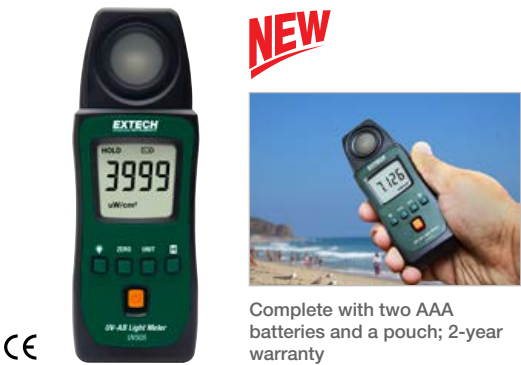
### EA33 N

9,999, 99.99, 999.9, 9999, 99,990 Fc  
99.99, 999.9, 9999, 99,990, 999,900 Lux  
0.001 Fc/0.01 Lux  
±3%  
Yes  
—  
Manual: 50 readings  
Yes  
5.9x2.8x1.4" (150x72x33 mm)  
11.29 oz (320 g)  
2 years

### SDL400 N

200, 2000, 10k Fc  
2000, 20k, 100k Lux  
0.1 Fc/1 Lux  
±4% rdg  
Yes  
J: -148 to 2192°F (-100 to 1200°C)  
K: -148 to 2372°F (-100 to 1300°C)  
SD Card  
Manual: 99 readings  
Continuous: Datalogs with 4 GB SD card  
Yes  
7.2x2.9x1.9" (182x73x48 mm)  
16.8 oz (475 g)  
3 years

UV505 Pocket UV-AB Light Meter



Complete with two AAA batteries and a pouch; 2-year warranty

Pocket-sized UV light meter measures UV-AB light from natural and artificial light sources

- Sensor wavelength range 290 to 390 nm
- UV sensor with cosine correction measures irradiance from UV-AB light sources: 1 to 3999  $\mu\text{W}/\text{cm}^2$  and 0.01 to 40.00  $\text{mW}/\text{cm}^2$
- Basic accuracy of  $\pm 5\%$  FS
- Backlit LCD for easy viewing
- Zero function
- Data Hold freezes current reading on display
- Tripod mount (tripod not included)
- Dimensions/Weight: 5.2x1.9x1" (133x48x23 mm)/3.2 oz (90 g)

ORDERING

|       |                          |
|-------|--------------------------|
| UV505 | Pocket UV-AB Light Meter |
|-------|--------------------------|

UV510 UVA Light Meter



Complete with wrist strap, light sensor cover, and 3 AAA batteries; 2-year warranty

Measures UVA light radiation from natural and artificial light sources

- Sensor wavelength range 320 to 390 nm
- UV sensor with cosine correction measures irradiance from UVA light sources: 0 to 1.999  $\text{mW}/\text{cm}^2$ , 2 to 20.00  $\text{mW}/\text{cm}^2$
- Basic accuracy of  $\pm 4\%$  FS
- Backlit LCD to view in dimly lit areas
- Zero function
- Data Hold and Min/Max functions
- Auto Power Off with disable
- Tripod mount (tripod not included)
- Dimensions/Weight: 5.5x2.3x1" (141x58x25 mm)/5.6 oz (160 g)

ORDERING

|       |                 |
|-------|-----------------|
| UV510 | UVA Light Meter |
|-------|-----------------|

SDL470 UVA/UVC Light Meter/Datalogger



Complete with built-in tilt stand, SD memory card, UVA light sensor with protective cover, UVC light sensor, hard case, Universal AC adaptor, and 6 x AA batteries; 3-year warranty

Measures UVA (long wave) and UVC (short wave) light sources, plus date/time stamps and stores files onto an SD memory card in Excel® format

- UVA probe captures long-wave 365 nm UV irradiance measurements under a UVA (black light) source
- UVC probe captures short-wave 254 nm UV irradiance measurements under a UVC light source
- Cosine correction filter and metal housing; Large backlit LCD display
- Internal memory stores 99 readings manually; External data storage in Excel format on an SD card (included) for easy transfer to a PC
- Offset adjustment used for zero function or to make relative measurements
- Adjustable data sampling rate: 1 to 3600 seconds
- Type K/J Thermocouple input (probes sold separately)
- Record/Recall MIN, MAX readings, Data Hold, and Auto Power Off functions

| SPECIFICATIONS      | RANGE                                                  | MAX RESOLUTION                | BASIC ACCURACY                                      |
|---------------------|--------------------------------------------------------|-------------------------------|-----------------------------------------------------|
| UVA Range           | 2 $\text{mW}/\text{cm}^2$ , 20 $\text{mW}/\text{cm}^2$ | 0.001 $\text{mW}/\text{cm}^2$ | $\pm 4\%$ FS                                        |
| UVC Range           | 2 $\text{mW}/\text{cm}^2$ , 20 $\text{mW}/\text{cm}^2$ | 0.001 $\text{mW}/\text{cm}^2$ | $\pm 4\%$ FS                                        |
| Frequency Bandwidth | 365 nm (UVA); 254 nm (UVC)                             |                               |                                                     |
| Type K Temperature  | -148 to 2372°F (-100 to 1300°C)                        | 0.1°F/°C                      | $\pm (0.4\% \pm 1.8^\circ\text{F}/1^\circ\text{C})$ |
| Type J Temperature  | -148 to 2192°F (-100 to 1200°C)                        | 0.1°F/°C                      | $\pm (0.4\% \pm 1.8^\circ\text{F}/1^\circ\text{C})$ |
| Dimensions/ Weight  | 7.2x2.9x1.9" (182x73x47.5 mm)/16.2 oz (475 g)          |                               |                                                     |

ORDERING

|        |                                                                              |
|--------|------------------------------------------------------------------------------|
| SDL470 | UVA/UVC Light Meter/Datalogger                                               |
| TP875  | Type K Thermocouple Bead Wire Temperature Probe -58 to 1000°F (-50 to 538°C) |



## LT40 LED Light Meter



LED Light meters are used for monitoring and optimizing environmental light levels in homes, buildings, schools, and offices.

### Measures the light intensity of white LED lights

- Measure white LED and Standard Lighting in Lux or Foot-Candle (Fc) units
- MIN/MAX/Average
- Cosine and color corrected measurements
- Auto Power Off
- 2-year warranty
- Complete with built-in sensor with protective cover, 2 AAA batteries, and pouch

#### SPECIFICATIONS

|                    |                                          |
|--------------------|------------------------------------------|
| Foot-candle Range  | 40, 400 4,000, 40,000 Fc                 |
| Lux Range          | 400, 4000, 40,000, 400,000 Lux           |
| LED Type           | white                                    |
| Basic Accuracy     | ±3%                                      |
| Dimensions/ Weight | 5.2x1.9x1" (133x48x23 mm)/8.8 oz (250 g) |

#### ORDERING

|      |   |                 |
|------|---|-----------------|
| LT40 | N | LED Light Meter |
|------|---|-----------------|

## LT45 Color LED Light Meter



### LED Light meters are used for monitoring and optimizing environmental light levels in buildings, schools, and offices

- Measure white, red, yellow, green, and blue LED lights and standard lighting in Lux or Foot-Candle (Fc) units
- Manually store/recall up to 99 readings
- MIN/MAX/Average; Auto Power Off
- Cosine and color corrected measurements
- Complete with light sensor with protective cover and coiled cable expandable to 59" (1.5 m), 9 V battery, and hard case; 2-year warranty

#### SPECIFICATIONS

|                    |                                             |
|--------------------|---------------------------------------------|
| Foot-candle Range  | 40 Fc, 400 Fc 4,000 Fc, 40,000 Fc           |
| Lux Range          | 400 Lux, 4,000 Lux, 40,000 Lux, 400,000 Lux |
| LED Type           | white, red, yellow, green, blue             |
| Basic Accuracy     | ±3%                                         |
| Dimensions/ Weight | 5.1x2.2x1.5" (130x55x38 mm)/8.8 oz (250 g)  |

#### ORDERING

|      |   |                       |
|------|---|-----------------------|
| LT45 | N | Color LED Light Meter |
|------|---|-----------------------|

## SP505 Pocket Solar Power Meter



**NEW**



### Measures solar power level from outdoor sunlight in W/m² or BTU (ft²·h)

- Determine the best location of solar panel and solar water heater installations; ideal use for window manufacturers, automotive industry, and remodeling home owners to check the level of solar radiation transmission through various glass thicknesses and degrees of tinting to use for window installations
- Built-in solar light sensor with precision photo diode
- Zero function and Data Hold
- Tripod mount (tripod not included)
- Complete with two AAA batteries and a pouch; 2-year warranty

#### SPECIFICATIONS

|                    |                                         |               |                                            |
|--------------------|-----------------------------------------|---------------|--------------------------------------------|
| Measuring Ranges   | 3999 W/m²                               | 1 W/m²        | ±10 W/m²                                   |
|                    | 634 BTU/(ft²·h)                         | 1 BTU/(ft²·h) | ±3 BTU (ft²·h) or ±5% whichever is greater |
| Spectral Response  | 400 nm to 1100 nm                       |               |                                            |
| Dimensions/ Weight | 4.3x1.9x1" (108x48x23 mm)/2.8 oz (80 g) |               |                                            |

#### ORDERING

|       |                    |
|-------|--------------------|
| SP505 | Pocket Solar Meter |
|-------|--------------------|



## CG104 Coating Thickness Tester



CE



**Smart display rotates 180° for easy viewing angle and Automatic recognition for ferrous and non-ferrous substrates**

- Conforms to GB/T 4956, 1985, GB/T 4957-1985, JB/T 8393-1996, JJG 889-95, and JJG 818-93
- 180° reversible LCD display with LED backlight
- Magnetic induction for ferrous substrates; Eddy current for non-ferrous substrates
- Memory stores 255 readings
- User adjustable high/low alarms, Min/Max/Average,
- Substrate Zeroing and two-point calibration function
- Auto-Hold, Auto Power Off, and low battery indicator
- 2-year warranty
- Complete with two AAA batteries, calibration standards (one ferrous plate, one non-ferrous plate, and one standard coating plate film), wrist strap, and pouch

| SPECIFICATIONS    | FERROUS PROBE (MAGNETIC INDUCTION)                             | NON-FERROUS PROBE (EDDY CURRENT)                               |
|-------------------|----------------------------------------------------------------|----------------------------------------------------------------|
| Range (max res)   | 0 to 2000 $\mu\text{m}$ (1 mils);<br>0 to 80.0 mils (0.1 mils) | 0 to 1000 $\mu\text{m}$ (1 mils);<br>0 to 40.0 mils (0.1 mils) |
| Basic Accuracy    | $\pm 3\%$                                                      | $\pm 3\%$                                                      |
| Minimum Thickness | 0 to 80 mils (0 to 2000 $\mu\text{m}$ )                        | 0 to 40 mils (0 to 1020 $\mu\text{m}$ )                        |
| Dimensions/Weight | 4.1x2.2x1.1" (105x55x27 mm)/2.82 oz (80 g)                     |                                                                |

### ORDERING

|           |                                                                               |
|-----------|-------------------------------------------------------------------------------|
| CG104     | Coating Thickness Tester                                                      |
| CG104-REF | Calibration References (one ferrous plate, one non-ferrous plate, & one film) |

## CG204 Coating Thickness Tester



CE



**Automatic recognition for ferrous and non-ferrous substrates. USB interface with included software for further data analysis on a PC.**

- Conforms to GB/T 4956-1985, GB/T 4957-1985, JB/T 8393-1996, JJG-889-95, and JJG 818-93
- Magnetic induction for ferrous substrates
- Eddy current measurement for non-ferrous substrates
- Two measuring modes (Single and Continuous) and Working modes (Direct & Group)
- Memory stores 400 readings: 80 Direct and 320 Group
- User adjustable high/low alarms,
- Min/Max/Average
- One or two point calibration
- USB interface includes software
- 2-year warranty
- Complete with two AAA batteries, USB cable, software, Calibration Iron, Calibration Aluminum, Reference Films, and pouch

| SPECIFICATIONS        | FERROUS PROBE (MAGNETIC INDUCTION)                               | NON-FERROUS PROBE (EDDY CURRENT)                                 |
|-----------------------|------------------------------------------------------------------|------------------------------------------------------------------|
| Range (max res)       | 0 to 1250 $\mu\text{m}$ (0.1 mils);<br>0 to 49 mils (0.004 mils) | 0 to 1250 $\mu\text{m}$ (0.1 mils);<br>0 to 49 mils (0.004 mils) |
| Basic Accuracy        | $\pm 3\%$                                                        | $\pm 3\%$                                                        |
| Min. Curvature Radius | 1.5 mm (59.06 mils)                                              | 3 mm (118.1 mils)                                                |
| Minimum Diameter      | 7 mm (275.6 mils)                                                | 5 mm (196.9 mils)                                                |
| Minimum Thickness     | 0.5 mm (19.69 mils)                                              | 0.3 mm (11.81 mils)                                              |
| Dimensions/Weight     | 4.7x2.4x1.25" (120x6 x32 mm)/6.17 oz (175 g)                     |                                                                  |

### ORDERING

|           |                                         |
|-----------|-----------------------------------------|
| CG204     | Coating Thickness Tester                |
| CG204-REF | Replacement Calibration Reference Films |

## CG206 Coating Thickness Tester



**Automatic recognition for ferrous and non-ferrous substrates with 1500 data storage and USB interface for further data analysis on a PC**

- Magnetic induction for ferrous substrates
- Eddy current measurement for non-ferrous substrates
- Easy-to-use menu system
- Dot matrix LCD display with 8 level adjustable backlight
- Two working modes: Direct and Group
- Memory stores 1500 readings (30 Group readings)
- One or two point calibration
- USB interface includes software
- Low battery indicator
- 2-year warranty
- Complete with two AAA batteries, USB cable, software, Calibration Iron, Calibration Aluminum, Precision Standards, and pouch

| SPECIFICATIONS           | FERROUS PROBE                                | NON-FERROUS PROBE                      |
|--------------------------|----------------------------------------------|----------------------------------------|
| Measuring Range          | 0 to 1350 $\mu\text{m}$ (0 to 53 mils)       | 0 to 1350 $\mu\text{m}$ (0 to 53 mils) |
| Resolution               | 0.1 $\mu\text{m}$ (0.004 mils)               | 0.1 $\mu\text{m}$ (0.004 mils)         |
| Accuracy                 | $\pm 2.5\%$                                  | $\pm 2.5\%$                            |
| Minimum Curvature Radius | 1.5 mm (59.06 mils)                          | 3 mm (118.1 mils)                      |
| Minimum Diameter         | 7 mm (275.6 mils)                            | 5 mm (196.9 mils)                      |
| Minimum Thickness        | 0.5 mm (19.69 mils)                          | 0.3 mm (11.81 mils)                    |
| Dimensions/Weight        | 4.5x2.1x1.1" (113.5x54x27 mm)/3.9 oz (110 g) |                                        |

### ORDERING

|           |                                   |
|-----------|-----------------------------------|
| CG206     | Coating Thickness Tester          |
| CG204-REF | Replacement Calibration Reference |

## CG304 Coating Thickness Tester with Bluetooth®



**Bluetooth® interface feature wirelessly transmits data to your PC**

- Provides automatic recognition of ferrous and non-ferrous substrates
- Magnetic induction for ferrous substrates
- Eddy current measurement for non-ferrous substrates
- Easy-to-use menu system
- Dot matrix LCD display with backlight and contrast
- Memory stores 2500 readings in 50 groups with 50 readings in each group
- Zero-point calibration function
- 2-year warranty
- Complete with two AAA batteries, software, hard case, Steel and Aluminum substrates, and standard films for calibration

| SPECIFICATIONS           | FERROUS PROBE                                                        | NON-FERROUS PROBE                                                    |
|--------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|
| Working Principle        | Magnetic Induction                                                   | Eddy Current                                                         |
| Measuring Range          | 0 to 2000 $\mu\text{m}$ ; 0 to 78.7 mils                             | 0 to 2000 $\mu\text{m}$ ; 0 to 78.7 mils                             |
| Accuracy                 | $\pm(2\%+2 \mu\text{m})$ ; $\pm 3.5\%$ (1000 to 2000 $\mu\text{m}$ ) | $\pm(2\%+2 \mu\text{m})$ ; $\pm 3.5\%$ (1000 to 2000 $\mu\text{m}$ ) |
| Resolution               | 0.1 $\mu\text{m}$ (0.01 mils)                                        | 0.1 $\mu\text{m}$ (0.01 mils)                                        |
| Minimum Curvature Radius | 1.5 mm (59.06 mils)                                                  | 3 mm (118.1 mils)                                                    |
| Minimum Diameter         | 7 mm (275.6 mils)                                                    | 5 mm (196.9 mils)                                                    |
| Minimum Thickness        | 0.5 mm (19.69 mils)                                                  | 0.3 mm (11.81 mils)                                                  |
| Dimensions /Weight       | 4.7x2.4x1.25" (120x62x32 mm)/6.17 oz (175 g)                         |                                                                      |

### ORDERING

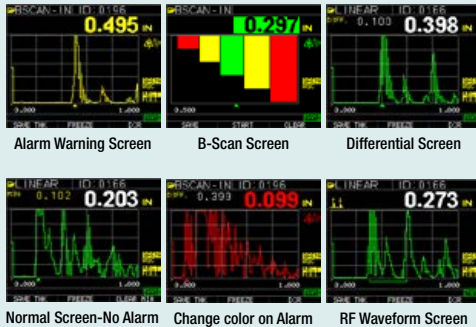
|           |                                         |
|-----------|-----------------------------------------|
| CG304     | Coating Thickness Tester with Bluetooth |
| CG304-REF | Replacement Calibration Reference       |

## TKG Series Ultrasonic Thickness Gauges



CE

### TKG250 Color Screen displays



All models include 2 oz bottle of couplant, 2 AA batteries, Transducer (5 MHz, 0.375" diameter) with potted cable, and hard case, plus a certificate of calibration traceable to NIST. TKG150 and TKG250 also include protective holster, USB cable, and Extech XPorter software.; 2-year warranty

**Compact, rugged housing ideal for field use & ultrasonic technology allows for non-destructive thickness measurements for primarily steel structures**

- Measurement range: 5 MHz transducer: 0.040" to 20" (1 mm to 508 mm) of steel; Optional 10 MHz transducer: 0.030" to 2" (0.76 mm to 50.8 mm) of steel
- Sunlight readable dot-matrix display with backlight
- Multiple transducer options for high temperature and difficult to measure materials
- Fast minimum feature to capture minimum thicknesses
- Splash-proof (IP54), high impact, compact housing

#### Model TKG150 Additional Features

- Echo-to-Echo option to reduce coating errors
- 100k internal datalogger with export to Excel®
- B-scan (visual cross section of test piece)
- Vibrate on alarm

#### Model TKG250 Additional Features

- Color LCD display shows red, yellow and green visual alarm indication
- Live Waveform (A-scan for thickness verification)
- File compare feature as a real time corrosion monitor
- Dynamic change of waveform color on alarm
- Grid review of saved readings
- Echo-to-Echo option to ignore coatings
- 100k internal datalogger with export to Excel
- B-scan (visual cross section of test piece)
- Vibrating alarm indication

