

EXTECH[®]

INSTRUMENTS

Your Source for:

- Clamp-on Meters
- MultiMeters
- Power Supplies
- Fiber Optic Meters
- Thermometers
- Humidity Meters
- Moisture Meters
- Airflow Meters
- Light Meters
- Sound Meters
- Tachometers
- Pressure Meters
- Calibrators
- Water Quality Meters



GENERAL
CATALOG 36

Experience the **Extech**
Advantage[®]

The many faces of



Extech—The Brand of Choice

As we approach our 37th year in the Test and Measurement business, I find myself looking back at how far we've come as a company and as a brand. Today, Extech is recognized worldwide for our quality reputation and our selection of innovative products across 14 major categories.

By innovating new products, expanding our product selection, and providing unparalleled support to our customers, we have taken great strides in solidifying our position as the Brand of Choice in the industry. It's a level of performance we call "The Extech Advantage" and it's what we consider the greatest benefit to our customers.

Our success is made possible by an amazing group of talented people who have built great integrity into the Extech brand. All of us at Extech stand ready to offer you the personal service often missing from today's corporate world. I also would like to acknowledge the significant contribution to our success by our partners and distributors world-wide who make our product line available to customers in over 92 countries.

We thank you for your support and are confident you'll join with the millions of industry professionals who say, "Make mine an Extech!".

Jerry Blakeley
President

"All of us at Extech stand ready to offer you that personal service often missing from today's corporate world."



Our engineers carefully test and calibrate each product to ensure they meet our standard of excellence.



World Wide Support



www.extech.com

For a network of stocking distributors throughout the USA and more than 92 countries world-wide, visit distributors.extech.com.

Customer Support is our #1 Priority

Nothing is more important to us than making sure our customers receive the very best in customer support and service.

Product Support

All Extech products are shipped fully calibrated. Our Quality Assurance Team makes certain that the product you receive conforms to the highest standards of accuracy, reliability, and performance.

Extech



Our Customer Care team is always ready to help you with any questions or concerns you may have.



Our expert repair team can service any technical problem in a fast and efficient manner.



Our product design team focuses on the functionality and ergonomics of your meter.

Technical Support

Knowledgeable application engineers provide full technical support as your application needs change.

- support@extech.com
- 781-890-7440 x200

Service Support

We back our products with full service support for in-warranty and out-of-warranty repairs. Our RMA/Repair team is here to assist you.

- repair@extech.com
- 781-890-7440 x210

Calibration Support

Our Calibration Lab team works to keep your instrument accurate and at peak operation. Extech offers NIST Certifications with data for all applicable products featured in our catalog.

- repair@extech.com
- 781-890-7440 x210

✓ **Customer**

✓ **Product**

✓ **Technical**

✓ **Service**

✓ **Calibration**

Support is the  **Extech Advantage**

✓ **Exclusive Products**

✓ **Patented Technology**

✓ **2-in-1 meters**

✓ **Award Winners**



Reliable measurements under any conditions with the EX500 series MultiMeters

User Feedback

The many



Measuring chlorine level at a wastewater treatment plant with the ExStik CL200.

Monitoring sound levels in a neonatal intensive care unit with the SL130 Sound Level Meter



Troubleshooting an electrical panel with the EX470 Digital MultiMeter + IR Thermometer



Trusted by the Pros

Extech products are trusted by the professionals from industries as diverse as HVAC, electrical, industrial, environmental, water quality, and MRO. But don't just take our word for it, here is what a few of those professionals are saying:



EX530 Professional MultiMeter

"The Extech EX530 Multimeter is functionally, ergonomically and aesthetically pleasing. With its rugged design, you can trust this meter on the job. I do!"

Joe B., Electrician



EX830 1000A Clamp + IR

"Your large easy to understand display is top notch. Yours is also the only product I have come across with IR and K adapter temperature sensors built right in."

David M., HVAC Technician



SL130 Sound Level Monitor

"If a NICU does not have these products, they are doing their patients, hospital and staff a disservice."

Liz C., MS, RN Director of NICU and Pediatric/Adolescent unit at Elliot Hospital

USES of Extech

Measuring Amperage with the EX830 Clamp Meter + IR Thermometer



Innovation is the **Extech Advantage**



The many

New Products

Breadth and Depth of Product

Extech offers more than 300 test and measurement instruments covering 14 major product categories. This year alone we're introducing more than 70 new products including those featured on this page. The breadth and depth of our selection is unequalled in the industry, allowing you to select a meter that will closely, if not exactly, meet your specific needs.

When you are in the market for test and measurement products, look no further than Extech Instruments.

Introducing our New Heavy Duty Series of Environmental Measuring Meters

All models include USB interface and Windows® compatible software. From left to right: HD200 Dual Type K + IR Thermometer; HD300 Thermo-Anemometer + IR Thermometer; HD500 Psychrometer + IR Thermometer; HD600 Datalogging Sound Level Meter; HD700 Differential Pressure Manometer.

Selection is the  **Extech Advantage**

products of Extech

- ✓ MultiMeters
- ✓ Clamp Meters
- ✓ Temperature
- ✓ Humidity
- ✓ Airflow
- ✓ Light Meters
- ✓ Sound Meters
- ✓ Water Quality
- ✓ Tachometers
- ✓ Moisture



From left to right: 380976 True RMS Power Clamp; RHT10 Humidity/Temperature Datalogger; 42512 Dual IR Thermometer; 480400 Phase Sequence Tester; EX505 True RMS Industrial MultiMeter; 381395 True RMS MultiScope Datalogger, 412355A Current Voltage Calibrator.

CLAMP
FEATURES

Make yours an Extech Clamp Meter!

Choose the features and performance that best suit your needs: basic accuracy, maximum current, AC or DC and True RMS. Functions to consider are Non-contact temperature, Type K temperature, capacitance and μ A current. Features include inrush current, peak hold and auto power off.



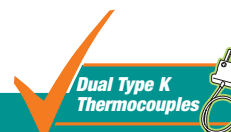
EX800 series



EX700 series



EX600 series



EX600 series



Model	EX810	EX820	EX830	EX710	EX720	EX730	EX622	EX623	EX612	EX613
Page Number	13			15			11		11	
Key Features	<ul style="list-style-type: none"> Built-in non-contact InfraRed Thermometer Double molded housing Capacitance, Temperature, Peak Hold 			<ul style="list-style-type: none"> Inrush, Capacitance and Temperature AC, AC True RMS or AC/DC True RMS models 			<ul style="list-style-type: none"> Built-in non-contact InfraRed Thermometer Dual Type K inputs DC μA current Built-in NCV 		<ul style="list-style-type: none"> Dual Type K Thermocouple inputs DC μA current Built-in NCV 	
Features										
AC Current	1000A	1000A	1000A	800A	800A	800A	400A	400A	400A	400A
Counts	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
True RMS		•	•		•	•	•	•	•	•
Jaw Opening	1.7" (44mm)			1.2" (30mm)			1.4" (36mm)		1.4" (36mm)	
Basic ACA Accuracy	$\pm 2.8\%$	$\pm 2.5\%$	$\pm 2.5\%$	$\pm 2.8\%$	$\pm 2.5\%$	$\pm 2.5\%$	$\pm 1.5\%$		$\pm 1.5\%$	
DC Current			•			•		•		•
AC/DC Voltage	•	•	•	•	•	•	•	•	•	•
Resistance	•	•	•	•	•	•	•	•	•	•
Capacitance	•	•	•	•	•	•	•	•	•	•
Frequency	•	•	•	•	•	•	•	•	•	•
Temperature (Type K)		•	•		•	•	Dual Input	Dual Input	Dual Input	Dual Input
Temperature (IR)	•	•	•				•	•		
Diode	•	•	•	•	•	•	•	•	•	•
Continuity	•	•	•	•	•	•	•	•	•	•
Auto Power Off	•	•	•	•	•	•	•	•	•	•
Backlit Display	•	•	•	•	•	•	•	•	•	•
Min/Max	•	•	•				Max only		Max only	
Zero			•			•		•		•
Data Hold	•	•	•	•	•	•	•	•	•	•
Peak	•	•	•	•	•	•				
Category Rating	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 600V

KEY FEATURES



NCV Detector
Non-contact voltage detector quickly identifies the presence of voltage on live wires



Thermocouple Input
Instruments with single or dual thermocouple input for differential temperature measurement

BUILT IN IR Thermometer
Non-contact InfraRed surface temperature measurement

Peak Hold		Compact Size		BUILT-IN VOLTAGE DETECTOR		Mini Jaw size			
Best Value		MA200 Series		MA100 Series		Mini Clamps			
38387	38389	MA200	MA220	MA120	MA150	380942	380941	380947	Model
17		17		20		18	19	19	Page Number
<ul style="list-style-type: none"> Best value Autoranging with MultiMeter functions AC or AC/DC models 		<ul style="list-style-type: none"> AC Current or AC/DC Current model 		<ul style="list-style-type: none"> Compact size Built-in AC Voltage Detector + flashlight 		<ul style="list-style-type: none"> Highest resolution and accuracy at low currents Compact size 			Key Features
600A	600A	400A	400A	400A	200A	30A	200A	400A	AC Current
2000	4000	2000	4000	2000	4000		4000		Counts
	•					•		•	True RMS
1.25" (33mm)		0.9" (23mm)		0.7" (18mm)			0.9"(23mm)		Jaw Opening
±1.5%	±3.0%	±2.5%	±3.0%	±3.0%	±3.0%	±1.5%	±1.0%	±1.5%	Basic ACA Accuracy
	•		•		•	•	•	•	DC Current
		•	•		•	•	•		AC/DC Voltage
		•	•		•		•		Resistance
	•		•						Capacitance
			•	•			•	•	Frequency
	•		•						Temperature (Type K)
									Temperature (IR)
	•	•	•		•		•		Diode
		•	•		•				Continuity
•		•	•	•	•	•			Auto Power Off
									Backlit Display
		Max			Max	•	•	•	Min/Max
			•	•		•	•	•	Zero
		•	•	•		•	•	•	Data Hold
•	•								Peak
CAT II 600V	CAT II 600V	CAT III 600V	CAT III 600V	CAT II 600V	CAT II 600V		CAT III 300V		Category Rating



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 — find hot spots fast!



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

All-in-one Clamps



NEW
EX600
Series
Clamp Meters

Available
Q1 2008
Patented



Checking AC Superheat

- ✓ **Differential Temperature**
- ✓ **Built-in IR Thermometer**
- ✓ **Built-in NCV Detector**
- ✓ **MicroAmp (µA) Function for use in flame rod testing**

Experience the **Extech** Advantage

EX600 Series

400A Dual Input Clamp Meters + IR Thermometer + NCV

Built-in dual thermocouple inputs for differential temperature measurement

Common Features:

- True RMS measurements for accurate AC Voltage and Current measurements
- Dual type K thermocouple input with Differential Temperature function (T1, T2, T1-T2)
- Built-in non-contact Voltage detector with LED alert
- DC μ A multimeter function for HVAC flame rod Current measurements
- Data Hold plus fast Peak Hold of current surges during motor startup
- 40,000 count multimeter functions for DC Voltage, Resistance, Capacitance, and Frequency for high resolution over wider ranges
- Measures motor capacitors to 40,000 μ F
- 1.4" (36mm) jaw opening for conductors up to 500MCM
- Rugged double molded housing

- Auto power off with audible alert and disable function
- Autoranging with manual override
- Dimensions: 9x3.1x1.9" (229x80x49mm); Weight: 10.7oz (303g)
- Complete with CAT III-600V, double molded test leads, 9V battery, two Type K bead wire probes (-58 to 482°F/-50 to 250°C), and carrying case

EX622 and EX623 Additional Feature

- Built-in non-contact IR Thermometer with laser pointer for locating hot spots
- 8 to 1 distance to target ratio



Dual LCD displays:

- ACV+Hz
- ACA+Hz
- Hz+Duty Cycle,
- T1 and T2,
- T1-T2 and T1
- T1-T2 and T2

BUILT IN IR
Thermometer
Patented

EX600 SERIES



Model	EX612	EX613	EX622	EX623
AC Current	400.0A	400.0A	400.0A	400.0A
DC Current	—	✓400.0A	—	✓400.0A
Max resolution	10mA	10mA	10mA	10mA
Basic ACA accuracy	±1.5%	±1.5%	±1.5%	±1.5%
AC/DC Voltage (Max Res.)	600V (0.1mV)/600V (0.01mV)	600V (0.1mV)/600V (0.01mV)	600V (0.1mV)/600V (0.01mV)	600V (0.1mV)/600V (0.01mV)
DC μ A Current	4000 μ A (0.01 μ A)	4000 μ A (0.01 μ A)	4000 μ A (0.01 μ A)	4000 μ A (0.01 μ A)
Resistance (Max Res.)	40,000M Ω (0.01 Ω)	40,000M Ω (0.1 Ω)	40,000M Ω (0.1 Ω)	40,000M Ω (0.1 Ω)
Capacitance (Max Res.)	10pF to 40,000 μ F (0.01nF)	10pF to 40,000 μ F (0.01nF)	10pF to 40,000 μ F (0.01nF)	10pF to 40,000 μ F (0.01nF)
Frequency (Max Res.)	40MHz (0.001Hz)	40MHz (0.001Hz)	40MHz (0.001Hz)	40MHz (0.001Hz)
Temperature	-58 to 1832°F	-58 to 1832°F	-58 to 1832°F	-58 to 1832°F
(Type K-dual input)	(-50 to 1000°C)	(-50 to 1000°C)	(-50 to 1000°C)	(-50 to 1000°C)
Temperature (IR)	—	—	✓-58 to 518°F (-50 to 270°C)	✓-58 to 518°F (-50 to 270°C)
Diode Test	< 2.8V	< 2.8V	< 2.8V	< 2.8V
Duty Cycle	0.5 to 99.0%	0.5 to 99.0%	0.5 to 99.0%	0.5 to 99.0%
Warranty	1 year	1 year	1 year	1 year

NIST Certified Meters

Our in-house calibration lab certifies Extech products to NIST standards. Meters with NIST certificates come complete with data. Our laboratory conforms to MIL STD 45662, ISO 17025, Guide 25, and ANSI/INCSL Z540-1-1994.

- EX612-NISTEX612 with NIST Certificate
- EX613-NISTEX613 with NIST Certificate
- EX622-NISTL.....EX622 with NIST Certificate
- EX623-NISTL.....EX623 with NIST Certificate

Accessories

TP200.....Type K Pipe Clamp Probe (see p. 43)

* Product certified to all functions except IR Thermometer



TP200 Type K Pipe Clamp Probe for hands-free superheat/sub-cooling temperature measurement (max. 212°F/100°C) without the use of tape or Velcro®.



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



True RMS
because only a True RMS meter
gives you accurate readings of
non-sinusoidal waveforms

Clamp Meters with **Built-in InfraRed** thermometer



EX800 Series Clamp Meters

- ✓ **Non-Contact IR Thermometer**
- ✓ **Fast Peak Hold**
- ✓ **Double Molded Housing**
- ✓ **True RMS**
- ✓ **Type K Temperature**



Experience the **Extech**
Advantage

EX800 Series

1000A Clamp Meters with Built-in IR Thermometer

Clamp-on multimeter with built-in non-contact InfraRed Thermometer

Common Features:

- Non-contact InfraRed Temperature measurements with laser pointer
- Models with True RMS Current and Voltage measurements
- Peak hold captures inrush currents and Transients
- MultiMeter functions include AC/DC Voltage, Resistance, Capacitance, Frequency, Diode, and Continuity
- 1.7" (43mm) jaw opening for conductors up to 750MCM or two 500MCM
- Features include Data Hold and Min/Max
- Auto Power off
- Dimensions: 10.6x4.3x2" (270x110x50mm); Weight: 13.6oz (386g)

Model EX810

- AC Current
- Average responding

Model EX820

- AC Current
- True RMS
- Type K thermometer

Model EX830

- DC/AC Current
- True RMS
- Type K thermometer
- DC Zero



BUILT IN IR
Thermometer
Patented



EX800
SERIES

Model	EX810	EX820	EX830
True RMS/Averaging	Averaging	True RMS	True RMS
Display counts	4000 count backlit LCD	4000 count backlit LCD	4000 count backlit LCD
Jaw size/Cable size	1.7" (43mm); 750MCM	1.7" (43mm); 750MCM	1.7" (43mm); 750MCM
AC Current	400.0A, 1000A	400.0A, 1000A	400.0A, 1000A
DC Current	—	—	400.0A, 1000A
Max resolution	0.1A	0.1A	0.1A
Basic ACA Accuracy (% rdg)	±2.8% (AC)	±2.5% (AC)	±2.5% (AC); ±2.5% (DC)
AC/DC Voltage (Max Res.)	600V (0.1mV)	600V (0.1mV)	600V (0.1mV)
Resistance (Max Res.)	40MΩ (0.1Ω)	40MΩ (0.1Ω)	40MΩ (0.1Ω)
Capacitance (Max Res.)	40mF (0.001nF)	40mF (0.001nF)	40mF (0.001nF)
Frequency (Max Res.)	4kHz (1Hz)	4kHz (1Hz)	4kHz (1Hz)
Temperature (Type K)	—	-4 to 1400°F (-20 to 760°C)	-4 to 1400°F (-20 to 760°C)
Temperature (IR)	-58 to 518°F (-50 to 270°C)	-58 to 518°F (-50 to 270°C)	-58 to 518°F (-50 to 270°C)
Category Rating	CAT III-600V	CAT III-600V	CAT III-600V
Warranty	1 year	1 year	1 year



Complete with test leads, 9V battery, Type K probe (-4 to 482°F/-20 to 250°C) for EX820/EX830, and case.

NIST Certified Meters

Our in-house calibration lab certifies Extech products to NIST standards. Meters with NIST certificates come complete with data. Our laboratory conforms to MIL STD 45662, ISO 17025, Guide 25, and ANSI/NCSL Z540-1-1994.

- EX810-NISTL*EX810 Clamp Meter with NIST Certification
- EX820-NISTL*EX820 Clamp Meter with NIST Certification
- EX830-NISTL*EX830 Clamp Meter with NIST Certification

Accessories see pages 42-43

- TP873Replacement Bead wire Temperature probe
- TL803Replacement Test Leads
- TP882Type K High Temp Penetration Probe (see p. 74)
- TP200Type K Clamp Probe
- TL810Electrical Test Lead Kit

* Product certified to all functions except IR Thermometer





Double Molded Clamp Meters

EX700 Series 800A Clamp Meters with rugged double molded housings, are ergonomically designed for one-hand operation and comfort. Select True RMS or averaging, DC Current, and Type K Temperature.

Featuring Model EX730

- ▶ **True RMS**
Accurate AC Voltage and Current measurement regardless of waveforms
- ▶ **Fast Peak Hold**
Captures inrush currents and transients
- ▶ **Double Molded Housing**
Rugged housing is ergonomically designed and has better grip
- ▶ **High Temperature**
Measures up to 1400°F (760°C) for wide range of applications



Extech Advantage
800A Full featured professional AC/DC Clamp Meter



480172 AC Line Splitter fits clamp jaw size 0.75" (19mm) and above



TP200 Type K Clamp Probe measures from -40 to 212°F (-40 to 100°C)

Accessories:

- TP873.....Replacement Bead wire Temperature probe with subminiature to banana connectors
- TP882.....Type K High Temperature Penetration Probe w/subminiature connector (1000°F/538°C)
- TP200.....Type K Clamp Probe (212°F/100°C - see p. 43)
- 480172.....AC Line Splitter (see p. 17)
- TL803.....Replacement Test Leads

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

EX710-NIST
EX720-NIST
EX730-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model
True RMS/Averaging
Display counts
Jaw size/Cable size
AC Current
DC Current
Max resolution
Basic ACA Accuracy (% rdg)
AC/DC Voltage (Max Res.)
Resistance (Max Res.)
Capacitance (Max Res.)
Frequency (Max Res.)
Temperature (Type K)
Category Rating
CE/UL
Dimensions/Weight
Warranty



EX710

**800A AC
Clamp Meter**

Ergonomically designed in rugged double molded housing

- Data Hold and Auto power off
- Peak Hold for inrush currents
- AC/DC Voltage, Resistance, Capacitance, and Frequency
- Complete with test leads, 9V battery, and belt holster



EX720

**800A AC
Clamp Meter with
Type K Temperature**

True RMS clamp meter with Type K surface Temperature measurements

- ✓ True RMS
- ✓ Type K thermocouple temperature measures to 1400°F/760°C
- Data Hold and Auto power off
- Peak Hold for inrush currents
- AC/DC Voltage, Resistance, Capacitance, and Frequency
- Complete with test leads, 9V battery, Type K bead wire probe (-58 to 482°F/ -50 to 250°C), and belt holster



EX730

**800A AC/DC
Clamp Meter with
Type K Temperature**

True RMS AC/DC Current clamp meter with Type K surface Temperature measurements

- ✓ DC Current with Zero function
- ✓ True RMS
- ✓ Type K thermocouple temperature measures to 1400°F/760°C
- Data Hold and Auto power off
- Peak Hold for inrush currents
- AC/DC Voltage, Resistance, Capacitance, and Frequency
- Complete with test leads, 9V battery, Type K bead wire probe (-58 to 482°F/ -50 to 250°C), and belt holster

EX710

Averaging

4000 count backlit LCD
1.2" (30mm); 500MCM
40.00A, 400.0A, 800A

0.01A (AC)
±2.8%

600V (0.1mV)
40MΩ (0.1Ω)
40mF (0.001nF)
4kHz (1Hz)

—
CAT III-600V

CE/UL

9x3.1x1.9" (229x80x49mm) / 10.7oz (303g)
1 year

EX720

✓ True RMS

4000 count backlit LCD
1.2" (30mm); 500MCM
40.00A, 400.0A, 800A

0.01A (AC)
±2.5%

600V (0.1mV)
40MΩ (0.1Ω)
40mF (0.001nF)
4kHz (1Hz)

-4 to 1400°F / -20 to 760°C

CAT III-600V

CE/UL

9x3.1x1.9" (229x80x49mm) / 10.7oz (303g)
1 year

EX730

✓ True RMS

4000 count backlit LCD
1.2" (30mm); 500MCM
40.00A, 400.0A, 800A

✓ 40.00A, 400.0A, 800A
0.01A AC/0.1A DC
±2.8% (AC); ±2.5% (DC)

600V (0.1mV)
40MΩ (0.1Ω)
40mF (0.001nF)
4kHz (1Hz)

-4 to 1400°F / -20 to 760°C (EX720 and EX730 only)

CAT III-600V

CE/UL

9x3.1x1.9" (229x80x49mm) / 10.7oz (303g)
1 year



Clamp Meters

Extech's Clamp meters provide solutions to all your electrical needs from general AC electrical work to specialty projects.

Featuring Model MA220

► **AC/DC Measurements**

For general purpose use

► **Compact Size**

Take measurements in tight spaces

► **Capacitance**

For checking motor starting capacitors

► **Temperature**

To measure operating temperature of motors and other electrical devices



MA220 includes bead wire Temperature probe, test leads, and pouch case

Accessories

- 480172 ...AC Line Splitter
- TP200Type K Clamp Probe (212°F/100°C - see p. 43)
- TP873Replacement Bead wire Temperature probe
- TL803Replacement Test Leads

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- AM300-NIST
- AM600-NIST
- MA200-NIST
- MA220-NIST
- 38387-NIST
- 38389-NIST
- 38394-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.



NEW

AM300

300A AC Analog Clamp Meter

Rotary Scale with Pointer Lock freezes the reading on the display

- Single function/range switch for easy one hand operation
- Jaw opens to 1.5" (38mm)
- AC/DC Voltage and Resistance measurement
- Pointer Lock function freezes the reading
- Zero adjust
- Complete with test leads, 1.5V battery and carrying case



NEW

AM600

600A AC Analog Clamp Meter

Temperature function to measure operating temperature of motors and other electrical devices

- Jaw opens to 1.3" (34mm)
- 50/60Hz ACA frequency response
- AC/DC Voltage, Resistance and Temperature measurement
- Pointer Lock freezes reading on display
- Zero adjust
- Complete with test leads, temperature probe (-58 to 482°F/-50 to 250°C), 1.5V AA battery and carrying case

Specifications

Model	AM300	AM600
Averaging/True RMS	Averaging	Averaging
Display counts	Analog	Analog
Jaw size/Cable size	1.5" (38mm) 500MCM	1.3" (34mm) 350MCM
AC Current	6,15, 60, 150, 300A (AC scale)	6,15, 60, 150, 600A (AC scale)
DC Current	—	—
Max resolution	—	—
Basic ACA Accuracy (% rdg)	±3.0%FS	±3.0%FS
AC Voltage (Max Res.)	300V, 600V	150, 300, 750V
DC Voltage (Max Res.)	75V	75V
Resistance (Max Res.)	2kΩ	200kΩ
Capacitance (Max Res.)	—	—
Frequency (Max Res.)	50 to 400Hz (ACA)	—
Temperature	—	-4 to 302°F (-20 to 150°C)
Duty Cycle	—	—
Diode/Continuity	—	—
Data Hold	Pointer Lock	Pointer Lock
Min/Max/Peak	—	—
UL/CE/Category Rating	CE/CAT II-600V	CE/CAT II-600V
Dimensions/Weight	9x2.8x1.5" (230x72x37mm)/14.5oz (416g)	8.4x3.3x1.7" (214x85x43mm)/12.3oz (350g)
Warranty	1 year	1 year



MA200
MA200

400A Clamp Meters

Basic AC Current Meter or AC/DC model with 11 functions

- AC Current measurement
- Compact size allows measurements in tight locations
- Auto power off

MA200 Additional Features

- DC Current Measurement
- One touch "Auto Zero"
- Capacitance, Frequency, Temperature and Duty Cycle
- Complete with test leads, case and two AAA batteries. MA200 also comes with a bead wire temperature probe (-58 to 482°F/ -50 to 250°C)



38387
38389

600A AC/DC Clamp Meters

Choice of True RMS model

- AC Current and Peak Hold
- Auto power off
- Complete with test leads, 9V battery, and belt holster; Model 38389 also includes a bead wire temperature probe (-58 to 482°F/ -50 to 250°C)

38389 Additional Features

- True RMS
- DC Current readings with resolution of 0.1A
- Capacitance and Temperature (See optional Temperature Probes for higher temperature ranges on pages 42 and 78)



38394

600A AC/DC Clamp Meter

Compact clamp with Relative and Frequency functions

- Auto or manual ranging
- Relative function zeros Current measurements or creates a reference value
- Complete with test leads, two AA batteries and carrying case with shoulder strap

AC Line Splitter 480172



480172



- Enables user of a clamp meter to measure AC current on a 2-wire or 3-wire power cord to 15A
- Fits clam jaw size 0.75" (19mm) and above
- Provides easy and safe measurements of current without the need to separate the conductors
- Plugging the power connector into the Line Splitter separates the hot/live conductor from the neutral (and ground)
- Also features voltage check function
- Dimensions: 5.25x2x1" (133x51x25mm), Weight: 5.8oz (164.4g)

MA200	MA200	38387	38389	38394	Model
Averaging	Averaging	Averaging	✓ True RMS	Averaging	Averaging/True RMS
2000 count LCD	4000 count LCD	2000 count LCD	4000 count LCD	2400 count LCD	Display counts
0.9" (23mm); 300MCM	0.9" (23mm); 300MCM	1.25" (33mm); 350MCM	1.25" (33mm); 350MCM	1.2" (30mm); 350MCM	Jaw size/Cable size
2,000A, 20,00A, 200.0, 400A	2,000A, 20,00A, 200.0, 400A	200.0A, 600A	200.0A, 600A	240.0A, 600A	AC Current
—	2,000A, 20,00A, 200.0, 400A	—	200.0A, 600A	240.0A, 600A	DC Current
0.001A (AC)	0.01A (AC); 0.01A (DC)	0.1A (AC)	0.1A (AC); 0.1A (DC)	0.1A (AC); 0.1A (DC)	Max. resolution
±2.5%	±3%	±1.5%	±3% AC/±2.5% DC	±2%	Basic ACA Accuracy (% rdg)
600V (0.1mV)	600V (0.1mV)	600V (1V)	600V (1mV)	600V (1mV)	AC Voltage (Max. Res.)
600V (0.1mV)	600V (0.1mV)	600V (1V)	600V (0.1mV)	600V (0.1mV)	DC Voltage (Max. Res.)
20MΩ (0.1Ω)	40MΩ (0.1Ω)	2000Ω (1Ω)	40MΩ (0.1Ω)	24MΩ (0.1Ω)	Resistance (Max. Res.)
—	100μF (0.01nF)	—	100μF (0.01nF)	—	Capacitance (Max. Res.)
—	150kHz (0.001Hz)	—	—	100kHz (0.01Hz)	Frequency (Max. Res.)
—	-58 to 1832°F (-50 to 1000°C)	—	-4 to 1400°F (-20 to 760°C)	—	Temperature
—	0.5% to 99.0%	—	—	—	Duty Cycle
Yes	Yes	Continuity	Yes	Yes	Diode/Continuity
Yes	Yes	Yes	Yes	Yes	Data Hold
Max	—	Peak	Peak	—	Min/Max/Peak
CE/CAT III-600V	CE/CAT III-600V	UL/CE/CAT II-600V	UL/CE/CAT II-600V	CE/CAT II-600V	UL/CE/Category Rating
7.9x2x1.4" (200x50x35mm)/7oz (200g)	7.9x2x1.4" (200x50x35mm)/7oz (200g)	8x3.1x1.6" (203x79x41mm)/6.5oz (185g)	8x3.1x1.6" (203x79x41mm)/6.5oz (185g)	7x2.5x1.3" (178x64x33mm)/8oz (230g)	Dimensions/Weight
1 year	1 year	1 year	1 year	1 year	Warranty



Mini Clamp Meters

Extech's Mini Clamp Meters, with their high resolution, are the ideal tools for accurately measuring very low AC & DC currents. Smaller in size than traditional clamp meters, they easily fit into tight spaces.

Featuring Model 380950

- ▶ **High Resolution**
0.001A (1mA) for low current applications
- ▶ **AC/DC Current Measurements**
For general purpose use
- ▶ **Mini Jaw Size**
0.5" (12mm) to fit into tight spaces
- ▶ **DC Zero**
Quick one touch DC zero



Extech Mini Clamp Meters offer high resolution in a compact size. MultiMeter functions on some models add to the versatility to your meter.



Mini jaw size conveniently reaches into narrow spaces for taking Current and Voltage measurements

Accessories

480172AC Line Splitter
(See page 17 for details)

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points.

To order meter with NIST:

- 380942-NIST
- 380950-NIST
- 380941-NIST
- 380947-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.



380942

30A True RMS AC/DC Mini Clamp to 0.1mA Resolution

Highest resolution and accuracy at low currents

- Low AC/DC Current measurements with high resolution to 0.1mA AC and 1mA DC
- Fast 40 segment bargraph
- One touch Auto Zero for DC Current measurements
- Auto power off with disable feature
- Complete with test leads, wrist strap, 2 AA batteries and case

Specifications

Model	380942
Averaging/True RMS	True RMS
Display counts	4000 count LCD
Jaw size/ Cable size	0.9" (23mm); 4/0 AWG
AC Current	400mA, 4A, 30A
DC Current	4A, 30A
Max resolution	AC: 0.1mA, DC: 0.001A
Basic AC/DC Accuracy	±1.5%
AC/DC Voltage (Max. Res.)	AC: 400V (1V)/ DC: 400V (1V)
Resistance (Max Res.)	—
Frequency (Max Res.)	—
Continuity	—
Data Hold	Yes
Min/Max/Peak	Min/Max
Category Rating	CAT III-300V
UL/CE	UL/CE
Dimensions	7x1.8x1.3" (178x45x32mm)
Weight	8oz (225g)
Warranty	1 year



NEW

380950

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

Small jaw size (0.5"/12mm)
fits into tight spaces

- 1mA resolution
- Voltage, Resistance, Frequency and Duty Cycle measurement
- Auto power off
- CAT III-600V
- Complete with test leads, carrying case and 9V battery



380941

**200A AC/DC
Mini Clamp Meter**

High resolution mini clamp with Voltage,
Frequency, and Resistance

- High resolution to 10mA AC/DC
- Fast 40 segment bargraph
- One touch Auto Zero for DC Current measurements
- Complete with test leads, wrist strap, 2 AA batteries and carrying case



380947

**400A True RMS
AC/DC Mini
Clamp Meter**

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

- Non-contact Frequency measurements to 10kHz through the clamp jaws
- Fast 40 segment bargraph
- One touch Auto Zero
- Complete with wrist strap, 2 AA batteries and carrying case

380950	380941	380947
Averaging	Averaging	✓ True RMS
4000 count LCD	4000 count LCD	4000 count LCD
0.5" (12mm); 3/0 AWG	0.9" (23mm); 4/0 AWG	0.9" (23mm); 4/0 AWG
4.000A, 80.0A	AC: 40A, 200A	4A, 40A
4A, 80A	DC: 40A, 200A	40A, 400A
1mA	0.01A AC/DC	AC: 0.001A, DC: 0.01A
±2.5%	±1.0%	AC: ±1.5%, DC: ±1.0%
600V (0.1mV)	400V (0.1V)	—
40MΩ (0.1Ω)	400Ω (0.1Ω)	—
10MHz (0.001Hz)	10kHz (0.01Hz)	10kHz (0.01Hz)
Yes	Yes	—
Yes	Yes	Yes
Max	Min/Max	Min/Max
CAT III-600V	CAT III-300V	CAT III-300V
CE	UL/CE	UL/CE
8.2x2.7x1.4" (210x70x37mm)	7x1.75x1.25" (178x45x32mm)	7x1.8x1.3" (178x45x32mm)
7oz (200g)	8oz (225g)	8oz (225g)
1 year	1 year	1 year



Specialty Clamp Meters
Our selection of clamp meters includes features such as True Power and Phase Indication that make these meters powerful and versatile troubleshooting tools.

Featuring Model 382400

- ▶ **3000A AC/DC**
High Current measurements
- ▶ **Fast Peak Hold (30µs)**
Captures inrush currents and transients
- ▶ **True RMS**
Accurate AC Voltage and Current measurement regardless of waveforms
- ▶ **24" (61cm) Flexible Probe**
Easily wraps around bus bars and cable bundles



24" (61cm) flexible clamp

Accessories

480172 ..AC Line Splitter
(See page 17 for details)

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**
MA120-NIST
MA150-NIST
380974-NIST
380976-NIST
380926-NIST
382400-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.



**MA120
MA150**

NEW



Non-contact Voltage detection via clamp tip

200A Mini Clamp Meters+Voltage Detector

Clamp meter with built-in AC Voltage detector + flashlight

- 200A AC Current
- Non-contact AC Voltage detector via clamp tip
- Built-in white LED flashlight
- Auto power off
- Data Hold (MA120)
- Complete with pouch case and two AAA batteries

MA150 Additional Features:

- ✓ 600V AC/DC Voltage
- ✓ Resistance measurement
- ✓ Diode and Continuity test



380974

1000A AC Clamp + Phase Rotation Tester

Measurements include Resistance, Capacitance, and Frequency

- Phase rotation function identifies phase sequence for 3 phase motor installations
- Large display with 40 segment bargraph
- Peak Hold for in-rush Currents
- Auto power off with disable feature
- Complete with test leads, 9V battery and carrying case

Specifications

Model	MA120	MA150	380974
True RMS/Averaging		Averaging	Averaging
Display counts		2000 count Backlit LCD	4000 count LCD
Jaw size/Cable size		0.7" (18mm); 300MCM	1.6" (40mm); 500MCM
AC Current		200A	40.00A, 400.0A, 1000A
DC Current	200A	—	—
Max resolution		0.1A	0.01A (AC)
Basic ACA Accuracy (% rdg)		±3%	±2%
AC Voltage (Max Res.)	Non-contact	Non-contact/600V (0.1mV)	600V (0.1V)
DC Voltage (Max Res.)	—	600V (0.1mV)	—
Resistance (Max Res.)	—	20MΩ (0.1Ω)	40kΩ (10Ω)
Capacitance (Max Res.)	—	—	400µF (1µF)
Frequency (Max Res.)	1kHz (0.01Hz)	—	4kHz (1Hz)
Temperature	—	—	—
Diode/Continuity	—	Yes	Continuity
Data Hold	Yes	—	Yes
Min/Max/Peak	—	Max	Yes
Category Rating		CAT II-600V	CAT III-600V
UL/CE		CE	UL/CE
Dimensions		6.5x2.6x1.3" (164x65x32mm)	9x3x1.5" (228x76x39mm)
Weight		6.2oz (176g)	13oz (370g)
Warranty		1 year	1 year



380976

NEW

Single Phase and Three Phase 1000A AC Power Clamp Meter

Functions include Power, Current, Insulation Resistance, and Temperature (Type K)

- True Power, Apparent Power and Reactive Power, plus Horsepower, Power factor, and Phase Angle with Lead/Lag indicator (see p. 55 for details)
- AC+DC μ A Current with 10nA resolution for flame rod tests
- Auto power off with disable
- Complete with test leads, bead wire temperature probe (-58 to 482°F/-50 to 250°C), case, and 9V battery



380926

2000A AC/DC Clamp Meter

Full range MultiMeter functions with high resolution to 0.1 μ A/0.1mV and CAT IV-600V Safety Rating

- AC/DC Current via clamp with 0.1A resolution
- Large jaw size for high Current measurements
- Data Hold
- Push button Zero adjust improves DC accuracy
- Complete with built-in stand, test leads and 9V battery



382400

NEW

3000A AC Flexible Clamp Meter

Flexible probe easily wraps around bus bars and cable bundles

- AC Voltage to 600V
- Fast Peak capture (30 μ s)
- Selectable frequency (50/60Hz)
- Max/Min
- Simultaneously displays Frequency with Current or Voltage
- Auto power off with disable feature
- Complete with 24" (61cm) flexible current probe, carrying case, and 2 AA batteries

380976	380926	382400	Model
✓ True RMS	✓ True RMS	✓ True RMS	True RMS/Averaging
9999 count LCD	5000 count Backlit LCD	4000 count LCD	Display counts
1.6" (40mm); 500MCM	2.36" (60mm); 750MCM	Flexible	Jaw size/ Cable size
100.0A, 1000.0A	400.0A, 2000A (Clamp); 400mA (DMM)	300.0A, 1000.0A, 3000A	AC Current
—	400.0A, 2000A Clamp); 400mA (DMM)	—	DC Current
0.010A (Clamp); 0.01 μ A (DMM)	0.1A (Clamp); 0.1A (DMM)	0.1A	Max. resolution
$\pm 2\%$ (Clamp), $\pm 1\%$ (DMM)	$\pm 2\%$	$\pm 1\%$	Basic ACA Accuracy (% rdg)
600V (0.1mV)	1000V (1mV)	600V (0.1V)	AC Voltage (Max Res.)
600V (0.1mV)	1000V (0.1mV)	—	DC Voltage (Max Res.)
100M Ω (0.1 Ω)	40M Ω (0.1 Ω)	—	Resistance (Max Res.)
7000 μ F (1nF)	50 μ F (10pF)	—	Capacitance (Max Res.)
1kHz (0.1Hz)	100kHz (0.001Hz)	45 to 65Hz (0.1Hz)	Frequency (Max Res.)
-58 to 1000°F (-50 to 900°C)	—	—	Temperature
Yes	Yes	—	Diode/Continuity
Yes	Yes	Yes	Data Hold
Min/Max	—	Yes	Min/Max/Peak
CAT III-600V	CAT IV-600V	CAT III-600V	Category Rating
UL/CE	CE	CE	UL/CE
9x3x1.6" (228x76x39mm)	10x2.9x1.5" (255x73x38mm)	5.1x3.1x1.7" (130x80x43mm)	Dimensions
16.4oz (465g)	14oz (380g)	15oz (430g)	Weight
1 year	1 year	1 year	Warranty

DMM
FEATURES


Make yours an Extech MultiMeter!