### SPECIFICATIONS

|                                     |                                                                                                                  |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Thickness (Steel)                   | 5 MHz probe: 0.040 to 20" (1.0 to 508 mm); 10 MHz probe: 0.030 to 2" (0.76 to 50.8 mm)                           |
| Material velocity calibration range | 0.200 to 0.7362 in/μS (0.508 to 18.699 mm/μS)                                                                    |
| On Screen Languages                 | English, French, Spanish, Italian, Czech, German, Portuguese, Slovak, Finnish, Hungarian                         |
| Hold Mode                           | Holds display to retain last thickness reading with reverse video display                                        |
| Freeze Mode                         | Freezes display (ideal for high temperature readings)                                                            |
| Fast Min/Max Mode                   | Displays min or max and actual thickness value at 20 measurements/sec                                            |
| Units                               | Inches/Millimeters/Microseconds                                                                                  |
| Alarms                              | Audible beeping, illuminate flashing display & keypad, and vibration feedback (only on the TKG150/TKG250 models) |
| Illuminating Keypad                 | F1 = Red, F2 = Yellow, F3 = Green for easy, go/no-go testing                                                     |

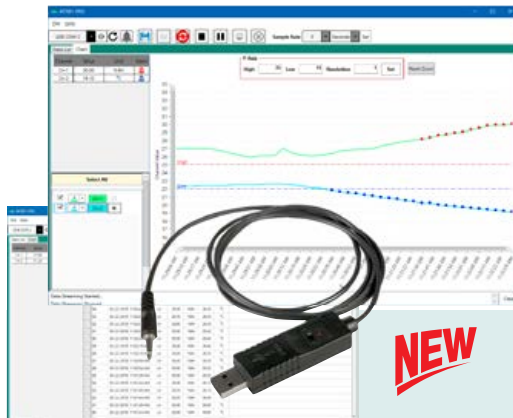
| Additional Functions                                | TKG100                               | TKG150                                                                                                                                                                                                                                                                                    | TKG250                                                                                                                                                                                         |
|-----------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gain - Variable adjustment                          | —                                    | Low, Standard, High                                                                                                                                                                                                                                                                       | In 1 dB steps from 20 to 90 dB or Automatic Gain Control (AGC) for waveform                                                                                                                    |
| B-Scan - Displays a cross section of the test piece | —                                    | Displays a visual cross section of inspection area with no correlation to distance. B-Scan alarm colors consist of: Red = below minimum/above maximum; Yellow = Caution; and Green = Good.                                                                                                |                                                                                                                                                                                                |
| Echo-to-Echo                                        | —                                    | Measure the metal thickness only (paint & coatings do not affect base material thickness value)                                                                                                                                                                                           |                                                                                                                                                                                                |
| Differential Mode                                   | —                                    | Displays the difference from the actual thickness measurement and a user entered reference value                                                                                                                                                                                          |                                                                                                                                                                                                |
| Velocity Mode                                       | —                                    | Displays acoustic sound speed to measure thickness of unknown materials                                                                                                                                                                                                                   |                                                                                                                                                                                                |
| Datalogger                                          | —                                    | Stores 50k readings (expandable to 100k) and 5,000 waveforms; file names up to 20 characters long; and the included Extech XPorter software extracts CSV data files that can be opened for viewing in MS Excel, Notepad, or Wordpad. TKG250 also has file compare & grid review features. |                                                                                                                                                                                                |
| Range                                               | —                                    | —                                                                                                                                                                                                                                                                                         | Adjustment of manual range control or auto zoom tracking to center echoes independent of selected range                                                                                        |
| Rectification Modes                                 | —                                    | —                                                                                                                                                                                                                                                                                         | RF, Half Wave Positive, Half Wave Negative and Full Wave Rectification                                                                                                                         |
| Live Waveform (A-Scan)                              | —                                    | —                                                                                                                                                                                                                                                                                         | Full adjustments for gain in 1 dB step or AGC, main bang blank, blank after first received echo, range including zoom auto tracking to center echoes independent of material and rectification |
| Battery Life                                        | Up to 50 hrs (20 hrs w/backlighting) | 8 to 14 hrs (depends on operating conditions)                                                                                                                                                                                                                                             |                                                                                                                                                                                                |

### ORDERING

|         |                                                      |
|---------|------------------------------------------------------|
| TKG100  | Digital Ultrasonic Thickness Gauge                   |
| TKG150  | Digital Ultrasonic Thickness Gauge/Datalogger        |
| TKG250  | Color Waveform Ultrasonic Thickness Gauge/Datalogger |
| TKG-P5  | Replacement 5 MHz Probe (Transducer)                 |
| TKG-P10 | 10 MHz Probe (Transducer)                            |



## 407001-PRO Data Acquisition Software and Cable



### Compatible Extech meters:

|        |         |        |        |        |        |        |
|--------|---------|--------|--------|--------|--------|--------|
| 407026 | 407227  | 407510 | 407910 | SD500  | SDL300 | SDL600 |
| 407113 | 407303  | 407768 | 461880 | SD700  | SDL310 | SDL700 |
| 407114 | 407412  | 407777 | 475055 | SD800  | SDL350 | SDL800 |
| 407117 | 407412A | 407860 | EN300  | SDL100 | SDL400 |        |
| 407119 | 407445  | 407850 | FHT200 | SDL150 | SDL500 |        |
| 407123 | 407495  | 407907 | SD200  | SDL200 | SDL550 |        |

Visit [www.extech.com](http://www.extech.com) for updated list

Convert specific Extech meters to a datalogger; Software allows user to live stream data from compatible meters to a PC based computer/laptop while storing the collected data for later use in generating a graph or report

- Enables user of specific Extech meters to capture, display, and store readings on a PC
- Programmable Sample Rates (max 6 hrs):
  - Seconds: 1, 5, 10, 15, 30 secs
  - Minutes: 1, 5, 10, 15, 30 mins
  - Hours: 1, 2, 6 hrs
- View data as a list or on a chart and save as a CSV or TXT formatted file
- Import data into Notepad or Excel®
- Color code each channel for easy analysis with multi-channel meters
- User programmable High/Low alarms that will alert with red dots (above setpoint) or blue dots (below setpoint) on the graph
- Compatible with Windows® 7, 8, and 10
- USB data cable has 6-month warranty
- Complete with Quick Guide for software and driver installation instructions and USB data cable
- See list on the left for compatible Extech meters

### ORDERING

|            |                                                |
|------------|------------------------------------------------|
| 407001-PRO | Data Acquisition Software and Cable            |
| 407001-USB | Replacement USB Data Cable and software driver |

## 407744/407766 Sound Level Calibrators



Choice of 94 dB or combination 94 dB/114 dB, 1 kHz professional calibrator for 0.5" or 1.0" microphones

- Calibrates and verifies Sound Level Meter operation
- For use on Sound Level Meters with 0.5" (12.7 mm) or 1.0" (25.4 mm) microphones
- Total Harmonic Distortion (THD) <2% at 94 dB
- Meets IEC standard 60942 1997-11
- Durable die-cast aluminum housing
- 2-year warranty
- Complete with two 9 V batteries, carrying case, and screwdriver

### Model 407744

- Battery test position with battery status LED indicates if battery is good
- 1 kHz sine wave at 94 dB is generated to an accuracy of 5% (frequency) and  $\pm 0.5$  dB

### Model 407766

- LED indicator lights up when power is on
- Level position to select 94 dB or 114 dB
- 1 kHz sine wave at 94 dB/114 dB is generated to an accuracy of 5% (frequency) and  $\pm 0.5$  dB (94 dB)/ $\pm 1.0$  dB (114 dB)
- 3 position switch (OFF/94 dB/114 dB)

| SPECIFICATIONS        | Range                                                  | Accuracy                                  |
|-----------------------|--------------------------------------------------------|-------------------------------------------|
| Frequency             | 1000 Hz                                                | $\pm 5\%$                                 |
| Sound Pressure Level  | Model 407744: 94 dB<br>Model 407766: 94 dB/114 dB      | $\pm 0.5$ dB (94 dB), $\pm 1$ dB (114 dB) |
| Distortion            | <2% Total Harmonic Distortion (THD)                    |                                           |
| Operating Temperature | 32 to 122°F (0 to 50°C)                                |                                           |
| Power Consumption     | Approx. 10 mA DC                                       |                                           |
| Dimensions/Weight     | 2.2" diameter x 5.6" long (50x127 mm)/0.75 lbs (340 g) |                                           |

### ORDERING

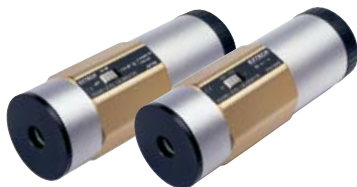
|        |                                      |
|--------|--------------------------------------|
| 407744 | Sound Level Calibrator, 94 dB        |
| 407766 | Sound Level Calibrator, 94 dB/114 dB |





## Unrivaled Selection

No one offers a better selection of sound level meters than Extech. With models for every application, capabilities include high  $\pm 1$  dB accuracy meeting Class 2 compliance, calibration traceable to NIST, PC connectivity, datalogging, octave band analyzer, ultra compact and wall-mounted designs, and personal dosimeters (see pages 110 to 115).



### ACCESSORIES (SEE P. 109 FOR SPECIFICATIONS)

- 407744 **N** 94 dB Sound Calibrator (0.5", 1" microphones)
- 407766 **N** 94/114 dB Sound Calibrator (0.5", 1" microphones)

**N** NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** next to product part numbers.



## 407730 Digital Sound Level Meter

Analog bargraph with 30 dB range updates every 40 ms

- $\pm 2$  dB accuracy with 0.1 dB resolution
- Analog AC output for connection to chart recorders and dataloggers
- Record MAX/MIN values over time
- Auto Power Off and MAX Hold functions
- Utilizes 0.5" (12.7 mm) condenser microphone
- Tripod mount for field use (tripod not included)
- Complete with microphone windscreen and four AAA batteries

| SPECIFICATIONS            | 407730 <b>N</b>           |
|---------------------------|---------------------------|
| Range                     | 40 to 130 dB              |
| Basic Accuracy            | $\pm 2$ dB                |
| Weighting (A&C)           | Yes                       |
| Response Time (Fast/Slow) | Yes                       |
| Condenser Microphone      | 0.5" (12.7 mm)            |
| Analog Output             | AC                        |
| CE approved               | Yes                       |
| Dimensions                | 9x2.2x1.7" (230x57x44 mm) |
| Weight                    | 5.6 oz (160 g)            |
| Warranty                  | 2 years                   |





## SL510 Class 2 Sound Meter

Ultra-compact sound meter meets Class 2 standards with  $\pm 1$  dB high accuracy

- High accuracy meets Class 2 standards (IEC 61672-2013 and ANSI/ASA S1.4/Part 1)
- Backlit LCD to view in dimly lit area
- Data Hold and Min/Max functions
- Auto Power Off with disable
- Tripod mount for field use (tripod not included)
- Complete with microphone windscreen, wrist strap, and three AAA batteries



## 407732 Type 2 Sound Meter

Two range meter with backlit LCD display

- High accuracy meets Type 2 standards (ANSI S1.4-1983, IEC 60651, EN 60651)
- High & Low measuring ranges
- Data Hold and MAX Hold functions
- Backlit display to view in dimly lit area
- Complete with microphone windscreen and 9 V battery
- Optional 407732-NISTL includes Certificate of Calibration Traceable to NIST at single point calibration to 94 dB



## 407732-KIT Type 2 Sound Meter Kit

Digital sound level meter with 94 dB sound calibrator and carrying case

### KIT includes:

- Model 407732 with high accuracy meets ANSI, and IEC Type 2 standards (see product features on the left)
- Sound Calibrator calibrates and verifies sound level meter operation
- Durable double molded housing
- Total Harmonic Distortion (THD) <2% at 94 dB
- Complete with 407732 Sound Meter, Sound Calibrator, and protective hard carrying case (Optional NIST traceable certificate available for kit: 407732-KIT-NIST includes 407732-NISTL and Sound Calibrator NIST)

### SL510 N

35 to 130 dB  
 $\pm 1$  dB @ 1 kHz (Class 2)  
 Yes  
 Yes  
 0.5" (12.7 mm)  
 —  
 Yes  
 6.6x1.8x1.2" (167x45x20 mm)  
 5.6 oz (160 g)  
 2 years

### 407732 N

Low: 35 to 100 dB, High: 65 to 130 dB  
 $\pm 1.5$  dB (Type 2)  
 Yes  
 Yes  
 0.5" (12.7 mm)  
 —  
 Yes  
 8.2x2.1x1.25" (210x55x32 mm)  
 8.1 oz (230 g)  
 2 years

### 407732-KIT N

Low: 35 to 100 dB, High: 65 to 130 dB  
 $\pm 1.5$  dB (Type 2)  
 Yes  
 Yes  
 0.5" (12.7 mm)  
 —  
 Yes  
 Meter: 8.2x2.1x1.25" (210x55x32 mm)  
 Meter: 8.1 oz (230 g)  
 2 years



# Sound Investment

Monitor and analyze outdoor, workplace and equipment sound levels to ensure OSHA compliance.

| ACCESSORIES     |                                                        |
|-----------------|--------------------------------------------------------|
| 407744 <b>N</b> | 94 dB Sound Calibrator (0.5", 1" microphones)          |
| 407766 <b>N</b> | 94/114 dB Sound Calibrator (0.5", 1" microphones)      |
| 407764-EXT      | 15 ft (4.7 m) Microphone Extension Cable (for 407780A) |
| 407752          | Data Acquisition Software for 407750                   |
| USB100          | RS-232 to USB adaptor                                  |
| 42299           | 3.6 V Lithium Battery (pk of 2)                        |
| UA100-240       | 100-240 V AC Adaptor w/4 plugs (US, EU, UK, AU)        |



## 407750 Sound Level Meter with PC Interface

Big backlit display, PC interface & background sound absorber

- High accuracy meets Type 2 standards (ANSI S1.4-1983, IEC 60651, EN 60651)
- Background noise absorber for noise measurements with high ambient noise levels
- PC interface for capturing data to PC, optional Windows® compatible software (407752)
- Large backlit display with analog bargraph
- Auto/Manual ranging and MIN/MAX readings
- Analog AC/DC outputs for connection to a recorder
- Tripod mount (tripod not included)
- Complete with microphone windscreen, 9 V battery and case

| SPECIFICATIONS            | 407750 <b>N</b>                           |
|---------------------------|-------------------------------------------|
| Range                     | 30 to 130 dB                              |
| Basic Accuracy            | ±1.5 dB (Type 2)                          |
| Weighting (A & C)         | Yes                                       |
| Response Time (Fast/Slow) | Yes                                       |
| Condenser Microphone      | 0.5" (12.7 mm)                            |
| Analog Output             | AC/DC                                     |
| PC Interface              | Yes                                       |
| Datalogging               | —                                         |
| CE approved               | Yes                                       |
| Dimensions/Weight         | 10x3.1x1.5" (256x80x38 mm)/8.5 oz (240 g) |
| Warranty                  | 2 years                                   |

**N** NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** next to product part numbers.





Record and Alarm  
LEDs and USB  
connectivity



## 407760 USB Sound Level Datalogger

High accuracy datalogging of up to 129,920 records

- Designed to meet ANSI and IEC 61672-2013 Class 2 standards
- USB interface for easy setup and data download
- Selectable data sampling rate
- Records readings with real time clock
- Two start methods: programmed (from PC) or manual
- Tripod mount (tripod not included)
- Complete with 3.6 V Lithium battery (42299), Windows® compatible software, USB cover, tripod, and windscreen



## SDL600 Datalogging Sound Level Meter with SD Card

Datalogging capability using SD memory card

- $\pm 1.4$  dB accuracy
- Meets ANSI and IEC 61672-2013 Class 2 standards
- Auto or Manual ranging
- External data storage in Excel® format on an SD card (included) for easy transfer to a PC
- User programmable sampling rate from 1 to 3600 seconds
- Records readings with date and time stamp
- Internal memory stores 99 readings manually
- Min/Max, Peak Hold, and Data Hold functions
- Auto Power Off with disable capability
- Complete with SD Card, windscreen, 6 AA batteries, and hard carrying case; Optional AC Adaptor UA100-240



## 407780A Integrating Sound Level Datalogger with USB Interface

Leq and SEL measurements with built-in datalogger and PC interface

- Meets Class 2 standards (ANSI and IEC 61672-2013)
- Datalogs up to 32,000 records
- Programmable integrating time; Real time calendar/clock
- Linearity over wide range (100 dB)
- Display modes: SPL, SPL MIN/MAX, SEL, and Leq
- Impulse/Fast/Slow response time
- Analog and alarm output can be used to connect with Frequency analyzers and chart recorders
- Tripod mount (tripod not included)
- Complete with windscreen, adjustment screwdriver, USB cable, Windows® compatible software, battery, and case

### 407760 N

30 to 130 dB  
 $\pm 1$  dB (Class 2)  
 Yes  
 Yes  
 0.5" (12.7 mm)  
 —  
 Yes  
 129,920 Records  
 Yes  
 5.1x1.1x0.9" (130x30x25 mm)/1 oz (20 g)  
 2 years

### SDL600 N

30 to 130 dB (3 ranges)  
 $\pm 1$  dB (Class 2)  
 Yes  
 Yes  
 0.5" (12.7 mm)  
 AC  
 Yes  
 Datalogging using SD card  
 Yes  
 9.8x2.9x1.9" (250X73X48 mm)/18.3 oz (520 g)  
 3 years

### 407780A N

30 to 130 dB  
 $\pm 1$  dB (Class 2)  
 Yes  
 Yes  
 Detachable 0.5" (12.7 mm)  
 AC/DC  
 Yes  
 32,000 Records  
 Yes  
 10.4x2.8x0.8" (265x72x21 mm)/10.9 oz (310 g)  
 2 years



## 407790A Real Time 1/3 Octave Band Analyzer



Includes Windows® compatible software, USB cable, 4 x C batteries, microphone windscreen, mini screwdriver, Universal AC adaptor, and case



**Class 2 integrating sound level meter with Octave and 1/3 Octave Band Real Time display on 3.5" 320x240 TFT color backlit LCD**

- Wide measurement in 5 ranges and stores readings on microSD card
- Transferred data to a PC to be analyzed using software and cable provided
- A, C and Z weighting with Fast or Slow response
- 25 Hz to 10 kHz frequency response
- Detachable 0.52" (13.2 mm) diameter condenser microphone and Tripod mount
- Real time clock with Year, Month, Day, Hour, Minute, and Second display
- Maintain noise level statistics for internal and external audits
- 2-year warranty
- Optional 94/114 dB calibrator (see 407766 on p. 109 for details)

### SPECIFICATIONS

|                               |                                                                                                                       |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Applicable standards          | IEC 61672-2013 and ANSI/ASA S1.4/Part 1, IEC 61260-1: 2014 Class 2, ANSI S1.11: 2004 Class 2, ANSI S1.43: 1997 Type 2 |
| Accuracy                      | ±1 dB (ref 94 dB @ 1 kHz)                                                                                             |
| Measurement range/function    | 30 dB to 130 dB / Lp, Leq, LE, Lmax, Lmin, L05, L10, L50, L90, L95                                                    |
| Frequency range               | 25 Hz to 10 kHz                                                                                                       |
| Sound level meter display     | Integrating SLM: Digital, 4 digits with bargraph                                                                      |
| Real Time Analyzer display    | Graphical, Bargraph with cursor                                                                                       |
| 1/1- 1/3 Analyzer level range | 5 ranges in 10 db steps: 20-90 dB, 20-100 dB, 20-110 dB, 30-120 dB, 40-130 dB                                         |
| 1/1 Octave & 1/3 Octave       | 1/1 Octave band center frequencies: (9 bands);<br>1/3 Octave band center frequencies: (27 bands)                      |
| Signal output                 | AC output: 1 Vrms (at full scale); DC output: 3.0 V, 25 mV/dB                                                         |
| Dimensions/Weight             | 13.6x3.9x2.4" (345x100x60 mm)/33.5 oz (950 g)                                                                         |