Use this selection guide to pick the right MultiMeter for your application. Choose from meters with CAT IV safety rating, multimeters with datalogging capability, models with PC interface, specialty multimeters with built-in InfraRed thermometers, and rugged waterproof industrial grade multimeters.




Model	MM560	MM570	ML720	MP510	MP530	EX510	EX520	EX530	
Page	31		31	31		25			
Key Features	<ul style="list-style-type: none"> • Highest precision • Highest resolution (50,000/500,000 counts) • PC interface 		<ul style="list-style-type: none"> • Datalogs/views up to 43,000 data points • High Performance • PC interface 	<ul style="list-style-type: none"> • PC interface • High Performance 		<ul style="list-style-type: none"> • Waterproof • Drop proof to 6 feet • Large backlit LCD with bargraph 			
Features									
Basic Accuracy (VDC)	0.03%	0.02%	0.08%	0.08%	0.08%	0.09%	0.09%	0.06%	
Display Counts	50,000	500,000	5000	5000	5000	6000	6000	40,000	
True RMS	•	•	•		•		•	•	
Temperature (Type K)		•	•		•		•	•	
Temperature (IR)									
Capacitance	•	•	•	•	•		•	•	
Frequency	•	•	•	•	•	•	•	•	
Battery Test									
Duty Cycle	•	•				•	•	•	
Autoranging	•	•	•	•	•	•	•	•	
Backlit Display	•	•	•	•	•	•	•	•	
Relative	•		•		•	•	•	•	
Min/Max	•	•			•	•	•	•	
Input Alert	•	•							
Category Rating	CAT IV 600V	CAT IV 600V	CAT IV 600V	CAT IV 600V	CAT IV 600V	CAT IV 600V	CAT IV 600V	CAT IV 600V	


CATEGORY SAFETY RATINGS



CAT IV
Electrical devices connected to raw voltage distribution lines and/or located outdoors



CAT III
Fixed electrical devices located inside the building and protected by fuse box circuitry



CAT II
Devices connected to outlets that are at least 30ft away from CAT III or 60ft away from CAT IV sources

Built-in IR Thermometer 

EX400 Series



True RMS 

EX400 Series



Built-in NCV 

EX300 Series

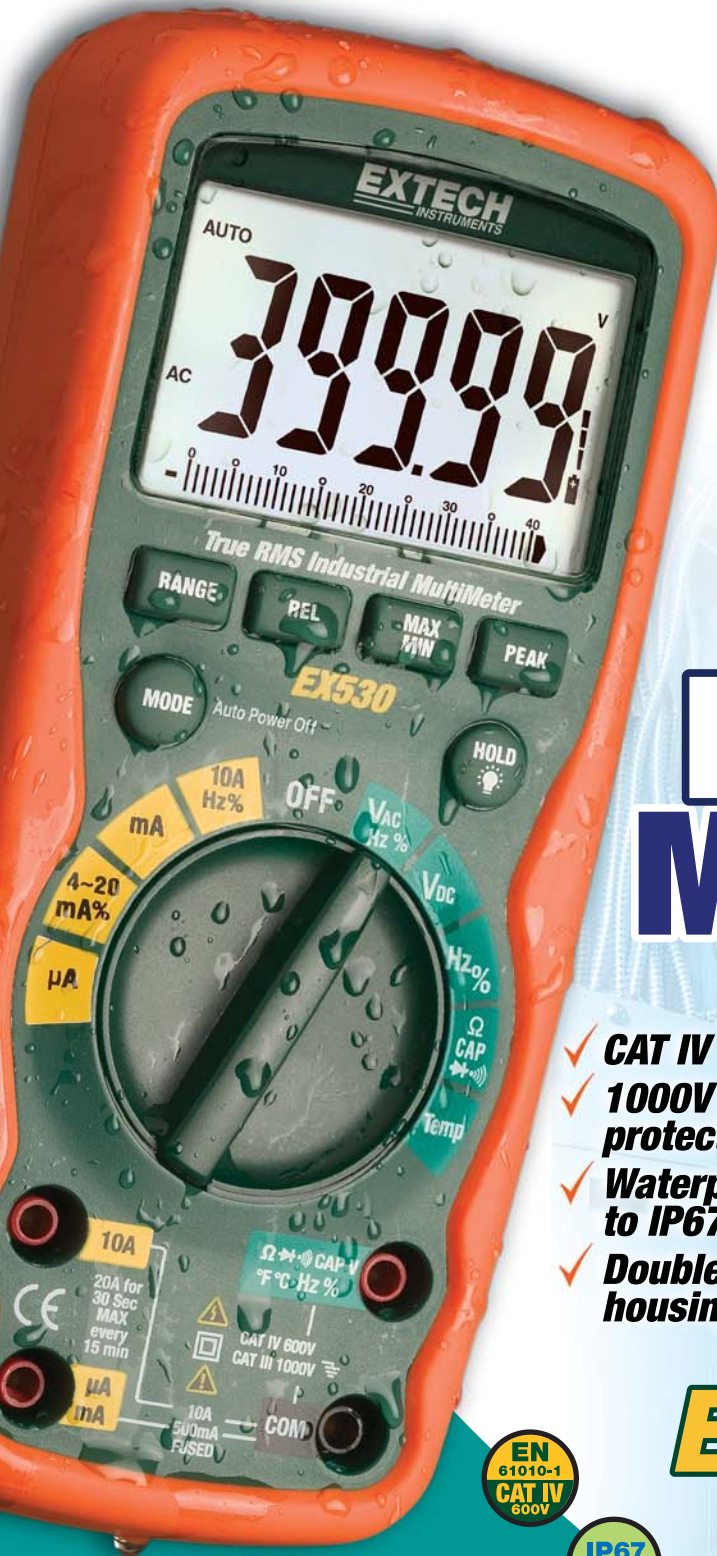


Large Display Compact meter 

MN10 Series



EX450		EX470		EX411		EX430		EX310		EX320		EX330		MN15		MN16		Model	
		27		27				29						34				Page	
<ul style="list-style-type: none"> Built-in non-contact IR Thermometer w/ Laser 				<ul style="list-style-type: none"> True RMS 				<ul style="list-style-type: none"> Built-in non-contact AC Voltage Detector (NCV) Compact size 						<ul style="list-style-type: none"> Oversized LCD display Compact size 					
Features																			
0.5%		0.3%		0.3%		0.3%		0.5%		0.5%		0.5%		0.5%		0.5%		Basic Accuracy (VDC)	
2000		4000		2000		4000		2000		2000		4000		2000		4000		Display Counts	
		•		•		•						•		•				True RMS	
		•		•		•						•		•				Temperature (Type K)	
•		•																Temperature (IR)	
		•				•						•						Capacitance	
		•				•						•						Frequency	
								•						•				Battery Test	
		•				•						•						Duty Cycle	
•		•				•				•		•						Autoranging	
•		•		•		•												Backlit Display	
		•				•						•						Relative	
Max only		Max only		Max only		Max only		Max only		Max only		Max only						Min/Max	
•		•		•		•												Input Alert	
CAT III 600V		CAT III 600V		CAT III 600V		CAT III 600V		CAT III 600V		CAT III 600V		CAT III 600V		CAT III 600V		CAT III 600V		Category Rating	



Waterproof
for the most extreme
operating conditions



Built Tough
Drop-proof to 6 feet

Waterproof
Industrial^{grade}
MultiMeters
Built Tough!

- ✓ **CAT IV**
- ✓ **1000V input protection**
- ✓ **Waterproof to IP67**
- ✓ **Double molded housing**



EX500
Series
MultiMeters



Experience the **Extech** Advantage

EX500 Series

Heavy Duty Industrial MultiMeters

Waterproof (IP67) rugged design for heavy duty use

Common Features:

- Double molded for waterproof (IP67) protection
- 1000V input protection on all functions
- Dual sensitivity frequency functions
- Large backlit LCD
- Diode open circuit voltage of 2.8V DC
- Auto power off with disable feature
- Dimensions: 7.25x3.25x2.25" (184x83x57mm); Weight: 12.3oz (349g)
- Complete with double molded test leads, magnetic hanging strap, Type K bead wire temperature probe (EX505, EX520 and EX530), carrying case, and one 9V battery

Model EX510 and EX520

- 6000 count—high resolution
- 0.09% accuracy
- Min/Max/Relative/Data Hold
- 20A max current
- bargraph
- EX520: True RMS

Model EX530

- True RMS
- 40,000 count—highest resolution
- 0.06% accuracy
- Min/Max/Relative/Data Hold
- 20A max current
- bargraph
- Peak Hold



Models EX503 and EX505

- 4,000 count
- 0.5% accuracy
- Data hold and Relative
- 10A max current
- EX505: True RMS



Functions	EX503	EX505	EX510	EX520	EX530
Display Counts	4,000 count	4,000 count	6,000 count	6,000 count	40,000 count
Averaging/True RMS	Averaging	True RMS	Averaging	True RMS	True RMS
Basic Accuracy	0.5%	0.5%	0.09%	0.09%	0.06%
DC/AC Voltage	0.1mV to 1000VDC 0.1mV to 1000VAC	0.1mV to 1000VDC 0.1mV to 1000VAC	0.1mV to 1000VDC 1mV to 1000VAC	0.1mV to 1000VDC 1mV to 1000VAC	0.01mV to 1000VDC 0.01mV to 1000VAC
DC/AC Current	0.1µA to 10A	0.1µA to 10A	0.1µA to 20A	0.1µA to 20A	0.01µA to 20A
Resistance	0.1Ω to 40MΩ	0.1Ω to 40MΩ	0.1Ω to 60MΩ	0.1Ω to 60MΩ	0.01Ω to 40MΩ
Capacitance	0.01nF to 100µF	0.01nF to 100µF	—	0.01nF to 1000µF	0.001nF to 40mF
Frequency (electrical)	5Hz to 1kHz	5Hz to 1kHz	10Hz to 400Hz	10Hz to 400Hz	40Hz to 400Hz
Frequency (electronic)	0.001Hz to 10MHz	0.001Hz to 10MHz	0.001Hz to 40MHz	0.001Hz to 40MHz	0.001Hz to 100MHz
Temperature	—	-4 to 1382°F (-20 to 750°C)	—	-50 to 1382°F (-45 to 750°C)	-50 to 1382°F (-45 to 750°C)
Duty Cycle	0.1 to 99.9%	0.1 to 99.9%	0.1 to 99.9%	0.1 to 99.9%	0.1 to 99.9%
Diode/Continuity	Yes	Yes	Yes	Yes	Yes
Category Rating	CAT IV-600V, CAT III-1000V	CAT IV-600V, CAT III-1000V	CAT IV-600V, CAT III-1000V	CAT IV-600V, CAT III-1000V	CAT IV-600V, CAT III-1000V
Warranty	3 Years	3 Years	3 Years	3 Years	3 Years

NIST Certified Meters

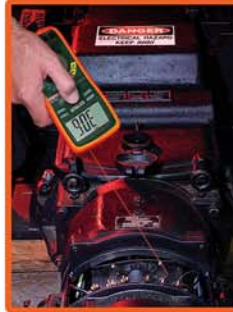
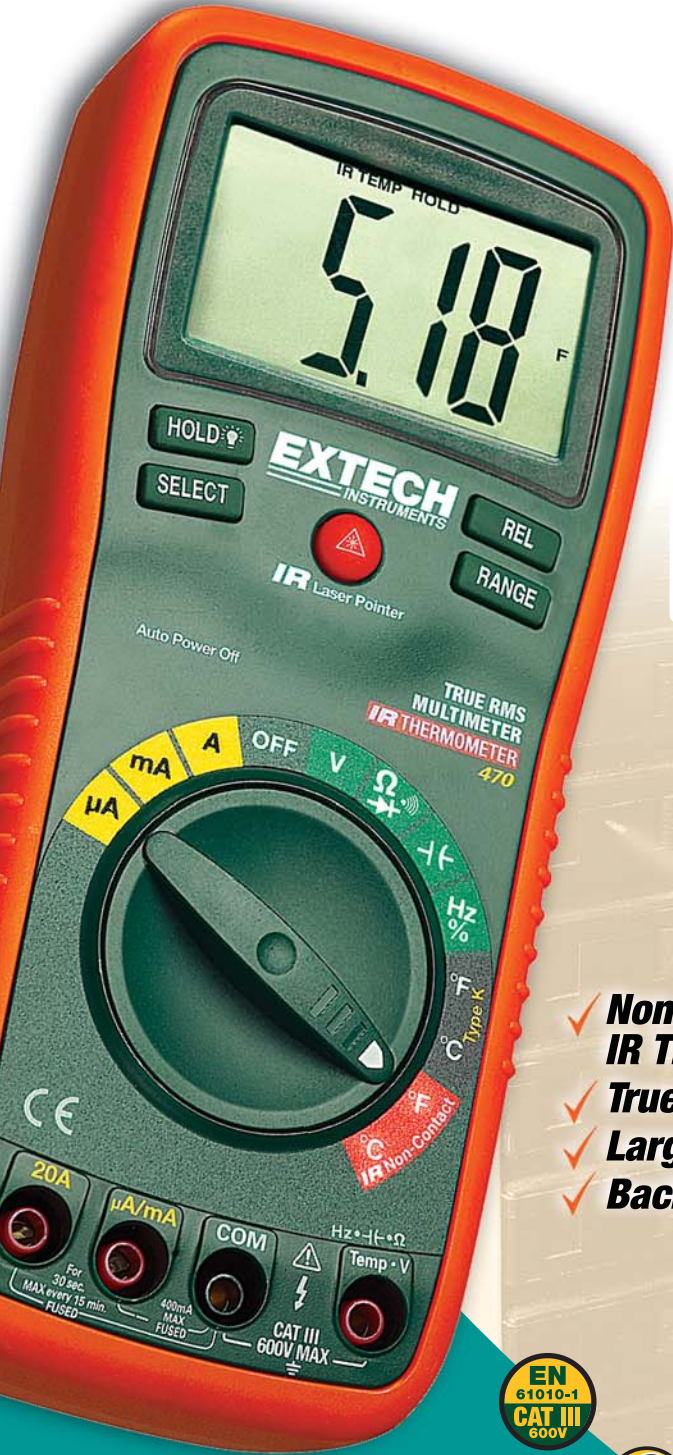
Our in-house calibration lab certifies Extech products to NIST standards. Meters with NIST certificates come complete with data. Our laboratory conforms to MIL STD 45662, ISO 17025, Guide 25, and ANSI/INCSL Z540-1-1994.

- EX503-NISTEX503 MultiMeter with NIST Certification
- EX505-NISTEX505 MultiMeter with NIST Certification
- EX510-NISTEX510 MultiMeter with NIST Certification
- EX520-NISTEX520 MultiMeter with NIST Certification
- EX530-NISTEX530 MultiMeter with NIST Certification

Accessories

- TL810Electrical Test Lead Kit (see p. 42)
- TP200Type K Clamp Probe (212°F/100°C)
- HG500Magnetic Hanging Strap





Built-in InfraRed Thermometer
Quickly identify overheating motors or locate hot spots on electrical panels and HVAC vents without contact.

True RMS
Only a True RMS meter can give you accurate readings of distorted waveforms

MultiMeters with Built-in InfraRed^{*} thermometer

- ✓ Non-Contact IR Thermometer
- ✓ True RMS
- ✓ Large 1" Digits
- ✓ Backlighting



EX400
Series
MultiMeters

*EX450 and EX470 models only



Experience the **Extech** Advantage

EX400 Series

Extech 400 Series Professional MultiMeters

Featuring models with built-in non-contact InfraRed Thermometer



- Common Features:**
- Large backlit LCD display with easy-to-read 1" digits
 - Type K thermometer built-in for temperature measurements
 - Low current capability: measure down to 0.1µA
 - Input fuse protection and mis-connection warnings
 - Dimensions: 7.4x3.2x2" (187x81x50mm) Weight: 0.75lbs (342g)
 - 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 (-4 to 482°F/-20 to 250°C), and 9V battery

Model EX410/EX411

- True RMS (EX411)
- Manual Ranging

Model EX420/EX430

- True RMS (EX430)
- Autoranging
- Capacitance
- Frequency

Model EX450

- Built-in IR Thermometer
- Autoranging

Model EX470

- Built-in IR Thermometer
- True RMS
- Autoranging
- Capacitance
- Frequency
- Relative function

BUILT IN IR Thermometer
Patented

EX400 SERIES



Functions	EX410	EX411	EX420	EX430	EX450	EX470
Averaging/True RMS	Averaging	True RMS	Averaging	True RMS	Averaging	True RMS
Basic Accuracy (VDC)	±0.5%	±0.3%	±0.3%	±0.3%	±0.5%	±0.3%
AC Voltage	1mV to 750V	1mV to 750V	0.1mV to 750V	0.1mV to 750V	1mV to 750V	0.1mV to 750V
DC Voltage	0.1mV to 1000V	0.1mV to 1000V	0.1mV to 1000V	0.1mV to 1000V	0.1mV to 1000V	0.1mV to 1000V
AC Current	0.1mA to 20A	0.1mA to 20A	0.1µA to 20A	0.1µA to 20A	0.1µA to 20A	0.1µA to 20A
DC Current	0.1µA to 20A	0.1µA to 20A	0.1µA to 20A	0.1µA to 20A	0.1µA to 20A	0.1µA to 20A
Resistance	0.1Ω to 20MΩ	0.1Ω to 20MΩ	0.1Ω to 40MΩ	0.1Ω to 40MΩ	0.1Ω to 20MΩ	0.1Ω to 40MΩ
Capacitance	—	—	0.01nF to 100µF	0.01nF to 100µF	—	0.01nF to 100µF
Frequency	—	—	0.001Hz to 10MHz	0.001Hz to 10MHz	—	0.001Hz to 10MHz
Temperature (IR)	—	—	—	—	-58 to 518°F (-50 to 270°C)	-58 to 518°F (-50 to 270°C)
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)	-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%
Continuity / Diode	Yes	Yes	Yes	Yes	Yes	Yes
Category Rating	CAT III-600V CAT II-1000V	CAT III-600V CAT II-1000V	CAT III-600V CAT II-1000V	CAT III-600V CAT II-1000V	CAT III-600V CAT II-1000V	CAT III-600V CAT II-1000V
Warranty	1 year	1 year	1 year	3 years	3 years	3 years

NIST Certified Meters

Our in-house calibration lab certifies Extech products to NIST standards. Meters with NIST certificates come complete with data. Our laboratory conforms to MIL STD 45662, ISO 17025, Guide 25, and ANSI/NCCL Z540-1-1994.

- EX410-NISTEX410 MultiMeter with NIST Certification
- EX411-NISTEX411 MultiMeter with NIST Certification
- EX420-NISTEX420 MultiMeter with NIST Certification
- EX430-NISTEX430 MultiMeter with NIST Certification
- EX450-NISTL*EX450 MultiMeter with NIST Certification
- EX470-NISTL*EX470 MultiMeter with NIST Certification

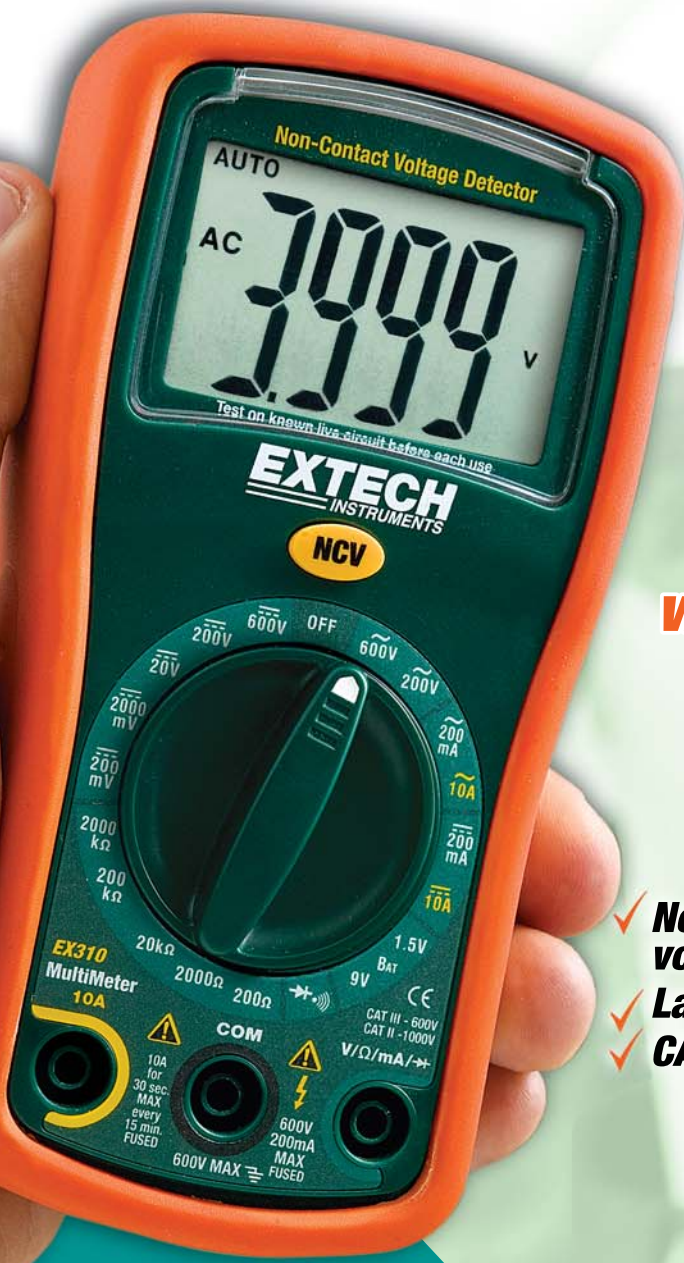
Accessories (see pg. 42-43)

- CA500Case with shoulder strap and side pockets
- TP873Replacement Bead wire Temperature Probe
- HG500Magnetic Hanging Strap

* Product certified to all functions except IR Thermometer



CA500: Durable case with compartments for meter and test leads



Autoranging
Automatically selects the optimum measurement range for accurate readings



Integrated Non-contact Voltage Detector
Quickly check for the presence of live wires before testing



Temperature function
Makes this multimeter a multi-function tester

MultiMeters
with **Built-in**
NCV *Detector*

- ✓ **Non-contact voltage detector**
- ✓ **Large 1" Digits**
- ✓ **CAT III-600V**



EX300
Series
MultiMeters



Experience the Extech Advantage

EX300 Series

Mini Digital MultiMeters + Voltage Detector

Combination MultiMeter with non-contact AC Voltage Detector

Common Features:

- 0.5% basic accuracy
- Built-in non-contact AC Voltage Detector with red LED indicator and audible beeper
- Low battery indicator
- Large 1" digits makes it easy to read
- Dimensions: 5.7x2.9x1.6" (147x76x42mm); Weight: 9oz (260g)
- Complete with stand, test leads, protective holster, batteries, bead wire temperature probe (-4 to 482°F/-20 to 250°C)(Model EX330 only)

Model EX310

- Manual Ranging
- Battery test 1.5V and 9V

Model EX320

- Autoranging
- Max Hold: captures highest reading
- Data Hold: freezes the display
- Auto Power Off: conserves battery life

Model EX330

- Autoranging
- Data Hold: freezes the display
- Auto Power Off: conserves battery life
- Type K Temperature °F/°C switchable
- Capacitance
- Frequency



Model	EX310	EX320	EX330
Display Counts	2000 counts	2000 counts	4000 counts
Basic Accuracy	0.5%	0.5%	0.5%
Non-Contact Voltage Detector	100 to 600VAC	100 to 600VAC	100 to 600VAC
DC/AC Voltage	0.1mV to 600VDC 0.1V to 600VAC	0.1mV to 600VDC 0.1mV to 600VAC	0.1mV to 600VDC 0.1mV to 600VAC
DC/AC Current	0.1mA to 10A	0.1µA to 10A	0.1µA to 10A
Resistance	0.1Ω to 2000kΩ	0.1Ω to 20MΩ	0.1Ω to 40MΩ
Capacitance	—	—	0.001nF to 200µF
Frequency	—	—	0.001Hz to 10MHz
Temperature	—	—	-4 to 1382°F (-20 to 750°C)
Duty Cycle	—	—	0.1 to 99.9%
Diode/Continuity	Yes	Yes	Yes
Category Rating	CAT III-600V, CAT II-1000V	CAT III-600V, CAT II-1000V	CAT III-600V, CAT II-1000V
Battery Type	9V	2xAAA	2xAAA
Warranty	1 Year	1 Year	1 Year



NIST Certified Meters

Our in-house calibration lab certifies Extech products to NIST standards. Meters with NIST certificates come complete with data. Our laboratory conforms to MIL STD 45662, ISO 17025, Guide 25, and ANSI/NCSL Z540-1-1994.

- EX310-NISTEX310 MultiMeter with NIST Certification
- EX320-NISTEX320 MultiMeter with NIST Certification
- EX330-NISTEX330 MultiMeter with NIST Certification

Accessories (see pg. 42-43)

- 409996Vinyl pouch carrying case
- TP873Replacement Bead wire Temperature Probe
- TL803Replacement Test Leads



Precision MultiMeters

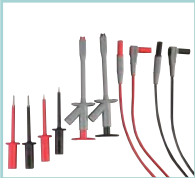
Choose the MultiMaster® CAT IV Series for high precision and repeatability, the MultiPro® Series for accuracy and functionality and the MultiLog® Series for datalogging. All the meters include PC interface

Featuring Model MM570

- ▶ **CAT IV**
Highest safety rating, overload and fuse protected for industrial applications
- ▶ **Precision to 0.02%**
Highest accuracy in a handheld meter
- ▶ **500,000 Counts**
Highest resolution in a handheld meter
- ▶ **Splash-proof Housing**
Use the meter in even the harshest conditions
- ▶ **PC Interface**
Capture and analyze data



Accessories (See p.42 for details)



TL810 - Electrical Test Lead Kit



TL805 - Double Injected Test Leads



CA899 - Soft Vinyl Pouch Case with Shoulder Strap



Optional PC Software



Accessories:

Software

SW800 ..MultiPro® Software Diskette and RS-232 Cable
SW810 ..MultiMaster® Software Diskette and Serial Cable

Test Leads, Probes, and Fuses

TL805...Spare set of CAT IV - 600V Test Leads (see photo above)
TL807...Set of Alligator Clips (2pk) for TL805
TL810...Electrical Test Lead Kit (see photo above)
TP873...Spare Bead Wire Temperature Probe with Banana Adaptor
TP200...Type K Clamp Probe (212°F/100°C - see p. 43)
FS880....Spare Fuse (2pk) for MP, ML and MM560
FS881....Spare Fuse (2pk) for MM570

Carrying Case

CA899...Vinyl Pouch Case with Shoulder Strap (see photo above)

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points.
To order meter with NIST:

- MP510-NIST
- MP530-NIST
- ML720-NIST
- MM560-NIST
- MM570-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model
Display counts
Averaging/True RMS
Datalogging
DC/AC Voltage
Basic DCV accuracy
DC/AC Current
Resistance
Capacitance
Frequency
Temperature
AC Bandwidth
Category rating
CE/UL Listed
Dimensions/Weight
Warranty



**MP510
MP530**



ML720

PC Software Included



**MM560
MM570**

High Resolution

MultiPro® Series

High performance, True RMS (MP530) multimeters with RS-232 PC Interface

- ✓ MP530 with True RMS AC Voltage & Current, and Temperature functions plus Relative, Min, Max, Max-Min, Peak Hold and Zoom
- 0.08% basic DCV accuracy
- Auto power off with disable
- Hold and low resistance auto lead zero
- See ML720 for datalogging capabilities
- Optional SW800 PC software and cable sold separately
- Complete with built-in stand, test leads, protective holster, 9V battery, and bead wire temperature probe (-4 to 482°F/ -20 to 250°C) for MP530

MultiLog® Series

True RMS multimeter datalogs up to 43,000 data points at capture rates as fast as 20 times/second

- ✓ Store and View up to 43,000 data points
- ✓ 10 selectable datalogging sample rates from 0.05sec to 480 seconds
- ✓ True RMS Voltage and Current measurements
- 0.08% basic DCV accuracy
- Auto power off with disable
- Hold and low resistance auto lead zero
- Complete with built-in stand, test leads, protective holster, 9V battery, bead wire temperature probe (-4 to 482°F/ -20 to 250°C), Windows® 95/98/NT/2000/XP/ME compatible software, and cable

MultiMaster® Series

50,000/500,000 count, high accuracy, wide bandwidth True RMS multimeters

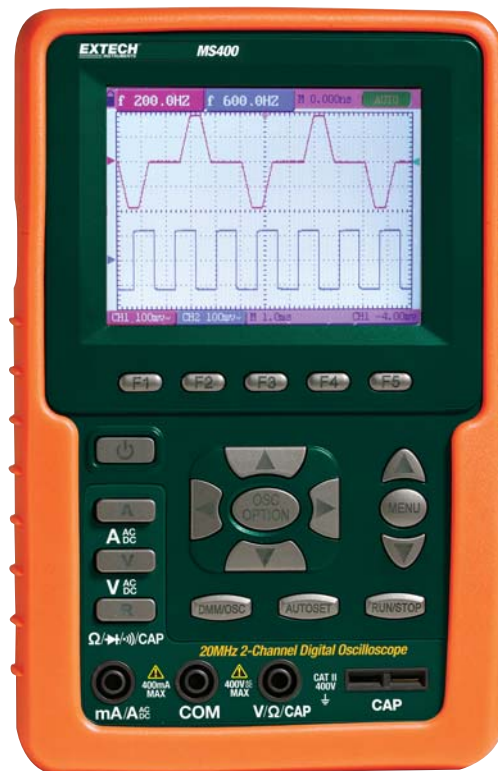
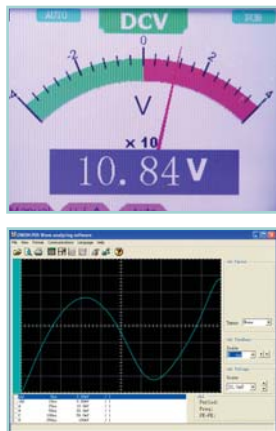
- ✓ 0.02% (MM570) and 0.03% (MM560) basic DCV accuracy
- ✓ 50,000 count display with 500,000 counts for DCV and Hz
- ✓ True RMS combination AC+DC function
- ✓ Highest res. (1µV, 0.01µA, 0.0001Hz, 0.01Ω)
- Auto power off with disable
- ✓ **MM570** with dual input Type K Thermometer, higher True RMS ACV bandwidth (up to 100kHz) and 1000V input protection on all functions
- ✓ 4 to 20mA, displayed as 0 to 100% for process current measurements
- Optional SW810 (p. 30) PC software and cable
- Complete with stand, test leads, protective holster, 9V battery, and bead wire temperature probe (-4 to 482°F/-20 to 250°C) for MM570

MP510	MP530	ML720	MM560	MM570
5,000 count backlit	5,000 count backlit	5,000 count backlit	50,000/500,000 count backlit	50,000/500,000 count backlit
Averaging	✓ True RMS	✓ True RMS	✓ True RMS	✓ True RMS
—	—	43,000 data points	—	—
0.01mV to 1000V	0.01mV to 1000V	0.01mV to 1000V	0.001mV to 1000V	0.001mV to 1000V
±0.08%rdg	±0.08%rdg	±0.08%rdg	±0.03%rdg	±0.02%rdg
0.1µA to 20A	0.1µA to 20A	0.1µA to 20A	0.01µA to 20A	0.01µA to 20A
0.01Ω to 50MΩ	0.01Ω to 50MΩ	0.01Ω to 50MΩ	0.01Ω to 50MΩ	0.01Ω to 50MΩ
0.01nF to 9999µF	0.01nF to 9999µF	0.01nF to 9999µF	0.01nF to 9999µF	0.01nF to 9999µF
10Hz to 125kHz	10Hz to 125kHz	10Hz to 125kHz	5Hz to 200kHz (Line)/5Hz to 2MHz (Logic)	5Hz to 200kHz (Line)/5Hz to 2MHz (Logic)
—	-58 to 1832°F	-58 to 1832°F	—	-58 to 1832°F
—	-50 to 1000°C	-50 to 1000°C	—	-50 to 1000°C
40Hz to 20kHz	40Hz to 20kHz	40Hz to 20kHz	20Hz to 20kHz	20Hz to 100kHz
CAT IV-600V	CAT IV-600V	CAT IV-600V	CAT IV-600V	CAT IV-600V
Yes	Yes	Yes	Yes	Yes
7.32x3.42x1.39" (186x87x35.5mm)/ 0.75lb (340g)	7.32x3.42x1.39" (186x87x35.5mm)/ 0.75lb (340g)	7.32x3.42x1.39" (186x87x35.5mm)/ 0.75lb (340g)	7.32x3.42x1.39" (186x87x35.5mm)/ 0.75lb (340g)	7.32x3.42x1.39" (186x87x35.5mm)/ 0.75lb (340g)
✓3 years	✓3 years	✓3 years	✓3 years	✓3 years

MS400 20MHz 2-Channel Digital Oscilloscope **NEW**
3.8" (96mm) color LCD display Makes viewing multiple waveforms easy

Features:

- Auto-set function optimizes the position, range, timebase, and triggering to assure a stable display of virtually any waveform
- Peak Detect function for 50ns glitch capture XY Mode
- Five Automatic Measurements: Frequency, 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 software for transferring waveforms and data



Complete with two 1X/10X oscilloscope probes, test leads, Windows® 95/98/NT/2000/ME/XP compatible USB software and cable, current shunt, capacitor measuring module, adjustment screwdriver, Universal AC adaptor/ charger, and hard carrying case

Specifications	
Oscilloscope Functions	
Display Size	3.8" (96mm) color LCD; 320 x 240 pixels
Bandwidth	20MHz
Real time sample rate	100MS/s
Risetime	17.5ns
Channels	2
Record Length	6K points per channel
Glitch Capture	50ns
Vertical Sensitivity	5mV to 5V/div
Vertical Resolution	8 bits
Timebase Range	5ns to 5s/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	1MΩ/20pF
Max Input Voltage	400V (peak)
Cursor Measurement	Voltage and time
True RMS MultiMeter Functions	
AC/DC Voltage	400mV, 4V, 40V, 400V
AC/DC Current	40mA, 300mA, 20A
Resistance	400Ω, 4kΩ, 40kΩ, 400kΩ, 40MΩ
Capacitance	51.2nF to 100μF
Diode and Continuity	Yes
PC Interface	USB cable
Power Supply	6 hours Li-ion rechargeable battery; AC Adaptor/charger
CE	Yes
Warranty	1 year
Dimensions/Weight	7x4.4x1.6" (180x113x40mm) 24.3oz (690g)



Dual trace testing or troubleshooting of printed circuit boards and electronic assemblies

Ordering
MS400.....20MHz Dual Channel MultiScope®

381295
381395

5MHz Dual Channel MultiScopes®

NEW



With 25MS/s dual channel sampling time (50MS/s single channel) and model with datalogging feature stores up to 17,000 data points

Features:

- Easy to use menu driven operation
- Internal or External Triggering
- Auto or Manual setup for horizontal and vertical scaling
- Roll mode for slow repetition waveforms
- Single shot mode
- Store and Recall up to 16 waveforms and setups
- 132 x 128 pixel Super-Twist two level backlit display
- PC interface and software for transferring waveforms and data
- Data Hold and Low Battery indication
- Multimeter functions include AC/DC Voltage, Resistance, Continuity, Frequency, RPM, Pulse Width, and % Duty Cycle
- **381395 Additional functions:** dataloggers up to 17,000 points, MIN/MAX/AVG with real time clock, Relative, Compare mode Go-No Go, and Hi/Lo limits



Windows® 95/98/NT/2000/ME/XP compatible software included.



Complete with meter, 4 test leads with alligator clips, protective holster, Li-Ion battery pack, Universal AC adaptor/ charger, cable, software, and case

Specifications	
Oscilloscope Functions	
Bandwidth	5MHz
Max. Sample Rate	50MS/s (single channel); 25MS/s (dual channel)
Record Length	512 single shot; 256 all other modes
Sample Mode	Single shot, Roll, Normal
Max Vertical Sensitivity/Voltage	50mV/600VDC on AC
Trigger Modes	Auto, Normal, Single: AC or DC
Trigger Source	Channel A, Channel B, External
Timebase	1µs to 5S
Multimeter Functions	
Datalogger (model 381395)	17,000 points
DC Voltage	0.1mV to 1000V (0.3% basic accuracy)
AC Voltage (TRMS)	0.1mV to 750V (50-20kHz bandwidth)
Resistance	0.001kΩ to 5MΩ
Frequency	0.01Hz to 5MHz
RPM	0 to 9999
Pulse Width	2µs to 500ms
Duty Cycle	25% to 75%
PC Interface	RS-232 input (381295) or USB input (381395)
Power	Li-Ion Battery/120V 60Hz adaptor/charger
Warranty	1 year warranty
Dimensions/Wt	7.7x3.5x1.6" (195x90x40mm)/ 16.2oz (260g)

Ordering

- 381295.....5MHz Dual Channel MultiScope®
- 381395.....5MHz Dual Channel MultiScope® Datalogger

380900

Dual Channel, Datalogging, True RMS MultiMeter

Measure and display two Voltages or Voltage and Current simultaneously

Features:

- 60,000 counts, dual input channels with dual display and 30 segment bargraph
- 0.03% basic DCV accuracy
- Datalogs up to 10,708 data points
- 200kHz AC bandwidth
- Auto/manual ranging
- Simultaneously displays Frequency and Duty Cycle
- Relative, Min/Max, and Hold functions
- Record data of both channels using RS-232 PC interface and software
- Complete with test leads, protective holster with built-in stand, Windows® 95/98/NT/2000/ME/XP compatible software, optically isolated RS-232 cable, and 9V battery



Includes Windows® 95/98/NT/2000/ME/XP compatible PC Software for data analysis and generating reports.



Optional Thermal Printer (PR20) prints text or graphical data.