### ORDERING

|                  |                                          |
|------------------|------------------------------------------|
| 407790A <b>N</b> | Octave Band Sound Analyzer               |
| 407766 <b>N</b>  | Sound Level Calibrator, 94/114 dB        |
| 407764-EXT       | 15 ft (4.7 m) Microphone Extension Cable |

## SL400 Personal Noise Dosimeter/Datalogger



**Measure total sound exposure over an 8-hour period**

- Measures frequency weighted noise exposure and peak (C, Z) sound level
- Datalogs up to 999,999 readings when used as a sound level meter with sampling times between 1 second and 24 hours
- Sound level mode: displays sound level, min/max, time-averaged sound level (Leq), peak, and sound exposure level (SEL)
- Adjustable Criterion Level, Exchange Rate, & Threshold
- One user-defined measurement setup
- Optional 94 dB calibrator to perform "before" and "after" calibration checks
- USB interface with Windows® compatible software to control setup and retrieve stored events or analyze real-time measurements
- Includes belt clip, clip-on 0.5" (12.7 mm) microphone with 32" (81.3 cm) cable and windscreen, 9 V battery, software, USB cable, and carrying case; 2-year warranty

### SPECIFICATIONS

|                           |                                                                                                                           |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Ranges (A, C, Z)          | 30 to 90 dB, 50 to 110 dB; C, Z Peak: 70 to 140 dB/ C and Z Peak: 90 to 143 dB                                            |
| Accuracy                  | ±1 dB (Class 2)                                                                                                           |
| Response/Exchange Rate    | Fast, Slow, Impulse/ 3, 4, 5 or 6 dB                                                                                      |
| Bandwidth                 | 20 Hz to 8 kHz                                                                                                            |
| Memory                    | Dose: 10,000 points/SLM: 999,999 points                                                                                   |
| Criterion/Threshold Level | 30 to 140 dB in 0.1 dB steps/30 to 140 dB in 0.1 dB steps                                                                 |
| Measurement Modes         | %Dose, Lxmax, Lxyp, Lxmin, Lxeq, SEL (LAE), PeakMAX, LAVG, TWA, LEP, LN% SPL, Lxmax, Lxyp, Lxmin, Lxeq, SEL (LAE) PeakMAX |
| Dimensions/Weight         | 4.2x2.6x1.3" (107x65x33 mm) - exclude connector on top/<br>7 oz (198 g) include batteries and microphone cable            |

### ORDERING

|                 |                                   |
|-----------------|-----------------------------------|
| SL400 <b>N</b>  | Noise Dosimeter/Datalogger        |
| 407744 <b>N</b> | Sound Level Calibrator, 94 dB     |
| 407766 <b>N</b> | Sound Level Calibrator, 94/114 dB |

## SL130W Sound Level Alert with Alarm



CE

### Continuous monitoring of Sound Level — Built-in LEDs alert user when sound level is too high or too low

- Bright LEDs (red flashing or green) alert user when sound level is too high or too low – LEDs can be read from 30 m (100 ft)
- Ideal for hospital, auditoriums, schools and other areas where there is a need for being alerted when sound level reaches set point
- Meets ANSI Type 2 and EN IEC 60651 standards — compliant with OSHA
- Wall, desk or tripod mount (tripod not included)
- Adjustable high/low limit indication with output to drive user's external relay module
- Microphone rotates 180° for desired placement. Optional 15 ft (5 m) microphone extension cable (SL125) for remote monitoring
- 2-year warranty
- Complete with universal AC adaptor and microphone windscreen

### SPECIFICATIONS

|                     |                                                                                                 |
|---------------------|-------------------------------------------------------------------------------------------------|
| Display             | 4.6x3.125" (117x79 mm) multifunction LCD                                                        |
| Frequency bandwidth | 31.5 Hz to 8 kHz                                                                                |
| Microphone          | 0.5" Electret Condenser Microphone (detachable)                                                 |
| Measurement ranges  | 30 to 80 dB, 60 to 110 dB, 80 to 130 dB                                                         |
| Frequency weighting | 'A' and 'C'                                                                                     |
| Response time       | Fast: 125 ms/Slow: 1 s                                                                          |
| Resolution          | 0.1 dB                                                                                          |
| Alarm output        | 3.5 mm Mono Phone Plug, Maximum: 3.4 mA @ 5 V DC                                                |
| Minimum Output      | Voltage: 2.5 V DC                                                                               |
| Power               | AC/DC Adaptor for full functions; 8xAA batteries for monitoring function only without LED alert |
| Dimensions/Weight   | 8.75x7.1x1.25"/0.63 lbs (22x18x3.2 cm/285 g)                                                    |

### ORDERING

|        |   |                                   |
|--------|---|-----------------------------------|
| SL130W | N | Sound Level Alert                 |
| SL125  |   | Remote Microphone cable 15' (5 m) |
| 407766 | N | Sound Level Calibrator, 94/114 dB |

## EXTECH's 510 Series Environmental Meters



From solving HVAC problems to checking outdoor UV conditions, or measuring energy from the electromagnetic/electrical fields of electrical appliances and power lines, Extech helps expand your problem-solving capabilities and gives you quick and accurate results. Monitor heat index and track temperature changes during hot humid days to prevent heat stroke during outdoor activities, sporting events, or in an indoor workplace. Or monitor noise levels and perform workplace audits, and measure indoor and outdoor light levels. Extech's compact multifunction environmental meters couple all-in-one versatility with accurate diagnostics. Designed with large backlit LCD display and a tripod mount. Features include Data Hold, Auto Power Off, and Min/Max. Complete with wrist strap, general purpose temperature probe (where applicable), and batteries.



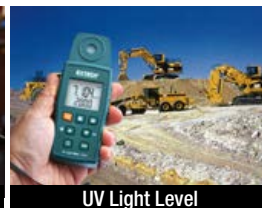
Air Velocity



Heat Index



Humidity/Temperature



UV Light Level



Sound Level



Light Level



EMF/ELF

|        |                                |        |
|--------|--------------------------------|--------|
| AN510  | CMM/CFM Anemometer + Type K    | p. 83  |
| EMF510 | EMF/ELF Meter                  | p. 45  |
| EN510  | 10-in-1 Environmental Meter    | p. 88  |
| LT510  | Light Meter                    | p. 100 |
| RHT510 | Hygro-Thermometer Psychrometer | p. 69  |
| SL510  | Sound Level Meter              | p. 111 |
| UV510  | UVA Light Meter                | p. 104 |



# Rev Up Your Diagnostics

Measure RPM, surface speed, and revolution counts with Extech tachometers. Models include contact, non-contact and combination, as well as compact, stroboscopes and panel-mount versions (see p. 116-119).



| ACCESSORIES |                                                               |
|-------------|---------------------------------------------------------------|
| 461937      | Reflective Tape - 10 strips, 23x0.25" (584x6 mm) each strip   |
| 461990      | Contact Wheels - (2 sets) cone tip, flat tip, and spare wheel |

**N** NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** next to product part numbers.



| SPECIFICATIONS     | 461891 <b>N</b>             | 461893 <b>N</b>             |
|--------------------|-----------------------------|-----------------------------|
| rpm                | 0.5 to 20,000 rpm           | 5 to 99,999 rpm             |
| ft/min             | 0.2 to 6560 ft/min          | —                           |
| m/min              | 0.05 to 1999.9 m/min        | —                           |
| Basic Accuracy     | ±0.05% rdg                  | ±0.05% rdg                  |
| Max rpm Resolution | 0.1 rpm                     | 0.1 rpm                     |
| Laser              | —                           | —                           |
| Temperature (IR)   | —                           | —                           |
| CE approved        | Yes                         | Yes                         |
| Dimensions         | 6.7x2.8x1.5" (170x27x37 mm) | 6.7x2.8x1.5" (170x27x37 mm) |
| Weight             | 9.2 oz (260 g)              | 8.8 oz (250 g)              |
| Warranty           | 2 years                     | 2 years                     |



## 461891 Contact Tachometer

Fast and accurate RPM and surface speed measurements

- Make contact measurements of rotating objects
- Measure linear surface speeds in ft/min or m/min using three accessory wheels provided
- Recalls Last/MAX/MIN values
- Complete with cone tip, flat tip and spare wheel for surface speed measurements, four 1.5 V AA batteries, and carrying case



## 461893 Non-contact Photo Tachometer

Non-contact RPM measurements using visible light

- Make non-contact rpm measurements of rotating objects
- Use reflective tape on object to be measured and point the integral light beam
- Integral light beam has an ideal measurement range up to 6" (152 mm) distance
- Readings updated every second
- Recalls Last/MAX/MIN values
- Complete with 23" (0.6 m) reflective tape, four 1.5 V AA batteries, and carrying case



### 461895 Combination Contact/Photo Tachometer

Combines both contact and non-contact measurements for use in all applications

- Uses visible light to read up to 6" (150 mm) from target
- Characters on display reverse direction depending on contact or photo mode
- Memory/readings button holds last reading for 5 min and recalls min/max readings
- Complete with wheels for linear surface speed or rpm measurements, four 1.5 V AA batteries, 23" (0.6 m) reflective tape, and carrying case



### 461995 Combination Contact/Laser Photo Tachometer

Combines both contact and non-contact measurements for use in all applications

- Laser guided for greater distance non-contact measurements up to 6.5 ft (2 m)
- Characters on display reverse direction depending on contact or photo mode
- Memory/readings button holds last reading for 5 min and recalls MAX/MIN readings
- Complete with wheels for linear surface speed or rpm measurements, four 1.5 V AA batteries, 23" (0.6 m) reflective tape, and carrying case



### RPM10 Combination Laser Tachometer + IR Thermometer

Photo/Contact Tachometer includes a non-contact IR Thermometer for surface temperature measurements

- Built-in IR thermometer with laser measures remote surface temperature on motors and rotating parts
- Fixed 0.95 emissivity, 6:1 distance to target ratio
- Non-contact Photo tachometer uses a Laser for greater measuring distance up to 6.5 ft (2 m)
- Contact tachometer for RPM and surface speed measurements
- Recalls Last/MAX/MIN values
- Characters on display reverse direction depending on mode
- Complete with tips/wheel, four 1.5 V AA batteries, reflective tape, and carrying case

| 461895 N                                             | 461995 N                                              | RPM10 N                                               | SPECIFICATIONS      |
|------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|---------------------|
| Photo: 5 to 99,999 rpm<br>Contact: 0.5 to 19,999 rpm | Photo: 10 to 99,999 rpm<br>Contact: 0.5 to 19,999 rpm | Photo: 10 to 99,999 rpm<br>Contact: 0.5 to 20,000 rpm | rpm                 |
| 0.2 to 6560 ft/min                                   | 0.2 to 6560 ft/min                                    | 0.2 to 6560 ft/min                                    | ft/min              |
| 0.05 to 1999.9 m/min                                 | 0.05 to 1999.9 m/min                                  | 0.05 to 1999.9 m/min                                  | m/min               |
| ±0.05% rdg                                           | ±0.05% rdg                                            | ±0.05% rdg                                            | Basic Accuracy      |
| 0.1 rpm                                              | 0.1 rpm                                               | 0.1 rpm                                               | Max. rpm Resolution |
| —                                                    | Yes                                                   | Yes                                                   | Laser               |
| —                                                    | —                                                     | -4 to 600°F (-20 to 315°C)                            | Temperature (IR)    |
| Yes                                                  | Yes                                                   | Yes                                                   | CE approved         |
| 8.5x2.6x1.5" (216x66x38 mm)                          | 8.5x2.6x1.5" (216x66x38 mm)                           | 8.5x2.6x1.5" (216x66x38 mm)                           | Dimensions          |
| 10.6 oz (300 g)                                      | 10.6 oz (300 g)                                       | 10.6 oz (300 g)                                       | Weight              |
| 2 years                                              | 2 years                                               | 2 years                                               | Warranty            |



## 461920 Laser Photo Tachometer Counter



CE



Measures the speed (RPM) of rotating objects and counts (revolution) of moving objects.

### Non-contact RPM and Revolution count measurements to 99,999 rev

- Measure non-contact RPM readings of rotating objects by pointing the integral laser at the reflective tape placed on the object to be measured
- Large 5 digit LCD display with backlighting
- Rugged double molded housing with memory button for Last/MAX/MIN readings
- 2-year warranty
- Complete with 9 V battery and reflective tape

#### SPECIFICATIONS

|                   |                                            |
|-------------------|--------------------------------------------|
| RPM range         | 2 to 99,999 rpm                            |
| Count range       | 1 to 99,999 rev (revolution)               |
| Target Distance   | 1.6 ft (500 mm)                            |
| Basic Accuracy    | ±0.05%                                     |
| Resolution        | 0.1 rpm, 1 count                           |
| Dimensions/Weight | 6.2x2.3x1.6" (160x60x42 mm)/5.3 oz (151 g) |

#### ORDERING

|        |   |                                               |
|--------|---|-----------------------------------------------|
| 461920 | N | Laser Photo Tachometer Counter                |
| 461937 |   | Spare reflective tape (23" each strip), 10 pk |

## RPM33 Combination Contact/Laser Photo Tachometer



CE



Quickly measure RPM, surface speed and length with one tool. Use the contact wheel for up-close readings or laser mode for non-contact readings.

- Laser guided for greater distance non-contact measurements up to 1.6 ft (500 mm)
- Store/recall 10 data sets in memory with 4 parameters (measurement/max/min/avg)
- Large 5 digit backlit LCD display
- Microprocessor based with quartz crystal oscillator to maintain high accuracy
- Provides wide RPM (photo and contact) and Linear Surface Speed/Length (contact) measurements
- 2-year warranty
- Complete with contact wheel, batteries, reflective tape, and case

#### SPECIFICATIONS

|                     |                                                                   |
|---------------------|-------------------------------------------------------------------|
| Range (rpm)         | Photo: 2 to 99,999 rpm; Contact: 2 to 20,000 rpm                  |
| Surface Speed       |                                                                   |
| inches/min          | 0 to 78,720 inches/min                                            |
| ft/min              | 0 to 6560 ft/min                                                  |
| yards/min           | 0 to 2186 yards/min                                               |
| m/min               | 0 to 2000 m/min                                                   |
| Length              |                                                                   |
| inches              | 3.9 to 39370"                                                     |
| feet                | 0.3 to 3280 ft                                                    |
| yards               | 0.1 to 1093 yards                                                 |
| meters              | 0.1 to 1000 m                                                     |
| Frequency (Hz)      | 333 Hz                                                            |
| Accuracy            | 0.05% rdg +1 digit                                                |
| Sampling Time       | 0.5 Sec > 120 rpm                                                 |
| Resolution          | 0.1 rpm (<10,000 rpm); 1 rpm (>10,000 rpm)                        |
| Dimensions / Weight | 6.2x2.3x1.6" (160x60x42 mm) -without contact wheel/5.3 oz (151 g) |

#### ORDERING

|        |   |                                               |
|--------|---|-----------------------------------------------|
| RPM33  | N | Combination Contact/Laser Photo Tachometer    |
| 461937 |   | Spare reflective tape (23" each strip), 10 pk |

## 461825 Combination Photo Tachometer/Stroboscope



CE

### Stroboscope to analyze rotating objects and Tachometer to measure rpms

- Course and fine flash rate adjustments to freeze and analyze rotating objects
- Unique display characters that reverse direction depending on function mode
- Large 0.4" (10 mm) 5 digit LCD display and memory stores Last/MAX/MIN readings
- Complete with four 1.5 V AA batteries, reflective tape, and case; 2-year warranty

| SPECIFICATIONS    | PHOTO TACHOMETER (RPM)                      | STROBOSCOPE (FPM/RPM)                    |
|-------------------|---------------------------------------------|------------------------------------------|
| Range             | 5 to 99,999 rpm                             | 100 to 100,000 fpm/rpm                   |
| Accuracy          | ±0.1% rdg                                   | ±0.1% rdg                                |
| Sampling Time     | 1 sec ≥ 60 rpm                              | 1 sec ≥ 60 rpm                           |
| Resolution        | 0.1 rpm (<1,000 rpm), 1 rpm (≥1,000 rpm)    | 0.1 fpm (<1,000 fpm), 1 fpm (≥1,000 fpm) |
| Dimensions/Weight | 8.5x2.6x1.5" (215x65x38 mm)/10.6 oz (300 g) |                                          |

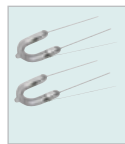
### Ordering

|        |   |                                               |
|--------|---|-----------------------------------------------|
| 461825 | N | Combination Photo Tachometer/Stroboscope      |
| 461937 |   | Spare reflective tape (23" each strip), 10 pk |

## 461830/461831 Digital StroboTach



CE



461834

### Freeze motion and analyze rotating objects without contact

- Checks and analyzes motion and speed by simply aiming and synchronizing its flash rate (fpm) with a rotating object
- rpms on 4-digit LED display
- Flash/Speed Rate of 100 to 10,000 fpm/rpm; Basic accuracy of ±0.05% rdg
- Duty Cycle of 5 to 30 mins
- Tripod mount for stationary use
- Dimensions/Weight: 8.3x4.8x4.8" (211x122x122 mm)/2.2 lbs (1 kg)
- Complete with 6 ft (1.9 m) power cord and handle; 2-year warranty

### ORDERING

|        |   |                                            |
|--------|---|--------------------------------------------|
| 461830 | N | Digital StroboTach 115 V AC, 60 Hz         |
| 461831 | N | Digital StroboTach 220 V AC, 50 Hz         |
| 461834 |   | Spare Xenon Lamp (est. life 300 hrs), 2 pk |

## 461950 1/8 DIN Panel Tachometer



CE



461957  
Photoelectric



461955  
Proximity



### Continuous & accurate readings from 5 to 99,990 rpm

- Large LED display updates 1/sec (rpm<60)
- Unique design permits rpm measurements of a one hole gear or disk eliminating the need for special gears
- A pulse is measured when a ferrous object (stud) passes by a proximity sensor
- Choice of two sensor pickup types (both include 6 ft/1.8 m cable):  
Proximity sensor: 0.1" (3 mm) target distance, range up to 36,000 rpm (600 Hz);  
Photoelectric sensor: 0.4" (10 mm) target distance, range up to 6000 rpm (100 Hz)
- 2-year warranty

### SPECIFICATIONS

|                    |                                                                                                                         |
|--------------------|-------------------------------------------------------------------------------------------------------------------------|
| rpm                | 5 to 99,990 rpm                                                                                                         |
| Basic accuracy     | ±0.05%                                                                                                                  |
| Resolution         | 0.1 rpm (5 to 1000 rpm), 1 rpm (1000 to 9999 rpm), 10 rpm (10,000 to 99,990 rpm)                                        |
| Power              | 115 V or 230 V AC; 50/60 Hz                                                                                             |
| Dimensions/Weight  | Bezel: 3.8x1.9x2.4" (96x48x60 mm); Panel cutout: 3.6x1.8" (92x45 mm)<br>Meter: 3.6x3.5x1.7" (92x90x42 mm)/14 oz (397 g) |
| Sampling Time      | 1 sec>60 rpm, >1 sec>10 to 60 rpm                                                                                       |
| Dimensions/ Weight | 4.9x2x1.3" (124x50x33 mm)/4 oz (114 g)                                                                                  |

### ORDERING

|        |   |                                     |
|--------|---|-------------------------------------|
| 461950 | N | 1/8 DIN Panel Mount Tachometer      |
| 461955 |   | Proximity Sensor, max. 36,000 rpm   |
| 461957 |   | Photoelectric Sensor, max. 6000 rpm |