Specifications			
Function	Range	Max. Resolution	Basic Accuracy
DC Voltage	60mV, 600mV, 6V, 60V, 600V, 1000V	0.001mV	±0.03%
AC Voltage	60mV, 600mV, 6V, 60V, 600V, 1000V	0.001mV	±0.1%
DC Current	600µA, 6000µA, 60mA, 600mA, 1A, 10A	0.01µA	±0.1
AC Current	600µA, 6000µA, 60mA, 600mA, 1A, 10A	0.01µA	±0.3%
Resistance	1kΩ, 10kΩ, 100kΩ, 1MΩ, 10MΩ, 40MΩ	0.01Ω	±0.09%
Capacitance	60nF, 600nF, 6µF, 60µF, 490µF	0.01nF	±0.8%
Frequency	1Hz to 2MHz	0.0001Hz	±0.005%
Duty Cycle (TTL)	0.001% to 100.00%	0.001%	±3%
Dimensions/Wt	8.15 x 4 x 1.85" (207 x 101 x 47mm) / 15.2oz (430g)		

Ordering

- 380900.....Dual Channel, Datalogging, TRMS MultiMeter
- PR20Portable Thermal Printer
- 757057Thermal paper for PR20 (6 pack)
- USB100.....RS-232 to USB Adaptor

**MN15
MN16**

Digital Mini MultiMeters

Compact Autoranging or Manual ranging multimeters

Features:

- Large easy to read digital display
- Type K temperature
- Complete with rubber holster, 9V battery, Type K temperature probe (-4 to 482°F/ -20 to 250°C), and test leads

MN15 (Manual Ranging)

- 1.5V and 9V Battery tests under load

MN16 (Autoranging)

- Advanced functions include AC Current, Capacitance, and Frequency
- Auto power off with disable feature

Function	MN15	MN16	Basic Accuracy	
	(Manual Ranging)	(Autoranging)	MN15	MN16
DC Voltage	600V (0.1mV)	600V (0.1mV)	±0.5%	±0.5%
AC Voltage	600V (0.1V)	600V (0.1mV)	±1.2%	±1.2%
DC Current	10A (0.1mA)	10A (0.1µA)	±1.5%	±1.2%
AC Current	—	10A (0.1µA)	—	±1.5%
Resistance	20MΩ (0.1Ω)	40MΩ (0.1Ω)	±0.8%	±1.2%
Capacitance	—	100µF (0.001nF)	—	±3.0%
Frequency	—	10MHz (0.001Hz)	—	±1.0%
Temperature	-4 to 1400°F (-20 to 750°C)	-4 to 1400°F (-20 to 750°C)	±(3%rdg + 8 digits)	
Battery Test	9V & 1.5V Batteries	—		
Category rating	CAT III-600V	CAT III-600V		
Dims/ Wt	5.43x2.83x1.5" (138x72x38mm)/ 5.4oz (153g)			
CE/Warranty	CE/1 year CE/1 year			

Ordering

MN15Manual Ranging MiniTec® MultiMeter with Temp
MN16Autoranging MiniTec® MultiMeter with Temp
409992.....Vinyl pouch carrying case



**MN25
MN26T**

MiniTec® Digital MultiMeters

Rugged pocket design with 8 to 11 Functions

Features:

- CAT II-600V, CE & UL Listed
- Overload protection and indication

MN25 (Manual Ranging/ 8 Functions)

- 1.5V and 9V Battery tests under load
- 10A fuse protection
- Includes protective holster with stand, 9V battery and test leads

MN26T (Autoranging/ 11 Functions)

- Relative zero, Data Hold, Range Hold, Auto power off
- Includes holster with stand, bead wire temperature probe (-40 to 482°F/-40 to 250°C), two 1.5V AAA batteries, and test leads

Function	MN25	MN26T	Basic Accuracy (MN25/MN26T)	
	(Manual Ranging)	(Autoranging)	MN25	MN26T
Display Count	2000 count	4000 count		
DC Voltage	600V (0.1mV)	600V (0.1mV)	±0.5%	±1.0%
AC Voltage	600V (0.1V)	600V (0.1mV)	±1.5%	±1.5%
DC Current	10A (1µA)	10A (0.1µA)	±1.2%	±1.5%
AC Current	10A (1µA)	10A (0.1µA)	±1.8%	±1.8%
Resistance	2MΩ (0.1Ω)	40MΩ (0.1Ω)	±0.8%	±1.2%
Capacitance	—	200µF (0.001nF)	—	±3.5%
Frequency	—	10MHz (0.001Hz)	—	±1.5%
Temperature	—	0 to 1400°F (1°) 0 to 760°C (1°)	—	±3.0%
Duty Cycle	—	0.1% to 99.9% (0.1%)	—	±1.2%
Diode/Continuity	Yes	Yes		
Warranty	1 year			
Dimensions/Wt	4.8x2.4x1.6" (122x61x40mm)/ 9.17oz (260g)			

Ordering

MN25Manual Ranging MiniTec® Digital MultiMeter
MN26TAutoranging MiniTec® Digital MultiMeter
409992Vinyl pouch carrying case



381676

Pen DMM with Non-Contact Voltage Detector

Autoranging multimeter with rotary dial



Features:

- Non-Contact Voltage detection with visible and audible alarm
- Autoranging with Data Hold, Range Hold, and Maximum Hold features
- Overload and low battery indication
- Auto power off to conserve battery life
- Meets IEC1010-1; CAT III-600V, CE approved, 1 year warranty
- Complete with test lead with alligator clips, two 1.5V AAA batteries, and case



Function	Range	Max. Resolution	Basic Accuracy (%rdg)	
			DC	AC
Non-Contact Voltage	50 to 600VAC			
DC Voltage	200mV, 2, 20, 200, 600V	0.1mV	±0.7%	
AC Voltage	200mV, 2, 20, 200, 600V	0.1mV	±0.8%	
Resistance (Ω)	200, 2k, 20k, 200k, 2M, 20M	0.1Ω	±0.8%	
Diode Test	1mA @ 1.5V approx			
Continuity Test	Audible beep <50 ohms			
Dims/Wt	8.2x1.5x1.1" (208x38x29mm)/ 3.9oz (110g)			

Ordering

381676.....Pen DMM w/ Non-Contact Voltage Detector



Built-in Non-Contact Voltage Detector automatically detects a live wire when the red LED is lit



Retractable tip measuring DC/AC Voltage or for safe storage

DM220

CAT IV Pocket MultiMeter

Autoranging DMM with Non-Contact Voltage Detector and Built-in Flashlight



Features:

- Large 4000 count LCD display
- Non-Contact Voltage detection identifies live circuits
- Diode Test, Continuity, and Duty Cycle
- Rugged double molded housing
- Auto power off
- Built-in flashlight
- CE approved; CAT IV-600V, CAT III-1000V; 1 year warranty
- Complete with test leads and two AAA batteries



Built-in Non-Contact Voltage Detector. Red LED bar lights when live wire detected.



Specifications	Function	Range	Max. Resolution	Basic Accuracy (%rdg)
	DC/AC Voltage	600V	0.1mVDC/1mVAC	±0.5%DC/±1.2% AC
	DC/AC Current	200mA	0.1µA	±2.0%DC/±2.5%AC
	NC Voltage	100 to 600VAC		
	Resistance	40MΩ	0.1Ω	±0.8%
	Frequency	10kHz	0.001Hz	±2.0%
	Capacitance	200µF	0.001nF	±5.0%
	Dims/Wt	4.72x2.2x1.6" (120x55x40mm)/ 5.12oz (145g)		

Ordering

DM220Mini Pocket MultiMeter
409992Vinyl pouch case

DM110

Mini Pocket MultiMeter

Autoranging with 10 functions including Frequency, Capacitance, and Duty Cycle



Includes holster and pouch carrying case for added protection

Features:

- Large high contrast 4000 count LCD display
- Auto power off with disable feature
- Relative and Data Hold functions
- Built-in storage compartment for integrated test leads
- Over-range and low battery indication
- Designed to IEC1010, CAT II - 600V
- CE approved; 1 year warranty
- Complete with test leads, protective holster, one CR2032 button battery and pouch case

Specifications	Function	Range	Max. Resolution	Basic Accuracy (%rdg)
	AC/DC Voltage	500V	1mV	AC: ±2.3%; DC: ±1.3%
	AC/DC Current	400mA	0.01mA	AC: ±2.5%; DC: ±2.0%
	Resistance	400 to 40MΩ	0.1Ω	±2.0%
	Capacitance	100µF	0.001nF	±3.0%
	Frequency	5Hz to 10MHz	0.001Hz	±2%
	Duty Cycle	0.1% to 99.9%	0.1%	±1.2%
	Diode/Continuity	Yes		
	Dimensions/Wt	4.25 x 2.2 x 0.5" (108 x 56 x 11.5mm)/ 1.7oz (50g)		

Ordering

DM110Mini Pocket MultiMeter



**38070
38073**

Mini Analog MultiMeters

Convenient pocket multimeters with easy to read color coded analog displays

Features:

- Decibel function
- Battery test on 9V and 1.5V batteries on 38073
- CAT II-300V (38073); CAT II-500V (38070)
- One year warranty
- Complete with test leads, and 1.5V AA battery; 38073 includes protective holster

Specifications	Function	Model 38070	Basic Accuracy	Model 38073	Basic Accuracy
	DC Voltage	10V, 50V, 250V, 500V	±4% FS	2.5V, 10V, 50V, 250V, 300V	±5% FS
	AC Voltage	10V, 50V, 250V, 500V	±5% FS	10V, 50V, 300V	±5% FS
	DC Current	0.5mA, 50mA, 250mA	±4% FS	0.5mA, 10mA, 250mA	±5% FS
	Resistance	10kΩ, 1MΩ	±5% FS	10kΩ, 1MΩ	±5% FS
	Decibel	-10 to 56dB (0dB, 1mW, 600Ω)		-10 to 56dB (0dB, 1mW, 600Ω)	
	Dimensions	3.82x3.34x1.3" (97x65x33mm)		3.5x6.1x1.9" (88x155x49mm)	
	Weight	3.88oz (110g)		8.2oz (288g)	

Ordering

38070Mini Analog MultiMeter
38073Analog MultiMeter
409992Vinyl pouch carrying case



MultiMeter and Clamp Meter Test Kits

TK430

Electrical Test Kit

Meets plant maintenance, HVAC or electrical technician's needs

Features:

- Assembled to provide all the electrical testing needs for installation and repair of electrical systems, HVAC equipment and large appliances
- Kit contains an EX430 True RMS autoranging digital multimeter, MA200 400A clamp meter, 40130 Non-Contact voltage detector plus test leads and temperature probe
- Supplied in an attractive storage case that provides protection and organization for the meters whenever they are needed
- Dimensions: 9.5x6.8x2.8" (241x173x71mm); Weight: 2.6lbs (1.2kg)



Ordering

TK430Electrical Test Kit (including MultiMeter and Clamp Meter)
 480172AC Line Splitter

Kit Includes

- Model EX430**
 Autoranging True RMS MultiMeter with 11 functions including Capacitance, Frequency and Temperature. (see p. 27)
- Model MA200**
 400A Clamp Meter with basic AC Current and 1mA resolution. (see p. 17)
- Model 40130**
 Non-Contact Voltage Detector detects AC Voltage from 100VAC to 600VAC without touching the source. (see p. 39)

TK430-IR

Industrial Troubleshooting Kit with IR

Meets plant maintenance, HVAC or electrical technician's needs

Features:

- Assembled to provide all the electrical testing needs for installation and repair of electrical systems, HVAC equipment and large appliances
- Non-contact InfraRed thermometer allows for quick surface temperature measurement
- Kit contains an EX430 True RMS autoranging digital multimeter, MA200 400A clamp meter, 42510 Mini IR Thermometer, 40130 Non-Contact voltage detector plus test leads and temperature probe
- Supplied in a heavy duty hard carrying case that provides protection and organization for the meters whenever they are needed
- Dimensions: 14.5x11x4.5" (368x280x114mm); Weight: 4.5lbs (2kg)



Ordering

TK430-IR...Electrical Test Kit with IR

Kit Includes

- Model EX430**
 Autoranging True RMS MultiMeter with 11 functions including Capacitance, Frequency and Temperature. (see p. 27)
- Model MA200**
 400A Clamp Meter with basic AC Current and 1mA resolution. (see p. 17)
- Model 42510**
 Wide range mini IR Thermometer measures from -58 to 1000°F (-50 to 538°C) plus built-in laser pointer identifies target area; 8:1 distance to target ratio

TK730

Professional Clamp Meter Test Kit

True RMS Professional Clamp with InfraRed Thermometer

Features:

- Specially designed for professionals who service and install Electrical/HVAC equipment
- Includes EX730 800A True RMS AC/DC Clamp Meter with 0.1A resolution and $\pm 3\%$ AC current accuracy, 480172 AC line splitter, DV20 Non-contact AC Voltage Detector, 42510 Mini InfraRed Thermometer, test leads, and Type K Thermocouple probe
- Supplied in an attractive storage case that provides protection and organization for the meters whenever they are needed
- Dimensions: 9.5x6.8x2.8" (241x173x71mm); Weight: 2.6lbs (1.2kg)



Ordering

TK730.....True RMS Professional Clamp Meter Test Kit

Kit Includes

Model EX730

800A True RMS 4000 count AC/DC Clamp-on MultiMeter with test leads and temperature probe. (see p. 15)

Model 42510

Wide range mini IR Thermometer measures from -58 to 1000°F (-50 to 538°C) plus built-in laser pointer identifies target area; 8:1 distance to target ratio

Model 480172

Line Splitter enables user of a clamp meter to measure AC Current on a 2-wire or 3-wire power cord to 15A. (see p. 17)

Model DV20

Non-contact voltage detector detects AC Voltage to 600VAC. (see p. 39)

TK505

Professional DMM/Clamp Meter Test Kit

NEW

Advanced kit contains the most commonly used testing tools for HVAC and plant maintenance

Features:

- Specially designed for professionals who service and install Electrical/HVAC equipment
- Kit contains EX505 rugged, waterproof multimeter with 11 functions, EX730 800A True RMS AC/DC Clamp Meter (0.1A resolution, $\pm 3\%$ AC accuracy), 480172 AC line splitter, DV20 Non-contact AC Voltage Detector, test leads and Type K Thermocouple
- Supplied in a heavy duty hard carrying case that provides protection and organization for the meters whenever they are needed
- Dimensions: 14.5x11x4.5" (368x280x114mm); Weight: 4.5lbs (2kg)



Ordering

TK505.....Professional DMM/Clamp Meter Test Kit

Kit Includes

Model EX505

Industrial grade, CAT IV-600V, 4000 count display, waterproof, drop-proof, rugged multimeter with True RMS functions. (see p. 24)

Model EX730

800A True RMS 4000 count AC/DC Clamp-on MultiMeter with test leads and temperature probe. (see p. 15)

Model 480172

Line Splitter enables user of a clamp meter to measure AC Current on a 2-wire or 3-wire power cord to 15A. (see p. 17)

Model DV20

Non-contact voltage detector detects AC Voltage to 600VAC. (see p. 39)



Voltage Detectors

A range of voltage and current detectors with features including adjustable sensitivity and built-in flashlight.

Featuring Model VT30

▶ **AC/DC Voltage Tester**

Large 3 digit LCD Voltage display, Stepped Voltage indicators, and Polarity indication

▶ **Low Impedance Test**

Push button test quickly identifies phantom voltages

▶ **Phase Rotation Test**

Tests phase orientation of three phase power sources

▶ **CAT IV Rating**

Highest safety available for maximum protection

Extech Advantage Easy to read LCD display and bargraph clearly shows test results.



401050



AC/DC Voltage Detector

Non-contact and Contact detection of AC Voltage

- Contact AC Voltage from 70 to 250 VAC
- Non-contact AC Voltage from 70 to 600VAC
- Contact DC/Polarity Check from 1.5 to 36VDC
- Continuity Check from 0 to 5MΩ
- Self Test insures proper battery installation and battery life
- 1 year warranty; CE approved
- Dims: 5.6x0.6x0.6" (142.2x15.2x15.2mm) Weight: 0.7oz (19.8g)
- Complete with two button batteries

DA30



Non-Contact Current Detector

Locates current in hidden wires and cables up to 1000A

- Detects AC Current (200mA to 1000A) through shielded wires, conduit, and metal circuit breaker or junction boxes
- Sensitivity adjustment
- Audible and visible indication
- CAT III-600V; CE approved; UL listed
- Dims: 5.7x1.1x1" (145x28x25mm) Weight: 1.6oz (45g)
- Complete with pocket clip and four LR44 button batteries; 1 year warranty

Meters with Built-in Voltage Detector



EX300 Series - Mini MultiMeters (p. 29)



DM220 - Pocket MultiMeter (p. 35)



MA120 & MA150 - Mini Clamp Meters (p. 20)



381676 - Pocket Pen MultiMeter (p. 34)

Accessories:

CA895 ...Vinyl pouch case (fits Voltage and Current Detectors)

40130



AC Voltage Detector

Non-contact detection of AC Voltage up to 600VAC

- Detects AC Voltage from 100V to 600V
- For use on 50/60Hz circuits
- Tip fits into outlets or against wire insulation
- Flashing red LED light and push button ON/OFF Audible beeper indicator
- Locate breaks in power cables
- CAT III-600V; CE approved, UL listed
- Dims: 6x0.75x1" (152x19x25mm)
Wt: 2oz (57g)
- Complete with pocket clip and two AAA batteries; 1 year warranty

DV20



AC Voltage Detector/Flashlight

Non-contact detection of AC Voltage up to 600VAC plus a built-in flashlight

- Rugged, double molded housing
- Detects AC Voltage from 100V to 600V
- Suitable for outlets or against wire insulation testing
- Red LED light indicator
- For use on 50/60Hz circuits
- CAT III-600V; CE approved, UL listed
- Dims: 6.25x1" (159x25mm)
Wt: 1.5oz (42g)
- Complete with two AAA batteries; 1 year warranty

DV30



Adjustable AC Voltage Detector

Non-contact detection of AC Voltage down to 12VAC with Sensitivity adjust

- Detects AC Voltage from 12V to 600V
- Sensitivity adjustment increases or reduces sensor trigger threshold
- Audible and visible voltage indication
- Self test function
- CAT III-600V; CE approved, UL listed
- Dims: 6.1x1.1x1" (155x28x25mm)
Wt: 1.5oz (42g)
- Complete with pocket clip and four LR44 button batteries; 1 year warranty



DVA30



Non-Contact AC Voltage and Current Detector

Detects and pinpoints wide range Voltage and Current with Sensitivity adjust

- ✓ The only two-in-one AC Current (200mA to 1000A) and AC Voltage (12V to 600V) detector designed for electrical testing
- Loud audible and bright visible current and voltage detect indicators
- CAT III-600V; CE approved, UL listed
- Dims: 7.6x1.2x0.9" (192x31x24mm)
Weight: 2.1oz (60g)
- Complete with four AG13 button batteries and pocket clip; 1 year warranty



VT10



Multifunction Voltage Tester

Voltage, Continuity and Phase Tester with Flashlight; Double molded IP64 housing

- LED AC/DC voltage indication:
AC: 24, 48, 120, 208, 240, 277, 480, 600
DC: 6, 12, 24, 36, 48, 110, 220, 400
- Polarity detection with LEDs for positive and negative DC; Continuity beeper; low impedance
- ✓ Phase rotation test for motors
- ✓ IEC1010-1 CAT IV 600V and CAT III 1000V safety rating, CE approved
- Dims: 9.4x3x1.6" (240x78x40mm)
Wt: 8.4oz (237g)
- Complete with 2 AAA batteries, protective cap, and pouch case; 1 year warranty



VT30



Digital Voltage Tester with Bargraph

Voltage, Continuity and Phase Tester with Flashlight and backlit digital display with bargraph; Double molded IP64 housing

- ✓ Large backlit LCD display
- AC Voltage from 0 to 480V;
DC Voltage from 0 to 690V
- Polarity detection with LEDs for positive and negative DC; Continuity beeper; low impedance
- ✓ Phase rotation test for motors
- ✓ IEC1010-1 CAT IV 600V and CAT III 1000V safety rating, CE approved
- Dims: 9.4x3x1.6" (240x78x40mm)
Wt: 8.4oz (237g)
- Complete with 2 AAA batteries, protective cap, and pouch case; 1 year warranty

CT20 **Continuity Tester Pro** **NEW**

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

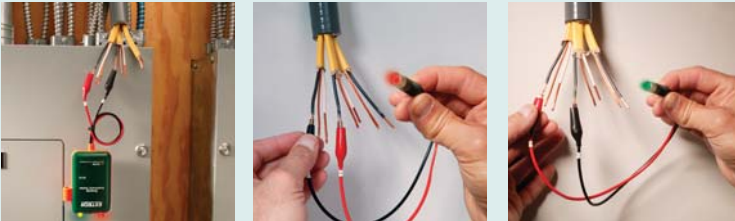
Features:

- Provides positive continuity checks with bright flashing LED and loud pulsating beeper
- Identify wire pairs and cables remotely using external probe
- Flashing remote probe - two lead, bi-color (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
- Wire verification distance up to 10,000ft (3000m); cable size of 26AWG minimum
- Great for Electricians & Helpers, Cable TV & Audio System Installers, Alarm Technicians, HVAC Installers, and Auto Repair Technicians
- CE Approved; 1 year warranty
- Dims: 3.6x2.2x1.14" (90x57x29mm); Wt: 9.2oz (260g)
- Complete with remote probe, test leads with alligator clips, 9V battery and pouch



Patent pending

Continuity Tester includes Remote probe with bi-color LED for wire identification highlight



Use for local continuity or for remote wiring identification.

RED LED means wiring is reversed.

GREEN LED means wiring is properly identified

Ordering

CT20.....Continuity Tester Pro

CB10 **Circuit Breaker Finder** **NEW**

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

Features:

- Simply plug the GFCI Transmitter into an outlet and trace for the correct breaker at the electrical box
- Transmitter and Receiver snap together for easy storage
- UL Listed and CE Approved; 1yr warranty
- Dims/Wt: Receiver: 6.4x2.2x1.5" (162x55x38)/4oz (113g); Transmitter: 3.25x1.75x1" (83x44x25mm)/1.6oz (45g)
- Complete with one Receiver, one GFCI Transmitter, and 9V battery for the Receiver

GFCI Transmitter

- Tests GFCI circuits
- LED indication of 2 test conditions and 5 wiring faults
- Tests Reversed/Open Connections
- Lights indicate circuit condition



Adjustable sensitivity for pinpointing the correct breaker



Ordering

CB10.....Circuit Breaker Finder

380400
380405
380500

Resistance, Capacitance & Inductance Decade Boxes

NEW

Wide range Decade boxes for product design or calibration checks

Features:

- Durable construction
- Case may be grounded separately
- 3 binding posts permit isolated substitutions
- Dims: 4.6x5.7x1.4" (116.8x144.8x35.6mm)
Weight: 10.6oz. (299g); One year warranty

380400 Resistance Box

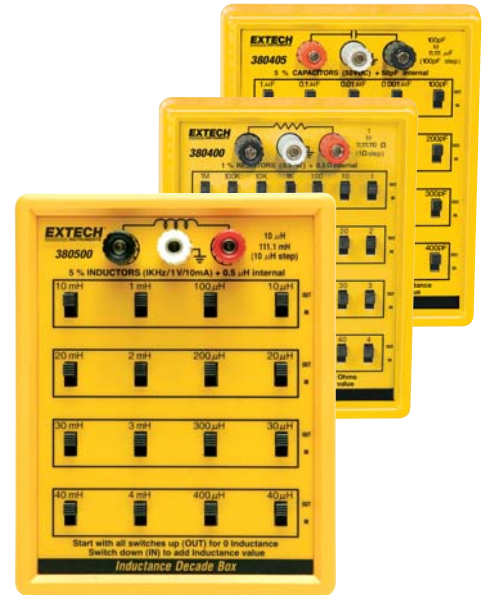
- 1% Resistance substitution from 1 to 11,111,110Ω
- Seven Decade Ranges of Resistance
- Values can be set in 1Ω increments

380405 Capacitance Box

- 5% Capacitance substitution from 100pF to 11.111μF;
- Excellent for circuit development
- Five Decade Ranges of Capacitance

380500 Inductance Box

- 5% Inductance substitution from 10μH to 111.1mH
- Excellent for circuit development
- Four Decade Ranges of Inductance
- 16 individual slide switch positions



Ordering:

- 380400Resistance Decade Box
- 380405Capacitance Decade Box
- 380500Inductance Decade Box

TL808-KIT

Professional Test Lead Kit

NEW

8-Piece Kit with CAT III-1000V safety rating also includes case for your meter

Features:

- Two 42" (1m) PVC lead extensions with shrouded banana plugs at both ends, UL listed
- Two modular 4" (102mm) Heavy Duty test probe handles with 0.16" (4mm) banana plug tip, UL listed
- Auto or Manual setup for horizontal and vertical scaling
- 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" (20mm)
- Includes carrying case that provides storage for the kit and additional space to hold your meter



Includes large carrying case (9.8x8x2"/248x203x51mm) with wrist strap to conveniently store test leads and your meter

Ordering:

- TL808-KITProfessional Test Lead Kit

TL810



Electrical Test Lead Kit

Double Insulated with CAT III-1000V Rating for your protection. Our 8 piece electrical test lead kit includes:

- Two 40" (1m) PVC lead extensions (1000V rating) with shrouded banana plugs on both ends
- Two very sharp, extra long 0.3" (7mm) stainless steel tipped plug-on test probes
- Two stainless steel flat tip test probes (0.6"/15mm long)
- Two plunger activated retractable jaw clips with a wide 0.75" (19mm) jaw opening
- Optional accessory — Large alligator clip (TL806) shown on bottom right

TL809



Electronic Test Lead Kit

Ideally suited for the testing of digital Circuitry, this 8-piece kit includes:

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

**TL806
TL807**



TL806 TL807 & TL807C

Alligator Clips

Choose the size of alligator clips for added convenience to your test leads

- **TL806** — Extra large, double insulated, CAT III-1000V alligator clips mate with banana plug patch cords. Jaw opens up to 0.8" (20mm) with sharp teeth for piercing insulated wire. Complies with IEC1010 standard. Optional accessory to the Test Lead Kits TL810 or TL809 shown above.
- **TL807** — Insulated Alligator clips with insulated rubber boot, push onto your test leads, CAT III-1000V. Works with test leads TL805 shown left. Order **TL807C** to fit TL803 test leads.

TL806 ...Extra Large Alligator Clips
TL807 ...Insulated Alligator Clips
TL807C...Insulated Alligator Clips

TL805



Double Injected Test Leads

Non-slip comfort grip

- Professional grade test leads. Double coated PVC lead wire with white inner layer to easily identify damaged leads. Heavy duty chromium plated brass tips. Shrouded, non-twist banana plugs for reduced socket wear. "Superflex" molded strain reliefs for improved cable flexibility. "D" shaped finger guards allow easy access to narrowly spaced test points. Compatible with most multimeters. 10A capacity. CAT IV-600V, CAT III-1000V rating. UL listed.
- Optional accessory — Insulated Alligator Clip (TL807), shown above

TL803

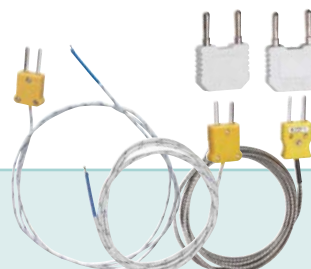


Standard Test Leads

Protective tip covers provide safety storage

- Standard replacement test leads. Shrouded banana connectors, molded strain reliefs. Compatible with most multimeters. 10A capacity. CAT III-1000V rating. UL listed.
- Optional accessory — Insulated Alligator Clip (TL807C) shown above

Bead Wire Probes



TP870 TP873 TP875

Bead Wire Type K Temperature Probes

Use with a multimeter that has Type K temperature functions

- TP870** ..Bead wire with Type K connector (-40 to 482°F/-40 to 250°C)
- TP873** ..Bead wire with Type K connector and with banana adaptor (-22 to 572°F/-30 to 300°C)
- TP875** ..High Temperature bead wire probe w/Type K connector & banana adaptor; (-58 to 1000°F/-50 to 538°C)

(See pages 74 and 78 for Penetration/Surface Temperature Probes)



380905

**2000A AC/DC
Clamp-on Adaptor**

AC/DC Current measurements

- 3.3" (83mm) clamp jaw
- Two ranges: 0 to 200A & 0 to 2000A
- DC zero adjust; Outputs 1mV/A
- 2% basic accuracy
- Dims: 8.3x2.5x1.3" (210x64x33mm)
Weight: 0.91lb (414g)
- Complete with 9V battery, 1.8ft (570mm) cable with banana plugs; one year warranty



CA200

**200A AC
Clamp-on Adaptor**

**AC Current measurements,
no battery required**

- 0.62" (16mm) clamp jaw
- 1mV AC output per Amp
- ±2% basic accuracy
- CAT II-600V, CAT III-300V; CE approved
- Dims: 4.3x1.9x1.3" (111x50x33mm)
Weight: 4.5 oz (129g)
- Complete with built-in 5.3ft (163cm) cable with banana plugs; one year warranty



TP200

NEW

**Type K Pipe Clamp
Temperature Probe**

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

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



401021

**Foot Candle
Light Adaptor**

**Measures Foot Candle on your
multimeter**

- Three ranges (5% accuracy): (0 to 5,000Fc)
- 1mV/Fc output
- CE approved; one year warranty
- Dims: 3.9x2x1" (100x50x25mm)
Weight: 6.7oz (190g)
- Complete with sensor with 3.8ft (1.2m) cable, protective cap, and 9V battery

Carrying Cases

Protect and store your multimeters and accessories in a soft vinyl carrying case

409992Small carrying case
6.25x4.5x1"
(159x114x25mm)

409996Medium carrying case
7.8x5.3x1.6"
(197x133x41mm)

409997Large carrying case
9.5x7x2"
(243x178x51mm)

CA899.....Large carrying case
w/shoulder strap 10x5x3"
(254x127x76mm)

CA500.....Case w/shoulder strap &
side pockets 7.4x3.5x2.5"
(188x89x64mm)

CA900.....Wide carrying case
for DMM Kits 9.8x8x2"
(248x203x51mm)

CA500 dimensions do not include side pockets



409992



409996



409997



CA899



CA500



CA900

480826 Triple Axis EMF Tester

Three axis (X,Y, Z) electromagnetic field measurement



Ordering:
480826Triple Axis EMF Meter

Features:

- Three axis (X, Y, Z direction) electromagnetic field measurement
- Designed to provide user a quick, reliable and easy way to measure EMF radiation levels around power lines, electrical appliances and industrial devices
- Wide ranges (3 ranges of μ Tesla or mGauss)
- Calibrated to measure EMF radiation at wide bandwidths from 30Hz to 300Hz
- Big digit LCD display
- Data hold freezes reading on display
- Easy to use remote probe
- Complete with sensor with 3ft (930mm) cable, 9V battery, and hard carrying case

Specifications

Function	Range	Max. Resolution	Basic Accuracy
μ Tesla	20 μ Tesla	0.01 μ Tesla	\pm 4%
	200 μ Tesla	0.1 μ Tesla	\pm 5%
	2000 μ Tesla	1 μ Tesla	\pm 10%
mGauss	200mGauss	0.1mGauss	\pm 4%
	2,000mGauss	1mGauss	\pm 5%
	20,000mGauss	10mGauss	\pm 10%
Number of Axis	Three axis X, Y, Z direction		
Band width	30Hz to 300Hz		
Sampling Time	Approx. 0.4 second		
Power Current	Approx. DC 2.7mA		
Dimensions	7.6x2.6x1.2" (195x68x30mm)		

480836 RF EMF Strength Meter

NEW

Monitor high frequency radiation in the 50MHz to 3.5GHz frequency range



Ordering:
480836RF EMF Strength Meter

Features:

- For electromagnetic field strength measurement of mobile phones, cell phone and base stations, microwave leakage
- Non-directional (isotropic) measurement with three-channel measurement probe
- User selectable alarm threshold
- Max Hold and Average functions
- Complete with 9V battery and carrying case

Specifications

Sensor Type	Electric field
Frequency range	50MHz to 3.5GHz
Directional Characteristic	Isotropic, 3-dimensional
Measurement Ranges	20mV/m to 108 V/m
	53 μ A/m to 286mA/m
	1 μ W/m ² to 30.93 W/m ²
	0 μ W/cm ² to 3.093 W/cm ²
Audible Alarm	Adjustable threshold with on/off
Memory	Manual save/recall of 99 sets
Dimensions/Weight	2.4x2.4x9.3" (60x60x237mm)/ 7.1 oz (200g)
Warranty	1 year

480823 EMF/ELF Meter

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



Ordering:
480823Electromagnetic Field Meter
409992Soft pouch carrying case

Features:

- 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 199.9mGauss (0.01 to 19.99 μ Tesla)
- ELF frequency bandwidth of 30 to 300Hz
Single axis - sampling 2.5 times per second
- CE approved, one year warranty
- Dims: 5.2x2.8x1" (132x71x25mm); Weight: 6oz (170g)
- Complete with 9V battery

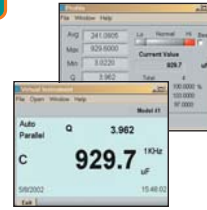
380193 Passive Component LCR Meter

Measures Inductance, Capacitance, and Resistance with secondary parameter (Q,D,R)

Free Software Included!

Features:

- 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



Built-in RS-232 with Windows® 95/98/NT/2000/XP compatible software.



Complete with test leads, alligator clips, 9V battery, software, cable, and protective holster; CE approved, 1yr warranty

Function	Range	Basic Accuracy
Inductance	2000.0µH, 20.000mH, 200.00mH, 2000.0mH	±(0.7%rdg+Lux/10000+5d)
	20.000H, 200.00H, 2000.0H, 10000H	(DF<0.5)
Capacitance	2000.0pF, 20.000nF, 200.00nF,	±(0.7%rdg+5d)
	2000.0nF, 20.000µF, 200.00µF, 2000.0µF	(DF<0.1)
Resistance	20.000Ω, 200.00Ω, 2.0000kΩ, 20.000kΩ,	±(0.5%rdg+8d)
	200.00kΩ, 2.0000MΩ, 20.000MΩ	
DF (with C)	0 to 0.9999	±(0.7%rdg+100/ Cx+5d)
Q	0 to 9999	±(1.2%rdg+100/ Lux+5d)
Test Freq.	120Hz and 1kHz	
Dims/Wt	7.56x3.58x2.1" (19.2x9.1x5.25cm) / 12.87oz (365g)	

Ordering:

- 380193Passive Component LCR Meter
- 153117117VAC adaptor
- 153220230VAC adaptor

RC100

Passive Component R/C SMD Tweezer Meter

NEW

Fast, precise identification and measurement of surface mount components

Features:

- 4000 count LCD displays Resistance, Capacitance, and Diode Test
- Relative mode for zero or user supplied reference
- Overrange and low battery indicators; Auto power off
- Complete with two AG13 batteries and slide cover for storage



Slide on cover for storage



One-handed operation for SMD component sorting or inspection

Function	Range	Resolution	Basic Accuracy
Resistance	400, 4k, 40k, 400k, 4M, 40MΩ	0.1	±(1.2% of rdg + 3d)
Capacitance	4nF, 40nF, 400nF, 4µF, 40µF, 200µF	1pF	±(3.0% of rdg + 5d)
Diode Test	1mA @ 1.5V approx		
Dimensions	7.1x1.4x0.8" (181x35x20mm)		
Weight	2.3oz (65g)		



Ordering:

- RC100Passive Component R/C SMD Tweezer Meter

BT100

Battery Capacity Tester

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

Features:

- On-line testing without disconnecting battery
- Built-in datalogger stores up to 999 tests
- Simultaneously measures DC Voltage and AC Milliohms
- Auto power off
- Includes Windows® 95/98/NT/2000/ME/XP compatible software for downloading readings to a PC



Includes software with cable, Kelvin alligator clips, Kelvin test leads, 6 AAA batteries



Optional Thermal Printer (PR20) prints text or graphics with fixed intervals or continuous. See p. 59 for details



Function	Range	Resolution	Basic Accuracy
Resistance Ranges	40mΩ, 400mΩ,	10µΩ, 100µΩ,	±(1% reading ± 8d)
	4Ω, 40Ω	1mΩ, 10mΩ	
Voltage Ranges	4V, 40V	1mV, 10mV	±(0.1% reading ± 6d)
Max Input Voltage	50VDC		
Power	6 AAA batteries		
Battery Life	7 hours		
Warranty/CE	1 year warranty/ CE approved		
Dimensions/Weight	9.75" x 4" x 1.75" (250 x 100 x 45 mm)/ 17.5oz (500g)		

Ordering

- BT100Battery Capacity Tester
- BT102120V AC Adaptor
- PR20Portable Thermal Printer
- 757057Thermal Paper for PR20 (6pk)
- USB100RS-232 to USB Adaptor



Phase Rotation Testers

Extech's complete line of 3-phase testers ranges from a basic stand alone unit to a multimeter with built-in phase indicator.

Featuring Model 480400

▶ Phase Indicator

Identifies phase sequence for 3-phase motor installations

▶ LCD Display

Large multiline display for easy viewing

▶ Battery not Required

Operates without battery

▶ Double Molded Housing

Durable in industrial environments



Accessories

Carrying Cases

409992.....Small Vinyl Pouch Carrying Case for 480300

409996.....Vinyl Pouch Carrying Case for 480303

380995.....Vinyl Pouch Carrying Case for 380224

Replacement Test Leads

480310.....Test Leads for 480303

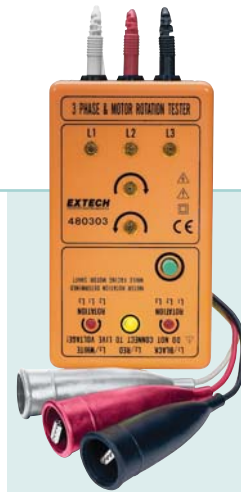


480300

3-Phase Rotation Tester

Checks phase sequence and phase status

- Tests phase orientation of three phase power sources
- Indicates phase orientation (clockwise or counter-clockwise) and whether each of three phases is live
- No battery required
- Complete with attached cables and three color coded large alligator clips



480303

Motor Rotation and 3-Phase Tester

Checks phase sequence and Motor Rotation

- Indicates rotation direction of the motor
- Ensures motor is not damaged from incorrect wiring
- Tests phase orientation of three phase power sources
- Indicates phase orientation (clockwise or counter-clockwise) and whether each of three phases is live
- Complete with cable, three large color coded alligator clips, and 9V battery

Specifications

	480300	480303
Model	480300	480303
Phase Sequence	Yes	Yes
Voltage	100 to 660V	100 to 660V
Frequency	50 to 70Hz	50 to 70Hz
Motor rotation	—	Yes
AC/DC Voltage (Max Res.)	—	—
Basic Accuracy	—	—
AC Current (Max Res.)	—	—
Basic Accuracy	—	—
Resistance (Max Res.)	—	—
Capacitance (Max Res.)	—	—
Frequency (Max Res.)	—	—
Temperature	—	—
UL/CE/Category Rating	CE, CAT III-600V	CE, CAT III-600V
Dimensions	3.5x2x1" (90x50x25mm)	5.9x3.3x1.5" (150x84x38mm)
Weight	5oz (140g)	10oz (283g)
Warranty	1 year	1 year



NEW

480400



NEW

480403



380224

3-Phase Rotation Tester

Checks phase sequence and phase status

- Multiline LCD Display
- Durable housing is double molded
- Easy to open alligator clips with wide jaws
- Tests phase orientation of three phase power sources
- Indicates phase orientation (clockwise or counter-clockwise) and whether each of the three phases is live
- No battery required
- Complete with cable, three large color coded alligator clips, and pouch case

Motor Rotation and 3-Phase Tester

Checks phase sequence and motor rotation

- Indicates rotation direction of motor
- Determine rotation of a motor without contact
- Durable housing is double molded
- Easy to open alligator clips with wide jaws
- Ensures motor is not damaged from incorrect wiring
- Tests phase orientation of three phase power sources
- Indicates phase orientation (clockwise or counter-clockwise) and whether each of the three phases is live
- Complete with cable and three large color coded alligator clips, pouch case, and 9V battery

Heavy Duty Phase Indicator/DMM

3-phase sequence indicator plus DMM functions — Frequency, Capacitance, and Temperature

- Functions include Phase, AC/DC Voltage, Capacitance, Resistance, Frequency, Temperature, Continuity and Diode
- Phase indicator identifies clockwise or counter-clockwise wiring configuration via direction of arrow on display
- Type K temperature measurements to 752°F (400°C)
- Complete with holster and stand, color coded test leads for phase, alligator clips, multimeter test leads, bead wire temperature probe (-58 to 482°F/-50 to 250°C), and 9V battery

480400	480403	380224	Model
Yes	Yes	Yes	Phase Sequence
40 to 690V	40 to 690V	80 to 480V	Voltage
15 to 400Hz	15 to 400Hz	45 to 450Hz	Frequency
—	Yes	—	Motor rotation
—	—	600V (AC: 0.1V, DC: 1mV)	AC/DC Voltage (Max Res.)
—	—	AC: ±2.9%, DC: ±1.2%	Basic Accuracy
—	—	—	AC Current (Max Res.)
—	—	—	Basic Accuracy
—	—	2000MΩ (0.1Ω)	Resistance (Max Res.)
—	—	20mF (0.01μF)	Capacitance (Max Res.)
—	—	100kHz (0.01Hz)	Frequency (Max Res.)
—	—	-4 to 752°F (-20 to 400°C)	Temperature
—	—	CE, CAT III-600V	UL/CE/Category Rating
CE, CAT III-600V	CE, CAT III-600V	5.7x2.7x1.5" (145x69x38mm)	Dimensions
5.1x2.7x1.25" (130x69x32mm)	5.1x2.7x1.25" (130x69x32mm)	12oz (340g)	Weight
4.5oz (130g)	4.5oz (130g)	1 year	Warranty
1 year	1 year		

382357 Clamp-On Ground Resistance Tester

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



Features:

- Autoranging ground resistance measurements from 0.03Ω to 1500Ω with 0.02Ω resolution
- True RMS AC Leakage current range of 0.2mA to 30.00A
- Programmable datalogging with 116 data points
- Programmable Hi/Lo alarm
- 0.9" (23mm) Jaw size for large ground rods
- Simplifies ground resistance measurements on multiple point ground systems
- Auto power off
- Verification resistors confirm accuracy of meter
- Automatic Self Calibration when powered on
- 9999 Count LCD display with Data Hold
- Electrical Noise Detection feature prevents inaccurate readings
- CAT III-300V, CAT II-600V; CE
- One year warranty
- Complete with 9V battery, Resistance check plate, and durable metal storage case

Function	Range	Max. Resolution	Basic Accuracy (%rdg+digits)
Ground Resistance	1500Ω	0.002Ω	±1.5%
AC Leakage Current (Trms)	1mA	0.001mA	±2.5%
AC Current (Trms)	30.00A	0.01A	±2.0%
Resistance Test Frequency	1.667kHz		
Continuity	Beep if less than 40Ω (approximately)		
Operating Temperature	4° to 122°F (-20 to 50°C)		
Dimensions/Weight	10.2x4.4x1.9" (258x110x47mm) / 24.7oz (700g)		



Verify resistance of cellular and communication tower ground grids

Ordering

382357Clamp-On Ground Resistance Tester

382152 Earth Ground Resistance Tester Kit

Includes all hardware necessary to measure earth ground in 3 ranges from 0.01Ω to 2000Ω

Features:

- 3-1/2 Digit (1999 count) multifunction LCD with Data Hold
- Measures Earth Resistance in three ranges
- 2mA (800Hz) Test Current and Frequency
- 0 to 200VAC (40 to 500Hz) AC Earth Voltage/Frequency
- Auto power off, 3 minute Timer
- Overload Protection
- Open circuit, overrange and low battery indications
- CAT III-600V; CE; 1 year warranty
- Complete with test leads, auxiliary earth bars, heavy duty case, and six 1.5V AA batteries



Function	Range	Resolution	Basic Accuracy
Earth Ground Resistance	20Ω, 200Ω, 2000Ω	0.01Ω, 0.1Ω, 1Ω	±2%rdg
Test Current (Freq.)	2mA (800Hz)		
AC Earth Voltage (Freq.)	0 to 200VAC (40 to 500Hz)	0.1V	±1%rdg
Dimensions/Weight	6.4x3.9x2" (163x100x50mm)/25.7oz(800g) (meter only)		



Check resistance between earth and grounding rod.

Ordering

382152Digital Earth Ground Resistance Tester
 382152-NIST ...382152 with NIST Certificate
 382153Replacement Earth Bars (2pk)
 382154Replacement Set of Test Leads

380580

Battery Powered Milliohm Meter

High accuracy, high resolution portable Milliohm Meter for field use

Features:

- Four terminal Kelvin measurements
- Over-temperature and over-voltage protection
- 5 ranges with 100μΩ max resolution
- Large 2000 count LCD display
- Auto-Hold and Auto power off
- Invalid test indicators prevent inaccurate measurements
- Built-in water resistant case with shoulder strap

Specifications

Function	Range	Resolution	Current	Basic accuracy
Resistance	200.0mΩ	0.1mΩ	100mA	±0.5%
	2000mΩ	1mΩ	100mA	±0.5%
	20.00Ω	0.01Ω	10mA	±0.5%
	200.0Ω	0.1Ω	10mA	±0.5%
	2000Ω	1Ω	1mA	±0.5%
Power	8 AA batteries			
Dimensions	9.8x7.5x4.3" (250x190x110mm)			
Weight	3.3lbs (1.5kg)			

Ordering:

- 380580Battery Powered Milliohm Meter
 380580-NIST ..380580 with NIST Certificate
 380565Test Leads w/Kelvin clips for 380580



Complete with 8AA batteries, and 2 sets of test leads (4 wire with 4 alligator clips and 4 wire with 2 Kelvin alligator clips)

380560

High Resolution Milliohm Meter

Benchtop meter provides resolution down to 0.01mΩ

Features:

- 7 ranges for wide low resistance measurements
- High resolution to 0.01mΩ
- 1999 count display with 0.8" digits
- Automatic zero
- Built-in comparator for Hi/Lo/Go resistance testing or selection
- 5V test voltage
- One year warranty

Specifications

Function	Range	Resolution	Current	Accuracy (%rdg)
Resistance	20mΩ	0.01mΩ	1A	±0.2%
	200mΩ	0.1mΩ	1A	±0.2%
	2Ω	0.001Ω	100mA	±0.2%
	20Ω	0.01Ω	10mA	±0.2%
	200Ω	0.1Ω	1mA	±0.2%
	2kΩ	0.001kΩ	100μA	±0.2%
	20kΩ	0.1kΩ	10μA	±0.2%
Power	110VAC, 60Hz or 220VAC 50Hz			
Dims/Wt	11x8.3x3.5" (280x210x90mm)/ 4.85lb (2.2kg)			

Ordering:

- 380560Precision Milliohm Meter, 110VAC
 380560-NIST ..380560 with NIST Certificate
 380562Precision Milliohm Meter, 220VAC
 380562-NIST ..380562 with NIST Certificate
 380465Spare Kelvin Clip Test Lead Set



Complete with 4-wire cables with Kelvin clip connectors and power cord

380460

Precision Milliohm Meter

Portable Milliohm meter provides resolution to 0.1mΩ

Features:

- High accuracy and performance for low resistance measurements
- Large 0.7" (18mm) LCD 1999 count
- Manual zero display adjust
- Overrange indication
- Compact, durable field service housing with protective cover
- CAT II-230V; CE; 1 year warranty

Specifications

Function	Range	Resolution	Max. Voltage	Accuracy (%rdg)
Resistance	200mΩ	0.1mΩ	3.8VDC	±0.75%
	2000mΩ	1mΩ	3.4VDC	±0.75%
	200Ω	100mΩ	3.2VDC	±0.75%
	2kΩ	1Ω	3.2VDC	±0.75%
Power	110VAC, 60Hz or 220VAC, 50Hz			
Dims/Wt	6.3x2.8x3.4" (160x120x85mm)/ 1.5lb (680g)			

Ordering

- 380460Precision Milliohm Meter, 110VAC
 380460-NIST ..380460 with NIST Certificate
 380462Precision Milliohm Meter, 220VAC
 380462-NIST ..380462 with NIST Certificate
 380465Spare Kelvin Clip Test Lead Set



Complete with 4-wire cables with Kelvin clip connectors and power cord



Insulation Testers / Megohmmeters
Extech offers a full range of insulation testers with functions and features required for all high resistance testing applications.

Featuring Model 380260

▶ **Three Test Voltages**

Run tests at 250, 500 or 1000V

▶ **Continuous Lock Feature**

For hands-free operation

▶ **Automatic Discharge**

To remove high voltage from device under test



Measures the insulation resistance of motors.

380260 includes heavy duty test leads, alligator clip, hanging strap, hard case, and batteries



380353

Analog High Voltage Megohmmeter

1000V analog tester with self storage case

- Three test voltages 250V, 500V, and 1000V
- Insulation Resistance to 400MΩ
- Fuse protected and automatic discharge circuit
- Test Lock for extended time tests
- 2mA short circuit current
- AC Voltage measurements
- Low resistance test
- Live Power and Power Applied indicator lamps
- Optional 380379 High Voltage test leads
- Complete with built-in carrying case with cover and carry strap, test leads, alligator clips, and 8 x AA batteries

Accessories

380379 ...High Voltage Test Leads (for 380353)

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- 380353-NIST
- 380360-NIST
- 380260-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model	380353
Insulation Resistance	100MΩ, 200MΩ, 400MΩ
Max Resolution	—
Basic Accuracy	±5% of scale
Insulation Test Voltages	250V, 500V, 1000V
AC Voltage Test	Yes
Low Resistance Test	Yes
Power source	8 x AA batteries
Dimensions	6.7x6.5x3.7" (170x165x92mm)
Weight	34oz (970g) includes batteries
CE	Yes
Category Rating	CAT III-600V
Warranty	1 year



403360

**ProbeMeter®
Megohmmeter**

1000V digital tester with large backlit display

- 1000V test voltage
- Insulation Resistance to 2000MΩ
- Large 3-1/2 Digit (1999 count) multifunction backlit LCD with Data Hold
- Two ranges with 2% basic accuracy
- Auto Hold and Auto power off
- Complete with carrying case and 4 x AAA batteries



380360



Neckstrap for convenient operation

**Digital
Megohmmeter**

1000V digital tester with automatic 3 minute test

- Three test voltages of 250V, 500V and 1000V
- Insulation Resistance to 2000MΩ
- Safety Power Lock enables “hands free” operation for 3 minute test
- Automatic discharge when safety “Press to Test” button is released
- Auto power off and Data Hold
- Large 0.65" (17mm) LCD display
- Automatic zero adjustment
- Continuity measurements to 200Ω and Voltage to 600VAC
- Optional 380399 Resistance Checker to check the performance of your Megohmmeter
- Complete with 6 x AA batteries, heavy duty 2.5ft (0.8m) test leads, alligator clip, large probe, and case with neckstrap



380260

**Handheld
Megohmmeter**

1000V digital tester with large dual backlit display

- ✓ Double molded housing for added durability
- ✓ Dual display of Insulation Resistance and Test Voltage
- ✓ Backlit super large display
- 250V, 500V, and 1000V test voltages
- Insulation Resistance to 2000MΩ
- Auto power off
- Lo Ω function for testing connections
- Lock Power On Function for hands-free operation
- Data Hold
- Complete with heavy duty test leads, alligator clip, hanging strap, protective carrying case, and 6 x AA batteries

403360	380360	380260
20MΩ, 2000MΩ	200MΩ, 2000MΩ	200MΩ, 2000MΩ
0.01MΩ	0.1MΩ	0.1MΩ
±2%	±3%rdg	±3%rdg
1000V	250V, 500V, 1000V	250V, 500V, 1000V
—	Yes	Yes
—	Yes	Yes
4 x 1.5V AAA batteries	6 x AA batteries	6 x AA batteries
7x1.7x1.6" (170x44x40mm)	3.8x6.3x2.3" (97x160x58mm)	7.8x3.6x1.9" (200x92x50mm)
5.8oz (180g)	13oz (369g)	24.6oz (700g)
Yes	Yes	Yes
CAT II-600V	CAT III-600V	CAT III-600V
1 year	1 year	1 year



High Voltage Insulation Testers

Extech's advanced capability Insulation Resistance testers include features for datalogging measurement results and for high voltage material analysis. Ranges to 10,000V/500GΩ are available.

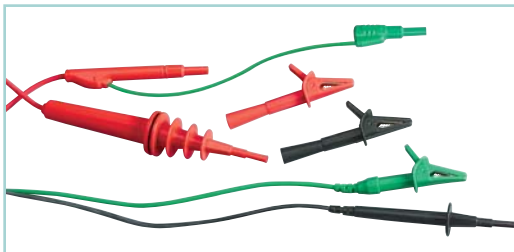
Featuring Model 380375

▶ **High Voltage to 5kV**
with 500V increments for insulation analysis

▶ **High Resistance to 250GΩ**
for insulation materials testing

▶ **Built-in Clock**
for timed measurements

▶ **Automatic Discharge**
at end of test



380379: High Voltage Test Leads

- For high voltage applications
- Replacement test leads for 380375 and 380385

Accessories

380379 ...High Voltage Test Leads (for 380375, 380385)

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- 380363-NIST
- 380366-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.



380363

Digital Insulation Tester

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

- 250V, 500V and 1000V test voltages
- Measure Insulation Resistance to 10GΩ
- Large LCD display with analog bargraph
- Lo ohms function for testing connections
- Automatic discharge of capacitive voltage charges
- AC/DC voltage measurement up to 999V
- 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

Model	380363
Insulation Resistance	4MΩ, 40MΩ, 400MΩ, 4000MΩ, 10GΩ
Max Resolution	1kΩ
Basic Accuracy	±3%
Insulation Test Voltages	250V, 500V, 1000V
AC Voltage Test	Yes
Low Resistance Test	Yes
Power source	6 x AA batteries
CE	Yes
Category Rating	CAT III-1000V
Dimensions	9.3x4.6x2.1" (235x116x54mm)
Weight	1.15lbs (520g)
Warranty	1 Year

380366



Insulation Tester + Datalogger

Autoranging insulation measurements to 4000MΩ with 250/500/1000V Test Voltages and 1mA test current

- Datalogging function stores up to 16,000 readings with single store or a programmable rate of 1 to 65,000 seconds per sample
- Three test voltages of 250V, 500V, 1000V
- Insulation Resistance to 4000MΩ
- Large dual 4000 count backlit LCD and fast 50 segment analog display
- Data Hold, Test Lock, Audible Continuity, Auto Sleep and Low Resistance functions
- Measure up to 600V AC
- RS-232 PC interface with Windows® 95/98/NT/2000/ME/XP compatible software
- Open circuit, overrange and low battery indications
- Complete with built-in carrying case with cover, test leads, alligator clips, RS-232 PC cable, software, neckstrap, and 8 x AA batteries

380375



Digital High Voltage Insulation Tester

5kV digital tester with real time voltage bargraph

- Four DC test voltages 0.5kV, 1kV, 2.5kV, 5kV
- Measure Insulation Resistance to 250GΩ
- Large LCD with real-time bargraph display of test voltage and voltage decay during discharge
- Microprocessor based with advanced safety features
- Test duration (up to 99.9s) is displayed
- Live circuit display warning and beeper
- Enersave™ feature to extend battery life
- Autoranging and Auto power off functions
- Complete with built-in carrying case with cover, 8 x AA batteries, and test leads

380385



Digital High Voltage Insulation Tester

10kV digital tester with 500V increments and high voltage warning alarm

- Test voltages of 500V to 10kV in 500V increments
- Measure Insulation Resistance to 500GΩ
- LCD display indicates test voltage, test duration, and insulation resistance
- Measures insulation test voltages up to 10kV and insulation test time
- Insulation resistance
- Autoranging on all ranges
- Automatic external live voltage warning
- High voltage applied warning buzzer
- Complete with built-in heavy duty carrying case with cover, test leads, and 8 x C batteries

380366	380375	380385
4MΩ, 40MΩ, 400MΩ, 4000MΩ	25GΩ, 50GΩ, 125GΩ, 250GΩ	25GΩ, 500GΩ
1kΩ	1kΩ	1kΩ
±3%	±3%	±3%
250V, 500V, 1000V	0.5kV, 1kV, 2.5kV, 5kV	0.5kV to 10kV
Yes	Yes	Yes
400Ω	—	—
8 x AA batteries	8 x AA batteries	8 x C batteries
Yes	Yes	Yes
CAT III-600V	—	—
7.9x5.5x3.7" (200x140x95mm)	4.7x6.7x3.7" (120x170x95 mm)	13x10.2x6.3" (330x260x160mm)
1.8lbs (900g)	1.94lbs (880g)	7.9lbs (3.6kg)
1 year	1 year	1 year



True RMS Power Clamp Meters

Power Clamp Meters have added functions to determine power. Ideal for energy efficiency studies, power factor correction and evaluation of distribution systems.

Featuring Model 382068

Wide Power Ranges

Measure power of large appliances to industrial machinery

Single & Three Phase

Automatic calculation of three phase power from consecutive single phase readings

Datalogging

Store data and transfer to a PC for analysis and report generation

Dual Display

View two parameters at the same time



Complete kit includes Clamp-on Meter, 9V battery, alligator clips, test leads, Datalogger/RS-232 module, Windows® 95/98/NT/2000/ME/XP compatible software with cable, and carrying case.

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- 380940-NIST
- 380976-NIST
- 382068-NIST
- 382075-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

380940



400A AC/DC Watt Clamp-on

Measures Watts, Current, and Voltage

- Large LCD with 40 segment analog bargraph
- Data Hold, Max/Min recall, Auto Zero (DC current), plus low battery indication
- Auto power off
- Complete with test leads, 2 AA batteries, and carrying case

Specifications

Model	380940
Display counts	4000 count LCD
Jaw size/Cable size	0.9" (23mm); 350MCM
True RMS	Yes
True Power (max res.)	40kW, 240kW AC/DC (10W)
Basic Accuracy (ACA)	±1.5%rdg
Apparent Power	—
Reactive Power	—
Power Factor	—
Phase Angle (φ)	—
Peak Capture	—
AC/DC Current (max res.)	400.0A AC/DC (0.1A)
µA AC+DC Current (max res.)	—
AC/DC Voltage (max res.)	600VAC/400VDC (1AC/0.1VDC)
Resistance (max res.)	—
Capacitance (max res.)	—
Frequency (max res.)	100Hz to 1MHz (0.01Hz)
Temperature (max. res.)	—
CE/UL/Category rating	CE, UL, CAT II-600V
Dimensions/Weight	7.2X2.5X1.4" (183X64X36mm)/ 6.7oz (190g)
Warranty	1 year



NEW

380976

Single Phase and 3-Phase 1000A AC Power Clamp

Measurements include Power (kW), Current (μA), Insulation Resistance (MΩ) and Temperature (°C/°F)

- Measures 1φ/3φ True Power, Apparent Power and Reactive Power, plus Horsepower, Power factor, and Phase Angle with Lead/Lag indicator
- AC+DC μA Current with 10nA resolution for flame rod tests
- Auto Detect AC/DC Voltage measurements with simultaneous Frequency display
- Auto power off with disable feature
- Complete with test leads, Type K probe (-4 to 482°F/-20 to 250°C), carrying case, and 9V battery



382068

1000A AC/DC Clamp-on Power Datalogger Kit

Datalogs up to 4000 readings

- 1000A Clamp measures single φ (phase) or 3φ power to 600kW
- Dual display of kW+PF, kVA+PF, V+A, A+Hz or V+Hz
- Data Hold and Auto power off
- 25 point memory
- Full function display on large 4-digit LCD with fast 40 seg. bargraph, Peak Hold, and MIN/MAX
- Complete with Clamp-on Meter, 9V battery, alligator clips, test leads, Datalogger/RS-232 module, PC software with cable, and case



PC Software included



382075

2000A AC/DC 3-Phase Clamp Power Analyzer

Measures, computes, and displays 3-Phase Power on Balanced or Unbalanced Loads

- Display Lead/Lag Current/Voltage phase shift in degrees
- Store/recall last 5 readings
- DC Current Auto-Zero
- Dual displays: kW+PF, kVA+kVAR, phase-angle+Hz, Volts+Hz, or Amps+Hz
- Advanced Relative and Min/Max functions
- Data Hold
- Complete with test leads, carrying case, and 9V battery

380976	382068	382075
10,000 count LCD	9999 count LCD	4000 count LCD
1.6" (40mm); 500MCM	1.8" (46mm); 1000MCM	2.2" (55mm); 1000MCM
Yes	Yes	Yes
600kW (10W)	600kW (0.01kW)	1200kW (0.01kW)
±2%rdg	±1.5%rdg	±1.5%rdg
600kVA (10VA)	600kVA (0.01kVA)	1200kVA (0.01kVA)
600kVAR (10VAR)	—	1200kVAR (0.01kVAR)
Yes	Yes	Yes
-65 to +60°	—	-90° to +90° (0.1°)
—	1000A/600V	—
100.00A, 1000.0A AC (10mA)	1000.0A AC/DC (0.1A)	2000A AC/DC (0.1A)
1000μA Trms (0.01μA)	—	—
600V (0.1mV)	600V (0.1V)	600V (0.1V)
1000kΩ, 100MΩ (0.1Ω)	10kΩ (1Ω)	—
7000μF (0.001μF)	—	—
40Hz to 1kHz (0.1Hz)	5kHz (0.1Hz)	40 to 400kHz (0.1Hz)
-58 to 1000°F or -50 to 900°C (0.1°)	—	—
CE, UL, CAT III-600V	CE, UL, CAT III-600V	CE, UL, CAT III-600V
9x3x1.6" (228x76x39mm)/16.4oz (465g)	10.2x3.7x1.8" (260x93x45mm)/15.9oz (450g)	10.7x4.8x1.8" (271x122x46mm)/24.7oz (700g)
1 year	1 year	1 year

382090

1000A 3-Phase Power Analyzer/Datalogger

Four clamps with simultaneous display on single phase, 3-phase/3-wire or 3-phase/4-wire systems

Features:

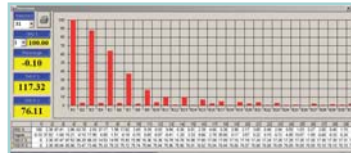
- Large backlighting LCD displays 10 parameters simultaneously (kW, kVAR, kVA, PF plus the voltage and current of the 3 phases)
- Up to four current probes can be connected to the analyzer
- Clamp-on True RMS power measurements with software for Harmonics analysis
- Displays Active Power (kW), Apparent Power (kVA), Reactive Power (kVAR) and Power Factor
- Current measurements to 1000A and Voltage measurements to 600V
- kWh, kVARh and kVAh energy measurements
- Automatically logs up to 20,000 sets of measurements and manually logs up to 99 sets
- Programmable Start/Stop datalogging times
- PC interface with Windows® 95/98/NT/2000/ME/XP compatible software for single and three phase voltage/current Waveform display and Harmonic analysis
- Phase sequence measurements
- Auto power off with disable feature
- CAT III-1000V, UL Listed; CE approved; 1yr warranty



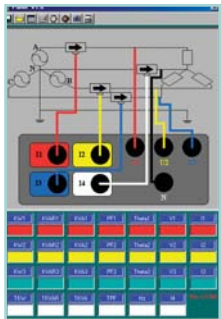
Complete with 4 current clamps, 4 voltage leads with alligator clips, 8 AA batteries, AC adaptor, software, PC interface cable, and case

Function	Range	Basic Accuracy
AC Voltage (True rms)	999.9V	±(0.5%rdg+10d)
AC Current	250.0, 500.0, 1000.0A	±(1%rdg+15d)
Active Power (kW)	999.9kW	±(1.5%rdg+20d)
Apparent Power (kVA)	999.9kVA	±(1.5%rdg+20d)
Reactive Power (kVAR)	999.9kVAR	±(1.5%rdg+20d)
Power Factor	-1.000 to +1.000	±(3%rdg+30d)
Frequency	60Hz to 100Hz	±(0.5%rdg+1d)
Phase	+90.0°~ -90.0°	±3°
Active Power Energy (kWh)	0.0kWh to 119.3MWh	±(1.5%rdg+20d)
Apparent Power Energy (kVAh)	0.0kVAh to 119.3MVAh	±(1.5%rdg+20d)
Reactive Power Energy (kVARh)	0.0kVARh to 119.3MVARh	±(1.5%rdg+20d)
Harmonics	1 to 31 (with the software)	±(1.5%rdg+20d)
Datalogging	20,000 reading	
Dimensions	9.25 x 4.5 x 2.1" (235 x 116 x 54mm)	
Weight	Meter: 25.8oz (730g); Clamp: 11.8oz (333g)	

Specifications



Software included for Harmonics Analysis



Software included to download, store data, and display on a PC

Applications

- AC Power Quality Evaluation
- Harmonics Analysis
- Motor/Generator Installation
- Energy Audits

Ordering

- 3820901000A 3-Phase Power Analyzer/Datalogger (60Hz)
- 3820911000A 3-Phase Power Analyzer/Datalogger (50Hz)

Accessories

- 382099Voltage Test Leads with Alligator Clips (4 leads)
- USB100.....RS-232 to USB Adaptor

382095

1000A 3-Phase Power & Harmonics Analyzer

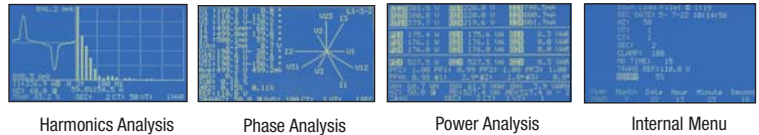
For power measurements and analysis of single and 3-phase/3-wire or 3-phase/4-wire systems

Features:

- Large backlighting LCD displays up to 35 parameters in one screen (3P4W)
- Clamp-on True RMS power measurements with on-screen Harmonics display (1-99th order)
- Simultaneous display of Harmonics and Waveform
- Display of Waveform with Peak Values (1024 samples/period)
- 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)
- Graphic Phase diagram with 3-Phase system parameters
- 3-phase Voltage or Current Unbalanced Ratio (VUR, VIR) and Unbalanced Factor (d0%, d2%)
- Calculated Unbalanced Current through Neutral Line (In)
- Capture 28 Transient events (including Dip, Swell and Outage) with programmable threshold (%)
- Optically isolated RS-232 interface with software to download Waveforms, Power Parameters and Harmonics



Complete with (3) 1000A current clamps, 4 voltage leads with alligator clips, 8 AA batteries, AC adaptor, software, PC interface cable, and carrying case



Harmonics Analysis

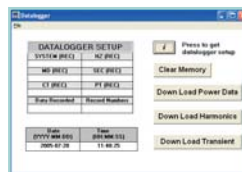
Phase Analysis

Power Analysis

Internal Menu

Specifications

Function	Range	Basic Accuracy
AC Voltage (True RMS)	600V	±0.5%rdg
AC Current (True RMS)	100A, 1000A, 3000A	±0.5%rdg
Active Power (kW)	9.999MW	±1%rdg
Apparent Power (kVA)	9999kVA	VA=Vrms x Arms
Reactive Power (kVAR)	9999kVAR	VAR= sgr (VA ² -W ²)
Power Factor	0.0 to +1.00	±1.5%rdg
Frequency	45-65Hz	0.1Hz
Phase	-180.0°~ 0°~ +180.0°	±1°
Harmonics	1 to 99	±2%
Crest Factor	1.00 to 99.99	±5%
Peak AC Voltage accuracy	±(5%rdg+30d)	
Peak AC Current accuracy	±(5%rdg+30d)	
Active Power Energy (kWh)	0mWh to 999,999kWh	
Reactive Power Energy (kVARh)	0.0kVARh to 1000MWh	
Datalogging	52428 records (1P2W)/17476 records (3P4W)	
Warranty/CE/CAT rating	1 year/ CE approved/ CAT III-600V	
Dimensions	Meter: 10.1 x 6.1 x 2.3" (257 x 155 x 57mm) Clamp: 2.2" (55mm), 2.5" x 1.0" (64x24mm) busbar	
Weight	Meter: 2.5 lbs (1160g); Clamp: 1.3 lbs (600g)	



Software included to download, store data and display on a PC



Software Harmonics Phase Analysis



Software Harmonics Analysis

Ordering

- 382095 ...1000A 3-Phase Power & Harmonics Analyzer (110V)
- 382096 ...1000A 3-Phase Power & Harmonics Analyzer (220V)

Accessories

- 382000 ...Voltage Test Leads with Alligator Clips (4 leads)
- 382097 ...100A Current Clamp Probes (Set of 3)
- 382098 ...3000A, Flexible Current Probes (Set of 3)
- PR20Portable Thermal Printer (details on p. 59)
- 757057 ...Thermal paper for PR20 (6 pack)
- USB100 ..RS-232 to USB Adaptor



Optional Thermal Printer (PR20) prints text or graphics with fixed intervals or continuous (see p. 59 for details)



Optional 3000A Flexible Current Clamp Probes 24" (610mm) long for wrapping around busbars (Model 382098)



Optional 100A Current Clamp Probes (Model 382097) with 1.2" (30mm) jaw size

**380801
380803**

Appliance Tester/Power Analyzer

Compact, battery operated device for analyzing AC power loads — with PC interface plus datalogging

Features:

- Four simultaneous displays of Watts, Power Factor or VA, Voltage or Hz, Amps
- True RMS Voltage & Current measurements of sine, square, triangular and distorted wave forms with a crest factor < 5
- Max, Data Hold and Overload Protection
- Battery or AC adaptor provides line isolation
- Plug device to be tested directly into the Power Analyzer
- Sampling (update) rate is 2.5 times/second
- Complete with Windows compatible software, cable, 8 x AA batteries, power cord, 117 VAC adaptor and case



Specifications

Function	Range	Resolution	Accuracy (%rdg)	Input Signal Range
Watt (AC)	200, 2000W	0.1W, 1W	±0.9%	300V, 20A, 50 - 400Hz
Power Factor (Watt/VA)	0 to 1.00	0.001	±4 digits	250V, 20A, 50/60Hz
Voltage	200V, 750V	0.1V, 1V	±0.9%	
Current	2/20A via terminals 2/15A via sockets		±0.9%	(Fuse Protected)
Frequency	2kHz, 20MHz	1Hz to 10kHz	±0.5%	
Warranty	1 year			
Dimensions/Weight	13.9x11.8x3.9" (352x300x100mm) / 3.6lbs (1.6kg)			

Ordering

- 380801 True RMS Single Phase Power Analyzer
- 380801-NIST 380801 with NIST Certificate
- 380803 True RMS Power Analyzer Datalogger
- 380803-NIST 380803 with NIST Certificate
- USB100 RS-232 to USB Adaptor
- PR20 Portable Thermal Printer
- 757057 Thermal Paper for PR20 (6 pack)

Model 380803 Datalogger

- Built-in Datalogger stores up to 1,012 readings (Single record storage or continuous datalogging)

Model 380801

- Used for data acquisition when connected to a PC



Software included to download and store data to a PC



Built-into heavy duty carrying case.



Optional Thermal Printer (PR20) prints text or graphics with fixed intervals or continuous (see p. 59 for details)

EM100

Energy Logger

Smart plug-in Energy Monitor computes cost of operation and stores power usage for analysis

Features:

- Monitor and record real time power usage of motors, pumps and appliances for energy conservation and cost reduction programs
- Internal memory stores up to 4 months of data at 1 minute intervals
- Transfer data to a PC using a SD card (not included)
- Windows compatible software included for analysis and report generation
- Display line Voltage, Current, Frequency, Watts, VA and PF
- Displays ID, kWh and cost of operating the plugged in device
- Projects cost of operation per week, month and year
- Real time clock
- Max, Min display
- Program power cost for single or dual level pricing
- Rotating 120V socket for use in either ground up or ground down outlet schemes
- Power range of 1.0W to 3500W
- Operates from 85V to 140V and up to 15A
- Battery backup stores data when removed from outlet
- UL and CE approved; 1 year warranty
- Complete with rotating plug and socket and Windows® compatible software



**Available
Q1 2008**

Ordering:

- EM100 Energy Logger

PR20

Portable Thermal Printer

NEW

Compact, battery operated printer compatible with Extech meters to print out data

Features:

- For use with Extech models:
380801/380803, 380900, 382095/382096, 451126, BT100, 407764, 407780
- Prints text and graphics
- Two selectable fonts
- Programmable text header and footer
- Battery and AC powered
- RS-232 interface with optional USB adaptor (USB100)
- Fixed interval continuous printing (5, 30, 60, 300 seconds)
- Printing Width: 46mm
- Printing Speed: 0.8 lines/second
- Paper Width: 2.24" (57mm)
- Dims: 3.7x5.3x2.16 (95x135x55mm); Weight: 15.5oz (440g)
- Complete with software and cable, AC adaptor, one roll thermal paper, and eight AA batteries



Compatible Extech Meters

Print text and graphical data from your meter to the PR20 Portable Thermal Printer!



Airflow Meter p. 95



MultiMeter p. 33



Power Analyzer p. 57



Power Analyzer p. 58



Battery Capacity Tester p. 45



Noise complaints are frequently filed with local law enforcement agencies. The PR20 Portable Thermal Printer gives you the means to document your pre- and post reading calibrations and the target noise source. A hard copy printout will make you more effective in resolving noise complaints and more successful in prosecuting them when necessary.

Ordering

- PR20Portable Thermal Printer
- 757057Thermal Paper for PR20 (6 pack)
- USB100.....RS-232 to USB Adaptor

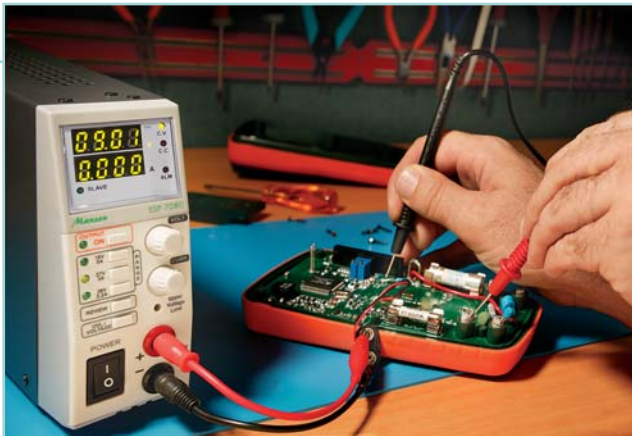


DC Power Supplies

Extech offers a complete range of DC power supplies, including Analog, Digital, and Dual Display models that meet the needs of the hobbyist, product designer and the production engineer.

Featuring Model 382260

- ▶ **3 Selectable Ranges**
Eliminates the need for three separate power supplies
- ▶ **Compact Housing**
Slim tower ideal for tight workbench
- ▶ **Remote Sensing**
For accurate applied voltage at the load
- ▶ **Switching Power Supply**
High efficiency with minimum power loss



Dual Channel, Datalogging, True RMS MultiMeter

See page 33 for our Dual Channel MultiMeter (Model 380900) that measures and displays two Voltages or Voltage and Current simultaneously. It datalogs up to 10,708 readings on both channels and includes software for further data analysis on your PC. Optional portable printer available to conveniently print out digital and graphical data. Ideal for R & D applications and more!



Specifications

Model
Analog or Digital Display
DC Voltage Output (Max Res.)
DC Current Output (Max Res.)
Basic Accuracy
Ripple and Noise
Line Regulation
Load Regulation
Power
Dimensions
Weight
CE
Warranty

382200
382202



Digital Single Output DC Power Supplies

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

- Constant voltage or current
- Dual backlit LCD displays for voltage and current
- Short circuit protection
- Current limiting
- High load/line regulation
- Low noise/ripple
- Banana plug output terminals
- Complete with power cord

382203
382213



Analog or Digital Triple Output DC Power Supply

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

- Adjustable Voltage and Current output
- Easy snap terminals for fixed 5V/0.5A and 12V/1A outputs
- Constant Voltage or Current
- Current limiting indicator
- Overload and short circuit protection
- Binding post terminals for variable supply

382260



NEW

3-in-1 Power Supply!

80W Switching Mode DC Power Supply

3 output ranges perform like 3 power supplies in one

- 3 selectable ranges:
 - 0 to 16V/0 to 5A
 - 0 to 27V/0 to 3A
 - 0 to 36V/0 to 2.2A
- 4-Digit LED displays
- Front/Rear output terminals
- Remote sensing for accurate applied voltage at load point
- Compact slim tower housing is ideal for tight workbench
- Lightweight for easy portability
- Complete with AC power cord

382200

382202

382203

382213

382260

Dual LCD

0 to 30.0V
0 to 1.00A

0 to 18.0V
0 to 3.00A

Analog
0 to 30V
0 to 3A

Digital LCD
0 to 30V (0.1V)
0 to 3A (0.01)

Digital LED (dual display)

3 to 15V
0 to 16.4V; 0 to 27.6V; 0 to 36.8V
0 to 5.1A; 0 to 3.1A; 0 to 2.3A

±(1.5%rdg); ±(2%rdg)
<0.5mV/<3mA
< 0.01% + 3mV/< 0.2% + 3mA
< 0.01% + 2mV/< 0.2% + 3mA

110V/60Hz
9.4 x 4.25 x 6" (240 x 108 x 154mm)

4.4lbs. (2 kg)

1 year

±7%FS

<5mV
<0.05%+10mV
<0.05%+10mV

110/220 VAC (50/60Hz)

6x5.6x9.5" (152x142x242mm)

11lbs (5kg)

Yes

1 year

±1%FS

±1%
<30mV
<4mV
<20mV

90-264VAC (47-63Hz)

13x5x2" (330x127x53.3mm)

4.21lbs (1.9kg)

Yes

1 year



DC Power Supplies

Extech offers a complete range of DC power supplies, including Analog, Digital, and Dual Display models that meet the needs of the hobbyist, product designer and the production engineer.