## PRC30 Multifunction Process Calibrator



CE

### Precision source and measure for thermocouples, mA, mV, and V devices

- Palm-sized double molded housing and large dot-matrix backlit LCD
- Measures DC process signals
- High accuracy calibration function simulates precision thermocouple outputs for use in calibrating thermometers, transmitters, controllers or recorders
- Up to five user adjustable calibration presets
- Displays output in terms of millivolts or temperature based on thermocouple tables
- 24 V Loop Power
- Zero adjustment, auto zero when power on and change mode
- Standard banana I/O ports and mini thermocouple inputs
- Large battery bank for extended work cycle
- External power adapter for continuous work cycle
- 2-year warranty
- Complete with test leads, alligator clips, thermocouple calibration cable with subminiature connector, universal calibration cable with subminiature terminal, 100V-240 V AC Universal Adaptor with 4 plugs, six 1.5 V AA batteries, and hard carrying case

| SPECIFICATIONS | DC SOURCE                                                                 | DC MEASURE                    | BASIC ACCURACY     |
|----------------|---------------------------------------------------------------------------|-------------------------------|--------------------|
| Current        | 0 to 24 mA, -25% to +125%                                                 | 0 to 50 mA, -25% to +230%     | ±(0.01%+1 d)       |
| Voltage        | 0 to 2000 mV, 0 to 20 V                                                   | 0 to 1999 mV, 2 to 20 V       | ±(0.01%+1 d)       |
| Type J         | -58 to 1830°F (-50 to 1000°C)                                             | -58 to 1830°F (-50 to 1000°C) | ±(0.05%+1.8°F/1°C) |
| Type K         | -58 to 2498°F (-50 to 1370°C)                                             | -58 to 2498°F (-50 to 1370°C) | ±(0.05%+1.8°F/1°C) |
| Type T         | -184 to 752°F (-120 to 400°C)                                             | -184 to 752°F (-120 to 400°C) | ±(0.05%+1.8°F/1°C) |
| Loop Power     | 24 V                                                                      |                               | ±(10 µV ± 1 d)     |
| Max. Load      | 1000 Ω @ 24 mA                                                            |                               |                    |
| Dimensions/Wt  | 6.3x3.2x1.7" (159x80x44 mm)/8.4 oz (236 g) - not including battery weight |                               |                    |

### ORDERING

PRC30 **N** Multifunction Process Calibrator

## PRC20 Multi-Type Thermocouple Thermometer/Calibrator



CE

### Source and measure 8 thermocouple type devices J, K, T, E, C, R, S, and N

- Palm-sized double molded housing and large dot-matrix digital backlit LCD with thermocouple type indication
- High accuracy calibration function simulates precision thermocouple outputs for use in calibrating thermometers, transmitters, controllers or recorders
- Displays output in terms of millivolts or temperature based on thermocouple tables
- Standard mini-thermocouple input
- Large battery bank for extended work cycle
- Up to five user adjustable calibration presets
- External power adapter for continuous work cycle
- 2-year warranty
- Complete with thermocouple calibration cable with subminiature connectors, standard calibration cable with subminiature connectors, 100V-240 V AC Universal Adaptor with 4 plugs, 6 x 1.5 V AA batteries, and hard carrying case

| SPECIFICATIONS | RANGE                                                                    | BASIC ACCURACY |
|----------------|--------------------------------------------------------------------------|----------------|
| Type J         | -58 to 1830°F (-50 to 1000°C)                                            | ±0.05% rdg ±1° |
| Type K         | -58 to 2498°F (-50 to 1370°C)                                            | ±0.05% rdg ±1° |
| Type T         | -184 to 752°F (-270 to 400°C)                                            | ±0.05% rdg ±1° |
| Type E         | -58 to 1382°F (-50 to 750°C)                                             | ±0.05% rdg ±1° |
| Type C         | 32 to 3182°F (0 to 1750°C)                                               | ±0.05% rdg ±1° |
| Type R/S       | 32 to 3182°F (0 to 1750°C)                                               | ±0.05% rdg ±1° |
| Type N         | -58 to 2372°F (-50 to 1300°C)                                            | ±0.05% rdg ±1° |
| Voltage        | -10.00 mV to +60.00 mV                                                   | 10 µV ±1 d     |
| Dimensions/Wt  | 6.3x 3.2x1.7" (159x80x44 mm)/8 oz (225 g) - not including battery weight |                |

### ORDERING

PRC20 **N** Thermocouple Thermometer/Calibrator

## PRC10/PRC15 Current & Voltage Calibrators/Meters



CE

**“Source” for calibrating process devices and measuring DC process signals**

- Palm-sized double molded housing and large dot-matrix digital backlit LCD
- Measures DC process signals
- Standard banana I/O ports
- Large battery bank for extended work cycle
- Up to five user adjustable calibration presets
- External power adapter for continuous work cycle
- 2-year warranty
- Each meter includes test leads, alligator clips, 100V-240 V AC Universal Adaptor with 4 plugs, six 1.5 V AA batteries, and hard carrying case

### PRC10 Additional Features

- 0 to 24 mA (-25 to 125%)
- 24 V DC power source for 2-wire current loop

### PRC15 Additional Features

- 0 to 24 mA (-25 to 125%)
- 0 to 20 V DC calibration source

### SPECIFICATIONS

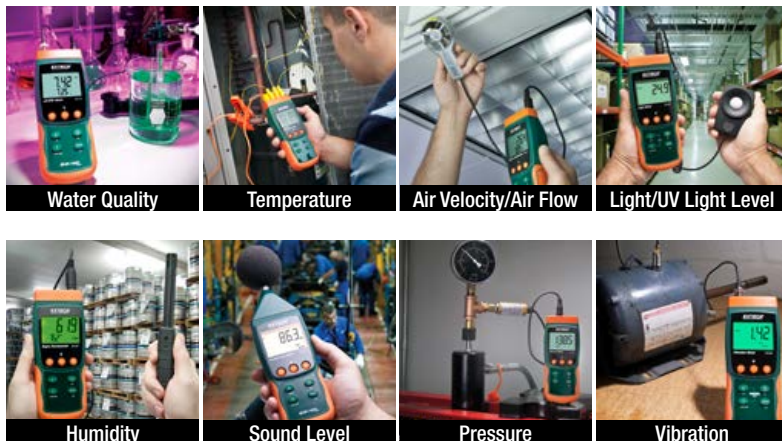
| Source             | Output 0 to 24 mA current for loads up to 1000 ohms;<br>Output 0 to 20 V (PRC15 only) |            |
|--------------------|---------------------------------------------------------------------------------------|------------|
| Measure            | 0 to 50 mA current signal; 0 to 19.99 V (PRC15 only)                                  |            |
| Power/Measure      | Provides power (24 V DC) to loop & measures current (PRC10 only)                      |            |
| Input/Output       | Ranges and Display                                                                    | Resolution |
|                    | -25.0 to 125.0% (representing 0 to 24 mA)                                             | 0.1%       |
|                    | 0 to 19.99 mA                                                                         | 0.01 mA    |
|                    | 0 to 24.0 mA                                                                          | 0.1 mA     |
|                    | 0 to 1999 mV                                                                          | 1 mV       |
|                    | 0 to 20.00 V                                                                          | 10 mV      |
| Accuracy           | ± 0.01% ±1 digit                                                                      |            |
| Dimensions/ Weight | 6.3x3.2x1.7" (159x80x44 mm)/8.2 oz (232 g) - not including battery weight             |            |

### ORDERING

|       |  |                                    |
|-------|--|------------------------------------|
| PRC10 |  | Current Calibrator/Meter           |
| PRC15 |  | Current & Voltage Calibrator/Meter |

## Extech's SDL Series Dataloggers

Now take advantage of the convenience of SD card storage for datalogging with time/date stamp in Excel® format for easy transfer to a PC. Extech's SDL series dataloggers easily store readings on the included SD memory card. Later, transfer readings to your PC for further analyses by simply removing the SD card from the meter and inserting into your computer.



|        |                                             |       |
|--------|---------------------------------------------|-------|
| SDL100 | pH/ORP Meter/Datalogger                     | p.139 |
| SDL150 | Dissolved Oxygen Meter/Datalogger           | p.142 |
| SDL200 | 4-Channel Temperature Meter/Datalogger      | p. 55 |
| SDL300 | Metal Vane Anemometer/Datalogger            | p. 86 |
| SDL310 | Vane Anemometer/Datalogger                  | p. 86 |
| SDL350 | Hot Wire Anemometer/Datalogger              | p. 86 |
| SDL400 | Light Meter/Datalogger                      | p.103 |
| SDL470 | UVA/UVB Light Meter/Datalogger              | p.104 |
| SDL500 | Hygro-Thermometer/Datalogger                | p. 71 |
| SDL600 | Sound Meter/Datalogger                      | p.113 |
| SDL700 | Pressure Meter/Datalogger                   | p. 98 |
| SDL710 | Differential Pressure Manometer/Dataloggers | p. 98 |
| SDL720 |                                             |       |
| SDL730 |                                             |       |
| SDL800 | Vibration Meter/Datalogger                  | p.128 |
| SDL900 | AC/DC Magnetic Meter/Datalogger             | p. 47 |



## HDV600 Series High Definition VideoScope Inspection Cameras



**Narrow diameter cameras with 5.7" High Definition Color LCD Monitor deliver high image and video resolution on large color display**

- The HDV600 Series VideoScope has various camera probes to fit your application needs. Choose from a range of sizes with articulating or wireless features.
- 5.7" color LCD TFT — high definition 640x480 pixels resolution
- Waterproof (IP67) meter and camera head (IP57) with cable
- Bright white LED lamps with dimmer to illuminate viewed object
- Glare-free close-up field of view and 6" (15.2 cm) minimum focus distance
- SD memory card included for storing images
- Video recording (up to 4 hours) with Voice annotation
- Video and images can be transferred via the SD card, USB output or AV out
- An optional wireless transmitter (HDV-WTX) connects to your camera cable and allows you to transmit video up to 100 ft (30 m)
- VideoScope 2-year warranty; Camera Probes 6-month warranty
- Complete with SD memory card, 3.7 V rechargeable Li-Polymer battery, AC adaptor, USB and AV cables, camera with cable, and case



Camera Tip features built-in LED lights



HDV-WTX Wireless Transmitter allows measurements up to 100 ft (30 m) away

### Model HDV610

- VideoScope with 5.5 mm diameter camera head (1 m flexible cable)

### MODEL HDV620

- VideoScope with 5.8 mm diameter camera head (1 m semi-rigid cable retains configured shape)

### Model HDV640 & HDV640W

- VideoScope with 6 mm diameter camera head (1 m semi-rigid cable retains configured shape)
- Easy knob control of the articulating camera tip facilitates viewing in obstructed areas where standard camera tips cannot access.
- 240° camera probe rotation (from straight position, 120° left and 120° right)

### MODEL HDV640W

- Built-in wireless transmitter in camera cable controller allows you to transmit video up to 100 ft (30 m) from the measurement point to your monitor

## HDV650 Series — High Definition Plumbing VideoScope Inspection Cameras

Plumbing VideoScope Kits utilized the HDV600 color LCD monitor. From drains to pipe runs, these kits reveal problems with its large, waterproof, rugged, high definition color display and a 10 m or 30 m snake with 25 mm diameter camera head. Built-in bright lights help illuminate the problem area deep within the pipe runs. The camera probe is rugged enough to dislodge small clogs. Ideal for inspecting P-traps, 90s, drains, pipe runs, sewers, vent stacks and more. Available in a wireless kit that allows you to transmit video up to 100 ft (30 m) from the measurement point to your monitor.

### HDV650 Kits:

- **HDV650-10G** includes HDV600 and 10 m fiberglass cable spool assembly
- **HDV650W-10G** includes HDV600, 10 m fiberglass cable spool assembly and wireless transmitter
- **HDV650-30G** includes HDV600 and 30 m fiberglass cable spool assembly
- **HDV650W-30G** includes HDV600, 30 m fiberglass cable spool assembly and wireless transmitter





Articulating (6 mm diameter) camera tip adjusts up to 240° viewing angle.



Drop-proof and Waterproof housing meets IP67 standards.



**Macro (Short Focal Length) Lenses** permit you to examine features and attributes that are up-close to the optical camera tip as illustrated above.  
**Long Focus Lenses** permit you to see further in confined areas.

**Macro Lens**  
 0.59" - 2.36"  
 (20 - 60 mm)

**Long Focus Lens**  
 2.36" - ∞  
 (60 mm - ∞)

#### Unlimited Inspection Uses:

**Home:** Mold, insect infestation, electrical wire or plumbing  
**HVAC:** Ducts, motors, compressors, air movers, and chillers  
**Automotive:** Engines, transmissions, motors, electronics

#### Government:

Safety and security  
**Industrial:** Welding, process equipment, gears, molding machines  
**Aerospace:** Aircraft, debris, cracks or other damages  
 And more...

## ORDERING

### Video Inspection Camera Kits - Include HDV600 High Definition VideoScope and camera probe

|         |                                                                                                   |
|---------|---------------------------------------------------------------------------------------------------|
| HDV610  | High Definition VideoScope (5.5 mm diameter camera head/1 m flexible cable)                       |
| HDV620  | High Definition VideoScope (5.8 mm diameter camera head/1 m semi-rigid cable)                     |
| HDV640  | High Definition Articulating VideoScope (6 mm diameter camera head/1 m semi-rigid cable)          |
| HDV640W | High Definition Wireless Articulating VideoScope (6 mm diameter camera head/1 m semi-rigid cable) |

### Plumbing Inspection Camera Kits - Include HDV600 High Definition VideoScope and camera probe

|             |                                                                              |
|-------------|------------------------------------------------------------------------------|
| HDV650-10G  | Plumbing VideoScope Kit (25 mm camera head w/10 m Fiberglass Cable)          |
| HDV650W-10G | Wireless Plumbing VideoScope Kit (25 mm camera head w/10 m Fiberglass Cable) |
| HDV650-30G  | Plumbing VideoScope Kit (25 mm camera head w/30 m Fiberglass Cable)          |
| HDV650W-30G | Wireless Plumbing VideoScope Kit (25 mm camera head w/30 m Fiberglass Cable) |

### Video Inspection Monitor (order camera probe separately from accessories list below)

|        |                                         |
|--------|-----------------------------------------|
| HDV600 | High Definition VideoScope (meter only) |
|--------|-----------------------------------------|

### Optional Camera Probes

|               |                                                                                         |
|---------------|-----------------------------------------------------------------------------------------|
| HDV-TX1       | 6 mm Articulating VideoScope Camera Head with Macro lens and 1 m Semi-Rigid Cable       |
| HDV-WTX1      | 6 mm Wireless Articulating VideoScope Camera Head w/Macro lens and 1 m Semi-Rigid Cable |
| HDV-TX2       | 6 mm Articulating VideoScope Camera Head w/Macro lens and 2 m Semi-Rigid Cable          |
| HDV-TX2L      | 6 mm Articulating VideoScope Camera Head w/Long Focus lens and 2 m Semi-Rigid Cable     |
| HDV-WTX2      | 6 mm Wireless Articulating VideoScope Camera Head w/Macro lens and 2 m Semi-Rigid Cable |
| HDV-4CAM-5FM  | 4 mm VideoScope Camera Head with Macro lens and 5 m Flexible Cable                      |
| HDV-5CAM-1FM  | 5.5 mm VideoScope Camera Head with Macro lens and 1 m Flexible Cable                    |
| HDV-5CAM-3FM  | 5.5 mm VideoScope Camera Head with Macro lens and 3 m Flexible Cable                    |
| HDV-5CAM-30FM | 5.5 mm VideoScope Camera Head with Macro lens and 30 m Flexible Cable                   |
| HDV-5CAM-10F  | 5.5 mm VideoScope Camera Head with long depth of field and 10 m Flexible Cable          |
| HDV-25CAM-10G | 25 mm VideoScope Camera Head with long depth of field and 10 m Fiberglass Cable         |
| HDV-25CAM-30G | 25 mm VideoScope Camera Head with long depth of field and 30 m Fiberglass Cable         |
| HDV-WTX       | Wireless Transmitter                                                                    |
| HDV-PC        | Spare Patch Cable for HDV Series                                                        |
| ADPTR-HDV     | Replacement AC Adaptor                                                                  |

HDV540 High Definition Articulating VideoScope Kit



Articulating (240°) camera tip facilitates viewing in obstructed areas where standard camera tips cannot access

- Wired handset with non-detachable 6 mm flexible probe (1 m) with macro lens
- Articulating probe tip adjusts up to 240° viewing angle
- 3.5" (89 mm) color LCD TFT with high definition 320x240 pixel resolution
- Compact, high-resolution water-proof (IP67) camera probe
- Camera head with four built-in bright LED lamps and dimmer to illuminate viewed object
- Glare-free close-up field of view
- Store more than 20,000 images on included SD card
- AV output for viewing images/video on a monitor
- Video and images can be transferred to a PC via the SD card or USB output
- Record voice-over audio in video recording mode
- VideoScope 2-year warranty; Camera probe 6-month warranty
- Includes HDV500 VideoScope, handset with 6 mm Articulating VideoScope Camera Head, SD card, 3.7 V rechargeable Li-Polymer battery, 100/240 V Universal AC adaptor and multiple plug types (US, EU, UK, AU), USB and AV cables, and carrying case



Wired handset and camera probe with easy one-hand operation of the articulating tip for best viewing angle. Tip rotates to 120° to the left and to the right. Images/videos are viewed on the color display or external monitors and can be stored in SD card or a USB flash drive.



SPECIFICATIONS

Camera

|                        |                              |
|------------------------|------------------------------|
| Focus distance         | 0.8 to 2.36" (2 to 6 cm)     |
| Field of View          | 57°                          |
| Shaft diameter         | 0.24" (6 mm)                 |
| Working length         | 39" (1 m)                    |
| Camera Tip bend radius | 240° (120° left, 120° right) |

Borescope

|                               |                                                                |
|-------------------------------|----------------------------------------------------------------|
| LCD Color TFT Display/ Pixels | 3.5" (8.9cm) size/ 320x240 pixel resolution                    |
| Frame Rate                    | 30 fps frame rate (NTSC & PAL)                                 |
| SD Card                       | 4 GB SD memory card included (supports up to 32 GB SD storage) |
| Operating                     | up to 6 hours AVI video                                        |
| Dimensions/Weight             | Meter w/battery: 8.3x4.3x1.6" (21x11x4 cm)/14.1 oz (400 g)     |

ORDERING

|                |                                                                                 |
|----------------|---------------------------------------------------------------------------------|
| HDV540         | High Definition Articulating VideoScope Kit                                     |
| HDV5-6CAM-1AFM | 6 mm Articulating VideoScope Camera Head with Macro lens and 1 m Flexible Cable |



### BR250/BR250-4 Video Borescope/Wireless Inspection Cameras

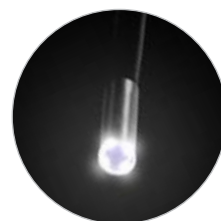


**3.5" Color Detachable Wireless LCD Monitor can be viewed from a remote location up to 32 ft (10 m) from measurement point**

- Captured video with date/time stamp can be played back on the wireless monitor or on any monitor with a video input jack
- Video and images can be transferred to a PC via microSD card or USB cable and viewed using Windows® Multimedia Player
- Waterproof (IP67) flexible gooseneck retains configured shape
- NTSC operation with menus in 10 languages
- Close-up field of view
- Video Borescope 2-year warranty; Camera probes 6-month warranty
- Includes 4 AA batteries, rechargeable display battery, memory card with adaptor, USB cable, extension tools (mirror, hook, magnet) video interconnect cable, AC adaptor, magnetic base stand, and hard case
- **Model BR250** — 9 mm diameter camera head with built-in four bright LED lamps with dimmer and 36" (0.9 m) flexible gooseneck cable
- **Model BR250-4** — 4.5 mm diameter camera head with built-in four bright LED lamps with dimmer and 36" (0.9 m) flexible gooseneck cable



BR250 includes  
9 mm camera  
probe (BR-9CAM)



BR250-4 includes  
4.5 mm camera  
probe (BR-4CAM)

CE



Detachable wireless 3.5" color display can be viewed remotely from up to 32 ft (10 m). Camera features built-in LED lights.



Watch the  
**Video**

[www.extech.com/video](http://www.extech.com/video)

#### SPECIFICATIONS

|                                |                                                                                                           |
|--------------------------------|-----------------------------------------------------------------------------------------------------------|
| Camera Pixels                  | 640x480 (NTSC)                                                                                            |
| Transmission Frequency/ Range  | 2468 MHz/32 ft (10 m) unobstructed view                                                                   |
| Camera Viewing direction       | Viewing Angle 45°                                                                                         |
| Camera Viewing distance        | 5.9 to 9.8" (15 to 25 cm)                                                                                 |
| LCD Screen Type/ Pixels        | 3.5" TFT/ 320x240                                                                                         |
| Monitor Video Output Level     | 0.9 to 1.3 V@75 Ω                                                                                         |
| Monitor Video/Image Resolution | 960x240 (AVI format)/640x480 (JPEG format)                                                                |
| Operating/Charge Time          | 1.5 hrs/3 hrs                                                                                             |
| Dimensions/Weight              | Camera: 7.3x5.7x1.6" (186x145x41 mm)/18.7 oz (530 g)<br>Monitor: 3.9x2.7x1" (100x70x25 mm)/4.9 oz (140 g) |

#### ORDERING

|            |                                                                                          |
|------------|------------------------------------------------------------------------------------------|
| BR250      | Video Borescope/Wireless Inspection Camera (with 9 mm diameter/1 m cable camera probe)   |
| BR250-4    | Video Borescope/Wireless Inspection Camera (with 4.5 mm diameter/1 m cable camera probe) |
| BR-4CAM    | 4.5 mm Borescope Camera Head with 1 m Cable                                              |
| BR-9CAM    | 9 mm Borescope Camera Head with 1 m Cable                                                |
| BR-9CAM-2M | 9 mm Borescope Camera Head with 2 m Cable                                                |
| BR-9CAM-5M | 9 mm Borescope Camera Head with 5 m Cable                                                |
| BR-17CAM   | 17 mm Borescope Camera Head with 1 m Cable                                               |
| UA100-BR   | Universal AC Adaptor                                                                     |



BR150 Video Borescope Inspection Camera



CE



9 mm camera diameter and 2.4" Color TFT LCD Monitor with video output for viewing on any monitor with a video input jack

- 39" (1 m) flexible gooseneck cable retains configured shape
- 9 mm camera diameter with 4 bright LED lamps and dimmer feature
- Mini waterproof (IP67) camera head for high resolution viewing
- Monitor detaches for easy storage
- Video Borescope 2-year warranty; Camera probes 6-month warranty
- Complete with camera probe, 4 AA batteries, extension tools (mirror, hook, magnet), video output jack, and hard case

SPECIFICATIONS

| Camera                     |                                              |
|----------------------------|----------------------------------------------|
| Viewing direction          | Viewing Angle 45°                            |
| Focus distance from object | 5.9" to 9.8" (15 to 25 cm)                   |
| Minimum bend radius        | 2.36" (60 mm)                                |
| Dimensions/Weight          | 7.3x5.7x1.6" (186x145x41 mm)/18.7 oz (530 g) |
| Monitor                    |                                              |
| LCD Screen Type            | 2.4" TFT                                     |
| Pixels                     | 480x234                                      |
| Operating                  | 1.5 hours                                    |
| Dimensions/ Weight         | 3.9x2.7x1.8" (100x70x30 mm)/4.9 oz (140 g)   |

ORDERING

|            |                                                    |
|------------|----------------------------------------------------|
| BR150      | Flexible Video Borescope (9 mm diameter/1 m cable) |
| BR-9CAM    | 9 mm Borescope Camera Head with 1 m Cable          |
| BR-9CAM-2M | 9 mm Borescope Camera Head with 2 m Cable          |
| BR-9CAM-5M | 9 mm Borescope Camera Head with 5 m Cable          |

BR80 Video Borescope Inspection Camera



CE



Watch the  
Video  
[www.extech.com/video](http://www.extech.com/video)

17 mm camera diameter with 39" (1 m) flexible gooseneck cable retains configured shape and 2.4" Color TFT LCD Monitor

- Waterproof (IP67) camera head and cable with lightweight, handheld design housing to easily find, diagnose, and solve problems
- Four bright LED lamps with dimmer to illuminate viewed object
- Glare-free close-up field of view
- Vivid 2.4" color LCD monitor for detailed images plus 180° image rotation feature
- Video Borescope 2-year warranty; Camera probe 6-month warranty
- Complete with 17 mm camera probe, 4 AA batteries, and extension tools (mirror, hook, and magnet)

ORDERING

|           |                                            |
|-----------|--------------------------------------------|
| BR80      | Video Borescope Inspection Camera          |
| BRC-17CAM | 17 mm Borescope Camera Head with 1 m Cable |



## RF153 Digital Brix Refractometer



### Simultaneously displays %Brix or Refractive Index (RI) and Temperature

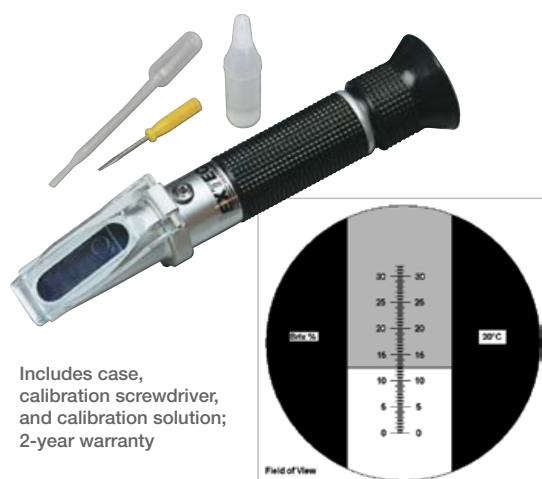
- Water resistant (IP65), wide range with ATC and fast 3 second response time
- Abrasion and corrosion-resistant coating on sapphire prism
- Store/recall 10 measurements
- Zero calibration with distilled or tap water
- Data Hold, Low Battery indicator, Auto Power Off (after 2 minutes)
- Includes built-in prism cover, wrist strap, 2 AAA batteries, & pouch; 2-year warranty

| SPECIFICATIONS                | RANGE                                                         | RESOLUTION | ACCURACY   |
|-------------------------------|---------------------------------------------------------------|------------|------------|
| Brix (@39 to 140°F/4 to 60°C) | 0 to 53% Brix                                                 | 0.1% Brix  | ±0.2% Brix |
| RI (@39 to 140°F/4 to 60°C)   | 1.3301 to 1.4374 RI                                           | 0.0001 RI  | ±0.0003 RI |
| Temperature                   | 39 to 140°F (4 to 60°C)                                       | 0.1°F/°C   | ±1°F/°C    |
| ATC                           | 50 to 104°F (10 to 40°C)                                      |            |            |
| Dimensions/Weight             | 4.4x2.4x1.5" (113x60x38 mm)/4.23 oz (120 g) without batteries |            |            |

### ORDERING

|       |                            |
|-------|----------------------------|
| RF153 | Digital Brix Refractometer |
|-------|----------------------------|

## RF Series Portable Brix Refractometers



Includes case, calibration screwdriver, and calibration solution; 2-year warranty

### Measure sugar, salt or industrial cutting/cooling lubricant concentrations

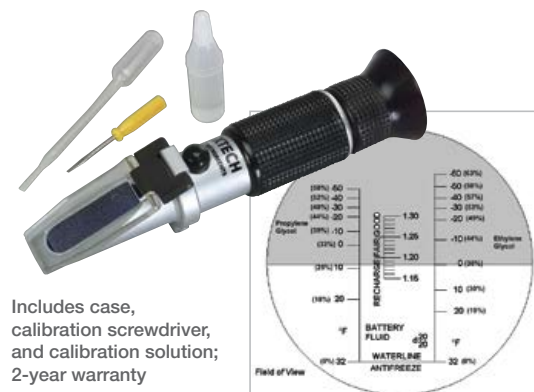
- Accurate, easy to operate refractometers with simple to read scales, requires only 2 or 3 drops of solution; Automatic Temperature Compensation
- The prism and lens with a simple focus adjustment provide repeatable results
- **Sucrose (RF11 and RF15):** Measure the concentration of sugar in fruit juice and industrial fluids
- **Brix (RF12):** Maintain proper lubricant cooling concentration to extend equipment life
- **Salinity (RF20):** Measures the concentration of dissolved salt in water

| SPECIFICATIONS | TYPE                            | RANGES                                                       | RESOLUTION     | ACCURACY        |
|----------------|---------------------------------|--------------------------------------------------------------|----------------|-----------------|
| RF11           | Sucrose (ATC)                   | 0 to 10% (10 to 30°C)                                        | 0.1            | ±0.1%           |
| RF12           | Lubricants/Cutting fluids (ATC) | 0 to 18% Brix (10 to 30°C)                                   | 0.2            | ±0.2%           |
| RF15           | Sucrose (ATC)                   | 0 to 32% Brix (10 to 30°C)                                   | 0.2            | ±0.2%           |
| RF20           | Salt (ATC)                      | 0 to 100 ppt (10 to 30°C)<br>1.000 to 1.070 Specific Gravity | 1 ppt<br>0.001 | ±0.1%<br>±0.001 |

### ORDERING

|      |                                                                                         |
|------|-----------------------------------------------------------------------------------------|
| RF11 | 0 to 10% Brix Refractometer w/ATC - Dims/Wt: 7.5x1.6x1.2" (190x40x30 mm)/6.5 oz (185 g) |
| RF12 | 0 to 18% Brix Refractometer w/ATC - Dims/Wt: 6.7x1.6x1.2" (170x41x31 mm)/3.2 oz (91 g)  |
| RF15 | 0 to 32% Brix Refractometer w/ATC - Dims/Wt: 6.3x1.4x1.4" (159x35x35 mm)/7 oz (200 g)   |
| RF20 | Salinity Refractometer w/ATC - Dims/Wt: 7.6x1.5x1.5" (194x38x38 mm)/8 oz (227 g)        |

## RF40/RF41 Battery Coolant/ Glycol Refractometer



Includes case, calibration screwdriver, and calibration solution; 2-year warranty

### Measure the % of Ethylene Glycol and Propylene Glycol

- Measures the freezing point of automotive coolants plus battery charge condition
- Accurate measurements of % Ethylene Glycol, Propylene Glycol and Temperature
- Automatic Temperature Compensation; Requires only 2 or 3 drops of solution

| SPECIFICATIONS                   | RANGE                                                                             | RESOLUTION                 | BASIC ACCURACY |
|----------------------------------|-----------------------------------------------------------------------------------|----------------------------|----------------|
| Propylene Glycol freeze point    | RF40: -60°F (63%) to 32°F (12%)<br>RF41: -50°C to 0°C                             | 2°F (1%)<br>1°C            | ±5°F (2%)      |
| Ethylene Glycol freeze point     | RF40: -60°F (59%) to 25°F (16%)<br>-51 to 0°C (-60 to 32°F)<br>RF41: -50°C to 0°C | 2°F (1%)<br>1°C/2°F<br>1°C | ±5°F (2%)      |
| Specific Gravity of Battery Acid | RF40/RF41: 1.15 to 1.30                                                           | 0.01                       |                |
| Dimensions/Weight                | 6.5x1.5x1.5" (165x38x38 mm)/7 oz (200 g)                                          |                            |                |

### ORDERING

|      |                                                 |
|------|-------------------------------------------------|
| RF40 | Battery Coolant/Glycol Refractometer w/ATC (°F) |
| RF41 | Battery Coolant/Glycol Refractometer w/ATC (°C) |

## SDL800 Vibration Meter/Datalogger



CE

**Datalogs readings with date/time stamps via SD card in Excel® format for easy transfer to a PC**

- Wide frequency range of 10 Hz to 1 kHz
- Single Channel input; includes one vibration sensor
- RMS, Peak Value measurement modes
- Min/Max, Zero function, Max Hold, Data Hold and Auto Power Off
- Adjustable data sampling rate: 1 to 3600 seconds
- 3-year warranty
- Complete with remote sensor, magnetic mount, 6 x AA batteries, SD card, and hard carrying case; Optional AC adaptor

### SPECIFICATIONS

|                        |                                                                                                              |
|------------------------|--------------------------------------------------------------------------------------------------------------|
| Acceleration (max res) | 656 ft/s <sup>2</sup> (1 ft/s <sup>2</sup> ), 200 m/s <sup>2</sup> (0.1 m/s <sup>2</sup> ), 20.39 g (0.01 g) |
| Velocity (max res)     | 7.87 in/s (0.01 in/s), 200 mm/s (0.1 mm/s), 19.99 cm/s (0.01 cm/s)                                           |
| Displacement (max res) | 0.078 in (0.001 in), 2 mm (0.001 mm)                                                                         |
| Basic accuracy         | ±5%                                                                                                          |
| Dimensions/ Weight     | Meter: 7.2x2.9x1.9" (182x73x48 mm)/Meter: 1.3 lbs (599 g)                                                    |

### ORDERING

|                 |                                                    |
|-----------------|----------------------------------------------------|
| SDL800 <b>N</b> | Vibration Meter/Datalogger                         |
| UA100-240       | 100-240 V AC Adaptor with 3 plugs (US, EU, UK, AU) |

## 407860 Heavy Duty Vibration Meter



CE

**Measure Velocity, Acceleration and Displacement**

- Frequency range: 10 Hz to 1 kHz
- RMS or Peak Value measurement modes
- Auto/Manual store/recall up to 500 readings
- Max/Min, Data Hold and Auto Power Off functions
- Complete with remote sensor and 3.9 ft (1.2 m) cable, magnetic mount, 9 V battery, holster with stand, and carrying case; 3-year warranty

### SPECIFICATIONS

|                        |                                                                                              |
|------------------------|----------------------------------------------------------------------------------------------|
| Acceleration (max res) | 656 ft/s <sup>2</sup> (2 ft/s <sup>2</sup> ) or 200 m/s <sup>2</sup> (0.5 m/s <sup>2</sup> ) |
| Velocity (max res)     | 7.87 in/s (0.02 in/s) or 200 mm/s (0.5 mm/s)                                                 |
| Displacement (max res) | 0.078 in (0.001 in) or 1.999 mm (0.001 mm)                                                   |
| Basic accuracy         | ±5%                                                                                          |
| Dimensions/ Weight     | Meter: 7.1x2.9x1.3" (180x72x32 mm)/Meter: 0.87 lbs (395 g)                                   |

### ORDERING

|        |                            |
|--------|----------------------------|
| 407860 | Vibration Meter/Datalogger |
|--------|----------------------------|

## VB450 Vibration Meter



CE

**Wide 10 Hz to 1500 Hz frequency range**

- Velocity (RMS), Acceleration (Peak), and Displacement (Peak-to-Peak) modes
- Auto Power Off and low battery indicator
- Automatic data hold after measurement button is released
- Complete with remote sensor, magnetic mount, 9 V battery, wrist strap, and soft case; 2-year warranty

### SPECIFICATIONS

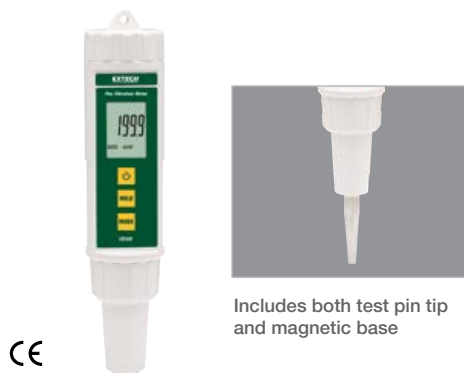
|                        |                                                       |
|------------------------|-------------------------------------------------------|
| Acceleration (max res) | 0.1 to 199.9 m/s <sup>2</sup> (0.1 m/s <sup>2</sup> ) |
| Velocity (max res)     | 0.1 to 199.9 mm/s (0.1 mm/s)                          |
| Displacement (max res) | 1 to 1999 µm (1 µm)                                   |
| Basic accuracy         | ±5%                                                   |
| Dimensions/Weight      | 7.3x2.7x1.2" (185x68x30 mm)/8.1 oz (230 g)            |

### ORDERING

|                |                 |
|----------------|-----------------|
| VB450 <b>N</b> | Vibration Meter |
|----------------|-----------------|



## VB400 Pen Vibration Meter



Includes both test pin tip and magnetic base

### Measures RMS Acceleration and Velocity with metric and imperial units

- Ranges — Acceleration (RMS): 656 ft/s<sup>2</sup>, 20.39 g, 200 m/s<sup>2</sup>; Velocity (RMS): 7.87 in/s, 2.00 cm/s, 200 mm/s; Frequency: 10 Hz to 1 kHz
- Resolution to 1 ft/s<sup>2</sup>; 0.01 g; 0.1 m/s<sup>2</sup> and 0.02 in/s; 0.01 cm/s; 0.1 mm/s
- Basic accuracy of ±5%
- Zero adjustment, Data Hold, and Low battery indicator
- Water and dust resistant to IP65
- Dimensions: Meter: 6.9x1.6x1.3" (175x40x32 mm); Weight: 0.53 lbs (240 g)
- Sensing Head: 0.4" dia x 1.9" (9 mm dia x 30 mm)
- Includes test pin tip, magnetic base, 4 x AAA batteries, and case; 2-year warranty

### ORDERING

|       |                     |
|-------|---------------------|
| VB400 | Pen Vibration Meter |
|-------|---------------------|

## VB300 3-Axis G-Force Datalogger



Magnetized/Bolt-on Mounting Base



USB connector easily plugs into a computer for data analysis

### Built-in 3-axis accelerometers record the shock and time when it occurs

- Measure and compute real-time spectral data using FFT
- Acceleration — Sampling Rate: 200 Hz, Range: ±18 g, Resolution: 0.00625 g, Accuracy: ±0.5 g; Bandwidth: 0 to 60 Hz
- Record storage, transport or operational data over time
- Record and time 3-axis shock and peaks
- Datalogs 168,042 normal recording records or 112,028 motion detection records per axis
- Choose X-, Y-, Z-axis or any combination (via software)
- Programmable data sampling rate: 50 mSec to 24 hours
- Manual/Programmable start modes and user-programmable alarm threshold
- Dimensions/ Weight: 3.7x1.1x0.8" (95x28x21 mm)/1 oz (20 g)
- Complete with Magnetized/Bolt-on Mounting Base, 3.6 V Lithium battery and Windows® compatible analysis software; 2-year warranty

### ORDERING

|       |                                 |
|-------|---------------------------------|
| VB300 | 3-Axis G-Force Datalogger       |
| 42299 | 3.6 V Lithium Battery (pk of 2) |

## TB400 Portable Turbidity Meter



CE

### Complete with all the accessories to conveniently test the turbidity of municipal water, food and beverage water, and other aqueous solutions where fluid clarity is important

- Microprocessor-based circuitry assures high accuracy and repeatable readings
- Requires only a 10 mL sample size; 2-point calibration
- Splash-proof front panel; Designed to meet ISO 7027
- Battery operated for field and on-site testing
- Data Hold, Min/Max record/recall, and Auto power off
- Complete with 0 NTU standard solution test bottle, 100 NTU standard solution test bottle, cleaning solution (distilled water), (2) test bottles and covers, cleaning cloth, six AAA batteries, and hard carrying case; 2-year warranty

### SPECIFICATIONS

|                    |                                                                  |
|--------------------|------------------------------------------------------------------|
| Range (NTU)        | 0.00 to 50.00 NTU, 50 to 1000 NTU (Nephelometric Turbidity Unit) |
| Accuracy           | ±5% FS or ±0.5 NTU, whichever is greater                         |
| Light source       | LED, 850 nm                                                      |
| Response Time      | <10 seconds                                                      |
| Dimensions/ Weight | 6.1x3.0x2.4" (155x76x62 mm)/11.3 oz (320 g)                      |

Contact Extech or your local lab supply for refills on the standard solutions and reagents

### ORDERING

|       |   |                 |
|-------|---|-----------------|
| TB400 | N | Turbidity Meter |
|-------|---|-----------------|





## ExStik® Series — Why Flat Surface Electrodes?

ExStik is the first waterproof stick meter with an interchangeable flat surface electrode. It measures pH, Chlorine, ORP, and Temperature and features built-in memory. The electrodes measure solids and semi-solids on flat surfaces, and in liquids.