NEW

382270

Featuring Model 382290



▶ Remote Control Function

Allows you to turn the power on/off and adjust output voltage and current remotely

▶ 10-Turn Potentiometers

Provide precise output voltage and current control

▶ Remote Sensing

For applications that require precise voltage at the point of application

▶ Voltage and Current Limited

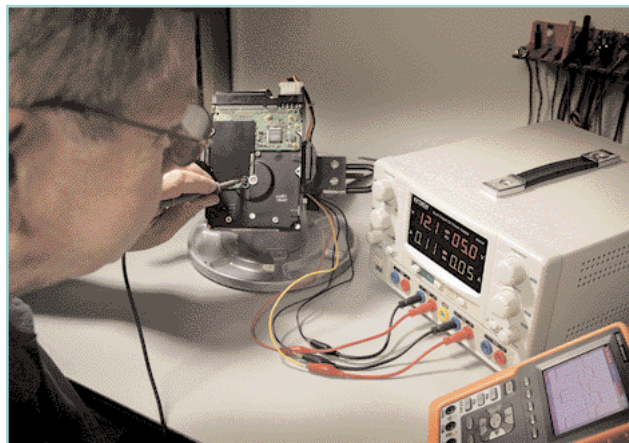
Front panel controls voltage or current output



Quad Output DC Power Supply

Two fully adjustable supplies combined with two auxiliary outputs

- Two 0 to 30V/0 to 5A outputs with selectable Constant Voltage and Constant Current modes
- Outputs up to 60V in series mode or 10A in parallel mode
- Two auxiliary outputs with fixed current of 3 to 6.5V/3A and 8 to 15V/1A
- Overload and short circuit protection
- Complete with power cord and 4 pairs of test leads (banana plug to alligator clip)



Specifications

Model	382270
Analog or Digital Display	Digital LED (Dual display)
DC Voltage Output (Max Res.)	0 to 30V, 0 to 30V, 3 to 6.5V, 8 to 15V
DC Current Output (Max Res.)	5A 5A 3A 1A
Basic Accuracy	±(0.5%+2 digits)
Ripple and Noise	<0.5mV
Line Regulation	<0.02%+3mV
Load Regulation	<0.02%+3mV
Power	110/240VAC (50/60Hz)
Dimensions	10.2x6.3x14.5" (260x160x370mm)
Weight	26.5lbs(12kg)
CE	Yes
Warranty	1 year

382285

382280

382290

NEW



**Dual Tracking,
Triple Output
DC Power Supply**

**Four mode 60V/1.5A
DC Regulated Power Supply**

- Linear power supply
- Four Modes of operation: Tracking, Independent, Series and Parallel
- Dual independent or simultaneously adjustable Voltage (0 to 60VDC) and Current (0 to 1.5ADC) outputs
- Outputs up to 120VDC in series mode or 3ADC in parallel mode
- Variable auxiliary metered output (1.5 to 6.5V) for powering circuits up to 5A
- Constant Voltage (CV) and Constant Current (CC) modes
- Clean power with dependable regulation
- Overload and Short Circuit Protection
- Fully isolated outputs
- Quiet forced air cooling fan



**Precision with
Programmable
200 Watt Output
DC Power Supply**

40V/5A programmable supply with high resolution output and 200 test setup memories

- High resolution (1mV and 1mA) user programmable output
- Selectable constant Voltage or Current modes
- 0 to 60 second programmable overload delay timer
- Storage/Recall memory
- High stability with low ripple and noise
- Forced air cooling fan
- Bi-directional PC interface commands allow setup and readback using Windows® HyperTerminal or similar PC communications programs
- Dual output terminal for source and monitor connections



**900 Watt Output
Switching Mode
DC Power Supply**

Remote Control Operation for output power on/off and voltage/current adjustment

- Remote Control functionality allows you to turn the power on/off without turning the power switch of the unit on/off and to adjust output voltage and current without turning the dials
- Constant Voltage and Current with high load/line regulation and low noise/ripple
- 10-turn potentiometers provide precise output voltage and current control
- Remote sensing for applications that require precise voltage at the point of application
- Dual 4-digit LED displays with 0.5% accuracy
- Output overvoltage protection
- Complete with remote control plug and power cord

382285

Digital LED (Twin display)
0 to 120V (0.01V)
0 to 3A (0.001A)
±(0.5%+2 digits)
<1mV
<0.2%+3mV
<0.01%+3mV
110/220 VAC (50/60Hz)
15x9.8x5.3" (310x250x135mm)
26.5lbs (12kg)
Yes
1 year

382280

Digital Backlit LCD (dual display)
0 to 40V (1mV)
0 to 5A (1mA)
±(0.05%+9mV), ±(0.2%+9mA)
<3mV
—
1mV/A
110/220 VAC (50/60Hz)
12.2x9.9x5.3" (310x250x135mm)
10lbs (4.5kg)
Yes
1 year

382290

Digital LED (dual display)
1 to 30V (10mV)
0 to 30A (10mA)
±(0.5%+2 digits)
<5mV
0.05% + 3mV
0.1% + 5mV
100 to 240VAC (50/60Hz)
9.3 x 3.8 x 13.4" (235 x 95 x 340mm)
13.21lbs (6kg)
Yes
1 year



Fiber Optic Power Meters

Extech power meters are the answer for your single mode and multimode fiber optic network testing and certification. A complete selection of Laser or LED light sources and kits are available.

Featuring Model PM200

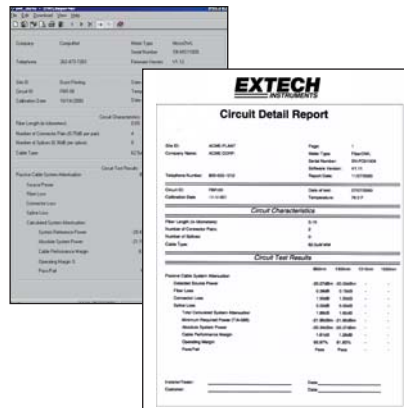
- ▶ **Set References**
Stores reference values for 850, 1310 and 1550nm
- ▶ **High Resolution**
0.01dB resolution for detailed readings
- ▶ **Single Mode & Multimode**
One meter performs tests for both cable types
- ▶ **200 Data Point Memory**
Saves your readings for later recall or transfer to a PC
- ▶ **NIST Certificate**
Includes a Certificate of Traceability to NIST at time of manufacture



All Extech Fiber Optic Meters are made in U.S.A.



Fiber Optic Kits and Light Sources available on p. 66



Sample Certification Report generated by certifying power meters shown above

Specifications

Model
Range (dBm)
Resolution
Accuracy
Wavelengths
Built-in Light Source
Cable Certification
Multimode
Single Mode
Data Storage
Software
Battery Life
Dimension

Ordering

FOA125.....1.25mm Adaptor for LC and MU interface
409992Small vinyl carrying case for PM100 and PM200



FO Series

Software included to download data to a PC



PM200



PM100

Now with LCD display

FiberMeter Fiber Optic Power Meters

Ideal for testing, measuring, and certifying in both Multimode and Single Mode applications

- FO610 - High Power model is ideal for direct measurements of laser output power on CATV and telco systems
- FO602 - includes integrated length tester (ST connector on light source)
- FO600 - Base model with 75dB dynamic range
- Stores 1000 labeled data records
- 2.5mm universal fiber adaptor accepts ST, SC, FC, DIN, E2000 fiber connector types.
- 1.25mm universal adaptor for LC and MU type connectors
- High impact ABS splashproof case, large backlit LCD display with user prompts
- Complete with NIST Certificate, PC software, serial cable, 9V battery, pouch with belt clip

Fiber Optic Power Meter

Link certification and reporting tool

- 65dB Dynamic range
- Capable of both single mode and multimode operation
- 1mm Germanium photodetector with 2.5mm universal adaptor (ST, SC and FC)
- Simple four button operation
- Large easy to read backlit LCD display
- Stores up to 100 data points
- Serial port and Reporter™ data management and reporting software
- Software based Loss Wizard™
- >100hr battery life
- Basic 0.15dB accuracy with 0.01dB resolution
- Complete with NIST Certificate, Windows® 95/98/NT/2000/ ME/XP compatible software, serial cable, 9V battery, and protective rubber holster

Fiber Optic Power Meter

Simple optical power and loss measurement

- 65dB Dynamic range
- **PM100-S** — 1mm Silicon photodetector with 2.5mm universal adaptor (ST, SC and FC); Multimode operation
- **PM100-G** — 1mm Germanium photodetector with 2.5mm universal adaptor (ST, SC and FC); Single mode and multimode operation
- Single push button zero reference
- 7-segment LED display of power in dB and dBm
- 250 hrs battery life
- Complete with NIST Certificate, 9V battery and protective rubber holster

FO600	FO602	FO610	PM200	PM100-S	PM100-G
+5 to -70	+5 to -70	+25 to -50	+5 to -60	+5 to -60	+5 to -60
	0.01dB		0.01dB	0.01dB	0.01dB
	±0.15dB		±0.15dB	±0.15dB	±0.15dB
	850nm, 1310nm, 1550nm		850nm, 1310nm, 1550nm	850nm	850,1310,1550nm
	—		—	—	—
	Yes		—	—	—
	Yes		Yes	Yes	Yes
	Yes		Yes	Yes	Yes
	900		200	—	—
	Yes		Yes	—	—
	9V battery/ >200 hours		9V/ up to 250 hours	9V/ up to 250 hours	9V/ up to 250 hours
	6.5x3.5x1.1" (165x88x28mm)/11oz (318g)		4.9x2.8x1.3" (125x70x33mm)/10oz (283g)	4.9x2.8x1.3" (125x70x33)/4.1oz (116g)	

Fiber Optic Test Kits

FiberMeter Test Kits

Certification test kits include power meter and LED or Laser Light Source

Features:

- Fiber certification with high accuracy and resolution for both multimode and single mode applications
- Stores up to 1000 measurements and physical fiber characteristics for up to four sites
- View, re-measure, print or delete stored data
- Use Windows® compatible software to download data and print professional certification reports
- Loss Wizard™ calculates the maximum allowable optical loss according to EIA/TIA standards; provides Pass/Fail certification
- Includes FiberMeter, 1.25mm adaptor for LC and MU type connectors, Light Source(s), software, DB9 serial cable, CD-ROM based manual, NIST Certificate of calibration, two 9V batteries, alcohol wipes, 2 patch cords with bulkheads in a hardened travel case (4 patch cords and bulkheads in dual source kits). Select kit part number based on the light source required; (1 year warranty)



Ordering

- FO600M-KITMultimode 850 & 1300nm (ST)
- FO600ST2-KITMultimode 850 & 1300nm (ST) & Single Mode 1310+ 1550nm (ST)
- FO600FC2-KITMultimode 850 & 1300nm (ST) & Single Mode 1310+ 1550nm (FC)
- FO600SC2-KITMultimode 850 & 1300nm (ST) & Single Mode 1310+ 1550nm (SC)
- PCSTSTMultimode Patch Cable ST/ST
- PCSTST-SMSingle Mode Patch Cable ST/ST

Light Sources

LED and Laser Light Sources

Affordable LED and Laser Light Sources provide high stability; NIST Traceable Certificate included

Features:

- Typical one hour drift of only 0.05dBm
- Dimensions: 4.9x2.8x1.3"(125x70x33mm)
Weight: 5oz(154g)
- Light Sources come complete with NIST Traceable Certificate, protective rubber holster, 9V battery, and case with belt clip; (1 year warranty)
- LED Multimode Light Sources (40hrs):**
 - 850nm or combination 850nm and 1300nm light source
 - Standard ST, FC or SC connector
 - -20dBm output @ 25°C with 0.1dB accuracy
- Laser Single mode Light Sources (600hrs):**
 - 1310nm or both 1310 and 1550nm output into FC, SC or ST connectors
 - Provide 50dB measurement range when used with FiberMeter or MicroMeter
 - 2nm Spectral Width
 - -10dBm output power into single mode fiber; 0.1dB accuracy



Ordering:

- LE200ST850nm LED Light Source, ST connector
- LE220ST850nm & 1300nm LED Light Source, ST connector
- LS300FC1310nm Laser Light Source, FC connector
- LS300SC1310nm Laser Light Source, SC connector
- LS300ST1310nm Laser Light Source, ST connector
- LS320FC1310 and 1550nm Laser Light Source, FC connector
- LS320SC1310 and 1550nm Laser Light Source, SC connector
- LS320ST1310 and 1550nm Laser Light Source, ST connector

CT100

Network Cable Tester

Continuity Tester for twisted pair cables and F Type coaxial cables

Features:

- Tests cable lengths from 3-600ft (0.9-183m); Dims/Wt: 3.25x2x1.25" (83x51x32mm)/ 3.6oz (102g)
- Complete with 2 AAA batteries.
- **Twisted Pair Features**
- Tests EIA/TIA568A and 568B and 10Base-T
- Tests for shorts, opens, miswires and reversals
- Shield detection tests shield integrity
- Tests installed wiring and jumper cables; shielded or unshielded twisted pair cable; Cat 5e, Cat 5, Cat 4, and Cat 3

CATV Features

- "F" connector for troubleshooting CATV coaxial installations



Ordering:

CT100Network Cable Tester
409992.....Vinyl pouch carrying case

40180

Tone Generator and Amplifier Probe Kit

Heavy duty kit with audible tone easily identifies wires or cables

Features:

- 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" (228x57x25mm); generator - 2.5x2.5x1.5" (64x64x38mm) Weight: 0.6lbs (272g)
- CE approved; One year warranty
- Complete with Amplifier probe and Tone Generator with alligator clips and modular RJ11 phone and RJ45 digital connector cables, 9V batteries and case



Trace phone/data wiring

Ordering

40180Tone Generator and Amplifier Probe Kit

TG30

Wire Tracer/Tone Generator Kit

Trace communications and coaxial cables

Features:

- Non-Contact probe audibly identifies selected wire or cable
- Easily trace wires from source to termination
- Adjustable sensitivity control improves wire identification and eliminates false detection
- Continuity test — audible/visible indication
- Dims/Wt: Probe - 5.8x1.1x1.1" / 1.1oz (147x28x28mm) / (30g); Generator - 2.6 x 4.1x0.9" / 4.2oz (67x103x23mm) / (120g)
- Complete with Tone probe and Tone generator with RJ11 and RJ45 phone connector plus adaptor with F type coaxial connector and pair of alligator clips, four LR44 batteries, 9V battery and carrying case



Transmitter injects traceable signal into cables, checks telephone lines, and performs continuity checks



Ordering

TG30.....Wire Tracer/Tone Generator Kit

42560

IR Thermometer with Wireless PC Interface

Wireless USB interface transmits temperature data to a PC

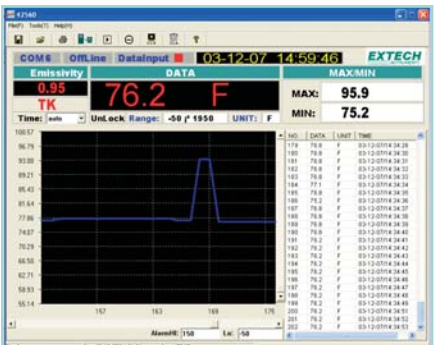
Features:

- Wide range non-contact IR thermometer
- High 30:1 distance to target ratio
- Manual/Automatic emissivity using type K probe for measurements on surfaces
- High/Low set points with audible alarms
- Lock function for continuous measurements
- Built-in memory with recall for 20 readings
- Place meter on the Base to transmit continuous readings to the Remote Receiver connected to a PC via USB cable
- MAX/MIN/AVG/DIF functions
- Built-in laser pointer improves aim
- Data Hold, Auto power off with disable function, low battery indication, 1mV/°F analog output
- Includes Tripod for tripod mounting
- Complete with Transmitter Base with tripod mount, Remote Receiver with USB cable, type K probe (-4 to 482°F/-20 to 250°C), tripod, analog output cable, PC software, 9V battery, 100-240VAC adaptor, and hard carrying case



Type K input for contact measurements

Specifications	Function	
	IR Range	-58 to 1922°F (-50 to 1050°C)
	Type K Range	-58 to 2498°F (-50 to 1370°C)
	Repeatability	±0.5% or ±1.8°F/1°C
	Basic Accuracy	IR: ±2% or ±4°F/2°C Type K: ±1.5% ±5°F/3°C
	Max. Resolution	0.1°F/°C
	Emissivity	0.1 to 1.00 Adjustable
	Field of View (Distance to Target)	30:1
	Power	9V battery; AC adaptor for Base
	Dimensions	3.9x2.2x9" (100x56x230mm)
	Weight	10.2oz (290g)



PC software included



Includes software and accessories



Tripod included for continuous measurement using the lock feature

Ordering

- 42560.....InfraRed Thermometer w/ Wireless PC Interface
- TR100.....Spare Tripod (for meters with Tripod mount feature)

42511
42512

Dual Laser InfraRed Thermometers

NEW

Dual Laser Targeting indicates ideal measuring distance

Features:

- Dual laser simplifies distance-to-target ratio—no more calculations!
- Two models for accurate measurements at 30" or 12"
- Exclusive 150 millisecond instantaneous response for capturing spikes in temperature
- Max mode captures and holds rapidly changing temperatures
- Lock function for continuous readings (disables auto power off)
- White backlit dual LCD display
- Adjustable emissivity increases measurement accuracy for different surfaces
- Adjustable High/Low set points with audible alarm alerts user when temperature exceeds the programmed set points
- Double molded housing
- Complete with carrying case and 9V battery



Dual Laser

Our Fastest and Easiest-to-use IR Thermometer

- ✓ Dual lasers identify exact measuring spot when they converge to a single spot
- ✓ 30" or 12" distance models
- ✓ Fast response is ideal for quick checks of multiple spots in a process or for catching spikes in temperature

Function	42511	42512
Laser Convergence Distance	12" (30.5 cm)	30" (76.2 cm)
Range	-58 to 1100°F (-50 to 600°C)	-58 to 1832°F (-50 to 1000°C)
Repeatability	±0.5% or 1.8°F/1°C	±0.5% or 1.8°F/1°C
Basic Accuracy	±(1% of rdg + 2°F/1°C)	±(1% of rdg + 2°F/1°C)
Max resolution	0.1°F/C	0.1°F/C
Emissivity	0.10 to 1.00 Adjustable	0.10 to 1.00 Adjustable
Field of View (Distance to Target)	12:1	30:1
Dimensions	5.7x4x1.6" (146x104x43mm)	5.7x4x1.6" (146x104x43mm)
Weight	5.7oz (163g)	5.7oz (163g)

Specifications



Fast response captures hot spots



42512 30" Distance IR Meter
When measuring at 30" (76.2cm) distance, laser convergence pinpoints your exact target spot of 1" (2.54cm)



42511 12" Distance IR Meter
When measuring at 12" (30.5cm) distance, laser convergence pinpoints your exact target spot of 1" (2.54cm)

Ordering

- 4251112" distance Dual Laser InfraRed Thermometer
- 4251230" distance Dual Laser InfraRed Thermometer



InfraRed Thermometers

Extech's range of High Temperature IR Thermometers include models with alarms, Type K inputs or Datalogging and printing capabilities.

Featuring Model 42545

High Temperature

-58 to 1832°F (-50 to 1000°C) for demanding applications

50:1 Distance to Target

Measures small areas from greater distances

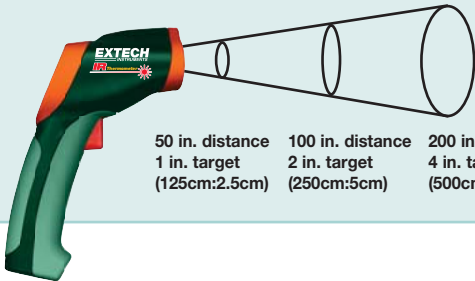
Laser Pointer

Identifies target area and improves aim



Only Extech offers a 50:1 Field of View IR Thermometer at an affordable price!

50:1 field of view



50 in. distance 100 in. distance 200 in. distance
1 in. target 2 in. target 4 in. target
(125cm:2.5cm) (250cm:5cm) (500cm:10cm)

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- 42510A-NIST
- 42515-NIST
- 42540-NIST
- 42542-NIST
- 42545-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

	42510A	42515
Model Range	-58 to 1200°F -50 to 650°C	-58 to 1472°F (InfraRed); -58 to 2498°F (Type K) -50 to 800°C (InfraRed); -50 to 1370°C (Type K)
Basic Accuracy	±(1% of rdg + 2°F/1°C)	(IR) ±2%rdg or 4°F (2°C) <932°F (500°C) ±(2.5%rdg + 5°) > 932°F (500°C) (whichever is greater); ±1.5% or ±5°F/3°C (Type K)
Repeatability	±0.5% or ±1.8°F/1°C	±0.5% or ±1.8°F/1°C
Max. Resolution	0.1°F/°C; 1°F/°C	0.1°F/°C
Emissivity	0.1 to 1.00 Adjustable	0.1 to 1.00 Adjustable
Field of View (Distance to Target)	12:1	13:1
Dimensions	3.2x1.6x6.3" (82x42x160mm)	3.2 x1.6x6.3" (82x42x160mm)
Weight	6.4oz (180g)	6.4oz (180g)
CE	Yes	Yes
Warranty	✓3 years	✓3 years



42510A

1200°F (650°C), 12:1, Mini IR Thermometer

Compact thermometer with high accuracy

- ✓ Adjustable high/low visual and audible alarm
- ✓ Adjustable emissivity for better accuracy on different surfaces
- Measures temperature from -58 to 1200°F (-50 to 650°C) with 0.1° resolution up to 199.9°
- Built-in laser pointer identifies target area
- Backlighting
- Overrange indicator
- Automatic Data Hold when trigger released
- MAX/MIN features display highest and lowest values
- Auto power off
- Complete with 9V battery and pouch case



42515

1472°F (800°C), 13:1, Type K Input, IR Thermometer with Memory

Automatic Emissivity Adjustment allows accurate measurement of virtually any surface

- ✓ Wide temperature range for IR temperature and type K thermocouple measurements
- ✓ Automatic emissivity adjustment (for temperatures 212°F or higher)
- ✓ Memory stores up to 20 readings
- ✓ Adjustable high/low visual and audible alarm
- ✓ MAX/MIN/AVG/DIF features display highest, lowest, average, and MAX minus MIN values
- Large LCD display with bright backlight
- Built-in laser pointer improves aim
- Data Hold, Auto power off, and Low battery indication
- Complete with 9V battery, type K thermocouple sensor (-4 to 482°F/-20 to 250°C), and carrying case



Type K input for contact measurements



42540

**1400°F (760°C),
16:1, with Alarm,
IR Thermometer**

**16:1 distance to target ratio,
rugged thermometer**

- ✓ High Temperature range from -58° to 1400°F (-50 to 760°C)
- ✓ 16 to 1 distance to target ratio
- ✓ 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
- Laser pointer identifies target area
- Automatic Data Hold
- Auto power off
- Complete with 9V battery and hard carrying case



NEW

42542



**1832°F (1000°C),
30:1, with Alarm,
IR Thermometer**

**30:1 distance to target ratio,
rugged thermometer**

- ✓ High Temperature range from -58° to 1832°F (-50 to 1000°C)
- ✓ 30 to 1 distance to target ratio
- ✓ 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
- Laser pointer identifies target area
- Automatic Data Hold
- Auto power off
- Complete with 9V battery and hard carrying case



42545



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

**50:1 distance to target ratio,
rugged thermometer**

- ✓ 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
- Laser pointer identifies target area
- Automatic Data Hold
- Auto power off
- Complete with 9V battery and hard carrying case



All models include carrying case (either soft or hard) and 3 year warranty

42540	42542	42545	Model Range
-58 to 1400°F -50 to 760°C	-58 to 1832°F -50 to 1000°C	-58 to 1832°F -50 to 1000°C	
±2%rdg or 4°F (2°C) whichever is greater <932°F (500°C); ±(2.5%rdg + 5°) > 932°F (500°C)	±2%rdg or 4°F (2°C) whichever is greater <932°F (500°C); ±(2.5%rdg + 5°) > 932°F (500°C)	2%rdg + 4°F/2°C <932°F (500°C); 3% + 9°F/4°C >932°F (500°C)	Basic Accuracy
±0.5% or ±1.8°F/1°C 0.1°F/°C	±0.5% or ±1.8°F/1°C 0.1°F/°C	±0.5% or ±1.8°F/1°C 0.1°F/°C	Repeatability
0.1 to 1.00 Adjustable	0.1 to 1.00 Adjustable	0.1 to 1.00 Adjustable	Max. Resolution
16:1	30:1	50:1	Emissivity
3.9x2.2x9" (100x56x230mm)	3.9x2.2x9" (100x56x230mm)	3.9x2.2x9" (100x56x230mm)	Field of View (Distance to target)
10.2oz (290g)	10.2oz (290g)	10.2oz (290g)	Dimensions
Yes	Yes	Yes	Weight
✓3 years	✓3 years	✓3 years	CE
			Warranty



InfraRed Thermometers

Extech's non-contact InfraRed thermometers point and measure technology provide fast, easy and accurate readings for most surface temperature measurements.

Featuring Model EZ20



Flexible Gooseneck

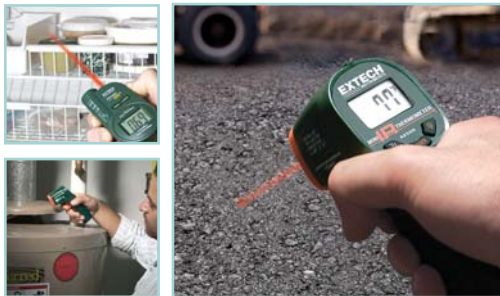
16" (406mm) gooseneck provides easy access for difficult to reach locations

Laser Pointer

Identifies target area and improves aim

Wide Temperature Range

-58 to 1100°F (-50 to 600°C) for a wide range of applications



Applications

Choose the best InfraRed Thermometer to fit your application needs by selecting the proper measurement range, field of view, resolution, and accuracy. Applications include Refrigeration, Boiler, Pavement, Printer/Copier, HVAC/R, Automotive, and Industrial Troubleshooting.

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- 42500-NIST
- 42529-NIST
- 42530-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

	IR100	IR201
Model	IR100	IR201
IR Temperature (Non-contact)	-31 to 446°F -35 to 230°C	-4 to 518°F -20 to 270°C
Basic Accuracy	±(2.0%rdg) or ±4°F/2°C	±(2.5%rdg±3°F/2°C)
Max. Resolution	0.1°	1°F/°C
Emissivity	0.95 fixed	0.95 fixed
Field of view (Distance to Target)	1:1	6:1
Dimensions	3x1.6x0.7" (75x40x18mm)	3.7x2x1" (94x51x25mm)
Weight	1.5oz (43g)	2.7oz (76g)
CE	Yes	Yes
Warranty	1 year	1 year

IR100



Convenient Mini size!

Mini IR Thermometer

Mini size design for the ultimate in convenience and portability

- Measures non-contact surface temperature up to 446°F (230°C)
- Economical mini size design for convenience
- Automatic Data Hold when measure button is released
- Max Hold or Min Hold
- Lock feature for continuous scanning
- Fixed emissivity covers 90% of surface applications
- Auto power off
- Complete with CR2032 3V battery

IR201



Pocket Laser IR Thermometer

Handy troubleshooting thermometers with laser pointer

- Measures non-contact surface temperature up to 518°F (270°C)
- Economical small pocket size design for convenience
- Built-in laser pointer identifies target area
- Data Hold and Max Hold
- Auto power off
- Fixed emissivity
- Complete with two AAA batteries and pouch case



Mini Laser IR Thermometer

Compact thermometer measures up to 500°F (260°C)

- Built-in laser pointer identifies target area
- Backlighting
- Automatic Data Hold when trigger released
- Fixed 0.95 emissivity covers 90% of surface applications
- Auto power off
- Complete with 9V battery and pouch case

Wide Range IR Thermometers

Two models with choice of range and resolution

- **Model 42529:** Basic model measures temperature from 0 to 600°F, 1° resolution
- **Model 42530:** Wide range temperature measurements from -58 to 1000°F, 0.1° resolution
- Built-in laser pointer identifies target area
- Backlighting
- Audible and visible overrange indicators
- Automatic Data Hold when trigger released
- Fixed 0.95 emissivity covers 90% of surface applications
- Auto power off
- Complete with 9V battery and pouch case

EzFlex™ Laser IR Thermometer

Non-contact InfraRed Thermometer with flexible gooseneck probe

- ✓ 16" (406mm) flexible probe provides easy access for difficult to reach locations
- Non-contact temperature measurement to 1100°F (600°C)
- Large LCD display with backlighting
- Built-in laser pointer to improve aim
- Fixed emissivity (0.95) covers 90% of surface applications
- 8:1 Distance to Spot ratio
- Automatic Data Hold and Auto power off
- Complete with 9V battery

42500	42529	42530	EZ20	Model
-4 to 500°F	0 to 600°F	-58 to 1000°F	-58 to 1100°F	IR Temperature (Non-contact)
-20 to 260°C	-20 to 320°C	-50 to 538°C	-50 to 600°C	Basic Accuracy
±2% of reading or ±4°F/±2°C (whichever is greater)	±2% of reading or ±4°F/±2°C (whichever is greater)	±2% of reading or ±4°F/±2°C (whichever is greater)	±2% of rdg or ±4°F/±2°C<932°F (500°C); ±2.5%+5°F/2.5°C>932°F (500°C)	Max. Resolution
1°F/°C	1°F/°C	0.1°F/°C; 1°F/°C	0.1°F/°C	Emissivity
0.95 fixed	0.95 fixed	0.95 fixed	0.95 fixed	Field of view (Distance to Target)
6:1	6:1	8:1	8:1	Dimensions
3.2x1.7x6.7" (82x44x170mm)	8.3x3.5x1.5" (211x89x38mm)		6.4x1.8x1.3" (163x45x34mm)	Weight
4.9oz (140g)	7oz (200g)		9.28oz (263g)	CE
Yes	Yes		Yes	Warranty
✓3 years	✓3 years		1 year	



Thermocouple Thermometers, Datalogger, Printer

Extech offers a selection of thermometers with datalogging and printing capabilities for data storage analysis and report generation.

Featuring Model HD200

► Dual Input

Differential temperature measurements for servicing refrigeration and air conditioning

► IR Thermometer Probe

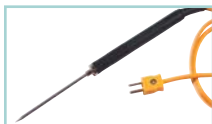
For non-contact temperature measurements from -22 to 1022°F (-30 to 550°C) for surfaces that are hard-to-reach or unsafe to touch

► Triple Display

Simultaneously view [T1, T2, T3 (IR)] or [T1-T2] or [T1-T3] or [T2-T3]



Accessories



TP880 Penetration Probe



TP882 High Temperature Penetration Probe

Accessories

- TP200Type K Clamp Probe (-40 to 212°F)
- TP880Type K Penetration Probe (-40 to 500°F)
- TP882Type K High Temp Penetration Probe (-50 to 1000°F)
- 872502Type J Bead Wire Temperature Probe (-328 to 392°F)
- 801515Type J, 4" (100mm) General Purpose Temperature Probe (-328 to 842°F)

409996Soft Vinyl Pouch Carrying Case (for EA15)

See pages 42 and 78 for additional temperature probes.

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- EA11A-NIST
- TM200-NIST
- EA10-NIST
- EA15-NIST
- HD200-NIST
- Limited NIST: Product certified to one point calibration at 75%.
- 445715-NISTL
- 445815-NISTL

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

NEW

EA11A



NEW

TM200



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, Type K bead wire probe (-4 to 482°F/-20 to 250°C), and 6 AAA batteries. (Optional temperature probes available on pages 42, 74 and 78)

Type K Dual Input Thermometer

Multifunction LCD with backlight

- Displays [T1 and T2] or [T1-T2 and T1] or [T1-T2 and T2]
- Selectable units of °C/°F or Kelvin
- Push-button Offset compensates for thermocouple irregularities
- MAX/MIN/AVG readings
- Data hold
- Programmable Auto power off
- Complete with built-in stand, protective holster, two Type K bead wire temperature probes (-4 to 482°F/-20 to 250°C), pouch case, and 9V battery

Specifications

Model	EA11A	TM200
Single or Dual Input	Single	Dual
Type K °F (°C)	-58 to 1999°F (-50 to 1300°C)	-328 to 2501°F (-200 to 1372°C)
Type J °F (°C)	—	—
InfraRed °F (°C)	—	—
Basic Accuracy	±0.3% rdg	±0.5% rdg
Resolution	0.1°/1°	0.1°/1°
Datalogging	—	—
Dimensions	5.9x2.8x1.3" (150x72x35mm)	6.5x3.0x1.7" (165x76x43mm)
Weight	8.3oz (235g)	7.4oz (210g)
CE	Yes	Yes
Warranty	1 year	1 year



EA10

EasyView® Series 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 Type K bead wire temperature probes (-4 to 482°F/-20 to 250°C), and 6 AAA batteries. (Optional temperature probes available on pages 42, 74 and 78)



EA15

EasyView® 7 Thermocouple Datalogger

Internal memory stores up to 8800 data sets



Software Included

- 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 Type K bead wire temperature probes (-4 to 482°F/-20 to 250°C), Windows® 95/98/ME/NT/2000/XP compatible software, RS-232 cable for data transfer, protective holster, case, and 6 AAA batteries



NEW

HD200

Differential Thermometer Datalogger + IR

Automatically stores up to 18,000 readings and takes differential temperature readings with dual Type K thermocouple probes plus non-contact surface temperature measurement using IR Thermometer Probe



USB port with PC Software

- Display [T1, T2, T3 (IR)] or [T1-T2] or [T1-T3] or [T2-T3]
- Records in a continuous mode up to 18,000 readings
- Differential displays for HVAC/ Superheat measurements
- Heavy duty rugged double molded housing
- MAX/MIN/AVG and Data Hold
- USB port includes PC software
- Includes IR Thermometer probe (HD200-IR) with 8:1 distance to target ratio and Laser pointer
- Complete with two Type K bead wire temperature probes (-4 to 482°F/-20 to 250°C), IR probe, built-in stand, Windows® compatible software, USB cable, hard carrying case, and 9V battery

EA10	EA15	HD200	Model
Dual	Dual	Dual + IR	Single or Dual Input
-200 to 1999°F (-200 to 1360°C)	-200 to 1994°F (-150 to 1090°C)	-328 to 2501°F (-200 to 1372°C)	Type K °F (°C)
—	-200 to 1999.9°F (-150 to 1370°C)	—	Type J °F (°C)
—	—	-22 to 1022°F (-30 to 550°C) with IR probe	InfraRed °F (°C)
±0.3% rdg	±0.05% rdg	±0.15%	Basic Accuracy
0.1°/1°	0.1°	0.1°/1°	Resolution
—	8800 readings	18,000 readings	Datalogging
6x2.8x1.5" (152x72x37mm)	5.91x2.83x1.38" (150x72x35mm)	7.9x2.9x1.9" (201x75x50mm)	Dimensions
8.3oz (235g)	8.3oz (235g)	9.8oz (280g)	Weight
Yes	Yes	Yes	CE
1 year	1 year	✓3 years	Warranty



Thermocouple Thermometers, Datalogger, Printer

Extech offers a selection of thermometers with datalogging and printing capabilities for data storage analysis and report generation.

Featuring Model 421502

Dual Input

Differential temperature measurements for servicing refrigeration and air conditioning

Differential Temperature

Calculates the differences between two temperature readings (T1-T2) for Type J, Type K, or both Type J and K

Programmable Alarm

High and Low temperature setpoints with audible alarm



421501



421502

Big Digit, Type K Single Input Thermometer

Single input with large backlit LCD and water resistant housing

- Rugged water-tight design
- Large 0.8" (20mm) digit LCD with backlighting
- MAX readings
- Data Hold
- Complete with protective holster with stand, Type K bead wire temperature probe (-4 to 482°F/-20 to 250°C), and 9V battery

(Optional temperature probes available on pages 42, 74, and 78)

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 Type K bead wire temperature probes (-4 to 482°F/-20 to 250°C), protective holster with stand, and 9V battery

(Optional temperature probes available on pages 42, 74, and 78)

Accessories:

(See pages 42, 74, and 78 for Thermocouple Temperature Probes)

AC Adaptor

- 149114117V AC Adaptor (for 422324)
- 149220220V AC Adaptor (for 422324)
- 156119117V AC Adaptor (for 407907)
- 156221220V AC Adaptor (for 407907)

Carrying Case

- 409997Soft Vinyl Pouch Case (for 421501, 421502, 421509)
- 140001Hard Vinyl Carrying Case (for Heavy Duty Series)

Thermal Paper

- 422377Thermal Paper Roll, 2pk, 1.5" (38mm) width

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- 421501-NIST
- 421502-NIST
- 421509-NIST
- 407907-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model	421501	421502
Single/Dual Input	Single	Dual
Type K °F (°C)	-58°F to 1999°F (-50°C to 1300°C)	-328 to 2498°F (-200 to 1370°C)
Type J °F (°C)	—	-328 to 1922°F (-200 to 1050°C)
RTD/Thermistor °F (°C)	—	—
Basic Accuracy	±0.3% rdg	±0.05% rdg
Max. Resolution	0.1°/1°	0.2°F/0.1°C
Datalogging	—	—
Dimensions/Weight	7.63x3.6x2.1" (192x91x53mm)/13oz (365g)	7.63x3.6x2.1" (192x91x53mm)/13oz (365g)
CE	Yes	Yes
Warranty	1 year	1 year



421509



Software Included

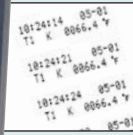
7 Thermocouple Datalogger with Alarm

Memory stores up to 16 data sets, 1024 maximum data capacity

- Seven Thermocouple type selections: K, J, T, E, R, S, N
- Large backlit LCD with two secondary displays for simultaneous T1, T2, T1-T2, Time and advanced readouts
- T/C offset adjustment
- REC, MAX, MIN, MAX-MIN, AVG and °C/°F switchable
- Data Hold and Relative function
- Bi-directional RS-232 PC interface
- Programmable Hi/Lo alarm with Real time clock with calendar
- Auto power off with disable feature
- Complete with two Type-K bead wire temperature probes (-4 to 482°F/-20 to 250°C), Windows® 95/98/ME/NT/2000/XP compatible software, RS-232 cable, protective holster, and 9V battery



422324



Sample Printout

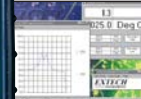
4 Thermocouple Thermometer Printer, Dual Input with Alarm

Ideal for field testing and providing hard copy data

- Four Thermocouple type selections: K, J, T, and E
- Scan mode sequentially displays T1, T2, or (T1-T2) and simultaneously prints all 3 readings
- MIN/MAX/AVG readings
- Hi/Lo alarm settings
- Digital signal output alarm jack for control and industrial automation
- Programmable time intervals with real time clock and calendar
- Complete with carrying case, six 1.5V AAA batteries, 2 rolls thermal paper, and mini DIN alarm output cable (temperature probe sold separately)



407907



See p. 95 for details on Data Acquisition software and Datalogger.

Heavy Duty RTD Thermometer with PC Interface

Higher resolution to 0.01° over wide Temperature ranges

- Wide temperature range measures to 1562°F (850°C)
- Built-in linearity correction with fast response
- Sampling time of 0.4 second
- Built-in RS-232 PC serial interface with optional 407001 Windows® 95/98/NT/2000/XP compatible Data Acquisition software and 380340 Datalogger (see page 95 for full details)
- Accepts 4 wire Pt-100Ω RTD probes with 4-pin connector
- Data Hold
- Complete with protective holster with stand and 9V battery (stainless steel RTD Temperature probes with 4-pin plugs sold separately)

RTD Temperature Probes

850187



General Purpose probe
-328 to 932°F (-200 to 500°C)

850186



Surface probe
-328 to 482°F (-200 to 250°C)

850189



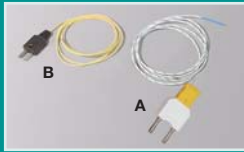
Air probe
-328 to 752°F (-200 to 400°C)

See pages 42, 74, and 78 for Thermocouple Temperature probes

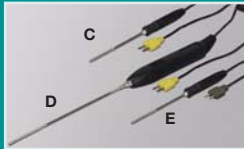
421509	422324	407907	Model
Dual	Dual	No	Dual Input
-328 to 2501°F (-200 to 1372°C)	-328 to 2431°F (-200 to 1333°C)	—	Type J °F (°C)
-346 to 2192°F (-210 to 1200°C)	-328 to 1400°F (-200 to 760°C)	—	Type K °F (°C)
—	—	RTD: -199.99 to 1562°F (-199.99 to 850°C)	RTD/Thermistor °F (°C)
±0.05% rdg	±(0.1%+1.4°F/0.8°C)	±(0.1%rdg+0.4°F/0.2°C)	Basic Accuracy
0.1°	0.1°	0.01°	Max. Resolution
1024 readings	—	Optional Datalogger 380340 (p.95)	Datalogging
7.5x3.6x2.0" (192x91x53mm)/12.8oz (365g)	7.6x3x1.5" (193x74x37mm)/12.9oz (365g)	7.1x2.8x1.3" (180x72x32mm)/10oz (285g)	Dimensions/Weight
Yes	Yes	Yes	CE
1 year	1 year	✓3 years	Warranty

**Thermocouple
Temperature Probes**

Bead Wire probes
Probes for air and surface temperature measurement (not suitable for liquids).



General Purpose probes
Suitable for air and liquid temperature measurement.



Penetration probes
Ideal for food service, liquids or gels.



Surface probe
Flat tip is specially designed for making surface temperature measurements.