### ACCESSORIES

|        |                                                   |
|--------|---------------------------------------------------|
| PH105  | pH ExStik® Electrode Module                       |
| PH115  | Spare Refillable pH ExStik® Electrode Module      |
| PH113  | Reference Refill Solution Kit for PH110           |
| RE305  | ORP ExStik® Electrode Module                      |
| CL205  | Spare Chlorine electrode                          |
| CL203  | ExTab™ Reagent tablets (10 pk - 100 tests)        |
| CL207  | Chlorine Standard (1 ppm) - 3 ampules (20 mL ea.) |
| PH103  | Tripak Buffer pouches                             |
| PH4-P  | pH 4 Buffer Solution (2 bottles - 1 pint each)    |
| PH7-P  | pH 7 Buffer Solution (2 bottles - 1 pint each)    |
| PH10-P | pH 10 Buffer Solution (2 bottles - 1 pint each)   |
| CA904  | Large hard case for meter and accessories         |



## PH100/PH110 Waterproof ExStik® pH Meters

Choose flat surface gel-filled or refillable pH electrode

- “RENEW” feature alerts user when electrode needs replacement
- “CAL” indicator alerts user to recalibrate
- Analog bargraph originates at neutral point (pH 7.00) to conveniently view trends in acidity or alkalinity
- 1, 2 or 3 point buffer calibration; ATC
- Records 15 labeled readings
- Waterproof housing (meets IP57)
- Interchangeable flat surface electrode; Optional RE305 electrode to measure ORP and CL205 to measure Total Chlorine
- Complete with protective sensor cap, sample cup with cap, four 3 V button batteries, and 48" (1.2 m) neckstrap; requires pH buffers sold separately
- **Model PH100** meter includes gel filled pH flat surface electrode
- **Model PH110** meter includes refillable flat surface pH electrode; PH113 KCl reference kit sold separately

### SPECIFICATIONS

|                   | ■ PH100   ▲ PH110                                        |
|-------------------|----------------------------------------------------------|
| pH                | 0.00 to 14.00 pH                                         |
| ORP (mV)          | —                                                        |
| Chlorine (ppm)    | —                                                        |
| Temperature       | 23° to 194°F (-5 to 90°C)                                |
| Max Resolution    | 0.01 pH, 0.1°                                            |
| Basic Accuracy    | ±0.01 pH, ±1.8°F/1°C                                     |
| Memory            | 15 readings                                              |
| CE approved       | Yes                                                      |
| Dimensions/Weight | 1.4x6.8x1.6" (35.6x172.7x40.6 mm)/3.8 oz (110 g)         |
| Warranty          | 2 years (meter)/6-month conditional warranty (electrode) |



## RE300 Waterproof ExStik® ORP Meter

High resolution of 1 mV

- Measures ORP/Redox from -999 to 999 mV
- Automatic electronic self calibration
- Simulated analog bargraph displays change in ORP reading
- Memory stores 15 labeled data
- Waterproof to IP57 protects meter from wet environment
- Complete with flat surface ORP electrode, protective sensor cap, sample cup with cap, four 3 V button batteries and 48" (1.2 m) neckstrap



## CL200 Waterproof ExStik® Chlorine Meter

Direct reading of Total Chlorine down to 0.01 ppm and is unaffected by color or turbidity of the sample

- Wide dynamic range to 10 ppm and low detection limit down to 0.01 ppm
- Unaffected by sample color or turbidity
- Automatic electronic calibration
- Memory stores 15 labeled readings
- Unique flat surface chlorine electrode eliminates any concerns for clogged junctions or glass breakage
- Waterproof to IP57 protects meter from wet environment
- Large LCD simultaneously displays ppm of Total Chlorine, Temperature and analog bargraph indicator
- Complete with flat surface Chlorine electrode, ExTab™ reagent tablets (50 tests), protective sensor cap, sample cup with cap, four 3 V button batteries, and 48" (1.2 m) neckstrap

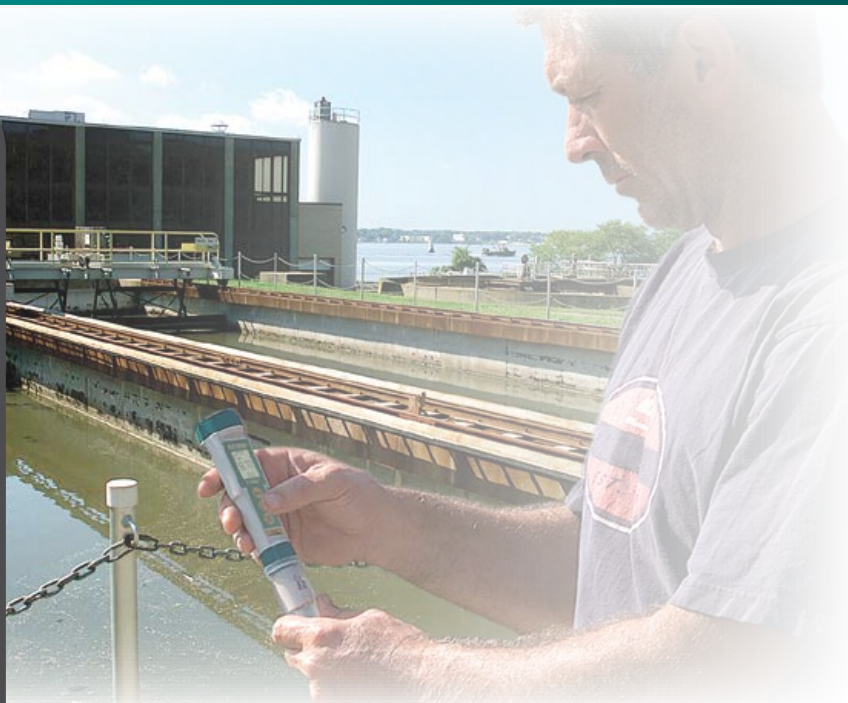


## EX900 Waterproof ExStik® 4-in-1 Kit

Complete kit allows you to measure Chlorine, pH, ORP, and Temperature with all the necessary accessories

- One meter with three interchangeable flat surface electrodes to measure Chlorine, pH or ORP
- Measure in liquids, semi-solids and solids
- Memory stores and recalls 15 readings and saves last calibrated value
- Automatic electronic self calibration for Chlorine and ORP; 1, 2 or 3 point buffer calibration for pH
- Waterproof to IP57 protects meter from wet environment
- Direct reading of Total Chlorine from low detection limit; Unaffected by sample color or turbidity
- See PH100, RE300, and CL200 for complete features and specification
- Complete with CL200 Chlorine ExStik® meter, flat surface pH electrode, flat surface ORP electrode, ExTab™ reagent tablets (50 tests), pH 4, 7 & 10 buffer solutions (20 mL) and rinse solution, weighted base with 6 sample plastic cups with caps, four 3 V CR2032 button batteries, 48" (1.2 m) neckstrap, and case

| RE300                                                    | CL200                                                    | EX900                                                    |
|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|
| —                                                        | —                                                        | 0.00 to 14.00 pH                                         |
| -999 to 999 mV                                           | —                                                        | -999 to 999 mV                                           |
| —                                                        | 0.01 to 10.00 ppm                                        | 0.01 to 10.00 ppm                                        |
| —                                                        | 23° to 194°F (-5 to 90°C)                                | 23° to 194°F (-5 to 90°C)                                |
| 1 mV                                                     | 0.01 ppm; 0.1°F/°C;                                      | 0.01 pH, 1 mV, 0.01 ppm, 0.1°                            |
| ±4 mV                                                    | ±10% of reading ±0.01 ppm; ±1.8°F/±1°C                   | ±0.01 pH, ±4 mV, ±10% of reading ±0.01 ppm; ±1.8°F/±1°C  |
| 15 readings                                              | 15 readings                                              | 15 readings                                              |
| Yes                                                      | Yes                                                      | Yes                                                      |
| 1.4x6.8x1.6" (35.6x172.7x40.6 mm)/3.8 oz (110 g)         | 1.4x6.8x1.6" (35.6x172.7x40.6 mm)/3.85 oz (110 g)        | Meter: 1.4x6.8x1.6" (35.6x172.7x40.6 mm)/3.85 oz (110 g) |
| 2 years (meter)/6-month conditional warranty (electrode) | 2 years (meter)/6-month conditional warranty (electrode) | 2 years (meter)/6-month conditional warranty (electrode) |



## Save Time and Money

Value Kits allow you to measure multiple water quality parameters and provide all of the necessary accessories including calibration solutions, buffers, sample cups, batteries and a carrying case to store everything.

### ACCESSORIES

|            |                                                      |
|------------|------------------------------------------------------|
| PH95       | pH Electrode Module for PH90                         |
| EC405*     | ExStik® II Conductivity Cell Module for EC400        |
| EC505*     | ExStik® II pH/Conductivity Cell Module for EC500     |
| EC-84-P    | 84 µS Conductivity Standard (2 bottles/1 pint ea)    |
| EC-1413-P  | 1413 µS Conductivity Standard (2 bottles/1 pint ea)  |
| EC-12880-P | 12880 µS Conductivity Standard (2 bottles/1 pint ea) |
| PH103      | Tripak pH Calibration Buffer pouches                 |
| EX010      | 3 ft (1 m) Extension Cable w/Probe Guard/Weight      |
| EX050      | 16 ft (5 m) Extension Cable w/Probe Guard/Weight     |
| CA904      | Large hard case for meter and accessories            |

\*ExStik® II electrode modules are not interchangeable with ExStik® pH/ORP/Chlorine meters



**IP57**  
Waterproof  
Dustproof



## PH90 Waterproof pH Meter

Flat surface electrode for measuring pH in liquids, semi-solids, and solids

- Rugged replaceable flat surface pH electrode for quick on-the-spot pH measurements
- Simultaneous display of pH and Temperature
- 2 or 3 point calibration automatically recognizes buffer solutions (pH buffers required - sold separately)
- PTS (percent of slope) tells you when it's time to replace your electrode (below 70% or above 130%)
- Automatic Temperature Compensation
- Data Hold, Min/Max, Auto Power Off, and low battery indication
- Waterproof design (IP57) floats in water and protects the meter in wet environment
- Complete with flat surface pH electrode, protective sensor cap, and two 3 V CR-2032 button batteries

### SPECIFICATIONS

|                       | PH90                                                     |
|-----------------------|----------------------------------------------------------|
| pH                    | 0.00 to 14.00 pH                                         |
| Conductivity          | —                                                        |
| TDS/Salinity/Fluoride | —                                                        |
| Temperature           | 32° to 194°F (0 to 90°C)                                 |
| Max. Resolution       | 0.01pH, 0.1°                                             |
| Basic Accuracy        | ±0.01 pH, ±1.8°F/1°C                                     |
| CE approved           | Yes                                                      |
| Dimensions            | 1.4x6.7x1.4" (36x170x36 mm)                              |
| Weight                | 3 oz (85 g)                                              |
| Warranty              | 2 years (meter)/6-month conditional warranty (electrode) |



## EC400 Waterproof ExStik® II\* Conductivity Meter

4-in-1 multi-range sensor for measuring Conductivity, TDS, Salinity & Temperature

- Analog bargraph indicates trends
- Adjustable Conductivity to TDS ratio from 0.4 to 1.0
- 0.5 fixed Salinity ratio
- Data Hold, Auto Power Off, Low battery indicator
- Memory stores 25 labeled data
- Waterproof to IP57 protects meter from wet environment
- Complete with Conductivity/TDS electrode, sensor cap, sample cup with cap, four 3 V CR2032 batteries, and 48" (1.2 m) neckstrap. Order Conductivity standards separately (see Accessories chart on the left).



## EC500 Waterproof ExStik® II\* pH/Conductivity Meter

5-in-1 multi-range sensor for measuring pH, Conductivity, TDS, Salinity, and Temperature

- RENEW feature tells user to replace electrode
- Analog bargraph indicates trends
- Adjustable Conductivity to TDS ratio from 0.4 to 1.0
- 0.5 fixed Salinity ratio
- Data Hold, Auto Power Off, Low battery indicator
- Memory stores 25 labeled data
- Waterproof to IP57 protects meter from wet environment
- Complete with combination pH/Conductivity/TDS electrode, sensor cap, sample cup with cap, four 3 V CR2032 batteries, and 48" (1.2 m) neckstrap. Order Conductivity standards and pH Calibration buffers separately (see Accessories chart on the left).



## EC510 ExStik® II\* pH/Conductivity Kit

Measures pH, Conductivity, TDS, Salinity, and Temperature using a combination electrode

- Kit includes: EC500 ExStik II pH/Conductivity/TDS/Salinity/Temperature meter with combination electrode module, 84  $\mu$ S, 1413  $\mu$ S, 12880  $\mu$ S calibration standards, pH buffer pouches (1 each of 4, 7, 10 pH plus rinse solution), weighted base, three sample cups with caps, four 3 V CR2032 batteries, neckstrap, and carrying case
- See EC500 on the left for more details on the meter

### EC400

|                                                                                   |
|-----------------------------------------------------------------------------------|
| —                                                                                 |
| 0 to 199.9 $\mu$ S, 200 to 1999 $\mu$ S, 2.00 to 19.99 mS                         |
| TDS/Salinity: 0 to 99.9 ppm (mg/L), 100 to 999 ppm (mg/L), 1.00 to 9.99 ppt (g/L) |
| 32° to 149°F (0 to 65°C)                                                          |
| 0.1 $\mu$ S, 0.1 ppm (mg/L), 0.01 pH, 0.1°F/°C                                    |
| ±2% FS, ±0.01 pH, ±1.8°F/1°C                                                      |
| Yes                                                                               |
| 1.4x6.8x1.6" (35.6x172.7x40.6 mm)                                                 |
| 3.8 oz (110 g)                                                                    |
| 2 years (meter)/6-month conditional warranty (electrode)                          |

### EC500

|                                                                                   |
|-----------------------------------------------------------------------------------|
| 0.00 to 14.00 pH                                                                  |
| 0 to 199.9 $\mu$ S, 200 to 1999 $\mu$ S, 2.00 to 19.99 mS                         |
| TDS/Salinity: 0 to 99.9 ppm (mg/L), 100 to 999 ppm (mg/L), 1.00 to 9.99 ppt (g/L) |
| 23° to 194°F (-5 to 90°C)                                                         |
| 0.1 $\mu$ S, 0.1 ppm (mg/L), 0.01 pH, 0.1°F/°C                                    |
| ±2% FS, ±0.01 pH, ±1.8°F/1°C                                                      |
| Yes                                                                               |
| 1.4x6.8x1.6" (35.6x172.7x40.6 mm)                                                 |
| 3.8 oz (110 g)                                                                    |
| 2 years (meter)/6-month conditional warranty (electrode)                          |

### EC510

|                                                                                   |
|-----------------------------------------------------------------------------------|
| 0.00 to 14.00 pH                                                                  |
| 0 to 199.9 $\mu$ S, 200 to 1999 $\mu$ S, 2.00 to 19.99 mS                         |
| TDS/Salinity: 0 to 99.9 ppm (mg/L), 100 to 999 ppm (mg/L), 1.00 to 9.99 ppt (g/L) |
| 23° to 194°F (-5 to 90°C)                                                         |
| 0.1 $\mu$ S, 0.1 ppm (mg/L), 0.01 pH, 0.1°F/°C                                    |
| ±2% FS, ±0.01 pH, ±1.8°F/1°C                                                      |
| Yes                                                                               |
| 1.4x6.8x1.6" (35.6x172.7x40.6 mm)                                                 |
| 3.8 oz (110 g)                                                                    |
| 2 years (meter)/6-month conditional warranty (electrode)                          |



## CL200 ExStik® Waterproof Chlorine Meter



**Direct reading of Total Chlorine down to 0.01 ppm and is unaffected by color or turbidity of the sample**

- Direct reading of Total Chlorine provides fast and easy measurements
- Wide dynamic range to 10 ppm and low detection limit down to 0.01 ppm
- Unaffected by sample color or turbidity
- Automatic electronic calibration
- Memory stores 15 labeled readings
- Unique flat surface chlorine electrode eliminates any concerns for clogged junctions or glass breakage
- Waterproof to IP57
- Large LCD simultaneously displays ppm of Total Chlorine, Temperature and analog bargraph indicator
- 2-year warranty (meter)/6-months conditional warranty (electrode)
- Complete with meter and flat surface Chlorine electrode, ExTab™ reagent tablets (50 tests), protective sensor cap, sample cup with cap, four 3 V button batteries, and 48" (1.2 m) neckstrap

### SPECIFICATIONS

|                    |                                                   |
|--------------------|---------------------------------------------------|
| ppm                | 0.01 to 10.00 ppm                                 |
| Temperature        | 23° to 194°F (-5 to 90°C)                         |
| Resolution         | 0.01 ppm; 0.1°F/°C                                |
| Basic accuracy     | ±10% of reading ±0.01 ppm; ±1.8°F/±1°C            |
| Dimensions/ Weight | 1.4x6.8x1.6" (35.6x172.7x40.6 mm)/3.85 oz (110 g) |

### ORDERING

|       |                                                   |
|-------|---------------------------------------------------|
| CL200 | ExStik® Chlorine Meter                            |
| CL205 | Spare Chlorine electrode                          |
| CL207 | Chlorine Standard (1 ppm) - 3 ampules (20 mL ea.) |

## EX006/EX007 Accessories



### Weighted Base & Solution Cups

- Recommended for ExStik® Chlorine
- Complete with weighted base and 5 solution cups with caps to hold meter and solution when taking a measurement to obtain a stable reading

### CL203/CL204 ExTab™ Chlorine Reagent tablets

- No messy powder reagents
- 1 tablet per test
- Foil packaging provides very stable environment with long shelf life
- No dosing equipment required
- Available in 10 pk (100 tests) or Value pack 100 pk (1000 tests)

### CL207 Chlorine Standard

- 1 ppm standard for chlorine meter calibration
- Complete with 3 ampules (20 mL each) 1 ppm calibration standards

### ORDERING

|       |                                                   |
|-------|---------------------------------------------------|
| EX006 | Weighted base with 5 solution cups                |
| EX007 | Spare sample solution cups (24 pk)                |
| CL203 | ExTab™ Reagent tablets (10 pk - 100 tests)        |
| CL204 | ExTab™ Reagent tablets (100 pk - 1000 tests)      |
| CL207 | Chlorine Standard (1 ppm) - 3 ampules (20 mL ea.) |

## FL700 ExStik® II\* Fluoride Meter



Includes flat surface electrode, cap, TISAB reagent tablets, four 3 V button batteries, and 48" (1.2 m) neckstrap; 2-year warranty



### Direct reading of Fluoride from 0.1 ppm to 10 ppm with ATC; Waterproof IP57

- First Fluoride meter with built-in Automatic Temperature Compensation
- Fast response Fluoride meter (<1 min)
- Measures Temperature from 32 to 140°F (0 to 60°C)
- 0.1 ppm, 0.1 max resolution and  $\pm 3.0\%$  basic accuracy
- Small sample/TISAB volume required for testing (10 mL)
- In compliance with EPA Method 340.2. (Potentiometric Ion Selective Electrode)
- Automatic electronic 1 or 2 point calibration with offset adjustment
- Memory stores 25 labeled data
- Dims: 1.4x6.8x1.6" (35.6x172.7x40.6 mm); Wt: 3.8 oz (110 g)

| ORDERING | Contact Extech or your local lab supply for Fluoride calibration standards |
|----------|----------------------------------------------------------------------------|
| FL700    | ExStik® II Fluoride Meter                                                  |
| FL705    | ExStik® II Fluoride Module for FL700                                       |
| FL704    | TISAB reagent tablets for FL700 (100 tablets)                              |

## DO600 ExStik® II\* Dissolved Oxygen Meter



DO600-K Kit available shown above. Includes DO600 meter, DO603 membrane kit, 16 ft (5 m) extension cable, weighted probe guard, and carrying case



### Easy to replace screw-on membrane cap with optional extension cables

- Displays Oxygen level Saturation (0 to 200.0%) or Concentration (0 to 20.00 mg/L [ppm]) and Temperature 32 to 122°F (0 to 50°C)
- Max resolution: 0.1%, 0.01 ppm, 0.1°;
- Basic accuracy:  $\pm 2.0\%$  FS,  $\pm 0.4$  ppm (mg/L),  $\pm 1.8^\circ\text{F}/1^\circ\text{C}$
- Adjustable Altitude Compensation (0 to 20,000 ft) in 1,000 ft increments
- Adjustable Salinity Compensation from 0 to 50 ppt
- Analog bargraph display; Self calibration on power up
- Memory stores 25 labeled data; Waterproof to IP57
- 2-year warranty
- **Model DO600** meter includes DO electrode, sensor cap, spare membrane cap, electrolyte, four 3 V CR2032 batteries, and 48" (1.2 m) neckstrap
- **Model DO600-K** Kit shown on the left

| ORDERING |                                                  |
|----------|--------------------------------------------------|
| DO600    | ExStik® II Dissolved Oxygen Meter                |
| DO600-K  | ExStik® II Dissolved Oxygen Kit                  |
| DO605    | ExStik® II Dissolved Oxygen Module for DO600     |
| DO603    | Membrane Kit for DO600/DO605                     |
| EX010    | 3 ft (1 m) Extension Cable w/Probe Guard/Weight  |
| EX050    | 16 ft (5 m) Extension Cable w/Probe Guard/Weight |

## DO610 ExStik® II\* DO/pH/EC Kit



### Measures Dissolved Oxygen, pH, Conductivity, TDS, Salinity, and Temperature

- EC500 pH/Conductivity ExStik® II meter with combination high accuracy multi-ranging Conductivity sensor for Conductivity, TDS, Salinity, pH and Temperature measurements
- DO600 Dissolved Oxygen ExStik® II meter with electrode, replacement membrane cap, electrolyte, and polishing paper

#### Accessories included:

- Sample pH Buffers — Single use pouches for pH4, pH7, pH10, and rinse solution
- Weighted base with 2 cups and caps, four 3 V CR2032 batteries and neckstrap with each meter, and case
- See p. 133 for more details on the EC500 and above for DO600 meter

| ORDERING |                                   |
|----------|-----------------------------------|
| DO610    | ExStik® II DO/pH/Conductivity Kit |

*\*ExStik® II electrode modules are not interchangeable with ExStik® pH/ORP/Chlorine meters*

## PH60 pH Pens



### Easy-to-use, low cost, and waterproof (IP67)

- Measures pH and Temperature, Automatic Temperature Compensation (ATC)
- Easy to calibrate single CAL key with automatic pH buffer recognition (4, 7, and 10 pH calibration buffers sold separately)
- Data hold, Low battery indicator, and Auto power off with disable feature
- 2-year warranty
- Complete with built in electrode, sensor cap, inner pH electrode protection cap, and four LR44 button batteries

### SPECIFICATIONS

|                   |                                         |                         |
|-------------------|-----------------------------------------|-------------------------|
| pH                | 2.0 to 12.0 pH                          | 0.0 to 14.0 pH          |
| Temperature       | —                                       | 32 to 122°F (0 to 50°C) |
| Resolution        | 0.1 pH, 0.1°                            | 0.1 pH, 0.1°            |
| Accuracy          | ±0.3 pH                                 | ±0.2pH; ±1°F/±0.5°C     |
| Dimensions/Weight | 6x1.5x0.9" (152x37x24 mm)/2.3 oz (65 g) |                         |

### ORDERING

|       |                                                     |
|-------|-----------------------------------------------------|
| PH60  | Waterproof pH Meter with Temperature                |
| PH103 | Tripak buffers (6 ea - 4,7,10 pH+2 Rinse solutions) |

## EC150/EC170 Conductivity/TDS/Salinity Meters



EC150  
(Conductivity/TDS)

EC170  
(Salinity)

Includes sensor with cap and four LR44 button batteries; Order Conductivity standards separately (required for calibration)

### Waterproof meters with one high accuracy multi-ranging sensor

- Units of measure (model dependent) include µS/cm, mS/cm, ppm, ppt, °F, and °C
- Large 3-1/2 digit (2000 count) LCD display
- Data Hold, Low battery indication, and Auto Power Off with disable
- Adjustable Automatic Temperature Compensation (ATC)
- Waterproof design to withstand wet environment – meets IP65 standard
- 2-year warranty

### Model EC150 Additional Features

- Measures Conductivity, TDS and Temperature
- Adjustable Conductivity to TDS ratio factor from 0.4 to 1.0 (calculates the TDS value)
- Two ranges for Conductivity and TDS with one point calibration per range

### Model EC170 Additional Features

- Measure Salinity in aquaculture, environmental studies, ground water, Koi ponds, irrigation, drinking water, and other applications
- Autoranging meter offers 2 ranges of measurement
- Built-in NaCl Conductivity to TDS conversion factor
- Fixed Temperature Coefficient and Normalization Temperature
- One calibration point per range

### SPECIFICATIONS

|                           |                                            |                      |              |
|---------------------------|--------------------------------------------|----------------------|--------------|
| Conductivity (EC150 only) | 0 to 1999 µS/cm (0 to 19.99 mS/cm)         | 1 µS/cm (0.01 mS/cm) | ±1% FS       |
| TDS (EC150 only)          | 0 to 1999 ppm (0 to 19.99 ppt)             | 1 ppm (0.01 ppt)     | ±1% FS       |
| Salinity (EC170 only)     | 0 to 10.00 ppt (10.1 to 70.0 ppt)          | 0.01 ppt (0.1 ppt)   | ±2% FS       |
| Temperature               | 32° to 122°F (0 to 50°C)                   | 0.1°F/°C             | ±0.9°F/0.5°C |
| Dimensions/Weight         | 6.5x1.4x1.3" (165x35x32 mm)/3.8 oz (110 g) |                      |              |

### ORDERING

|            |                                                          |
|------------|----------------------------------------------------------|
| EC150      | Conductivity/TDS Meter                                   |
| EC170      | Salinity Meter                                           |
| EX006      | Weighted base with 5 solution cups                       |
| EX007      | Spare sample solution cups (24 pk)                       |
| EC-84-P    | 84 µS Conductivity Standard (2 bottles/1 pint each)      |
| EC-1413-P  | 1413 µS Conductivity Standard (2 bottles - 1 pint each)  |
| EC-12880-P | 12880 µS Conductivity Standard (2 bottles - 1 pint each) |

## pH Electrodes



60120B - Mini size



601500 - Standard size



601100 - Flat Surface

### Choice of Standard or Specialized electrodes with Ag/AgCl gel-filled (fast response: 95% in 5 sec)

- **Models 60120B and 601500** — General purpose pH/Ref electrodes Rugged, polycarbonate construction features glass pH sensing bulb surrounded by protective teeth. pH range (0 to 14 pH), operating temperature (0 to 80°C). Choice of Mini or Standard size.
- **Model 601100** — Flat surface electrode (Easy to clean) PVC bodied electrode, ideal for pH of solid products with minimal moisture like cheese, soils or electrophoretic/agar gels. pH range (0 to 14 pH), operating temperature (5 to 80°C).
- 6-month conditional warranty on pH electrodes

#### ORDERING

|        |                                       |
|--------|---------------------------------------|
| 60120B | Mini pH Electrode (10x120 mm)         |
| 601500 | Standard pH Electrode (12x160 mm)     |
| 601100 | Flat Surface pH Electrode (15x106 mm) |

## ExStik® Replacement pH, ORP, and Chlorine Electrode Modules



PH105 CL205 RE305  
Flat surface pH, Chlorine, and ORP electrode modules



PH113  
Reference Refilling Solution Kit for PH115 Refillable pH electrode module

### Interchangeable pH, ORP, and Chlorine sensor modules for ExStik® series meters (PH100, PH110, CL200, RE300)

- ATC via built-in Pt-100  $\Omega$  sensor (PH105, PH115, and CL205)
- Refillable pH electrode (PH115) provides an economical way to refill your electrode, eliminates the problem of limited electrode shelf life, contamination, and usage life in aggressive applications
- Note: The PH105, CL205 and RE305 replacement modules are not interchangeable with ExStik® II meters (EC400, EC500, DO600, and FL700)
- 6-month conditional warranty

#### ORDERING

|       |                                            |
|-------|--------------------------------------------|
| PH105 | pH ExStik® Electrode Module                |
| PH115 | Refillable pH ExStik® Electrode Module     |
| PH113 | Reference Refilling Solution Kit for PH115 |
| CL205 | Chlorine ExStik® Electrode Module          |
| RE305 | ORP ExStik® Electrode Module               |

## pH Buffers



### Convenient calibration solutions for your pH meter

- Easy to use, already made fresh pH buffers for calibration
- Helpful table shows what the pH value should be vs. the temperature of the buffer solution measured
- Rinsing solution used for cleaning off the pH electrode before and after taking the next measurement from a different solution to prevent contamination
- Convenient pouch eliminates the need for a cup to store buffer or rinsing solution
- PH103 contains 6 pouches of each buffer (pH 4.00, 7.00, and 10.00), plus 2 Rinsing solutions
- Pint size pH buffer solutions available (PH4-P, PH7-P, and PH10-P)

#### ORDERING

|        |                                                             |
|--------|-------------------------------------------------------------|
| PH4-P  | pH 4 Buffer Calibration Solution (2 bottles - 1 pint each)  |
| PH7-P  | pH 7 Buffer Calibration Solution (2 bottles - 1 pint each)  |
| PH10-P | pH 10 Buffer Calibration Solution (2 bottles - 1 pint each) |
| PH103  | Tripak Buffer pouches (6ea: 4, 7, 10 pH, 2 Rinse solutions) |





## For Rugged, Accurate Results

Extech field-tested lab instruments are fast-responding tools designed to deliver accurate and repeatable readings with waterproof and datalogging models available.

### ACCESSORIES

|           |                                                      |
|-----------|------------------------------------------------------|
| 60120B    | Mini pH Electrode (10x120 mm)                        |
| 601500    | Standard pH Electrode (12x160 mm)                    |
| 601100    | Flat Surface pH Electrode (15x106 mm)                |
| 67500B    | ORP Electrode (13x154 mm)                            |
| 6015WC    | Waterproof pH Electrode with cable for PH220         |
| PH305     | Spare pH Electrode for PH300                         |
| PH4-P     | pH 4 Buffer Solution (2 bottles - 1 pint each)       |
| PH7-P     | pH 7 Buffer Solution (2 bottles - 1 pint each)       |
| PH10-P    | pH 10 Buffer Solution (2 bottles - 1 pint each)      |
| PH103     | Tripak Buffer pouches (see photo above)              |
| 850185    | RTD Stainless Steel Temperature Probe for the Oyster |
| UA100-240 | 100-240 V AC Adaptor w/4 plugs (US, EU, UK, AU)      |



## PH220-C Waterproof Palm pH/Temp Meter

Large LCD display in rugged housing with cabled pH Electrode

- Displays pH and Temperature simultaneously
- Automatic Buffer recognition
- Automatic Temperature Compensation via PT-100 sensor built into electrode
- Low Battery indicator and Auto Power Off
- Waterproof housing (meets IP57)
- Rugged design for handheld or wall mount (magnetic back)
- Complete with waterproof meter, ATC pH polycarbonate electrode (12 mm diameter) with 39" (1 m) cable, protective holster, pH 4 & 7 buffers (1 pouch ea.), and 9 V battery

### SPECIFICATIONS

| SPECIFICATIONS     | PH220-C                                                  |
|--------------------|----------------------------------------------------------|
| pH                 | 0.00 to 14.00 pH                                         |
| mV                 | —                                                        |
| Temperature        | 32° to 212°F (0 to 99.9°C)                               |
| Max Resolution     | 0.01 pH, 0.1°                                            |
| Basic Accuracy     | ±0.01 pH, ±0.8°F/0.5°C                                   |
| Memory             | —                                                        |
| Dimensions/ Weight | 4.4x3.1x1.5" (111x79x39 mm)/9.2 oz (260 g)               |
| Warranty           | 2 years (meter)/6-month conditional warranty (electrode) |



Meter/accessories packaged in hard case

## PH300 Waterproof pH/Temperature Kit

Measures pH, mV, and Temperature

- Automatic calibration (4, 7, and 10 pH)
- Choice of 3 point calibration for better accuracy
- Automatic Temperature Compensation
- Memory stores up to 200 labeled readings
- Waterproof housing (meets IP57)
- Large blue backlit dual LCD displays both pH and Temperature readings
- Auto Power Off with disable function
- Complete with pH/mV/Temperature electrode, pH calibration solutions (4, 7, and 10 pH), 2 AA batteries, and hard carrying case



## OYSTER-15 Oyster™ Series pH/ORP/Temp Kit

Exclusive Oyster™ design can be used in the lab or in the field

- Large LCD built into adjustable “flip-up” cover displays pH or mV and Temperature simultaneously
- Convenient neckstrap holds meter while you take measurements
- Records 25 labeled readings
- Min/Max mode; Auto or Manual Temperature compensation (ATC/MTC)
- Self diagnostics display codes
- Auto Power Off
- 5 point buffer recognition with adjustable buffer values
- Kit includes OYSTER-10 meter, neckstrap, 9 V battery, 60120B mini pH electrode, sample buffers (4 and 7 pH), and carrying case
- Optional ORP electrode (67500B), RTD Temperature probe (850185) and Universal AC Adaptor (UA100-240)



Includes SD memory card

## SDL100 pH/ORP/Temperature Datalogger

Datalogger date/time stamps and stores readings on a SD card in Excel® format for easy transfer to a PC

- ATC or Manual Temperature Compensation
- 3 point calibration ensures the best linearity and accuracy
- Selectable data sampling rate: 1 second to 8 hrs:59 min:59 sec
- Manually store/recall up to 99 readings
- Large backlit dual LCD
- Record/Recall MIN, MAX readings
- Data Hold plus Auto Power Off with disable function
- Built-in PC interface
- Complete with 6 x AA batteries, SD card, sample buffers, mini pH electrode (60120B), temperature probe (850188), and hard carrying case; Optional Universal AC Adaptor UA100-240

| PH300                                                    | OYSTER-15                                                | SDL100 <small>N</small>                                  |
|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|
| -2.0 to 19 pH                                            | 0.00 to 14.00 pH                                         | 0 to 14 pH                                               |
| -1999 mV to 1999 mV                                      | -999 to 999 mV                                           | -1999 mV to 1999 mV                                      |
| 32 to 212°F (0 to 100°C)                                 | 32° to 212°F (0 to 99.9°C) — with temperature probe      | 32 to 149°F (0 to 65°C)                                  |
| 0.01 pH, 1 mV, 0.1°                                      | 0.01 pH, 1 mV, 0.1°                                      | 0.01 pH, 1 mV, 0.1°                                      |
| ±0.02 pH, ±0.15 mV, ±1°F/0.5°C                           | ±0.02 pH, ±2 mV, ±0.8°F/0.5°C                            | ±0.02 pH, ±0.5% mV, ±1.8°F/1°C                           |
| 200 readings                                             | 25 readings                                              | SD Card included                                         |
| 4.7x2.6x1.2" (120x65x31 mm)/6.3 oz (180 g)               | 3.7x4.2x2" (94x107x51 mm)/12 oz (340 g)                  | 7.2x2.9x1.9" (182x73x48 mm)/16 oz (455 g)                |
| 2 years (meter)/6-month conditional warranty (electrode) | 2 years (meter)/6-month conditional warranty (electrode) | 3 years (meter)/6-month conditional warranty (electrode) |



## Ensuring Water Quality

Extech offers water quality testing tools. Find Extech on the job in wastewater treatment facilities, water treatment, industrial systems (boiler water systems, cooling towers, cooling systems, closed loops), alternative farming (hydro-/aeraponics), fish farming, lab testing, pool maintenance, R&D, and more.

| ACCESSORIES |                                                          |
|-------------|----------------------------------------------------------|
| EC-84-P     | 84 µS Conductivity Standard (2 bottles - 1 pint each)    |
| EC-1413-P   | 1413 µS Conductivity Standard (2 bottles - 1 pint each)  |
| EC-12880-P  | 12880 µS Conductivity Standard (2 bottles - 1 pint each) |
| EC210-P     | Replacement Conductivity/TDS Cell for EC210              |
| EC605       | Spare Polymer Conductivity Cell for EC600                |
| 804010A     | Polymer Conductivity Cell for 341350A-P                  |
| PH305       | Spare pH Electrode for EC600                             |
| 60120B      | Spare Mini pH Electrode for 341350A-P                    |
| 67500B      | ORP Electrode (13x154 mm)                                |
| UA100-240   | 100-240 V AC Adaptor with 4 plugs (US, EU, UK, AU)       |
| 850190      | Thermistor Probe (32 to 194°F/0 to 90°C) for 341350A-P   |

| SPECIFICATIONS  |
|-----------------|
| Conductivity    |
| TDS/Salinity    |
| pH              |
| mV              |
| Temperature     |
| Max. Resolution |
| Basic Accuracy  |
| CE Approved     |
| Dimensions      |
| Warranty        |





## EC210 Compact Conductivity/TDS Meter

Adjustable Temperature compensation factor to maintain accuracy

- Simultaneous display of Conductivity or TDS with Temperature
- Automatic Temperature Compensation
- Temperature compensation factor adjustable between 0 to 5.0% per °C
- Min/Max and Data Hold functions
- Auto Power Off with disable feature
- Use optional 1413  $\mu$ S Conductivity Standard (EC-1413-P) for calibration
- Complete with Conductivity cell and 39" (1 m) cable, 9 V battery, and soft case