Clamp probe
Conveniently fits 0.25 to 1.5" (6.4 to 38mm) pipes



Accessories:

Temperature Probes with 39" (1m) cable

Bead Wire

A. TP873 ...Type K Bead Wire Temperature Probe (-22 to 572°F/-30 to 300°C)

B. 872502 ..Type J Bead Wire Temperature Probe (-328 to 392°F/-200 to 200°C)

General Purpose

C. 871515 ..Type K, 4" (100mm) General Purpose Probe (-32 to 1292°F/-200 to 700°C)

D. 881605 ..Type K, 8" (203mm) General Purpose Probe, (-328 to 1292°F/-200 to 700°C)

E. 801515 ..Type J, 4" (100mm) General Purpose Probe (-328 to 842°F/-200 to 450°C)

Penetration

F. 881603 ..Type K, 6" (150mm) Immersion Probe, (-58 to 1292°F/-50 to 700°C)

G. 881604 ..Type K, 6" (150mm) Needle Thin Probe, (-58 to 1112°F/-50 to 600°C)

Surface

H. 881602 ..Type K, 6" (150mm) Surface Probe, (-58 to 1472°F/-50 to 800°C)

I. TP200Type K Pipe Clamp Probe, (-40 to 212°F/-40 to 100°C)

See page 77 for RTD probes.

CE All temperature indicators featured are CE certified and include a one year warranty



392085

Pocket Thermometer with Alarm

Audible High/Low Alarms

- Audible alarm alerts user when pre-set MAX/MIN temperature is reached or exceeded
- Data Hold
- Durable 2.5" (64mm) stainless steel probe with 20" (508mm) cable
- Temperature: -58 to 302°F (-50 to 150°C), ±1.8°F/1°C basic accuracy, 0.1°/1° resolution
Dims: 4.8x3x0.8" (122x76x20mm)
Weight: 3.4oz (96g)
- Complete with case, stainless steel probe, and 1.5V button battery



401012

Indoor/Outdoor Temperature Alarm

Audible Alarm alerts user when Temperature exceeds the setpoints

- Displays indoor/outdoor temperature simultaneously
- Single or Dual point audible alarm (external sensor)
- Indoor/Outdoor: -58.0 to 158.0°F, ±1.8°F accuracy, 0.1°F resolution
Dims: 2.75x2.75" (70x70mm)
Weight: 3oz (85g)
- Complete with internal plus 10ft (3m) weatherproof temperature sensor with adhesive backing, stand, one AAA battery, and screws for wall mounting



39240

Waterproof Thermometer

Pocket-size with MAX/MIN recording

- 2.75" (70mm) Stainless steel stem
- Data Hold and Auto power off
- Temperature: -40 to 392°F (-40 to 200°C), ±2°F/1°C accuracy, 0.1°/1° resolution
- Dims: 5.9x0.8x0.7" (150x20x18mm)
- Weight: 0.7oz (20g)
- Complete with one LR44 button battery and protective cover



392065

T-Bar Stem Thermometer

Measures temperature in frozen solids and liquids

- 4.9" (124mm) stainless steel probe
- 0.35" (9mm) LCD display
- ON/OFF switch saves battery life
- Temperature: -58 to 302°F (-50 to 150°C); ±2°F/1°C accuracy, 0.1°/1° resolution
- Weight: 0.6oz (17g)/ 0.8oz (23g) with plastic sheath
- Complete with plastic protective sheath with pocket clip and 1.5V button battery



401014

Big Digit Indoor/Outdoor Thermometer

Built-in memory stores Minimum and Maximum Temperature readings

- Large LCD displays 1" (25mm) 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)
±1.8°F /1°C accuracy; 0.1°F/°C resolution
Dims: 4.4x4x0.9" (112x102x22mm)
Weight: 6.5oz (186g)
- Complete with weatherproof temperature sensor with 9.6ft (3m) thin cable, stand, AAA battery, and wall mounting bracket



401016

Big Digit Window Thermometers

Attach to any window to view outside temperature

- Attractive transparent body with large 1.2" digits LCD display
- Range: -13 to 158°F
- MAX/MIN display with auto reset
- Monitor temperature outside, in controlled rooms, or laboratories
- ±1.8°F/±1°C accuracy; 0.1° resolution
- Dims: 3.83x4x0.8" (97x103x20mm)
- Complete with UV shield, one AAA battery and window mount



NEW

445810

Radio Controlled Thermometer Clock

Receives Time Code from NIST Radio Station WWVB (North America only) and automatically adjusts week, day, date, hour, minute, second, and DST

- Large LCD displays Time, Temperature, Time Zone, Calendar, Month, Week, Date, and Day
- Adjusts for daylight savings time (DST)
- Alarm clock with 4 minute snooze
- Measures 23 to 113°F (-5 to 45°C)
- Basic accuracy of ±2°F/1°C
- 12/24 hour format; Manual time setting
- Complete with built-in stand and one AA battery



NEW

392060

Swivel Head Stem Dial Thermometer

Adjustable display for better viewing angle

- Display adjusts: 0°, 22.5°, 45°, 67.5°, 90°, 112.5°, 135°, 157.5° and 180°
- 2" (54mm) dial with 5" (133mm) Stainless steel probe
- Temperature: -58 to 572°F (-50 to 300°C); ±1.8°F/1°C accuracy, 0.1°/1° resolution
- Auto power off after 1 hour, Data Hold
- Complete with protective plastic sheath with pocket clip and 1.5V LR44 button battery



392050
392052

Dial Thermometers

Choice of Penetration or Flat Surface Stem Dial Thermometer

- 5" (130mm) stainless steel probe with 2" (54mm) dial
- Model 392050 (Penetration): -58 to 302°F (-50 to 150°C)
- Model 392052 (Flat Surface): -58 to 572°F (-50 to 300°C)
- ±2°F/1°C accuracy, 0.1°/1° resolution
- ON/OFF switch saves battery life
- Auto Power off after 1 hour
- Weight: 1oz (29g)
- Complete with 1.5V LR44 battery



39272

Pocket Fold-up Thermometer with Adjustable probe

4.5" (114mm) stainless steel probe adjusts from 0 to 180° for storage or measurement

- Detents at 45°, 90°, 135°, and 180°
- Fast response; Auto Power off after 1hour
- Data Hold and Min/Max
- Temperature: -58 to 572°F (-50 to 300°C), ±1.8°F/1°C, 0.1°/1° resolution
- Dims: 6.1x2x0.8" (154x50x20mm)
- Weight: 2.5oz (71g)
- Complete with wrist strap & AAA battery

RH520

Humidity+Temperature Chart Recorder

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

Includes Software
NEW! LabView-based PC software with advanced functions

Features:

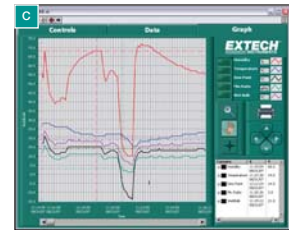
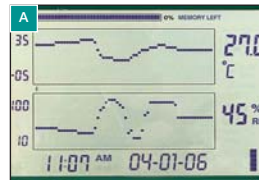
- Simultaneous numerical & graphical display of Humidity and Temperature readings, plus Time and Date
- Measures Humidity and Temperature plus calculates Dew Point
- Large dual graphical LCD displays with adjustable vertical and horizontal resolution indicate % of memory remaining
- Internal memory records up to 49,000 data points that can be transferred to a PC via RS-232 serial port for further data analysis
- Replaceable probe does not require recalibration
- Detachable probe extends to 3ft (1m)
- Audible and visual alarm with Hi/Low setpoints
- Output socket used with optional external alarm module
- Scroll the cursor to display selected data recorded
- Complete with built-in stand, sensor with 3ft (1m) cable, LabView-based PC software, RS-232 cable, 110V-220VAC adaptor and 3 AA batteries



Function	
Relative Humidity range	10.0 to 95.0%
Temperature range	-20.0 to 140.0°F (-28.0 to 60.0°C)
Basic Accuracy	±3% Relative Humidity; ±1.8°F (±1°C)
Dimensions	5 x 7.7 x 0.9" (129 x 195 x 22mm)
Weight	12.6oz (357g)

Ordering

- RH520Humidity+Temperature Chart Recorder (110V adaptor)
- RH520-NIST..RH520 with NIST Certificate
- RH520-220Humidity+Temperature Chart Recorder (220V adaptor)
- RH520-240Humidity+Temperature Chart Recorder (240V adaptor)
- USB100RS-232 to USB Adaptor
- RH522Replaceable Humidity/Temperature Probe
- SL123.....AC Alarm Relay Module 9ft (3m) cable
- SL124.....DC Alarm Relay Module 9ft (3m)cable



- A. Adjustable vertical and horizontal resolution
- B. Wall mountable
- C. New LabView based PC software and cable for download control and to graph Relative Humidity, ambient temperature, dew point, wet bulb, and mix ratios (gpp or g/kg)

**TH10
RHT10**

Humidity and Temperature USB Dataloggers

NEW

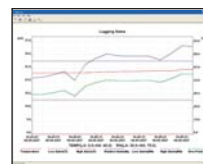
USB interface for easy set-up and data download

Features:

- **Model TH10** datalogs 32,000 Temperature readings
- **Model RHT10** datalogs 16,000 Temperature/16,000 RH readings
- Dew point indication via Windows® software (included)
- Selectable data sampling rate: 2s, 5s, 10s, 30s, 1m, 5m, 10m, 30m, 1hr, 2hr, 3hr, 6hr, 12hr, 24hr
- Two start methods: instant (when exiting software) or manual (using push button on unit)
- User-programmable alarm thresholds for RH and Temperature
- Status Indication via Red/Yellow LED and Green LED
- Humidity: 0 to 100%RH (Model RHT10 only)
Temperature: -40 to 158°F (-40 to 70°C);
Accuracy: ±3%RH; ±1°F/0.5°C
- 1yr battery life; Dims: 5.1x1.1x0.9" (130x30x25mm)/Wt: 1oz (20g)
- Complete with 3.6V Lithium battery, protective USB cap, mounting bracket, and Windows® compatible software for analysis



Model RHT10 - Humidity and Temperature Datalogger
Model TH10 - Temperature Datalogger



Software included



Monitor Humidity and Temperature levels in warehouse, storage rooms, freezers, shipping vans, and water damage restoration

Ordering

- RHT10.....Humidity and Temperature USB Datalogger
- TH10Temperature USB Datalogger

42265
42275

Temperature and Humidity Datalogger Kits with PC Interface

Choice of Temperature/Humidity or Temperature only Datalogger — Compact, powerful and easy to use

Features:

- **42265** — Waterproof (IP65) Temperature Datalogger Kit records up to 8000 readings
- **42275** — Water resistant Temperature and Humidity Datalogger Kit records up to 16,000 readings (8,000 readings/parameter)
- Logs data for days, weeks or months
- Three start methods: Scheduled, immediate or magnetic
- Multiple Dataloggers (42260 or 42270) can be programmed and data downloaded from one single docking station
- Real time clock stores date and time with data
- Programmable sampling rate from 1 sec to 2hrs plus Hi/Lo limits with alarm indication
- Program the logger: analyze and store data using Windows® compatible software

Models 42266 and 42276

- Self standing battery operated programming unit and printer
- Optional software and USB cable (SW276) to program, download and analyze data on a PC



Datalogger Kit available in two configurations: **42265** includes one 42260 datalogger. **42275** (above) includes one 42270 datalogger. Both include Windows® compatible software and docking station.

Function	
Relative Humidity range	0 to 100% RH
Temperature range	-40 to 185°F (-40 to 85°C)
Resolution	0.1%RH, 0.1°F/°C
Basic Accuracy	±3% Relative Humidity; ±1°F (±0.6°C)
CE/ Warranty	CE/ 1 year
Dims/Wt	42260 or 42270 — 3x2.3x0.88" (76.2x57.2x22.3mm); 2.6oz (72.6g) 42265 or 42275 — 4.9x3.8x2" (123.8x95.3x51mm); 9oz (254g) 42266 or 42276 — 6.1x4.8x1.9" (155x122x48mm)/12oz (338g)

Ordering

Temperature/Humidity Dataloggers

- 42275.....Temperature/Humidity Datalogger Kit with PC Interface
- 42276.....Temperature/Humidity Datalogger Programmer with Printer
- 42270.....Temperature/Humidity Datalogger for 42275
- 42265.....Temperature Datalogger Kit with PC Interface
- 42266.....Temperature Datalogger Programmer with Printer
- 42260.....Temperature Datalogger for 42265
- 42299.....Replacement 3.6V Lithium batteries (2pk)
- USB100.....RS-232 to USB Adaptor
- SW276.....PC Software and USB cable kit for 42266 and 42276
- 159117.....117V AC Adaptor for 42266 and 42276
- 159222.....220V AC Adaptor for 42266 and 42276
- 422378.....Replacement Thermal Paper (5pk) for 42266 and 42276



Programming Unit and Printer Available in two configurations: **42266** includes one 42260 Temperature Datalogger. **42276** (above) includes one 42270 Temperature/Humidity Datalogger. Both kits include a 3.6V lithium battery, programmer printer, 4 AAA batteries, and paper roll.



42260 Temperature Datalogger and **42270** Humidity + Temperature Datalogger. **NOTE:** 42260 and 42270 Dataloggers cannot function without software, docking station, or programmer printer.

42280

Temperature and Humidity Datalogger

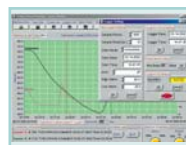
Records up to 16,000 readings with USB interface for downloading to a PC

NEW

Features:

- Triple LCD display
- Programmable from keypad or PC
- Selectable data sampling rate
- User programmable audible and visual alarms
- Wall, desktop, or tripod mount
- Calibration via optional salt bottles
- Complete with Windows® compatible software, USB cable, 110V AC adaptor, and four AA batteries

Function	
Relative Humidity range	0 to 100% RH
Temperature range	-4 to 144°F (-20 to 70°C)
Resolution	0.1%RH, 0.1°F/°C
Basic Accuracy	±3% Relative Humidity; ±1°F (±0.6°C)
CE/ Warranty	CE/ 1 year
Dims/Wt	4.75x3.5x1.5" (120.7x88.9x38.1mm)/ 5.7oz (163g)



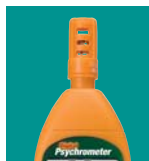
Software included



Ordering

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

...trusted by the professionals.



Digital Psychrometers

New humidity and temperature meters with built-in or remote probes include wet bulb and dew point measurements for quick assessment of air moisture content.

Featuring Model HD500

Built-in InfraRed Thermometer

30:1 IR Thermometer for fast, easy and accurate non-contact surface temperature measurements

USB Interface and PC Software

Easy data transfer to a PC

Highest Accuracy

Precision 2% RH accuracy

Wet Bulb and Dew point

Digital Psychrometer displays air moisture content without slinging



Only Extech offers Dew Point Meters with Differential and IR Thermometer

Accessories

- RH300-CAL.....33% and 75%RH Calibration Kit for RH300, HD500
- RH350-CAL.....33% and 75%RH Calibration Kit for RH350
- RH401-CAL.....33% and 75%RH Calibration Kit for RH401
- TP890.....Thermistor Temperature Probe for RH300
- TP873.....Type K Temperature Probe for RH350
- TP200.....Type K Clamp Probe for RH350, HD500
- 407752.....PC Software and Cable for RH401 and RH405
- 589250.....RS-232 PC cable for RH350 and RH355
- USB100.....RS-232 to USB Adaptor

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. To order meter with NIST:

- RH300-NIST
- RH305-NIST
- RH350-NIST
- RH355-NIST
- RH390-NIST
- HD500-NIST
- HD500-NISTL**

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

**Limited NIST. Product certified to all functions except IR Thermometer.

Specifications

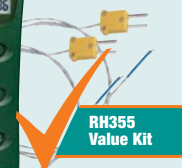
Model	RH300	RH305 (kit)	RH350	RH355 (kit)
Sensor Type	Capacitance		Capacitance	
Dew Point	-90.4 to 122°F (-68.0 to 49.9°C)		-90.4 to 122°F (-68.0 to 49.9°C)	
Wet Bulb	-6.9 to 122°F (-21.6 to 49.9°C)		-6.9 to 122°F (-21.6 to 49.9°C)	
Humidity (Basic Accuracy)	0 to 100%RH (±3%RH)		0 to 100%RH (±3%RH)	
Temperature (internal)	-4 to 122°F (-20 to 50°C)		-4 to 122°F (-20 to 50°C)	
Basic Accuracy	±1.8°F or ±1°C		±1.8°F or ±1°C	
Temperature (external)	-4 to 158°F (-20 to 70°C)		-328 to 2498°F (-200 to 1370°C)	
Basic Accuracy	±1.8°F or ±1°C		±0.3% or 1.8°F or ±1°C	
Temperature (IR)	—		—	
Basic Accuracy	—		—	
Emissivity	—		—	
Field of View	—		—	
PC Interface	—		Optional	RS-232
Memory/Datalogging	—		99 readings	
CE/Warranty	CE/ 1 year		CE/ 1 year	
Dimensions/Weight	7x1.9x1" (178.5x48.4x24.7mm)/ 3.3oz (95g)		9x2.2x1.7" (230x57x44)/ 5.3oz (153g)	



RH300
RH305



RH350
RH355



Hygro-Thermometer Psychrometer

External Probe Temperature measurements for differential

- 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
- RH300 includes 2 AAA batteries
- RH305 kit (see photo on p. 83) includes RH300, TP890 external temperature probe, RH300-CAL calibration bottles and carrying case

Dual Input Hygro-Thermometer Psychrometer

Two Type K External Probe inputs for Superheat plus memory

- Dual Type K probe inputs (T1,T2)
- 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
- Built-in RS-232 interface — uses optional Windows® 95/98/2000/ME/NT/XP compatible software
- Memory stores up to 99 data points
- MAX/MIN with time stamp + AVG
- Data Hold, Auto power off
- RH350 includes 2 Type K bead wire temperature probes (-58 to 482°F/ -50 to 250°C), 4 AAA batteries
- RH355 kit (see photo on p. 83) includes RH350, RH350-CAL calibration bottles, 589250 software cable, and case



NEW
RH390
RH490

High Accuracy

Precision Hygro-Thermometer Psychrometer

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 1120GPP (160g/kg)
- Complete with carrying case and 9V battery



**RH401
RH405**

BUILT IN IR Thermometer

RH405 Value Kit

Psychrometer + 8:1 InfraRed Thermometer

IR for Non-contact Temperature measurements

- Triple display with backlighting:
 - Air temp+RH+surface temp
 - Dew Point+RH+surface temp
 - Wet Bulb+RH+surface temp
- Calculates T1 - DP (IR Surface Temperature) - (Dew Point) differential
- Data Hold and Auto power off
- Built-in RS-232 interface (optional cable) — captures readings to a PC using Windows® Hyperterminal
- RH401 includes 4 AAA batteries and carrying case
- RH405 kit includes RH401, RH401-CAL calibration bottles, 407752 software with cable, and case (see photo on the right)



NEW
HD500

BUILT IN IR Thermometer Patented



USB port, cable and PC software included

Psychrometer + 30:1 InfraRed Thermometer

Combination Humidity Meter, Type K thermometer, and InfraRed Thermometer

- Built-in IR Thermometer for non-contact surface temperature measurements to 932°F (500°C) with 30:1 distance to target ratio
- Type K Thermometer for contact temperature measurement to 2501°F (1372°C)
- Highest 2% RH accuracy
- Large triple LCD backlit display
- USB port includes PC software
- Auto power Off
- Optional calibration bottle RH300-CAL
- Complete with Type K temperature probe (-58 to 482°F/-50 to 250°C), Windows® compatible PC software and USB cable, built-in stand, carrying case, and 9V battery

Psychrometer Kits



RH305 Kit — includes RH300, temperature probe, 33% and 75% calibration bottles, and case



RH355 Kit — includes RH350, 33% and 75% calibration bottles, PC cable, and case



RH405 Kit — includes RH401 with 33% and 75% calibration bottles, PC cable, and case

RH390	RH490	RH401	RH405 (kit)	HD500	Model
Capacitance	Capacitance	Capacitance	Capacitance	Capacitance	Sensor Type
-22 to 199°F (-30 to 100°C)	-22 to 199°F (-30 to 100°C)	-90.4 to 122°F (-68.0 to 49.9°C)	-90.4 to 122°F (-68.0 to 49.9°C)	-90.4 to 140°F (-68 to 60°C)	Dew Point
32 to 176°F (0 to 80°C)	32 to 176°F (0 to 80°C)	-6.9 to 122°F (-21.6 to 49.9°C)	-6.9 to 122°F (-21.6 to 49.9°C)	-6.88 to 140°F (-21.6 to 60°C)	Wet Bulb
0 to 100%RH (±2%RH)	0 to 100%RH (±2%RH)	0 to 100% (±3%RH)	0 to 100% (±3%RH)	0 to 100% (±2%RH)	Humidity (Basic Accuracy)
-22 to 199°F (-30 to 100°C)	-22 to 199°F (-30 to 100°C)	-4 to 122°F (-20 to 50°C)	-4 to 122°F (-20 to 50°C)	14 to 140°F (-10 to 60°C)	Temperature (internal)
±1.8°F/1°C	±1.8°F/1°C	±1.8°F (±1°C)	±1.8°F (±1°C)	±4°F (±2°C)	Basic Accuracy
—	—	—	—	-148 to 2501°F (-100 to 1372°C)	Temperature (external)
—	—	—	—	±3%	Basic Accuracy
—	—	-40 to 932°F (-40 to 500°C)	-40 to 932°F (-40 to 500°C)	-58 to 932°F (-50 to 500°C)	Temperature (IR)
—	—	±3%	±3%	±2% or ±4°F (±2°C)	Basic Accuracy
—	—	Adjustable 0.3 to 1.0	Adjustable 0.3 to 1.0	0.95 fixed	Emissivity
—	—	8:1	8:1	30:1	Field of View
—	—	Optional	RS-232	USB	PC Interface
—	—	—	—	—	Memory/Datalogging
CE/ 1 year	CE/ 1 year	CE/ 1 year	CE/ 1 year	CE/ ✓3 years	CE/Warranty
7.8x1.7x1.3" (200x45x33mm)/7oz (200g)	7.8x1.7x1.3" (200x45x33mm)/7oz (200g)	10x2.9x2" (255x75x50mm)/12.2oz (350g)	10x2.9x2" (255x75x50mm)/12.2oz (350g)	10x2.9x2" (255x75x50mm)/12.2oz (350g)	Dimensions/Weight



Humidity & Temperature Meters

Extech's Humidity/Temperature meters are available in the style to fit the user's measurement needs: remote probe for easy access into ducts and vents, and integral probe for convenient one hand operation.

445580
445582

Featuring Model **HT30**

▶ Heat Stress Index

Measures how hot it feels when humidity is combined with temperature, air movement, and radiant heat

▶ Wet Bulb Globe Temperature

Considers the effects of temperature, humidity and direct or radiant sunlight

▶ Black Globe Temperature

Monitors the effects of direct solar radiation on an exposed surface

▶ PC Interface

Capture and analyze data



Kit includes calibration standards and case

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-C)
- **Model 445580** includes meter with pocket clip and 3V lithium battery
- **Model 445582** includes 445580 plus 33% and 75% RH calibration standards, and hard vinyl case

Accessories

RH300-CAL...33% and 75% RH Calibration Kit
407752.....Software and Cable for HT30

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points.

To order meter with NIST:

445580-NIST
445582-NIST
EA20-NIST
EA25-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model	445580 Pen	445582 Kit
Sensor Type		Capacitance
Humidity		10 to 90%
Dew Point		—
Temperature (Wet Bulb Globe)		—
Temperature (Black Globe)		—
Temperature (Air)	14 to 122°F (-10 to 50°C)	
Temperature (IR)		—
Basic Accuracy		±5%, ±1.5°
Max. Resolution		0.1%, 0.1°
PC Interface		—
Datalogging		—
Dimensions		5.7x1.2x1" (145x30x25mm)
Weight		2.3oz (65g)
CE		Yes
Warranty		1 year



HT30

NEW

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 override
- Built-in RS-232 interface with optional PC software (407752)
- Complete with two AAA batteries



RH101

BUILT IN IR Thermometer
Patented

Hygro-Thermometer + IR Thermometer

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" (1m) coiled cable measures both humidity and ambient temperature
- Overrange indication
- Complete with built-in stand, holster, Humidity/Temperature probe, 9V battery, and carrying case



**EA20
EA25**

EasyView® Hygro-Thermometer and Datalogger

Stores up to 99 or 15,000 readings

- Dual display of RH, Temperature, Dew Point and Wet Bulb
- Data Hold, Relative, and MAX/MIN
- Programmable power off timer
- Complete with stand, holster, probe with 39" (1m) cable, 6 AAA batteries, and carrying case; Model EA25 includes Windows® compatible software and cable
- **EA20** - Stores up to 99 manual readings for display recall
- **EA25 additional features**
- Stores up to 15,000 readings for PC download
- Programmable Start/Stop datalogging time and sample rate of 1 to 86,000 seconds

HT30	RH101	EA20	EA25
Capacitance	Capacitance	Capacitance	Capacitance
0 to 100%RH	10 to 95%	10 to 95%	10 to 95%
—	—	-91.1 to 139.8°F (-68.4 to 59.9°C)	—
32 to 122°F (0 to 50°C)	—	—	—
-22 to 1022°F (-30 to 550°C)	—	—	—
32 to 122°F (0 to 50°C)	-4 to 140°F (-20 to 60°C)	-4 to 140°F (-20 to 60°C)	—
—	-58 to 932°F (-50 to 500°C)	—	—
±3%, ±1.1°F/0.6°C	±3.5%RH; ±2% or ±4°F/2°C (IR); ±3°F/1.5°C (Air)	±3%RH, ±1.8°F (±1°C)	—
0.1%, 0.1°	0.1%, 0.1°	0.1%, 0.1°	—
Yes	—	—	Yes
—	—	99 readings	15,000 readings
Meter: 10x1.9x1.1" (254x49x30mm); Ball: 1.6" (40mm)dia, 1.4" (35mm) high	5.9x2.95x1.57" (150x75x40mm)	6x2.8x1.4" (152x72x35mm)	—
4.8oz (136g)	7oz (200g)	8.3oz (235g)	—
Yes	Yes	Yes	—
1 year	1 year	1 year	—



Moisture Meters

Extech's Moisture meters determine % moisture and/or % relative humidity in building materials including, wood, brick, tile, plaster, linoleum on concrete, concrete slabs, and roofing.

Featuring Model MO280

Non-Invasive Measurement

With virtually no surface damage, simply lay meter on surface to measure moisture content

Wide Moisture Ranges

Select from 10 wood and building material types and measurement ranges

Accurate Measurement

With Automatic Internal Test and Calibration



Measure moisture of wall material with non-invasive Pinless technology

MO100



Multi-position sensor with safety storage and position lock

MO210

NEW



Battery check and measurement verification test on protective cap

Pocket Size Moisture Detector

Convenient adjustable pins for wood and building materials

- Unique dual LCD displays wall moisture (0 to 100) and air temperature (32° to 121.8°F or 0 to 50°C) simultaneously
- Moisture content displayed on a relative scale
- Multi-position pins with safety storage of replaceable pins
- Easy to operate with selectable side switch (OFF, Test, and Calibrate)
- Data hold to freeze reading on display
- Calibration adjustment for better repeatability
- °C/°F switchable
- Low battery indication
- Complete with 2 AAA batteries, 10 spare pins, and pouch case

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

Specifications

Model	MO100	MO210
Sensor Type	Contact Pins	Contact Pins
Moisture Content	0 to 100	6 to 44% (Wood); 0.2 to 2.0% (Materials)
Relative Humidity	—	—
Temperature °F (°C)	32 to 122°F (0°C to 50°C)	—
Max. Resolution	0.1	1% (Wood) / 0.1% (Materials)
Dimensions/Weight	7.6x0.8x1.8" (192x30x45mm)/ 3.8oz (108g)	5.1x1.6x1.0" (130x40x25mm)/3.5oz (100g)
CE	Yes	Yes
Warranty	1 year	1 year

Accessories

- MO100-PINS..Replacement pins for MO100 (20 pins)
- MO200-PINS..Replacement pins for MO210 (50 pins)
- MO220-PINS..Replacement pins for MO220 (50 pins)
- MO250-PINS..Replacement pins for MO250 (50 pins)
- MO252.....Remote probe w/3.9ft (120cm) cable for MO250

M0220



NEW



Includes remote moisture and temperature probes

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 settable 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 battery

M0250



Optional remote probe (M0252) measures Wood/Building moisture in hard to reach areas

Wood/Building Material Moisture Meter

Combination LED bargraph indicator and large digital LCD reading

- Wood and building material moisture measurement
- Basic accuracy of 5%
- LCD display with the red LED bar graph
- Built-in pins, all in one, easy operation
- Data hold and MAX/MIN
- Complete with 9V battery
- Optional remote probe with 3.9ft (120cm) cable (M0252) — Offers the ability to measure wood moisture in difficult to access areas (see p. 86 to order)

M0280



NEW

Available Q1 2008

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 0.75" (22mm) below the surface
- Automatic internal test and calibration
- Electro-magnetic testing technology
- Low battery indication
- Complete with 9V battery and pouch case

M0220	M0250	M0280	Model
Contact Pins	Contact Pins	Non-Penetrating	Sensor Type
6 to 99.9% (Wood)	6 to 40% (Wood); 13 to 100% (Materials)	0 to 99% (limited by wood type)	Moisture Content
—	—	—	Relative Humidity
-31 to 176°F (-35 to 80°C)	—	—	Temperature °F (°C)
±1% (Wood)	0.1%	0.1%	Max. Resolution
7x1.9x1.2" (180x50x31mm) 6.1oz (175g)	8.4x2.7x1.2" (217x69x30mm)/ 8.9oz (251g)	5.4x2.8x1.1" (136x70x28mm)/5.5oz (156g)	Dimensions/Weight
Yes	Yes	Yes	CE
1 year	1 year	1 year	Warranty



Hygro-Thermometer Indicators

Extech offers a full selection of Humidity/ Temperature indicators and alarms whether they are desktop or wall mount. NIST certificates are available for models with remote probes.

Featuring Model 445815

Alarm Function

Audible and Visual alarms warn when Humidity level is too high or too low

NIST Traceable

Humidity and Temperature adjustments plus optional humidity standards and Certificate of traceability to NIST

Dew Point

Indicates where condensation may occur

Max/Min

Captures highest and lowest temperature and humidity readings



Applications

- Monitors Dew Point levels in a basement for potential mold growth
- Monitors Humidity and Temperature levels in calibration labs, and production areas
- Alerts user to low Humidity levels in computer server rooms to help prevent electrostatic conditions



Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter with a Certificate of Calibration Traceable to N.I.S.T. with Data at two Calibration Points (33% and 75%). **To order meter with NIST:**
445715-NIST
445815-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model	445703	445715	445715-NISTL
Remote Sensor	—	—	18" cable
Dew Point	—	—	—
Relative Humidity	10 to 99%	10 to 99%	10 to 99%
Basic Accuracy	±5%RH	±4%RH	±4%RH
Temperature (Indoor)	14 to 140°F (-10 to 60°C)	14 to 140°F (-10 to 60°C)	14 to 140°F (-10 to 60°C)
Basic Accuracy	±1.8°F/1°C	±1.8°F/1°C	±1.8°F/1°C
Temperature (Outdoor)	—	—	—
Basic Accuracy	—	—	—
Dimensions	4.3x3.9x0.78" (109x99x20mm)	4.3x3.9x0.78" (109x99x20mm)	4.3x3.9x0.78" (109x99x20mm)
Weight	6oz (169g)	6oz (169g)	6oz (169g)
CE	Yes	Yes	Yes
Warranty	1 year	1 year	1 year

445703



Big Digit Hygro-Thermometer

1" Digits on Super Large LCD

- MAX/MIN with reset function
- Humidity: 10 to 99%RH
- Temperature: 14 to 140°F (-10 to 60°C)
- Complete with stand, wall mounting bracket, and 1 AAA battery

445715



Big Digit Remote Probe Hygro-Thermometer

NIST Traceable* and Calibrateable

- Probe clips onto meter or extends on 18" (457mm) cable
- MAX/MIN with reset function
- Rear calibration adjustment pot
- Humidity: 10 to 99%RH
- Temperature: 14 to 140°F (-10 to 60°C)
- Complete with built-in stand, wall mount bracket, sensor and AAA battery; optional calibration salt bottles (RH300-CAL see p. 89)

*Optional Limited NIST
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*

445713



Indoor/Outdoor Hygro-Thermometer

Simultaneous display of Temperature/Humidity

- Outdoor sensor with 35" (89cm) cable
- MAX/MIN with reset function
- Humidity: 10 to 99%RH
- Temperature: 14 to 140°F (-10 to 60°C)
- Complete with stand, wall mounting bracket, outdoor sensor with 35" (89cm) cable, and 1 AAA battery

445814



Humidity Alert

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

- %RH audible and visual alarm alerts when humidity exceeds set limit
- Displays Dew Point temperature
- Built-in Humidity and Temperature sensors
- Max/Min with reset function
- Rear calibration adjustment pot for Humidity and Temperature
- Humidity: 10 to 99%RH
- Temperature: 14 to 140°F (-10 to 60°C)
- Ideal for warning when conditions for mold growth exist
- Complete with built-in stand, wall mount bracket, sensor and 1 AAA battery



445815



Humidity Alert II with Remote Probe

NIST Traceable* and Calibrateable plus programmable Alarms

- %RH audible and visual alarm alerts when humidity is higher or lower than HI/LO set points
- Displays Dew Point temperature
- Probe clips onto meter or extends on 18" (457mm) cable
- Max/Min with reset function
- Rear calibration adjustment pot for Humidity and Temperature
- Humidity: 10 to 99%RH
- Temperature: 14 to 140°F (-10 to 60°C)
- Warns when conditions for mold growth exist or air too dry (bad for health or static)
- Complete with built-in stand, wall mount bracket, sensor and 1 AAA battery; optional calibration salt bottles (RH300-CAL - p. 89)



Optional Limited NIST 445815-NISTL includes Certificate of Traceability to NIST at 75%.

For Certificate of Traceability to NIST at 2 points (33% and 75%), order 445815-NIST

Calibration Kit

RH300-CAL



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

445713	445814	445815	445815-NISTL	Model
35" cable	—	18" cable	18" cable	Remote Sensor
—	Yes	Yes	Yes	Dew Point
10 to 99% ±5%RH	10 to 99% ±4%RH	10 to 99% ±4%RH	10 to 99% ±4%RH	Relative Humidity
14 to 140°F (-10 to 60°C) ±1.8°F/1°C	14 to 140°F (-10 to 60°C) ±1.8°F/1°C	14 to 140°F (-10 to 60°C) ±1.8°F/1°C	14 to 140°F (-10 to 60°C) ±1.8°F/1°C	Basic Accuracy Temperature (Indoor)
14 to 140°F (-10 to 60°C) ±1.8°F/1°C	—	—	—	Basic Accuracy Temperature (Outdoor)
4.3x3.9x0.78" (109x99x20mm)	4.3x3.9x0.78" (109x99x20mm)	4.3x3.9x0.78" (109x99x20mm)	4.3x3.9x0.78" (109x99x20mm)	Basic Accuracy Dimensions
6oz (169g)	6oz (169g)	6oz (169g)	6oz (169g)	Weight
Yes	Yes	Yes	Yes	CE
1 year	1 year	1 year	1 year	Warranty



Hygro-Thermometers and Clocks

Extech offers a full selection of Humidity/Temperature indicators both desktop or wall mount. Models with calendar and clock functions are also available.

Featuring Model CTH10



▶ Radio Controlled Settings

Automatically and accurately adjusts year, date, day, hour, minute, second, and DST from the US official atomic clock

▶ Super Large LCD: 17" x 12"

Simultaneously displays Time, RH%, Temperature, Month, Date, and Day. Overall Size 17x12x1" (425x292x32mm) can be seen 150ft (45m)

▶ Alarm Clock

Audible alarm clock function



Perfect for Wall mount display. Big digits can be easily viewed from a distance up to 150ft (45m).

Hygro-Thermometer Stopwatch

See HW30 on p. 122 for our Heatwatch with built-in Humidity and/or Temperature sensors, plus it calculates the Heat Index!



445702



Hygro-Thermometer Clock

Combines three displays for Time, Temperature, and Humidity

- Clock display 12/24 hour time
- MAX/MIN with "reset" function
- Temperature is °C/°F switchable
- Settable clock alarm
- Complete with stand, wall mounting bracket, and one AAA battery

44550



Humidity and Temperature Pen

Pocket size for quick and reliable measurements at any location

- Built-in sensors provide simultaneous readings of Relative Humidity and Temperature on dual LCD
- °C/°F switchable
- Max/Min memory functions for display of highest and lowest readings for both Temperature & Relative Humidity
- "Clear" function key to erase stored Max/Min readings to record new values
- Complete with pocket clip and one LR44 button battery

Specifications

Model	445702	44550
Relative Humidity	10 to 85%	20 to 90%
Basic Accuracy	±6%RH	±5%RH
Temperature	14 to 140°F (-10 to 60°C)	14 to 122°F (-10 to 50°C)
Basic Accuracy	±1.8°F/1°C	±2°F/1°C
Clock	Yes	—
Clock Alarm	Yes	—
Calendar	—	—
Dimensions	4.3x2.8x0.8" (109x71x20mm)	5.9x0.8x0.7" 150x20x18mm)
Weight	4oz (113g)	0.7oz (20g)
CE	Yes	Yes
Warranty	1 year	1 year

NEW

445706



9x12" Hygro-Thermometer Clock

Five selectable languages on Day display

- Large digit display clock ideal for desktop or wallmount
- °C/°F switchable
- Displays day, date and month
- Audible alarm clock function
- MAX/MIN Temperature and Humidity
- Complete with desktop stand and two AA batteries

NEW

WTH100



Radio Controlled Wireless Clock with Weather Station

Receives Time Code from NIST Radio Station WWVB (North America only) and automatically adjusts time, date, and DST

- Large backlit LCD displays Time, Temperature, Barometric Pressure, Weather Symbols (sunny, slightly cloudy, cloudy, rainy, stormy) and Moon phase
- Selectable barometric pressure in mb/hPa or inHg
- Automatically adjusts for daylight savings time (DST)
- Days of the Week displayed in 5 selectable languages: English/German/French/Italian/Spanish
- Accuracy of 1 second per day, ±8mb@25°C
- Alarm Clock with snooze function
- °F/°C switchable
- Complete with built-in stand, and two AAA batteries

NEW

CTH10



Radio Controlled 17x12" Wall Clock Hygro-Thermometer

Receives radio signal (WWVB) from the NIST U.S. Atomic Clock to maintain accuracy within 1 second (North America only)

- Automatically adjusts year, date, day, hour, minute, second, and DST
- Large LCD displays Time, RH%, Temperature, Year, Month, Date, and Day
- Super Large 4.3" (109mm) digit clock display can be viewed from 150ft (45m)
- Signal indicator displays signal strength in 3 levels to indicate successful synchronization
- °F/°C switchable
- Built-in stand for desktop or wall-mount
- Complete with built-in stand and four AA batteries

445706	WTH100	CTH10	Model
20 to 90%	—	20 to 90%	Relative Humidity
±5%RH	—	±6% RH	Basic Accuracy
23 to 113°F (-5 to 45°C)	32 to 113°F (0 to 45°C)	23 to 122°F (-5 to 50°C)	Temperature
±2°F/1°C	±2°F/1°C	±2°F/1°C	Basic Accuracy
Yes	Yes	Yes	Clock
Yes	Yes	Yes	Clock Alarm
Yes	Yes	Yes	Calendar
8.7x11.8x1" (221x300x24mm)	3.1x1.9x3.9" (79x49x99mm)	16.75x11.5x1.25" (425x292x32mm)	Dimensions
21.4oz (608g)	6.7oz (191g)	2.75lbs (1.2kg)	Weight
Yes	Yes	Yes	CE
1 year	1 year	1 year	Warranty



Air Velocity Meters

Extech's Thermo-Anemometers with built-in vanes are designed for convenience and ease of use. Dual displays of air velocity and temperature provide quick answers to airflow questions.

Featuring Model AN400

▶ Rotating Cups

Provide accurate air velocity measurements

▶ Datalogger

Stores up to 100 readings

▶ Water Resistant Housing

For use in varying weather conditions



Accessories

- 45116.....Spare Mini Impeller Assembly (2pk) for 45118
- 45156.....Spare Mini Impeller Assembly (2pk) for 45158
- TP873.....Bead Wire with Type K connector and Banana Adaptor
- TR100.....Tripod (for meters with Tripod mount feature)
- CA895Small Vinyl Pouch Carrying Case for 45118, 45158
- 407752.....Software and Cable for 451104

45118 and 45158 features



Folds up to fit in pocket



Adjustible angle for easy storage



Optional Tripod (TR100)

Specifications

Model	45118	45158
Display Counts	9999 count LCD	9999 count LCD
Ranges (Max Resolution)		
ft/min	100 to 5500 (20)	100 to 5500 (20)
m/s	0.5 to 28 (0.1)	0.5 to 28 (0.1)
km/h	1.8 to 100.6 (0.7)	1.8 to 100.6 (0.7)
MPH	1.1 to 62.5 (0.2)	1.1 to 62.5 (0.2)
knots	1.0 to 54.3 (0.3)	1.0 to 54.3 (0.3)
Beaufort Force	1 to 17 (1)	1 to 17 (1)
Temperature & Windchill °F/°C	0 to 122°F (0.1°)/-18 to 50°C (0.1°)	0 to 122°F (0.1°)/-18 to 50°C (0.1°)
Relative Humidity	—	10% to 95% (1%)
Basic Accuracy		
Airflow	±3% of reading	±3% of reading
Temperature	±1.8°F, ±1°C	±1.8°F, ±1°C
Relative Humidity	—	±5%RH
Dimensions	5.25x2.75x0.75" (133x70x19mm) Vane: 1" (26mm)D	5.25x2.75x0.75" (133x70x19mm) Vane: 1" (26mm)D
Weight	3oz (95g)	3oz (95g)
CE	Yes	Yes
Warranty	1 year	1 year

45118



Mini Thermo-Anemometer

Waterproof pocket size with Air Velocity, Temperature and Windchill

- Display Air Velocity and Temperature or Windchill
- Selectable averaging function of 5, 10, or 13 second intervals
- Fold up protective housing extends to 9" (229mm) for better reach
- Tripod mount (optional TR100 Tripod — sold separately)
- Data Hold with Auto power off
- Water resistant housing floats
- Replaceable plastic vane 45116
- Complete with CR2032 lithium battery and 43"(1.09m) lanyard

45158



Mini Thermo-Anemometer+ Humidity

Waterproof pocket size with Air Velocity, Temperature, %RH, Dew Point and Windchill

- Display air velocity and either Relative Humidity, Dew Point, Temperature or Windchill
- Selectable averaging function of 5, 10, or 13 second intervals
- Fold up protective housing extends to 9" (229mm) for better reach
- Tripod mount (optional TR100 Tripod — sold separately)
- Data Hold with Auto power off
- Water resistant housing floats
- Replaceable plastic vane 45116
- Complete with CR2032 lithium battery and 43"(1.09m) lanyard

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

451104-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.



45160

Features Humidity

3-in-1 Humidity, Temperature and Airflow meter

Ergonomic pocket size housing, large dual LCD

- Simultaneously displays Temperature and Air Velocity or Relative Humidity
- Type K input measures temperature to 2372°F (1300°C) (TP873 probe sold separately — see p. 92)
- MAX/MIN, Data hold, Auto power off with disable feature
- Built-in low friction vane wheel improves air velocity accuracy
- Thin-film capacitance humidity sensor for fast response
- Complete with wrist strap and 9V battery



451104



Optional software

Vane Thermo-Anemometer with PC Interface

Integral vane with air velocity averaging feature

- Air velocity and temperature displayed on multi-function LCD
- Up to 2-hour air velocity averaging for measurements
- Built-in rotary vane sensor for one hand operation
- Data hold, Auto power off, and MAX/MIN function
- RS-232 interface for capturing data directly on a PC
- Optional Windows® 95/98/NT/2000/ME/XP compatible software (407752)
- Complete with 9V battery and carrying case



AN400

NEW

Cup Thermo-Anemometer

Rotating cups provide accurate air velocity measurements

- Wide range air velocity measures m/s, ft/min, km/hr, and knots
- Dual LCD digital display of Air Velocity and Temperature
- Record MAX/MIN values
- Datalogger stores up to 100 readings
- Water resistant housing
- Complete with four AAA batteries

45160	451104	AN400	Model
9999 count LCD	9999 count LCD	9999 count LCD	Display Counts
80 to 5910 (10)	80 to 5900 (1)	144 to 6895 (1)	Ranges (Max Resolution)
0.4 to 30 (0.1)	0.4 to 30 (0.01)	0.9 to 35.0 (0.1)	ft/min
1.4 to 108.0 (0.1)	1.4 to 108 (0.1)	2.5 to 126.0 (0.1)	m/s
0.9 to 67.0 (0.1)	0.9 to 68 (0.1)	1.6 to 78.2 (0.1)	km/h
0.8 to 58.3 (0.1)	0.8 to 58 (0.1)	1.4 to 68.0 (0.1)	MPH
—	—	—	knots
32 to 122°F (0.1°)/0 to 50°C (0.1°)	14 to 122°F (0.1°)/-10 to 50°C (0.1°)	32 to 122°F (0.1°)/0 to 50°C (0.1°)	Beaufort Force
10 to 95% (0.1%)	—	—	Temperature & Windchill °F/°C
±3% of reading	±3% FS	±2% of reading	Relative Humidity
±2.5°F, ±1.2°C	±2°F/±1°C	±1.5°F, ±0.8°C	Basic Accuracy
±4%RH	—	—	Airflow
6.1x2.4x1.3" (156x60x33mm)	7.12x2.75x1.38" (183x76x45mm)	7.5x1.6x1.3" (190x40x32mm)	Temperature
Vane: 1.2" (30.5mm)D	Vane: 2.9" (70mm)D	—	Relative Humidity
5oz (160g)	7.4oz (210g)	6.3oz (181g)	Dimensions
Yes	Yes	Yes	Weight
1 year	1 year	1 year	CE
—	—	—	Warranty



Thermo-Anemometers

Extech's Thermo-Anemometers with remote sensors are the most popular models for HVAC applications. Available with Vane or Hot Wire sensor.

Featuring Model 451181

All In One

Airflow, air velocity, %RH, Temperature and Dew Point

Datalogging

Manual (99 readings) or Automatic (2400 readings) time stamped measurements

Built-in Printer

For hard copy receipts with date/time stamp

PC Interface

Download data logged readings for analysis and report generation



Accessories

- PR20.....Portable Thermal Printer for 451126
- USB100...RS-232 to USB adaptor
- 422377 ...Thermal Paper Roll - 2pk; 1.5"W (38mm) for 451181

EZ30



451112



EzFlex™ Thermo-Anemometer

Air Velocity Meter with flexible gooseneck probe

- Remote vane extends on 16" (406mm) gooseneck for easy access into hard to reach areas
- Ideal when reaching into an air duct or other HVAC applications
- Type K sensor for temperature measurements
- Large easy to read LCD display
- Data hold, Auto power off, and MAX Hold
- Complete with battery and carrying case

Big Digit Thermo-Anemometer

Multifunction Air Velocity Meter with wide temperature range

- High accuracy via low friction ball bearing vane wheel on 39" (1m) cable
- Utilizes a Type K sensor for temperature measurements
- Data hold
- Ideal when reaching into an air duct or other HVAC applications
- Complete with vane sensor, hard vinyl carrying case, and 9V battery

Specifications

Model	EZ30	451112
Ranges (Max Resolution)		
ft/min	80 to 5900 (1)	80 to 5910 (10)
m/s	0.40 to 30.00 (0.01)	0.4 to 30 (0.1)
km/h	1.4 to 108.0 (0.1)	1.4 to 108 (0.1)
MPH	0.9 to 67.0 (0.1)	—
knots	0.8 to 58.0 (0.1)	0.8 to 58 (0.1)
Temperature & Windchill	32 to 122°F (0.1°)/0 to 50°C (0.1°)	32 to 122°F (0.1°)/0 to 50°C (0.1°)
Humidity	—	—
Wet Bulb	—	—
Air Flow (CFM=ft³/min)	—	—
Air Flow (CMM=m³/min)	—	—
Basic Accuracy	±3%rdg; ±3.6°F (±1.8°C)	±2% FS; ±1.5°F(±0.8°C)
Dimensions	6.4x1.8x1.3" (163x45x34mm) Vane: 1.75" (44mm)D	6.6x3.2x1.2" (168x81x30mm) Vane: 2.83" (72mm)D
Weight	7.4oz (210g)	12oz (340g)
Warranty/CE	1 year/CE	1 year/CE

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**
451112-NIST
407123-NIST
*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.



451181

Digital printout

Printing Anemometer/Hygro-Thermometer

Measure, datalog, download and print air flow readings to a PC

- Simultaneously measures and displays Air Velocity, Temperature, Humidity, Wet Bulb, plus calculates CFM/CMM
- Manually logs 99 readings or setup time interval for automatic logging (2400 points)
- Datalogger date/time stamps and stores data for later recall, printing or downloading to a PC
- Thermal printer prints readings an date/time stamp
- RS-232 PC interface with Windows® compatible software
- Complete with vane sensor with 4ft (120cm) cable, software and cable, 4 AA batteries, carrying case, and one paper roll



451126

Software included

CFM/CMM Vane Anemometer Datalogger

Measures Air Velocity, or Air Volume and Temperature with built-in Datalogger and RS-232 PC interface

- Dual Display provides [Air Velocity + Temperature] or [Airflow + Area]
- Measures Airflow in CFM (ft³/min) and CMM (m³/min)
- Internal 1000 point datalogger plus built-in RS-232 PC interface
- MAX/MIN/AVG readings
- Optional Thermal Printer for printing stored data (see PR20 on p. 59)
- Complete with vane sensor, Windows® 95/98/2000/ME/NT/XP compatible software, cable, 9V battery, and case



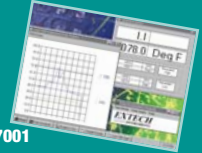
407123

Heavy Duty Hot Wire Thermo-Anemometer

Telescoping probe is designed to fit into small openings and measure airflow down to 40ft/min

- Telescoping probe is ideal for measuring in HVAC ducts and other small vents; extends up to 4ft (1.22m) long
- Super large 1.4" (36mm) dual LCD display
- MAX/MIN, Data Hold
- Optional Data Acquisition software (407001) and Datalogger (380340); (see details on the right)
- Complete with telescoping probe with 3.9ft (120cm) cable, six AAA batteries and protective holster. *NOTE: AC Adaptor not available for this model.*

Data Acquisition Software



407001

- Enables user of Extech's Heavy Duty series to capture, display and store readings on a PC
- Sampling time: 1sec - 60 mins
- Import data into Lotus or Excel
- Includes Windows® 95/98/2000/NT/XP compatible software on CD-ROM and serial cable
- Optional USB Adaptor — 407001-USB (See p. 98 for ordering information)

Battery Operated Datalogger



380340

- Captures up to 8000 readings from Extech's Heavy Duty meters
- Selectable sampling rates (1sec to 99hrs)
- Complete with 4 AA batteries, Windows® compatible software and cable. Optional AC Adaptor (153117 and 153220, see p. 45 for ordering information)

451181	451126	407123	Model
60 to 4930 (1)	60 to 8800 (2)	40 to 3940 (10)	Ranges (Max Resolution)
0.4 to 25 (0.1)	0.3 to 45 (0.01)	0.2 to 20 (0.1)	ft/min
—	1 to 140 (0.04)	0.7 to 72 (0.1)	m/s
—	0.7 to 100 (0.02)	0.5 to 45 (0.1)	km/h
—	0.6 to 88 (0.02)	1.0 to 31 (0.1)	MPH
-4 to 144°F (0.1°)/-20 to 60°C (0.1°)	32 to 122°F (0.4°)/0 to 50°C (0.2°C)	32 to 122°F (0.1°)/0 to 50°C (0.1°)	knots
0 to 100% (0.1%)	—	—	Temperature & Windchill °F/°C
-7.6 to 158°F (0.1°)/-22 to 70°C (0.1°)	—	—	Humidity
0 to 99999CFM (0.1)	0 to 999900CFM (0.001)	—	Wet Bulb
0 to 99999CMM (0.1)	0 to 999900CMM (0.001)	—	Air Flow (CFM=ft³/min)
±3% rdg 1.°F/°C, ±3%RH	±3%rdg; ±1.8°F (±1°C)	±3% rdg or ±(1%+1d)FS; ±1.5°F (±0.8°C)	Air Flow (CMM=m³/min)
8.1x2.75x2" (208x70x53mm)	6.6x3.5x1" (168x88x26mm)	7x2.9x1.3" (178x74x33mm)	Basic Accuracy
Vane: 2.83" (72mm)D	Vane: 2.6" (66mm)D	0.5" (13mm)D	Dimensions
9oz (260g)	12.2oz (350g)	17oz (482g)	Weight
1 year/CE	1 year/CE	✓3 years/CE	Warranty/CE



CFM Thermo-Anemometers

Extech's anemometers with CFM capabilities allow you to input the measured area of a duct and display air volume flow. Datalogging model also available. Select vane type or hot wire sensors. All models have Auto Power off with disable capability.

BUILT IN IR
Thermometer
Patented

AN100
AN200

Featuring Model HD300

IR Thermometer

Built-in IR thermometer saves time by providing quick "point & shoot" temperature measurements

CFM/GMM & Velocity

Measures Airflow, Air Velocity and Air movement

Backlit Dual Display

Simultaneous display of Air Flow or Air Velocity plus Ambient Temperature

Easy-To-Set Area Dimensions

Area stored in memory for the next power on



CFM/GMM Thermo-Anemometers

Large backlit display of Airflow or Air Velocity plus built-in InfraRed Thermometer with advanced model

- Simultaneous display of Ambient Temperature and Air Flow or Air Velocity
- Up to 8 easy to set Area dimensions are stored in the meter's internal memory of each unit (ft² or m²)
- 20 point AVG function for Air Flow
- 3% velocity accuracy via low friction 2.83"D (72mm) ball bearing vane wheel
- Data Hold, MIN/MAX, Auto power off

AN200 Additional Features

- IR Thermometer measures non-contact temperatures
- Complete with vane sensor on 3.9ft (120cm) cable, 9V battery, protective rubber holster, and case



Only Extech offers an anemometer with a built-in non contact infrared thermometer

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- AN100-NIST
- AN200-NIST
- HD300-NIST
- 407113-NIST
- 407119-NIST

Limited NIST: Below products are certified to all functions except IR Thermometer.

- AN200-NISTL
- HD300-NISTL

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model	AN100	AN200
Ranges (Max Resolution)		
ft/min	80 to 5900 (1)	
m/sec	0.4 to 30.00 (0.01)	
km/h	1.4 to 108.0 (0.1)	
MPH	0.9 to 67.0 (0.1)	
knots	0.8 to 58.0 (0.1)	
Temperature (°F/°C)	14 to 140°F (0.1°)/ -10 to 60°C (0.1°)	
Temperature (IR) (with Laser pointer)	—	-58 to 500°F/ -50 to 260°C (0.1°/1°)
Air Flow (CFM = ft ³ /min)	0 to 9999CFM (1)	0 to 9999CFM (0.1)
Air Flow (CMM = m ³ /min)	0 to 9999CMM (1)	0 to 9999CMM (0.1)
Basic Accuracy	±3%rdg; ±2°F (±1°C)	
Dimensions/Weight	7x2.9x1.3" (178x74x33mm)/1.6lbs (700g)	
CE/Warranty	CE/ 1 year	



HD300



407113



407119

CFM/CMM Thermo-Anemometer + IR Thermometer

Built-in IR Thermometer for quick and easy troubleshooting of ceiling vents, duct work, and other remote surfaces

- IR Thermometer has 30:1 distance to target ratio and Laser pointer
- Simultaneous display of Air Flow in CFM/CMM or Air Velocity Plus Ambient Temperature
- Up to 8 easy to set Area dimensions are stored in meter's memory for the next power on
- Large backlit LCD
- 20 point AVG for air flow
- USB port includes PC software
- Complete with Windows® compatible software with cable, vane sensor on 3.9ft (120cm) cable, built-in stand, carrying case, and 9V battery

High Temperature CFM Metal Vane Anemometer

Withstands temperatures to 175°F (80°C) and airspeed to 7880ft/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 RS-232 PC Interface
- Optional Data Acquisition software 407001 and datalogger 380340 (see p. 95)
- Complete with metal vane sensor with 3.9ft (120cm) cable, 9V battery, holster with stand, and hard carrying case; (Optional AC adaptors 156119, and 156221 - see p. 100 for ordering information)

Hot Wire CFM Anemometer

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

- Air velocity measurements as low as 40ft/min
- Telescoping probe extends up to 3ft (940mm) long
- Measures air volume in CFM (ft³/min) and CMM (m³/min) plus Temperature simultaneously
- Air Flow displayed in 2 modes as an instantaneous value or up to 20 point average
- Record/Recall MIN and MAX readings
- Data Hold plus Auto power off
- Optional Data Acquisition software 407001 and datalogger 380340 (see p. 95)
- Complete with telescoping probe with 5.5ft (167.6cm) cable, four AA batteries, and carrying case

HD300	407113	407119
80 to 5900 (1)	100 to 7880 (1)	40 to 3940 (1)
0.4 to 30.00 (0.01)	0.5 to 35 (0.1)	0.2 to 20 (0.1)
1.4 to 108.0 (0.1)	1.8 to 144.0 (0.1)	0.7 to 72.0 (0.1)
0.9 to 67 (0.1)	1.1 to 89.4 (0.1)	0.9 to 44.7 (0.1)
0.8 to 58.0 (0.1)	1.0 to 78.1 (0.1)	0.4 to 33.8 (0.1)
14 to 140°F (0.1°)/-10 to 60°C (0.1°C)	32 to 175°F (0.1°) / 0 to 80°C (0.1°)	32 to 122°F (0.1°) / 0 to 50°C (0.1°)
-58 to 932°F/ -50 to 500°C (0.1°/1°)	—	—
0 to 999900CFM (0.001)	0 to 999,900CFM (0.001)	0 to 999,900CFM (0.001)
0 to 999900CMM (0.001)	0 to 999,900CMM (0.001)	0 to 999,900CMM (0.001)
±3%rdg; ±4°F (2°C)	±2%rdg; ±1.5°F (±0.8°C)	±5%FS; ±1.5°F (±0.8°C)
8x3x1.9" (203x75x50mm)/12.2oz (350g)	7x2.9x1.3" (178x74x33mm)/1.35lbs (612g)	7x2.9x1.3" (178x74x32mm)/1.1lbs (482g)
CE/ ✓3 years	CE/ ✓3 years	CE/ ✓3 years

475055 High Capacity Force Gauge with PC Interface

220lbs (100kg), Tension and Compression

Features:

- Ranges: 0.05 to 100kg
0.05 to 220lbs
0.2 to 980 Newton
- Basic accuracy of 0.5%
- Tension or Compression, Peak hold and Zero functions
- Positive/Reverse display for easy readability
- Large LCD with back light feature
- RS-232 PC interface
- Optional software



Complete with tension and compression adaptors, six AA 1.5V batteries, and case



Ordering

- 475055.....Force Gauge
- 407001.....Data Acquisition Software and Serial Cable
- 407001-USB.....USB adaptor for 407001

**475040
475044 Digital Force Gauges**

Push/Pull measurements in kg, lbs, oz and Newton units

Features:

- 5 digit 0.4" (10mm) LCD with reversible display feature to match viewing angle
- Load cell measurement transducer
- Zero Adjust and Peak Hold
- Overrange, low battery, and advanced function indication
- Selectable fast/slow response

Function	475040	475044 (High Capacity)
Range	176oz, 5000g, 49 Newtons	44lbs, 20kg, 196 Newtons
Accuracy (23°C)	±(0.4%+1 digit)	±(0.5%+2 digits)
Resolution	0.05oz, 1g, 0.01 Newtons	0.01lbs, 0.01kg, 0.05 Newtons
Overload capacity	10kg	30kg
Update Rate	Fast mode 0.2secs; Slow mode 0.6secs.	
Full scale deflection	2.00mm	
Transducer type	Load cell	
Power Supply	Six 1.5V AA (UM-3) batteries or DC 9V adaptor (not included)	
Mounting Holes	Located on rear of gauge for optional test stand	
CE/Warranty	CE approved/ 1yr warranty	
Dimensions/ Weight	8.9x3.3x1.5" (227x83x39mm)/ 1.2lbs (551g)	

Ordering

- 475040.....Digital Force Gauge
- 475040-NIST.....475040 with NIST Certificate
- 475044.....High Capacity Force Gauge
- 475044-NIST.....475044 with NIST Certificate
- 479097.....Accessory Kit (2ea.- hook, flat, cone, & chisel head adptors)
- 153117.....120VAC Adaptor
- 153230.....220VAC Adaptor



Complete with hook adaptor for tension, compression adaptors (flat, cone and chisel head), 5" (127mm) extension rod, 6 AA batteries, and case

C010 Carbon Monoxide (CO) Meter

Check CO level in all environments up to 1000ppm

Features:

- Auto Zero at start up
- Displays CO levels from 0 to 1000ppm
- 1ppm resolution with ±5% or ±10ppm basic accuracy (whichever is greater)
- Utilizes a stabilized electrochemical gas specific (CO) fast response sensor
- Audible alarm starts at 35ppm
- Memory stores 10 readings
- Ergonomic pocket size housing
- Max Hold and Data hold buttons
- Auto Power off
- Dims: 6.3x2.2x1.57" (160x56x40mm); Weight: 6.35oz (180g)
- 1 year warranty; CE approved
- Complete with 9V battery, protective holster, and case



Ordering

C010Carbon Monoxide Meter

EZ40 EzFlex™ Combustible Gas Detector

Quickly Identifies and Pinpoints gas leaks

Features:

- 16" (406mm) 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



Specifications	Function	
	Pump driven field calibration range	10ppm
	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	8.7 x 2.83 x 1.8" (221 x 72 x 46mm)
	Weight	18.4oz (520g)

Applications:

- Natural Gas
- Methane
- Ethane
- Propane
- Butane
- LPG

Ordering

EZ40ExFlex™ Combustible Gas Detector

FG100 Combustible Gas Leak Detector

Fast response detection of flammable gas leakage from 500 to 6500ppm

Features:

- Detects flammable gases: Liquefied Natural Gas (LNG) and Liquefied Propane Gas (LPG)
- Highly sensitive detection circuitry with audible and visual alarm
- LED indicators for gas leakage and static absorption
- Continuous operation up to 4 hours
- Dims: 6.5 x 0.8" (164mm x 21mm) Weight: 0.9oz (25g)
- 1 year warranty, CE approved
- Complete with pocket clip and two AAA batteries



Ordering

FG100 ...Combustible Gas Leak Detector

EA80 Indoor Air Quality Meter/Datalogger

Measures CO₂, Temperature, Humidity, Dew Point and Wet Bulb

Features:

- Checks for Carbon Dioxide (CO₂) concentrations
- Maintenance free dual wavelength NDIR (non-dispersive infrared) CO₂ sensor
- Continuous (20,000 sets) or manual (99 sets) data logging
- Data hold, Max/Min with Time stamp, and Alarm
- Auto Power Off
- Easy calibration in fresh air
- 1 year warranty
- Complete with (6) AAA batteries, RS-232 cable, and Windows® 95/98/NT/2000/ME/XP compatible software

Specifications

Function	
CO₂	0 to 6,000ppm
Resolution	1ppm
Temperature	-4 to 140°F (-20 to 60°C)
Resolution	0.1°F/°C
Humidity	10 to 95%
Resolution	0.1%
Datalogging	Continuous: 20,000 sets/Manual 99 sets
Dimensions	5.3x2.8x1.2" (135x72x31mm)
Weight	8.2oz (235g)



Ordering

EA80Indoor Air Quality Meter/Datalogger

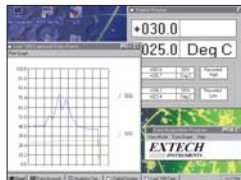
407860 Heavy Duty Vibration Meter



Measure Velocity, Acceleration and Displacement plus built-in PC interface

Features:

- Selectable units of in/s or mm/s for Velocity, ft/s² or m/s² for Acceleration, and in or mm for Displacement
- Velocity range of 7.87in/s or 200mm/s; Acceleration range of 656ft/s² or 200m/s² Displacement range: 0.078in or 1.999mm
- Remote vibration sensor on 39" (1m) cable
- Basic accuracy of ±(5% of reading + 2 digits)
- Wide frequency range of 10Hz to 1kHz
- Max/Min record values for later recall
- Data Hold and Auto Power off
- RMS or Peak Value measurement modes
- Auto/Manual store/recall up to 500 readings
- Includes Windows® compatible Data Logging software allows captured readings to be downloaded to your PC for further analysis
- Dims: 7.1x2.9x1.3" (180x72x32mm); Wt: 0.87lbs (395g)
- Complete with remote sensor with 3.9ft (1.2m) cable, magnetic mount, software and cable, 9V battery, holster with stand and case; 3 year warranty. Optional AC adaptors.



Data Acquisition and Datalogging software included



Ordering

407860Heavy Duty Vibration Meter, Mounted pickup
 407860-NIST407860 with NIST Certificate
 156119117 VAC Adaptor
 156221220 VAC Adaptor
 407001Data Acquisition software and cable
 407001-USBUSB adaptor for 407001

MO280-KH

Home Inspector Kit **NEW**

Aids in identification of moisture, HVAC, electrical and hot water system issues

Includes:

- Specifically designed for home inspection professionals
- Kit contains MO280 Pinless moisture meter, 42500 IR Thermometer, ET10 GFCI Receptacle Tester, and 39240 Waterproof Stem Thermometer
- Supplied in an attractive storage case that provides protection and organization for the meters whenever they are needed
- Dimensions: 9.5x6.8x2.8" (241x173x71mm); Weight: 1.8lbs (0.7kg)



Kit Includes

Model MO280

Pinless moisture meter allows you to select from 10 different wood types and it displays % moisture (see p. 87)

Model 42500

IR Thermometer for testing HVAC supply and return. Measures from -4 to 500°F (-20 to 260°C) (see p. 73)

Model ET10

GFCI Receptacle Tester tests for faulty wiring in 3 wire receptacle and GFCI Circuits and detects 5 wiring faults

Model 39240

Waterproof Stem Thermometer for testing hot water heaters. Measures temperature from -40 to 392°F (-40 to 200°C) (see p. 78)

Ordering

MO280-KHHome Inspector Kit

MO280-KW

Water Damage Restoration Kit **NEW**

To monitor job site conditions, progress, and insurance company reporting

Includes:

- Specifically designed for water damage restoration contractors
- Kit contains MO280 Pinless moisture meter, RH490 Precision Psychrometer, MO210 Pocket Moisture Meter,
- Supplied in an attractive storage case that provides protection and organization for the meters whenever they are needed
- Dimensions: 9.5x6.8x2.8" (241x173x71mm); Weight: 1.8lbs (0.7kg)



Kit Includes

Model MO280

Pinless moisture meter allows you to select from 10 different wood types and it displays % moisture (see p. 87)

Model RH490

Precision Psychrometer measures Humidity, Temperature, Dew point, Wet bulb, and Grains Per Pound (GPP) (see p. 83)

Model MO210

Pocket Moisture Meter measures moisture of wood or other building materials (see p. 86)

Ordering

MO280-KWWater Damage Restoration Kit



Light Meters

Extech provides a wide range of measuring solutions from basic models that meet the requirements of a limited budget, to models with a wide measuring range that work in more demanding applications.

Featuring Model 407026

▶ Auto Zero

Set baseline measurements in the field

▶ High Resolution

For low level measurements in places like parking lots, stairwells, and ATM machines

▶ Light Source Selection

Source selection of Sodium, Daylight/Tungsten, Fluorescent and Mercury improves accuracy for common light sources

▶ PC Interface

Record data to a PC for analysis



Heavy Duty Series featuring Protective Rubber Holsters, Datalogging and PC Interface.

Accessories

- 409996Medium Vinyl Carrying Case
- 409992Small Vinyl Carrying Case for 401027

Accessories for 407026 only

- 156119117VAC Adaptor
- 156221220VAC Adaptor
- 409997Large Soft Vinyl Pouch Carrying Case
- 140001Hard Vinyl Case with Handle (for Heavy Duty Series)
- 407001Data Acquisition Software & Serial Cable
- 407001-USB ..USB adaptor for 407001
- 380340Battery Operated Datalogger Module

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- 401027-NIST
- 401025-NIST
- 407026-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model	401027	401025
Fc Range	200, 2000Fc	200, 2000, 5000Fc
Lux Range	—	2000, 20000, 50000Lux
Max. Resolution	0.1Fc	0.1Fc/1Lux
Basic Accuracy	±5% FS	±5% FS
Cosine & Color Corrected	Yes	Yes
Analog output	—	Yes
RS-232 Interface	—	—
Datalogging	—	—
Dimensions	5.2x2.8x1" (131x70x25mm)	6.4x2.8x1.2" (163x70x30mm)
Weight	6.9oz (195g)	8.3oz (220g)
CE	Yes	Yes
Warranty	1 year	1 year

401027



Pocket Foot Candle Light Meter

Measures up to 2,000Fc for basic lighting applications

- Easy to operate Foot candle light meter with 2 ranges
- Convenient pocket size design
- Overrange indication
- Complete with 9V battery, light sensor and protective cover with 47" (1.2m) cable, and built-in stand

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 1mV per count for capturing readings to a recorder
- Complete with 9V battery, light sensor and protective cover with 47" (1.2m) cable, and built-in stand



LT300

Light Meter

Digital and Analog display of light in Foot-candles or Lux

- Wide range to 20,000 Foot-Candles or 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" (305mm) coiled cable — expandable to 24" (609mm)
- 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 9V battery, light sensor with protective cover, and protective holster



403125

Light ProbeMeter™

Wide range with high 0.01Fc resolution and analog output

- Backlit display to view in dimly lit areas
- Remote light sensor on 59" (1.5m) cable conveniently mounts on top of meter for one hand operation and safe storage
- Data hold and Peak hold
- Complete with light sensor and protective cover, carrying case, and 4 AAA batteries



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
- Data Hold
- MAX/MIN/AVG readings
- Auto power off
- Built-in RS-232 PC serial interface with optional 407001 Data Acquisition software 407001 and Datalogger 380340 (see p. 95 for details)
- Complete with 9V battery, light sensor, and protective cover with 46" (1.2m) cable, and protective holster with stand. Optional 117V (156119) or 220V (156221) AC adaptors.

LT300	403125	407026	Model
20,000Fc	20, 200, 2000, 20000Fc	200, 2000, 5000Fc	Fc Range
20,000Lux	20, 200, 2000, 20000Lux	2000, 20000, 50000LUX	Lux Range
0.01Fc/Lux	0.01Fc/Lux	0.1Fc/1Lux	Max. Resolution
±5% rdg	±3%rdg	±4%FS	Basic Accuracy
Yes	Yes	Yes	Cosine & Color Corrected
—	Yes	—	Analog Output
—	—	Optional 407001 (see p.95)	RS-232 Interface
—	—	Optional 380340 (see p. 95)	Datalogging
5.9x2.95x1.57" (150x75x40mm)	7x1.7x1.6" (170x44x40mm)	7x2.9x1.3" (178x74x33mm)	Dimensions
7oz (200g)	7.76oz (220g)	1.6lbs (726g)	Weight
Yes	Yes	Yes	CE
1 year	1 year	✓3 years	Warranty



Light Meters & Dataloggers
Extech's Light meters include models with data collection capability for long term analysis of lighting conditions. Special functions provide fast measuring solutions in a wide range of applications.

Featuring Model HD450

Datalogging

Datalogs up to 16,000 readings

Relative Mode

Indicates change in light level

Peak Mode

Captures highest reading (10µS)

USB Interface & PC Software

Record data to a PC for analysis



Extech Advantage
NIST Certificates issued by our in-house Calibration Lab for Light Meters provide multiple data points for two or more ranges.



In-house Calibration Lab for Light meters



NIST Certificate with Data available for majority of Extech meters

EA31



EasyView® Big Digit Light Meter

Measures light intensity up to 20,000Fc/Lux

- Compact and rugged design with large display and bargraph
- Data Hold and MIN/MAX readings
- Auto power off, Zero function
- Complete with built-in stand, light sensor and protective cover with 39" (1m) coiled cable, protective holster, 6 AAA batteries, and carrying case

EA30



EasyView® Big Digit, Wide range Light Meter

Measures high intensity light up to 40,000Fc and 400,000Lux, is ideal for outdoor applications

- Compact and rugged design
- Large display with bargraph
- Relative function for zero or difference from reference value
- Peak captures short light pulses to 100µSeconds
- Data Hold and MIN/MAX readings
- Auto power off, Zero function
- Complete with built-in stand, light sensor and protective cover with 39" (1m) coiled cable, protective holster, 6 AAA batteries, and carrying case

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- EA31-NIST
- EA30-NIST
- EA33-NIST
- HD400-NIST
- HD450-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model	EA31	EA30
Display counts	2000 count LCD	4000 count LCD
Fc Range	20, 200, 2000, 20,000Fc	40, 400, 4000, 40,000Fc
Lux Range	20, 200, 2000, 20,000Lux	40, 400, 4000, 40,000, 400,000Lux
Max. Resolution	0.01Fc/Lux	0.01Fc/Lux
Basic Accuracy	±3%rdg + 0.5%FS	±3%rdg + 0.5%FS
Cosine & Color Corrected	Yes	Yes
RS-232 Interface	—	—
Datalogging	—	—
Dimensions	5.9x2.8x1.4" (150x72x33mm)	5.9x2.8x1.4" (150x72x33mm)
Weight	8.3oz (235g)	8.3oz (235g)
CE	Yes	Yes
Warranty	1 year	1 year

EA33



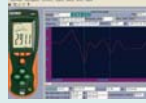
**EasyView®
Light Meter
with Memory**

Advanced illuminance functions and features

- Wide measurement range to 99,990Fc (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" (0.9m) coiled cable, protective holster, 6 AAA batteries, and case

HD400

NEW



Software included

Available
Q1 2008



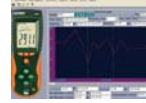
Light Meter

Large backlit display with fast, 40-segment bar graph for capturing trends

- Wide range to 4,000Fc or 40,000Lux
- Cosine and color corrected measurements
- Utilizes precision silicon photo diode and spectral response filter
- Peak mode (10µs) captures highest reading
- Relative mode indicates change in light levels
- Heavy duty, rugged double molded housing
- Built-in USB port
- Includes light sensor and protective cover with 39" (1m) cable, Windows® 95/98/NT/2000/ME/XP compatible software with USB cable, built-in stand, hard carrying case, and 9V battery

HD450

NEW



Software included

Available
Q1 2008



**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 4,000Fc or 40,000Lux
- Cosine and color corrected measurements
- Utilizes precision silicon photo diode and spectral response filter
- Peak mode (10µs) captures highest reading
- Relative mode indicates change in light levels
- Heavy duty, rugged double molded housing
- Built-in USB port
- Includes light sensor and protective cover with 39" (1m) cable, Windows® 95/98/NT/2000/ME/XP compatible software with USB cable, built-in stand, hard carrying case, and 9V battery

EA33	HD400	HD450	Model
999,999 count LCD	4000 count backlit LCD	4000 count backlit LCD	Display counts
9.999, 99.99, 999.9, 9999, 99,990Fc	40, 400, 4000Fc	40, 400, 4000Fc	Fc Range
99.99, 999.9, 9999, 99,990, 999,900Lux	400, 4000, 40kLux	400, 4000, 40kLux	Lux Range
0.001Fc/0.01Lux	0.01Fc/0.1Lux	0.01Fc/0.1Lux	Max. Resolution
±3%	±5%	±5%	Basic Accuracy
Yes	Yes	Yes	Cosine & Color Corrected
—	USB with software included	USB with software included	RS-232 Interface
—	—	16,000 data (continuous)/ 99 data (manual)	Datalogging
5.9x2.8x1.4" (150x72x33mm)	6.7x 3.1x1.6" (170x80x40mm)	6.7x 3.1x1.6" (170x80x40mm)	Dimensions
11.29oz (320g)	13.7oz (390g)	13.7oz (390g)	Weight
Yes	Yes	Yes	CE
1 year	1 year	1 year	Warranty



Sound Level Meters
Extech sound meters include all the features/functions needed for basic noise level surveys or to meet the requirements for OSHA compliance, community noise ordinances or machine noise evaluation.

Featuring Model 407736

► **Meets ANSI and IEC Type 2 Standards**

Conforms to OSHA guidelines

► **Wide Measuring Ranges**

To meet most noise measurement requirements

► **AC/DC Output**

Can be connected to a chart or tape recorder

► **Internal Calibration Check**

Verifies performance of internal circuitry



Extech Advantage
Our in-house calibration lab offers NIST Certificates for Sound Meters with multiple data points.