Meter/accessories packaged in hard case

## EC600 Waterproof pH/ORP/Conductivity/TDS Kit

Measures Conductivity, TDS, Salinity, Resistivity, pH, mV and Temperature

- Waterproof housing (meets IP57)
- Choice of 3 point pH calibration
- One point Conductivity calibration – automatically recognizes 8 calibration solutions
- Automatic Temperature Compensation (non-linear compensation for purified water <10  $\mu$ S/cm to improve measuring accuracy)
- Memory stores up to 300 labeled readings
- Large blue backlit dual LCD display
- Auto power off with disable function
- Complete with pH/mV/Temperature electrode, polymer Conductivity cell, pH calibration solutions (4, 7, and 10 pH), Conductivity calibration solution (1413  $\mu$ S), 2 AA batteries, and hard carrying case



Meter and accessories packaged in hard case

## 341350A-P pH/Conductivity/TDS/ORP/Salinity Meter

Exclusive Oyster™ Design can be used in the lab or in the field

- Large dual LCD built into adjustable "flip-up" cover
- Microprocessor based with splash-proof housing and front panel tactile touch pad to slope and calibrate
- Rugged design for handheld or benchtop use
- Convenient neckstrap holds meter while you take measurements
- Stores 25 labeled readings
- ATC for Conductivity/TDS
- Manual Temperature Compensation: pH (0 to 100°C)
- Includes mini pH electrode, thermistor probe (850190), sample buffers, polymer conductivity cell, 9 V battery, neckstrap & case; Optional Universal AC adaptor (UA100-240) and ORP electrode (67500B)

| EC210                                                                            | EC600                                                              | 341350A-P <sup>N</sup>                                 |
|----------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------|
| 2000 $\mu$ S/cm, 20 mS/cm, 100 mS/cm                                             | 0.00 to 199.9 mS                                                   | 10 to 19,990 $\mu$ S/cm                                |
| 1200 ppm, 12,000 ppm, 66,000 ppm                                                 | 0 to 100 g/L                                                       | TDS range: 10 to 19,990 ppm (mg/L)                     |
| —                                                                                | -2 to 19 pH                                                        | 0.01 to 14.00 pH                                       |
| —                                                                                | -1999 mV to 1999 mV                                                | —                                                      |
| 32 to 122°F (0 to 50°C)                                                          | pH/mV: 32 to 212°F (0 to 100°C);<br>Other: 32 to 122°F (0 to 50°C) | Thermistor probe: 32 to 194°F (0 to 90.0°C)            |
| 1 $\mu$ S/cm, 0.01 mS/cm, 0.1 mS/cm, 1 ppm<br>10 ppm, 100 ppm, 0.1°F/°C          | 0.01 pH, 1 mV, 0.01 $\mu$ S, 0.01 mg/L, 0.01 ppt, 0.1°F/°C         | 0.1 mS; 0.01 pH                                        |
| ±2% FS, ±1.5°F/0.8°C                                                             | ±0.02 pH, ±0.15 mV, ±1.5% FS, ±1°F/0.5°C                           | ±2%, ±0.02 pH                                          |
| Yes                                                                              | Yes                                                                | Yes                                                    |
| Meter: 5.3x2.4x1.3" (135x60x33 mm)/10.4 oz (295 g)<br>includes probe and battery | 4.7x2.6x1.2" (120x65x31 mm)/6.3 oz (180 g)                         | 3.7x4.2x2" (96x108x45 mm)/12 oz (340 g)                |
| 2 years (meter)/6-month conditional warranty (electrode)                         | 2 years (meter)/6-month conditional warranty (electrode)           | 2 yrs (meter)/6-month conditional warranty (electrode) |

NOTE: It is recommended that you calibrate your conductivity meter to conductivity standards before use.



## SDL150 Dissolved Oxygen Meter/Datalogger



**Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC**

- Dual display of Oxygen Concentration and Temperature
- Measures dissolved oxygen from 0 to 20.0 mg/L and 0 to 100.0% oxygen plus temperature from 32 to 122°F (0 to 50°C)
- Automatic Temperature Compensation from 0 to 50°C via temperature sensor built into polarographic type oxygen probe
- Selectable data sampling rate: 1 second to 8 hrs:59 min:59 sec
- Manually store/recall up to 99 readings
- Large backlit dual LCD
- Record/Recall MIN, MAX readings
- Data Hold plus Auto Power Off with disable function
- 3-year warranty (meter)/6 month conditional warranty (electrode)
- Complete with 6 x AA batteries, SD card, probe, spare probe head with diaphragm, electrolyte, and hard carrying case; Optional Universal AC adaptor

| SPECIFICATIONS                  | DISSOLVED OXYGEN                                                                       | OXYGEN                | TEMPERATURE             |
|---------------------------------|----------------------------------------------------------------------------------------|-----------------------|-------------------------|
| Range                           | 0 to 20.0 mg/L                                                                         | 0 to 100.0%           | 32 to 122°F (0 to 50°C) |
| Accuracy                        | ±0.4 mg/L                                                                              | ±0.7%                 | ±0.8°C/1.5°F            |
| Probe Compensation & Adjustment | Salt: 0 to 50%                                                                         | Altitude: 0 to 8910 m | Temp: 0 to 50°C         |
| Datalogging                     | Manual: 99 data<br>Continuous: Number of data points dependent on size of SD card      |                       |                         |
| Dimensions/Weight               | Meter: 7.2x2.9x1.9" (182x73x48 mm)/ 25.6 oz (725 g)<br>Probe: 0.8x4.9" (20.3x124.5 mm) |                       |                         |

### ORDERING

|           |                                                    |
|-----------|----------------------------------------------------|
| SDL150    | Dissolved Oxygen Meter/Datalogger                  |
| 407510-P  | Dissolved Oxygen probe with 13 ft (4 m) cable      |
| 780417A   | Replacement Membranes (10/pack)                    |
| 780418    | DO Internal Fill Solution (2 pks — 50 mL each)     |
| UA100-240 | 100-240 V AC Adaptor with 4 plugs (US, EU, UK, AU) |

## 407510 Heavy Duty Dissolved Oxygen Meter



**Dual display of Oxygen concentration in solutions and Temperature — plus PC interface**

- Measures dissolved oxygen, oxygen, plus temperature
- Min/Max/Avg, Data Hold and Auto Power Off
- Automatic Temperature Compensation
- Large 1.4" (36 mm) LCD display
- Built-in PC interface with optional Data Acquisition Software 407001-PRO (see p. 109)
- 3-year warranty (meter)/ 6 month conditional warranty (electrode)
- Complete with 0.8" (20 mm) probe on 13 ft (4 m) cable, membranes, protective holster with stand, 9 V battery, and carrying case

| SPECIFICATIONS                  | DISSOLVED OXYGEN                                  | OXYGEN              | TEMPERATURE             |
|---------------------------------|---------------------------------------------------|---------------------|-------------------------|
| Range                           | 0 to 19.9 mg/L                                    | 0 to 100.0%         | 32 to 122°F (0 to 50°C) |
| Accuracy                        | ±0.4 mg/L                                         | ±0.7%               | ±1.5°F/ ±0.8°C          |
| Probe Compensation & Adjustment | Salt: 0 to 39%                                    | Altitude 0 to 3900m | Temp: 0 to 50°C         |
| Dimensions                      | Meter: 7x3x1.3" (178x74x33 mm); Probe: 0.8Dx4.9"L |                     |                         |
| Weight                          | 17 oz (482 g)                                     |                     |                         |

### ORDERING

|            |                                                |
|------------|------------------------------------------------|
| 407510     | Heavy Duty Dissolved Oxygen Kit                |
| 407510-P   | Dissolved Oxygen probe with 13 ft (4 m) cable  |
| 780417A    | Replacement Membranes (10/pack)                |
| 780418     | DO Internal Fill Solution (2 pks — 50 mL each) |
| 407001-PRO | Data Acquisition Software (see p. 109)         |

## DO700 Waterproof Series Dissolved Oxygen Kit



### 8-in-1 Meter — Measures DO concentration/saturation, pH, mV, Conductivity, TDS, Salinity, Resistivity and Temperature

- Automatic salinity compensation and manual barometric pressure compensation for DO measurements
- Waterproof housing (meets IP57) design and large blue backlit dual LCD display
- Choice of 3 point pH calibration for better accuracy; Automatic Temperature Compensation
- One point Conductivity calibration – automatically recognizes 8 calibration solutions
- Memory stores up to 400 labeled readings
- Auto Power Off with disable function
- 2-year warranty (meter)/6 month conditional warranty (electrode)
- Complete with Dissolved Oxygen probe with 3 membrane caps and DO internal fill solution (30 mL), pH/mV/Temperature electrode, polymer Conductivity cell, pH calibration solutions (4, 7, and 10 pH), Conductivity calibration solution (1413  $\mu$ S), 2 AA batteries, and hard carrying case

| SPECIFICATIONS                   | RANGE                                      | MAX RESOLUTION  | BASIC ACCURACY                       |
|----------------------------------|--------------------------------------------|-----------------|--------------------------------------|
| Dissolved Oxygen (Concentration) | 0 to 40.00 mg/L                            | 0.01 mg/L       | $\pm 1.5\%$ FS                       |
| Dissolved Oxygen (Saturation)    | 0 to 200.0%                                | 0.1%            | $\pm 1.5\%$ FS                       |
| pH                               | -2.00 to 19.99 pH                          | 0.01 pH         | $\pm 0.02$ pH                        |
| mV                               | -1999 to 1999 mV                           | 1 mV            | $\pm 0.15$ mV                        |
| Conductivity                     | 0.00 to 199.9 mS/cm                        | 0.01 $\mu$ S/cm | $\pm 1.5\%$ FS                       |
| TDS                              | 0 to 100 g/L                               | 0.01 mg/L       | $\pm 1.5\%$ FS                       |
| Salinity                         | 0 to 100 ppt                               | 0.01 ppt        | $\pm 1.5\%$ FS                       |
| Resistivity                      | 0 to 100 M $\Omega$                        | 0.1             | $\pm 1.5\%$ FS                       |
| Temperature (for pH & mV)        | 32 to 212°F (0 to 100°C)                   | 0.1°            | $\pm 1^\circ$ F ( $\pm 0.5^\circ$ C) |
| Temperature (other)              | 32 to 122°F (0 to 50°C)                    | 0.1°            | $\pm 1^\circ$ F ( $\pm 0.5^\circ$ C) |
| Dimensions/Weight                | 4.7x2.6x1.2" (120x65x31 mm)/6.3 oz (180 g) |                 |                                      |

### ORDERING

|       |                                                      |
|-------|------------------------------------------------------|
| DO700 | Waterproof Series Dissolved Oxygen Kit               |
| DO705 | Dissolved Oxygen Electrode                           |
| DO703 | Replacement Membrane Caps (3 caps and fill solution) |
| PH305 | Spare pH/mV/Temperature Electrode                    |
| EC805 | Spare Polymer Conductivity Cell                      |

## DO210 Compact Dissolved Oxygen Meter



### Take quick measurements of Dissolved Oxygen or % Oxygen

- Measures Dissolved Oxygen and % Oxygen plus Temperature
- Automatic Temperature Compensation via temperature probe sensor built into polarographic type oxygen probe
- Adjustable Altitude and Salinity Compensation
- Min/Max and Data Hold functions
- Auto Power Off with disable feature
- 2-year warranty (meter)/6-month conditional warranty (electrode)

| SPECIFICATIONS                           | DISSOLVED OXYGEN                                                           | OXYGEN      | TEMPERATURE                            |
|------------------------------------------|----------------------------------------------------------------------------|-------------|----------------------------------------|
| Range                                    | 0 to 20.0 mg/L                                                             | 0 to 100.0% | 32 to 122°F (0 to 50°C)                |
| Basic Accuracy                           | $\pm 0.4$ mg/L                                                             | $\pm 0.7\%$ | $\pm 1.5^\circ$ F ( $\pm 0.8^\circ$ C) |
| Automatic Temperature Compensation (ATC) | 32 to 122°F (0 to 50°C)                                                    |             |                                        |
| Probe Compensation & Adjustment          | Salt: 0 to 39% Altitude: 0 to 3900 m                                       |             |                                        |
| Dimensions                               | Meter: 5.3x2.4x1.3" (135x60x33 mm); Probe: 1.1" (28 mm) D x 7.5" (190mm) L |             |                                        |
| Weight                                   | 15.7 oz (446 g) includes probe and battery                                 |             |                                        |

### ORDERING

|          |                                                |
|----------|------------------------------------------------|
| DO210    | Dissolved Oxygen Meter                         |
| 407510-P | Dissolved Oxygen Probe with 13 ft (4 m) cable  |
| 780417A  | Replacement Membranes (10/pack)                |
| 780418   | DO Internal Fill Solution (2 pks — 50 mL each) |



## Perfect Timing

Stopwatches ensure consistent timing of critical industrial/lab processes and provide split/lap times at sporting events. The multifunction HW30 HeatWatch™ also measures heat index showing how hot it feels when humidity is combined with the actual temperature. For workplace safety and health as well as strenuous outdoor athletic activity, monitoring heat index is essential for preventing heat stroke.

**N** NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** next to product part numbers.



| SPECIFICATIONS  | HW30 <b>N</b>               |
|-----------------|-----------------------------|
| Timing Capacity | 9 hrs, 59 mins, and 59 secs |
| Accuracy        | ±5 seconds/day              |
| Alarm           | Yes                         |
| Countdown Timer | Yes                         |
| Lap Memory      | 30 laps                     |
| Heat Index      | 70 to 122°F (22 to 50°C)    |
| Temperature     | 14 to 122°F (-10 to 50°C)   |
| Humidity        | 1 to 99%                    |
| CE approved     | Yes                         |
| Dimensions      | 3.1x2.6x0.8" (79x66x21 mm)  |
| Weight          | 3 oz (85 g)                 |
| Warranty        | 2 years                     |



## HW30 HeatWatch™ Humidity/Thermometer Stopwatch

Digital UP/DOWN timer displays Temperature, Humidity, and Heat Index

- User programmable Heat Index alarm
- Stopwatch/chronograph mode with 1/100th second resolution
- Fastest/Slowest/Average Lap recall
- 99 lap counter with 30 lap/split memory
- 10 hour countdown timer with audible beeper warning for the last 5 seconds
- Programmable alarm
- Calendar mode displays day, month, and date
- 12 or 24 hour clock operation
- Complete with 39" (1 m) snap-away neckstrap and one 3 V CR2032 battery



### 365510 Stopwatch/ Clock

Digital Stopwatch plus Calendar and Alarm

- Stopwatch/Chronograph mode with 1/100th second resolution
- 12 or 24 hour clock operation
- Programmable alarm with an hourly chime
- Split time and two competitor timer
- Calendar displays day, month, and date
- Water resistant housing is complete with LR44 battery and 39" (1 m) snap-away neckstrap



### STW515 Stopwatch/ Clock with Backlit display

Large backlit display feature — perfect for viewing in dimly lit area

- 1/100th second resolution for 30mins
- 1 second resolution up to 24 hours
- 12 or 24 hour clock format
- Calendar displays day, month and weekday
- Backlight turns off after 5 seconds
- Programmable alarm and hourly chime setting
- Stopwatch Modes: Elapsed Timer, Split Time, and Two Competitor Timer
- Water resistant housing is complete with CR2032 battery and 39" (1 m) snap-away neckstrap



### 365535 Decimal Stopwatch/Clock

User-selectable resolution of 1/100th of a second, 1/1000th of a minute and 1/100,000th of an hour  
Large triple display with adjustable contrast

- 1/100th second precision
- 500 memory records of Split and Lap times
- Calendar displays day, month and date
- Time of day with daily alarm
- 12 or 24 hour clock format
- 3 Mode Countdown timer: count down stop, count down repeat, count down then count up
- Stroke measurement
- Pacer from 5 to 240 beeps per minute
- Water resistant housing
- Complete with CR2032 lithium battery and 39" (1 m) neckstrap

#### 365510 N

23 hrs, 59 mins and 59.99 secs  
±3 seconds/day  
Yes  
—  
—  
—  
—  
Yes  
2.3x2.8x0.5" (57x70x15 mm)  
2 oz (50 g)  
2 years

#### STW515 N

23 hrs, 59 mins and 59.99 secs  
±3 seconds/day  
Yes  
—  
—  
—  
—  
Yes  
2.6x3x0.8" (68x77x19 mm)  
2 oz (56 g)  
2 years

#### 365535 N

19 hrs, 59 mins and 59.99 secs  
±5 seconds/day  
Yes  
3 modes  
500 laps  
—  
—  
Yes  
2.5x3.2x0.8" (64x81x20 mm)  
2.7 oz (77 g)  
2 years



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| 380947 <b>N</b>     | 19                                | 42545 <b>N</b>               | 51                   | 872502         | 52             | DL160          | 25            | EX350 <b>N</b>               | 7        |
| 380950 <b>N</b>     | 20                                | 42545 <b>N</b>               | 51                   | 881602         | 50, 52         | DM220          | 13            | EX355 <b>N</b>               | 7        |
| 381676A             | 13                                | 42570 <b>N</b> <sup>2</sup>  | 51                   | 881603         | 52             | DO210          | 143           | EX360 <b>N</b>               | 8        |
| 382100              | 42                                | 445580 <b>N</b>              | 67                   | 881605         | 52             | DO600          | 135           | EX363 <b>N</b>               | 8        |
| 382200              | 34                                | 445702                       | 59                   | ADPTR-HDV      | 123            | DO600-K        | 135           | EX365 <b>N</b>               | 8        |
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| 382213              | 34                                | 445713                       | 60                   | AN200 <b>N</b> | 85             | DO605          | 135           | EX430A <b>N</b>              | 9        |
| 382252 <b>N</b>     | 36                                | 445713-TP                    | 60                   | AN300 <b>N</b> | 87             | DO610          | 135           | EX470A <b>N</b> <sup>4</sup> | 9        |
| 382253              | 36                                | 445715 <b>N</b> <sup>3</sup> | 60                   | AN300-C        | 87             | DO700          | 143           | EX505 <b>N</b>               | 10       |
| 382254              | 36                                | 445814                       | 60                   | AN310 <b>N</b> | 87             | DO703          | 143           | EX505-K                      | 10       |
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| 382275              | 35                                | 45118                        | 82                   | BATT-37V       | 50             | DT40M          | 47            | EX613 <b>N</b>               | 18       |
| 382276              | 35                                | 45156                        | 82                   | BR-17CAM       | 125            | DT60M          | 47            | EX623 <b>N</b> <sup>4</sup>  | 18       |
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| MA440 <sup>N</sup>               | 17       | PH220-C                         | 138               | RH300-CAL              | 60, 63, 66, 68, 92 | TKG-P5                           | 108    |                                 |                                                  |
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<sup>N</sup> symbol indicates NIST and/or Limited NIST (NISTL) available

<sup>1</sup> 407760-NISTL: Limited NIST for Certificate of Traceability calibrated at 94.0 dB/1KHz  
<sup>2</sup> 42570-NISTL: Limited NIST for Certificate of Traceability from -4 to 1500°F (-20 to 815°C)  
<sup>3</sup> 445715-NIST or Limited NIST 445715-NISTL (Limited NIST for Certificate of Traceability calibrated at 75%)  
<sup>4</sup> NISTL: Limited NIST for Certificate of Traceability to all functions except IR Thermometer  
<sup>5</sup> HT30-NISTL: Limited NIST for Certificate of Traceability to 33 and 75%RH and 21.0°C only

<sup>6</sup> HW30-NISTL: Limited NIST for Certificate of Traceability to stopwatch functions only  
<sup>7</sup> IRT600-NISTL: Limited NIST for Certificate of Traceability to IR Temperature function only  
<sup>8</sup> SDL470-NISTL: Limited NIST for Certificate of Traceability to a single point in UVA and a single point in UVC modes  
<sup>9</sup> VIR50-NISTL: Limited NIST for Certificate of Traceability to Type K and max IR Temperature of 1500°F (815°C)

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