Accessories

- 40774494dB Sound Calibrator for .5" or 1" microphones
- 40776694/114dB Sound Calibrator for .5" or 1" microphones
- TR100Tripod (for meters with Tripod mount feature)
- 40705X....AC/DC Recorder Output Cable

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**
 407706-NIST
 407730-NIST
 407732-NIST
 407732-KIT-NIST
 407735-NIST
 407736-NIST
 407740-NIST
 407744-NIST
 407766-NIST
 *Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

	407706	407730
Model	407706	407730
Range	54 to 126dB	40 to 130dB
Basic Accuracy	±2dB	±2dB
Weighting (A&C)	Yes	Yes
Response Time (Fast/Slow)	Yes	Yes
Condenser Microphone	0.5" (12.7mm)	0.5" (12.7mm)
Analog Output	AC	AC
Dimensions	7.1x2.7x1.4" (180x68x36mm)	9x2.2x1.7" (230x57x44mm)
Weight	5.1oz (145g)	5.6oz (160g)
CE	Yes	Yes
Warranty	1 year	1 year

407706



407730



Analog Sound Level Meter

Check noise level economically

- Easy to read analog display
- MAX Hold
- Battery check
- Analog AC output for connection to chart recorders and dataloggers
- Tripod mount for field use (optional TR100 Tripod — sold separately)
- Complete with 9V battery

Digital Sound Level Meter

Analog bargraph with 30dB range updates every 40ms

- ±2dB accuracy with 0.1dB resolution
- AC analog output
- Record MAX/MIN values over time
- Auto power off and MAX Hold functions
- Utilizes 0.5" (12.7mm) condenser microphone
- Tripod mount for field use (optional TR100 Tripod — sold separately)
- Complete with microphone wind cover and four AAA batteries



407732
407732-KIT

407732-KIT
Value Kit



Optional 407732-KIT comes complete with a sound calibrator and case

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 wind cover and 9V battery
- Optional 407732-NISTL includes Certificate of Traceability to NIST at single point calibration to 94dB
- Optional 407732-KIT includes 407732 Sound Meter, 407744 94dB Sound Calibrator, and protective hard carrying case
(Optional NIST available for kit: 407732-KIT-NIST includes 407732-NISTL and 407744-NIST)



407735
407736

Type 2 Sound Meter with Calibration Check

Choose General purpose or high accuracy Type 2 meter

- Two models provide 1.5dB or 2dB accuracy
- **Model 407736** meets Type 2 standards (ANSI S1.4-1983, IEC 60651, EN 60651)
- High and Low measuring ranges
- MAX Hold with reset button
- Built-in calibration check (94dB)
- Analog AC/DC outputs for connection to an analyzer or recorder
- Tripod mount for field use (optional TR100 Tripod — sold separately)
- Optional 407744 or 407766 Sound Calibrator
- Complete with microphone wind cover, 9V battery, and carrying case



407740

Big Digit, Type 2 Sound Level Meter

Three range meter with large LCD display

- High accuracy meets Type 2 standards (ANSI S1.4-1983, IEC 60651, EN 60651)
- 3 measuring ranges for greater accuracy
- MAX Hold
- Analog AC/DC outputs for connection to an analyzer or recorder
- Tripod mount for field use (optional TR100 Tripod — sold separately)
- Optional 407744 or 407766 Sound Calibrator
- Complete with microphone wind cover, 9V battery, and carrying case

Sound Level Calibrators

407766
(94dB/114dB)



407744
(94dB)

- Calibrates and verifies Sound Level Meter operation
- 1kHz sine wave at 94dB/114dB (407766) or 94dB (407744) is generated to an accuracy of $\pm 5\%$ (frequency) and $\pm 0.5\text{dB}$ (94dB); $\pm 0.8\text{dB}$ (114dB)
- For use with all of Extech's Sound Level Meters
- Includes screwdriver, two 9V batteries, and carrying case (see p. 106 for ordering information)

407732	407732-NISTL	407732-KIT
Low: 35 to 100dB	Low: 35 to 100dB	Low: 35 to 100dB
High: 65 to 130dB	High: 65 to 130dB	High: 65 to 130dB
$\pm 1.5\text{dB}$ (Type 2)	$\pm 2\text{dB}$	$\pm 1.5\text{dB}$ (Type 2)
Yes	Yes	Yes
Yes	Yes	Yes
0.5" (12.7mm)	0.5" (12.7mm)	0.5" (12.7mm)
—	AC/DC	AC/DC
8.2x2.1x1.25" (210x55x32mm)	9.5x2.7x1" (241x69x25mm)	10x2.8x1.1" (254x71x28mm)
8.1oz (230g)	7.6oz (215g)	10oz (284g)
Yes	Yes	Yes
1 year	1 year	1 year

407735	407736
Low: 35 to 100dB	Low: 35 to 90dB
High: 65 to 130dB	High: 75 to 130dB
$\pm 2\text{dB}$	$\pm 1.5\text{dB}$ (Type 2)
Yes	Yes
Yes	Yes
0.5" (12.7mm)	0.5" (12.7mm)
—	AC/DC
9.5x2.7x1" (241x69x25mm)	10x2.8x1.1" (254x71x28mm)
7.6oz (215g)	10oz (284g)
Yes	Yes
1 year	1 year

407740
Low: 30 to 80dB, Medium: 50 to 100dB
High: 80 to 130dB
$\pm 1.5\text{dB}$ (Type 2)
Yes
Yes
0.5" (12.7mm)
AC/DC
10x2.8x1.1" (254x71x28mm)
10oz (284g)
Yes
1 year

Model
Range
Basic Accuracy
Weighting (A&C)
Response Time (Fast/Slow)
Condenser Microphone
Analog Output
Dimensions
Weight
CE
Warranty



Sound Level Meters & Dataloggers

Extech's Sound Level Meters with PC interface are Type 2 meters with the added capability to store data directly into internal memory or to a computer.

Featuring Model HD600

Type 2 Precision

Meets new IEC 61672-1 accuracy standard for OSHA and other local and national noise ordinances

Built-in Datalogger

Stores up to 20,000 records with real date and time stamp

USB Interface

For downloading, storing and documenting test results to a PC. Records up to 10 readings/second when dB recording directly to a PC

Max/Min

Captures highest and lowest readings



407750



Optional software

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
- RS-232 interface for capturing data directly on a PC, optional Windows® 95/98/NT/2000/ME/XP compatible software (407752)
- Large display with backlighting and analog bargraph
- Auto/Manual ranging
- MIN/MAX readings
- Analog AC/DC outputs for connection to a recorder
- Tripod mount (optional TR100 Tripod — sold separately)
- Complete with microphone wind cover, 9V battery and case



407738

Low Range Sound Level Meter with Memory

Type 2 meter measures down to 26dB range and stores up to 99 readings

- High accuracy meets Type 2 standards (ANSI S1.4-1983, IEC 60651, EN 60651)
- Wide 26dB to 130dB range
- Memory to store and recall up to 99 readings
- MIN/MAX recording with elapsed time stamp
- A & C weighting
- Fast and Slow response
- Large LCD display with analog bargraph
- AC & DC analog output
- Tripod mount (optional TR100 Tripod — sold separately)
- Complete with microphone wind cover, 3.5mm plug (AC/DC analog output), adjustment screwdriver, 9V battery, and carrying case

Accessories

Calibrators

- 407744.....94dB Sound Calibrator (0.5", 1" microphones)
- 407744-NIST .407744 with NIST Certificate
- 407766.....94/114dB Sound Calibrator (0.5", 1" microphones)
- 407766-NIST .407766 with NIST Certificate

Tripod

- TR100.....Tripod (for meters with Tripod mount feature)

Cables & Software

- 40705X.....AC/DC Recorder Output Cable
- 407764-EXT...15ft (4.7m) Microphone Extension Cable
- 407752.....Windows® compatible software & cable for 407750
- USB100.....RS-232 to USB adaptor

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- 407750-NIST
- 407738-NIST
- 407768-NIST
- HD600-NIST
- 407764-NIST

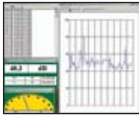
*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model	407750	407738
Range	30 to 130dB	26 to 130dB
Basic Accuracy	±1.5dB	±1.5dB
Weighting (A & C)	Yes	Yes
Response Time (Fast/Slow)	Yes	Yes
Condenser Microphone	0.5" (12.7mm)	0.5" (12.7mm)
Analog Output	AC/DC	AC/DC
PC Interface	Optional Software 407752	—
Datalogging	—	99 Records
Dimensions/Weight	10x3.1x1.5" (256x80x38mm)/8.5oz (240g)	10.3x2.6x1" (264x68x27mm)/9.2oz (260g)
CE	Yes	Yes
Warranty	1 year	1 year



407768



Software included

Sound Level Meter with PC Interface

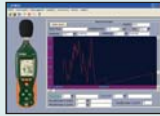
Includes Windows® compatible software

- High accuracy meets Type 2 standards (ANSI S1.4-1983, IEC 60651, EN 60651)
- Auto/Manual ranging
- MIN/MAX and Max Hold
- RS-232 interface for capturing data directly on a PC
- Analog AC output for connection to a recorder
- Tripod mount for field use (optional TR100 Tripod — sold separately)
- Complete with 9V battery, Windows® 95/98/NT/2000/XP compatible software, Serial cable, and carrying case



NEW

HD600



Software included

20,000 Point Datalogging Sound Level Meter

Double Molded housing with USB port

- 1.4dB accuracy
- Meets ANSI and IEC 61672-1 Type 2 standards
- Capture up to 10 readings/sec when connected to a PC
- Datalogging capability up to 20,000 records at speeds from 1/sec to 1/59sec
- Records readings with real date and time stamp
- MIN/MAX and Data Hold
- USB port includes PC software
- Tripod mount for field use
- Auto power off with disable capability
- Complete with AC Adaptor, Windows® compatible software with USB cable, wind cover, tripod, built-in stand, hard carrying case, and 9V battery



407764



Software included

128,000 point Datalogging Sound Level Meter

Type 2 meter with datalogging memory plus PC interface

- High accuracy meets Type 2 standards (ANSI S1.4-1983, IEC 60651, EN 60651)
- Large LCD with bargraph display
- Stored data can be transferred to a PC via RS-232 interface
- Real time and Date are logged with data; MAX Hold function
- Tripod mount (optional TR100 Tripod — sold separately)
- Optional 15ft (4.7m) microphone extension cable 407764-EXT for measurements in enclosures and other remote locations
- Optional Thermal Printer (PR20) prints text or graphical data (see p. 59 for details)
- Complete with microphone wind cover, Windows® compatible software, Serial cable, 4 AA batteries, and case (Optional AC Adaptor - see page 110)

Accessories



Microphone Extension Cable (407764-EXT)

- 15ft (4.7m) microphone extension cable for remote measurements
- For use with Extech's Sound Level Meters 407764, 407780, 407790, 407738 (See p.108 to order)



Portable Printer (PR20)

- Print out datalogged sound level data for reporting to OSHA (see p. 59 for details)
- For use with Extech's Sound Level Meters 407764 and 407780

407768	HD600	407764	Model
30 to 130dB	30 to 130dB	30 to 130dB	Range
±1.5dB	±1.4dB	±1.5dB	Basic Accuracy
Yes	Yes	Yes	Weighting (A & C)
Yes	Yes	Yes	Response Time (Fast/Slow)
0.5" (12.7mm)	0.5" (12.7mm)	Detachable 0.5" (12.7mm)	Condenser Microphone
AC	AC/DC	AC/DC	Analog Output
Included	USB	Included	PC Interface
—	20,000 Records	128,000 Records	Datalogging
10.6x2.7x1.1" (268x68x29mm)/10oz (284g)	10.9x3x2" (278x76x50mm)/12.3oz (350g)	10.4x2.8x0.8" (265x72x21mm)/11.5oz (358g)	Dimensions/Weight
Yes	Yes	Yes	CE
1 year	✓3 years	1 year	Warranty

407780 Integrating Sound Level Datalogger

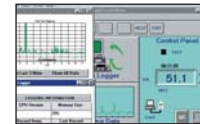
Leq and SEL measurements with built-in datalogger and PC interface

Features:

- Meets Type 2 standards (ANSI S1.4-1983, IEC 60651, EN 60651)
- Datalogging function records up to 32,000 records
- Programmable integrating time; Real time calendar/clock
- Linearity over wide range (100dB)
- Display modes: SPL, SEL, Lmax/Lmin, Leq
- Impulse/Fast/Slow response time
- 0.5" (12.7mm) condenser microphone; Tripod mount ideal for field use (optional TR100 Tripod — sold separately)
- Complete with RS-232 cable, 9 to 25 pin gender changer, Windows® 95/98/NT/2000/ME/XP compatible software, microphone wind cover, 4 AA batteries and carrying case; (Optional AC adaptor)



Optional Thermal Printer (PR20) prints text or graphical data (see p. 59 for details)



Software included



Specifications	Functions	
	Measurement Range	30dB to 130dB
	Accuracy	±1.5dB (ref 94dB@1KHz)
	Resolution	0.1dB
	Measurement Parameters	SPL, Leq, SEL, MaxL, MinL
	Linearity Range	100dB
	Measurement Frequency Range	31.5Hz to 8KHz
	Frequency Weighting	A and C
	Response	Impulse, Fast and Slow
	Microphone	1/2" Electret condenser microphone
	Sampling time	updated every 0.5s
	Bargraph	4dB steps, 100dB range, 100ms update
	Display Warning Function	
	Overrange Indicator	Displayed at the upper limit
Underrange Indicator	Displayed at the lower limit	
Analog AC/DC Output	2Vrms (at full scale), 10mVDC/dB	
Dimensions/Weight	10.4x2.8x0.8" (265x72x21mm)/ 10.9oz (310g)	

Ordering

- 407780Integrating Sound Level Datalogger
- 407780-NIST ...407780 with NIST Certificate
- 40776694/114 dB Calibrator for 0.5" or 1" microphones
- 40705XInsulated recorder cable 3' for AC/DC Outputs
- 407764-EXT6' (183cm)Microphone Extension Cable
- USB100RS-232 to USB Adaptor

AC Adaptors for 407764, 407780, 407790

- 144118110 VAC Adaptor
- 144220220 VAC adaptor
- 144240240 VAC adaptor

SL130G Sound Level Alert with Alarm

Continuous monitoring of dB — Built-in LEDs alert user when sound level is too high or too low

Features:

- Bright LEDs (red flashing or green) alert user when sound level is too high or too low – LEDs can be read from 30m (100ft)
- Continuous Monitoring of Sound Level
- 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 to OSHA
- Wall, desk or tripod mount (optional TR100 tripod — sold separately)
- Settable high/low limit indication with output to drive external relay module (Optional SL123 & SL124 relay modules)
- Microphone rotates 180° for desired placement. Optional 15ft (5m) microphone extension cable (SL125) for remote monitoring
- Complete with AC adaptor and microphone wind cover



Specifications	Display	4.6 x 3.125" (117x79mm) multifunction LCD
	Frequency bandwidth	31.5 Hz to 8 kHz
	Microphone	0.5" Electret Condenser Microphone (remoteable)
	Measurement ranges	30 to 80dB, 60 to 110dB, 80 to 130dB
	Frequency weighting	'A' and 'C' (Programmable)
	Response time	Fast (125ms) / Slow (1s) (Programmable)
	Resolution	0.1dB
	Alarm output	3.5mm Mono Phone Plug, Maximum: 3.4mA @ 5 VDC
	Minimum Output	Voltage: 2.5 VDC
	Power	AC/DC Adaptor for full functions; 8xAA batteries for monitoring function only without LED alert
	CE/Warranty	CE approved/ 1 year warranty
	Dimensions / Weight	8.75x7.1x1.25" / 0.63 lbs. (22x18x3.2cm / 285g)

Ordering

- SL130GSound Level Alert (with 110V adaptor)
- SL130G-NIST ...SL130G with NIST Certificate
- SL130-220Sound Level Alert (with 220V adaptor)
- SL130-240Sound Level Alert (with 240V adaptor)
- Accessories**
- SL123AC Alarm Relay Module 9 foot cable (3m)
- SL124DC Alarm Relay Module 9 foot cable (3m)
- SL125Remote Microphone cable 15'
- TR100Tripod (for meters with Tripod mount feature)
- 407766Sound Level Calibrator, 94/114dB

407790 Real Time 1/3 Octave Band Analyzer

Type 2 integrating sound level meter with Octave and 1/3 Octave Band Real Time display

Features:

- 160x160 dot matrix backlit LCD
- Memory stores 12,280 records in SLM mode and 1024 points in 1/1 or 1/3 octave mode
- Stored data can be transferred to a PC and analyzed using software and cable provided
- A, C, Flat weighting; Fast/Slow response time
- Detachable 0.52" (13.2mm) 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

Specifications	Applicable standards	ANSI S1.4 Type 2, EN IEC 60651, EN IEC 60804, and EN IEC 1260-1995
	Accuracy	±1.5dB (ref 94dB @ 1kHz)
	Measurement range / function	30dB to 130dB / La, Lc, Lp, Leq, LE, Lmax, Lmin
	Frequency range	25Hz ~ 10kHz
	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	30 to 130dB
	1/1 Octave and 1/3 Octave	1/1 Octave band center frequencies: (9 bands); 1/3 Octave band center frequencies: (27 bands);
	Signal output	AC output: 2 Vrms (at full scale); DC output: 10mVDC/dB
	Power	Four type C size 1.5V batteries, External DC power: 6V, 1A
Safety/Warranty	CE approved, one year warranty	
Dimensions/Weight	13.6x3.9x2.4" (345x100x60mm)/ 33.5oz (950g)	

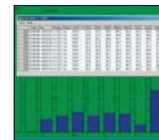


Complete with Windows® 95/98/NT/2000/ME compatible software, Serial cable, 4 x C batteries, mini screwdriver, 120V AC adaptor, and case. See page 110 for 220-240V Adaptors



Ordering

- 407790Octave Band Sound Analyzer
- 407790-NIST.....407790 with NIST Certificate
- 407764-EXT15ft (4.7m) Microphone Extension Cable
- 40774494dB Sound Level Calibrator (see page 107)
- 40776694/114dB Sound Level Calibrator (see page 107)
- USB100RS-232 to USB Adaptor



Software screen



Digital Display

407355 Personal Noise Dosimeter Datalogger

Measure total sound exposure over an 8-hour period

Features:

- Perform OSHA and IEC Noise accumulation surveys
- Adjustable Criterion Level, Exchange Rate, and Threshold
- Optional 94/114dB calibrator to perform "before" and "after" calibration checks
- Ideal for personal/workplace accumulated noise exposure
- Bi-directional RS-232 with Windows® 95/98/NT/2000/ ME/XP compatible software to control setup and retrieve stored events or analyze real time measurements. Software lists and graphs functions. Complete with 9 pin to 25 pin adaptor and RS-232 cable
- Datalogs up to 4500dB readings when used as a sound level meter
- Stores up to 5 dosimeter surveys. Data includes Start/Stop Time, %Dose, TWA, Peak flags, when used in the Dosimeter mode
- Complete with belt clip, clip-on 0.5" microphone with 2.6ft (0.8m) cable, software, 4 AAA batteries, mini screwdriver and carrying case
- Available kit 407355-KIT-5 includes five 407355 Dosimeters, 407766 Sound level calibrator, and carrying case



407355-KIT-5 — Dosimeter Kit



Includes software



Specifications	Standards	Meets ANSI S1.25 (1991) Type 2, ISO-1999, BS 402 (1983)
	Range/Resolution	70 to 140dBA / 0.1dB (Frequency A Weighting)
	Digital Display	LCD 0.01-9999%
	Criterion/Threshold Level	80, 84, 85 or 90dB/ 70-90 (1db steps)
	Response Rate/Exchange Rate	Fast or Slow/ 3, 4, 5 or 6 dB
	High Level Detector/Peak Flag	115dB / 140dB
	Battery Life	34 hrs
	Event Storage	5 surveys
	CE/Warranty	CE approved, one year warranty
	Dimensions/Weight	4.2x2.5x1.3" (106x64x34mm)/ 8oz (227g) incl. batteries

Ordering

- 407355Noise Dosimeter/Datalogger
- 407355-NIST...407355 with NIST Certificate
- 407355-KIT-5 ..Noise Dosimeter/Datalogger Kit
- 40774494dB Sound Level Calibrator (see page 107)
- 40776694/114dB Sound Level Calibrator (see page 107)
- USB100RS-232 to USB Adaptor



Contact & Photo Tachometers
Extech offers both contact models for direct measurements and non-contact models (including laser models) for use on machinery where access is limited or high speed measurements are required.

Featuring Model RPM10

► **Non-contact and Contact rpm**

Combination meter permits rpm measurements in any situation

► **Laser Light Source**

Provides greater measuring distance up to 6.5ft (2m)

► **Built-in InfraRed Thermometer**

Quickly locate overheating motors or bearings

► **Double Molded Housing**

for better grip and added durability

Patented



Extech Advantage
Only Extech offers a Combination Photo/ Contact Tachometer with IR Thermometer.

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- 461891-NIST
 - 461893-NIST
 - 461923-NIST
 - 461895-NIST
 - 461995-NIST
 - RPM10-NIST
- Limited NIST: Product certified to all functions except IR Thermometer.
RPM10-NISTL

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model	461891	461893	461923
Range rpm	0.5 to 20,000	5 to 99,999	10 to 99,999
ft/min	0.2 to 6560	—	—
m/min	0.05 to 1999.9	—	—
yd/min	—	—	—
Basic Accuracy	±0.05%rdg	±0.05%rdg	±0.05%rdg
Max rpm Resolution	0.1rpm	0.1rpm	0.1rpm
Laser	—	—	Yes
Temperature (IR)	—	—	—
Dimensions	6.7x2.8x1.5" (170x27x37mm)	6.7x2.8x1.5" (170x27x37mm)	6.7x2.8x1.5" (170x27x37mm)
Weight	9.2oz (260g)	8.8oz (250g)	8.8oz (250g)
CE	Yes	Yes	Yes
Warranty	1 year	1 year	1 year



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 1.5V AA batteries, and carrying case



461893
461923

Non-contact Photo Tachometers

Choice of Non-contact RPM measurements using visible light or laser light

- Make non-contact rpm measurements of rotating objects
- Use reflective tape on object to be measured and point the integral light beam or laser
- **461923 Laser guided** model can measure up to 6.5ft (2m) away from target
- **461893 photo tachometer** with integral light beam has an ideal measurement range up to 6" (152mm) distance
- Readings updated every second
- Recalls Last/MAX/MIN values
- Complete with 23" (0.6m) reflective tape, four 1.5V AA batteries, and carrying case



461895

Combination Contact/Photo Tachometer

Combines both contact and non-contact models for use in all applications

- Characters on display reverse direction depending on contact or photo mode
- Uses visible light to read up to 6" (150mm) from target
- 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 1.5V AA batteries, 23" (0.6m) reflective tape, and carrying case



461995

Combination Contact/Laser Photo Tachometer

Combines both contact and non-contact models for use in all applications

- Characters on display reverse direction depending on contact or photo mode
- **Laser guided** for greater distance non-contact measurements up to 6.5ft (2m)
- 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 1.5V AA batteries, 23" (0.6m) reflective tape, and carrying case



BUILT IN IR
Thermometer
Patented

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 6.5ft (2m)
- Contact tachometer for RPM and surface speed measurements
- Recalls Last/MAX/MIN values
- Characters on display reverse direction depending on mode
- Double molded housing
- Complete with tips/wheel, four 1.5V AA batteries, reflective tape, and carrying case

Accessories

Reflective Tape

461937



- Used with non-contact Photo Tachometers to measure speed of rotating objects
- Includes ten reflective tape strips — 23" x 0.25" (584mm x 6mm) each strip

Contact Wheels

461990



- Used with Contact Tachometers to measure surface speed of rotating objects and linear speed
- Includes 2 sets of three attachments (cone tip, flat tip, and spare wheel)

461895	461995	RPM10	Model
Photo: 5 to 99,999 / Contact: 0.5 to 19,999	Photo: 10 to 99,999 / Contact: 0.5 to 19,999	Photo: 10 to 99,999 / Contact: 0.5 to 20,000	Range rpm
0.2 to 6560	0.2 to 6560	0.2 to 6560	ft/min
0.05 to 1999.9	0.05 to 1999.9	0.05 to 1999.9	m/min
—	—	—	yd/min
±0.05%rdg	±0.05%rdg	±0.05%rdg	Basic Accuracy
0.1rpm	0.1rpm	0.1rpm	Max. rpm Resolution
—	Yes	Yes	Laser
—	—	-4 to 600°F (-20 to 315°C)	Temperature (IR)
8.5x2.6x1.5" (216x66x38mm)	8.5x2.6x1.5" (216x66x38mm)	8.5x2.6x1.5" (216x66x38mm)	Dimensions
10.6oz (300g)	10.6oz (300g)	10.6oz (300g)	Weight
Yes	Yes	Yes	CE
1 year	1 year	1 year	Warranty

461920 Mini Laser Photo Tachometer Counter NEW

Non-contact RPM and Revolution count measurements



Features:

- Measure non-contact RPM readings of rotating objects by pointing the integral laser on the reflective tape placed on the object to be measured
- Large 5 digit LCD display with backlighting
- Memory button for Last/MAX/MIN readings
- Counter function counts to 99,999 revs
- Rugged double molded housing
- Complete with 9V battery and reflective tape

Specifications	Function	
	RPM range	2 to 99,999 rpm
	Count range	1 to 99,999 rev (revolution)
	Target Distance	1.6ft (500mm)
	Basic Accuracy	±0.05%
	Resolution	0.1rpm, 1 count
	Memory	Min/Max/Last
	Dimensions/Weight	6.2x2.3x1.6" (160x60x42mm)/5.3oz (151g)

Ordering

- 461920.....Mini Laser Photo Tachometer Counter
- 461920-NIST...461920 with NIST Certificate
- 461937.....Spare reflective tape (23" each strip), 10pk

461700 461750 PocketTach® Mini Tachometers

For rpm and surface speed measurements



Features:

- Ergonomically designed and pocket size housing with protective finger guard
- Large (99,999 count) LCD display
- Autoranging with 0.1% basic accuracy
- Hold button freezes displayed readings
- Complete with 9V battery; 461700 includes reflective tape; 461750 includes surface wheels
- 461750 Contact Tachometer
 - Surface wheels enable tachometer to measure linear surface speeds (ft/min, m/min, yd/min)
- 461700 Non-contact Tachometer
 - Use reflective tape on object to be measured and point the integral light beam
 - Measures up to 6" (152mm) from target

Specifications	Function	Model 461700	Model 461750
	rpm (max res.)	10 to 99,999rpm (0.001)	10 to 10,000rpm (0.001)
	ft/min (max res.)	—	3 to 6560ft/min (0.0001)
	m/min	—	1 to 1999.9m/min
	yd/min	—	1 to 5,000yd/min
	Basic accuracy	±0.1%rdg	±0.1%rdg
	Sampling Time	1sec>60rpm, >1sec>10 to 60rpm	1sec>60rpm, >1sec>10 to 60rpm
	Dimensions	4.9x2x1.3" (124x50x33mm)	5.9x2x1.3" (149x50x33mm)
	Weight	4oz (114g)	5oz (142g)

Ordering

- 461700.....PocketTach® Mini Photo Tachometer
- 461700-NIST...461700 with NIST Certificate
- 461750.....PocketTach® Mini Contact Tachometer
- 461750-NIST...461750 with NIST Certificate

461825 Combination Photo Tachometer/Stroboscope

2 meters in one — Stroboscope to analyze rotating objects and Tachometer to measure rpms



Features:

- Stroboscope course and fine flash rate adjustments to freeze and analyze rotating objects
- Unique display features characters that reverse direction depending on measurement mode
- Large 0.4" (10mm) 5 digit LCD display
- Memory stores Last/MAX/MIN readings
- Complete with four 1.5V AA batteries, reflective tape, and carrying case

Specifications	Function	Photo Tachometer (rpm)	Stroboscope (fpm/rpm)
	Range (rpm)	5 to 99,999	100 to 100,000
	Accuracy	±0.1%rdg	±0.1%rdg
	Sampling Time	1 Sec ≥ 60rpm;	1 Sec ≥ 60rpm;
	Resolution	0.1rpm (<1,000rpm) 1rpm (≥1,000rpm)	0.1fpm (<1,000fpm) 1fpm (≥1,000fpm)
	CE/Warranty	CE approved, one year warranty	
	Dims/Wt	8.5x2.6x1.5" (215x65x38mm) / 10.6oz (300g)	

Ordering

- 461825.....Tachometer/Stroboscope
- 461825-NIST...461825 with NIST Certificate
- 461937.....Spare reflective tape (23" each strip), 10pk

461830 Digital StroboTach

Freeze motion and analyze rotating objects without contact



Features:

- Checks and analyzes motion and speed by simply aiming and synchronizing its flash rate (fpm) with a rotating object
- rpm's on 4 digit LED display
- Flash/Speed Rate of 100 to 10,000fpm/rpm; Basic accuracy of 0.05% rdg
- Duty Cycle of 5 to 30mins
- Tripod mount for stationary use
- Dims: 8.3x4.8x4.8" (211x122x122mm) Wt: 2.2lbs (1kg)
- CE approved, 1 year warranty
- Complete with 6ft (1.9m) power cord and handle

Ordering

- 461830Digital StroboTach 115VAC, 60Hz
- 461830-NIST ..461830 with NIST Certificate
- 461831Digital StroboTach 220VAC, 50Hz
- 461831-NIST ..461831 with NIST Certificate
- 461834Spare Xenon Lamp (est life 300hrs), 2pk

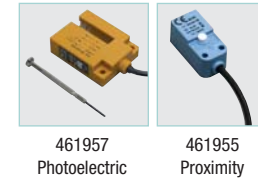
461960 RPM Controller/Monitor **NEW**

Built-in Control and Alarm Relays with user-settable high/low alarm limits



Features:

- RPM, m/min, ft/min
- Hysteresis value setting for control and alarm functions
- Roller diameter value setting for surface speed measurement
- User settable pulse per rotation value
- Large 0.5" (13mm) 4-digit LED display
- DIN size 3.8x1.9x4.2" (96x48x107mm)
- RS-232 interface with optional software
- Optional proximity and photo sensors
- Complete with bracket for mounting in standard 1/8 DIN panel cutout



Specifications	Function	
	Input Signal	Pulse
	Time Base	Quartz Crystal
	Range	10 to 99,999RPM, 0.2 to 32,805ft/min, 0.05 to 9,999m/min
	Resolution	0.1RPM, 0.1ft/min, 0.01m/min
	Accuracy	±(0.1% + 1 digit)
	Sampling Time	1 second (approx)
	Relay Outputs	Control (1ACA/250ACV; 1DCA/24DCV max) High/Low Alarm (1ACA/250ACV; 1DCA/24DCV max)
	Sensor Power Supply	12VDC, 50mA max
	Power	90 to 260VAC, 50/60Hz
	CE/ Warranty	CE/ 1 year
	Dimensions/Weight	3.8x1.9x4.2" (96x48x107mm)/ 13.5oz (384g)

Ordering

- 461960RPM Controller/Monitor
- 461955Proximity Sensor, max. 36,000rpm
- 461957Photoelectric Sensor, max. 6000rpm
- 407001Data Acquisition Software and Cable

461950 1/8 DIN Panel Tachometer

Continuous & accurate readings from 5 to 99,990rpm



Features:

- 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 sensor
- Choice of two sensor pickup types (both include 6ft/1.8m cable): Proximity sensor: 0.1" (3mm) target distance, range up to 36,000rpm (600Hz); Photoelectric sensor: 0.4" (10mm) target distance, range up to 6000rpm (100Hz)



Specifications	Function	
	rpm	5 to 99,990rpm
	Basic accuracy	±0.05%
	Resolution	0.1rpm (5 to 1000rpm), 1rpm (1000 to 9999rpm), 10rpm (10,000rpm to 99,990rpm)
	Power	115V or 230V AC, 50/60Hz
	Warranty	1 year
	Dimensions/Weight	Bezel 3.8x1.9x2.4" (96x48x60mm); Panel cutout 3.6x1.8" (92x45mm) Meter 3.6x3.5x1.7" (92x90x42mm)/ 14oz (397g)

Ordering

- 461950Panel Mount Tachometer
- 461955Proximity Sensor, max. 36,000rpm
- 461957Photoelectric Sensor, max. 6000rpm

**HD700
HD750**

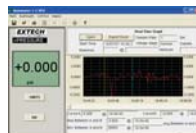
Differential Pressure Manometers

NEW

Low Range/High Resolution Gauge or Differential Pressure

Features:

- Two models to choose from: Model HD700 (± 2 psi range) and Model HD750 (± 5 psi range)
- 11 selectable units of measure
- MAX/MIN recording and Relative time stamp
- Data Hold, Auto power off, and Zero function
- Large LCD display with backlighting
- USB port includes PC software
- Includes 9V battery, Windows® compatible software with USB cable, AC adaptor, connection hose, built-in stand, and hard carrying case



Software included



Function	HD700 Range (Res.)	HD750 Range (Res.)	Basic Accuracy
psi	2psi (0.001psi)	5psi (0.001psi)	$\pm 0.3\%FS$
inH ₂ O	55.40inH ₂ O (0.01inH ₂ O)	138.3inH ₂ O (0.1inH ₂ O)	$\pm 0.3\%FS$
mbar	137.8mbar (0.1mbar)	344.7mbar (0.1mbar)	$\pm 0.3\%FS$
kPa	13.78kPa (0.01kPa)	34.47kPa (0.01kPa)	$\pm 0.3\%FS$
inHg	4.072inHg (0.001inHg)	10.18inHg (0.01inHg)	$\pm 0.3\%FS$
mmHg	103.4mmHg (0.1mmHg)	258.5mmHg (0.1mmHg)	$\pm 0.3\%FS$
ozin ²	32ozin ² (0.01ozin ²)	80ozin ² (0.01ozin ²)	$\pm 0.3\%FS$
ftH ₂ O	4.616ftH ₂ O (0.001ftH ₂ O)	11.53ftH ₂ O (0.01ftH ₂ O)	$\pm 0.3\%FS$
cmH ₂ O	140cmH ₂ O (0.1cmH ₂ O)	350.1cmH ₂ O (0.1cmH ₂ O)	$\pm 0.3\%FS$
kgcm ²	0.140kgcm ² (0.001kgcm ²)	0.351kgcm ² (0.001kgcm ²)	$\pm 0.3\%FS$
bar	0.137bar (0.001bar)	0.344bar (0.001bar)	$\pm 0.3\%FS$
CE/Warranty	CE/ 3 years		
Dimensions	8.2x2.9x1.9" (210x75x50mm)		
Weight	9.8oz (280g)		

Specifications

Ordering

- HD700.....Differential Pressure Manometer (2psi)
- HD700-NISTHD700 with NIST Certificate
- HD750.....Differential Pressure Manometer (5psi)
- HD750-NISTHD750 with NIST Certificate

406800

Differential Pressure Manometer

11 selectable units of measure

Features:

- MAX/MIN recording and Relative time stamp
- Compensated temperature: 32 to 122°F (0-50°C)
- Data Hold, Auto power off, and Zero function
- Large LCD display with backlighting
- Built-in RS-232 interface (optional software)
- Dimensions: 7.1x2.8x1.1" (182x72x30mm); Weight: 5.3oz (150g)
- Includes 9V battery, connection hose and case
- CE approved and 1 year warranty

Function	Range	Resolution	Basic Accuracy
psi	$\pm 5.000psi$	0.001psi	$\pm 0.3\%FS$
inH ₂ O	$\pm 138.3inH_2O$	0.1inH ₂ O	$\pm 0.3\%FS$
bar	$\pm 0.344bar$	0.001bar	$\pm 0.3\%FS$
mbar	$\pm 344.7mbar$	0.1mbar	$\pm 0.3\%FS$
kPa	$\pm 34.47kPa$	0.01kPa	$\pm 0.3\%FS$
inHg	$\pm 10.18inHg$	0.01inHg	$\pm 0.3\%FS$
mmHg	$\pm 258.5mmHg$	0.1mmHg	$\pm 0.3\%FS$
oz/in ²	$\pm 80.00oz/in^2$	0.01oz/in ²	$\pm 0.3\%FS$
ftH ₂ O	$\pm 11.53ftH_2O$	0.01ftH ₂ O	$\pm 0.3\%FS$
cmH ₂ O	$\pm 350.1cmH_2O$	0.1cmH ₂ O	$\pm 0.3\%FS$
kg/cm ²	$\pm 0.351kg/cm^2$	0.001kg/cm ²	$\pm 0.3\%FS$

Specifications



Ordering

- 406800.....Pressure Manometer w/ PC Interface (11 units)
- 406800-NIST.....406800 with NIST Certificate
- 407752.....PC Software and cable

407910 Heavy Duty Differential Pressure Manometer

Wide range dual input with multiple units and RS-232 interface

Features:

- Dual differential inputs with internal sensors
- Wide (± 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 RS-232 PC interface — optional 407001 Data Acquisition software or 380340 datalogger (see p. 95 for details)
- Includes 2 quick-disconnect fittings, 9V battery, protective holster with stand, and case



Function	Range	Resolution	Basic Accuracy
psi	± 29 psi	0.02psi	$\pm 1\%$ FS
mbar	± 2000 mbar	1mbar	$\pm 2\%$ FS
kg/cm ²	± 2.040 kg/cm ²	0.001kg/cm ²	$\pm 1\%$ FS
mmHg	± 1500 mmHg	1mmHg	$\pm 1\%$ FS
inHg	± 59.05 inHg	0.05inHg	$\pm 1\%$ FS
mH ₂ O	± 20.40 mH ₂ O	0.01mH ₂ O	$\pm 1\%$ FS
inH ₂ O	± 802.0 inH ₂ O	0.5inH ₂ O	$\pm 1\%$ FS
Atmosphere	± 1.974 atm	0.001atm	$\pm 1\%$ FS
CE/Warranty	CE approved; 3 years		
Dimensions/Weight	7x2.9x1.3" (178x74x33mm)/12oz (350g)		

Ordering:

- 407910Heavy Duty Manometer
- 407910-NIST.....407910 with NIST Certificate
- 156119117VAC Adaptor
- 409997Soft Vinyl Pouch Carrying Case

407495 Heavy Duty Pressure Meter

Meter stores range and calibration data for six pressure transducers

Features:

- Accepts interchangeable transducers with ranges of 30, 150, and 300psi
- 0.25%FS basic accuracy
- Displays 8 types of pressure units
- Push button transducer selection
- Built-in RS-232 PC interface — optional 407001 Data Acquisition software or 380340 datalogger (see page 95 for details)
- Data Hold, Auto power off, MAX/MIN and Zero function for offset correction
- CE approved, 3 year warranty
- Includes 9V battery and holster — transducer 1/4" PS, 19 teeth per inch with 3.9ft (1.2m) cable sold separately



Sensor Type	30psi Ranges	150psi Ranges	300psi Ranges
bar	0.002 to 2	0.01 to 10	0.02 to 20
psi	0.02 to 29	0.2 to 145	0.2 to 290
kg/cm ²	0.002 to 2.040	0.01 to 10.19	0.02 to 20.40
mmHg	2 to 1500	10 to 7500	20 to 15000
inHg	0.05 to 59.05	0.2 to 295.2	0.5 to 590.5
mH ₂ O	0.02 to 20.40	0.1 to 101.9	0.2 to 204.0
inH ₂ O	1 to 802	5 to 4010	10 to 8020
Atm	0.002 to 1.974	0.01 to 9.87	0.02 to 19.74
Dims/Wt	7.1x2.9x1.3" (180x72x32mm)/ 0.76lbs (345g)		

Ordering

- 407495Heavy Duty Pressure Meter
- 407495-NIST.....407495 w/ NIST Certificate (up to 300psi)
- PT3030psi Pressure Transducer
- PT150150psi Pressure Transducer
- PT300300psi Pressure Transducer
- 409997Soft Vinyl Carrying Case



Process Calibrators

Extech's Calibrators offer precision Voltage, Current, Thermocouple or Square Wave calibration sources in a selection of portable packages. Our full line includes models that range from simple checkers to precision, high resolution sources.

Featuring Model 412400

▶ Source and Measure

DC Current, DC Voltage, and Type K, J and T Thermocouples

▶ 24V Loop Power

Power supply drives current loads up to 1000Ω

▶ Step Function

Single/continuous steps for Voltage and Current

▶ 5 Stored Calibration Values

5 values of each output value are stored in memory for fast calibrations



Combination Calibrator/
MultiMeter simultaneously
sources and measures.

412440-S



Calibration Source Checker

Easy to use pocket checker for simulating Current Loops

- Pocket Checkers are easy to use and provide a quick and easy way for checking calibration of meters or controllers
- Instantly determine if your device needs calibration or if sensor needs to be replaced
- Current Loop model is accurate to 0.1mA
- Current: 4mA, 12mA and 20mA; Overload indication when load exceeds 240Ω
- Complete with 9V battery, vinyl case, and calibration cable terminated with subminiature and spade lug connector

Accessories

- 149116115V AC Adaptor for 422123
- 159220220V AC Adaptor for 422123
- CMM-17-S...PC Software and RS-232 cable for CMM-17

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- 412440-S-NIST
- 412400-NIST
- 422123-NIST
- CMM-17-NIST

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model	412440-S
Simultaneous Source/Measure	—
Source	
DC Voltage (resolution)	—
DC Current (resolution)	4, 12, & 20mADC
Thermocouples (resolution)	—
Square wave (resolution)	—
Basic DC Accuracy	0.1mA
Loop Power	—
Measure	
DC Voltage	—
DC Current	—
AC Voltage	—
AC Current	—
Temperature	—
Pulse width	—
Frequency	—
Dimensions/Weight	3.5x2.3x1" (89x58.4x25.4mm)/10oz (284g)
CE/Warranty	CE approved/1 year



412400

NEW

Multifunction Process Calibrator

Precision source and measure for thermocouples, mA, mV and V devices

- Source 0 to 24mA with 0.01mA resolution
- Measure 0 to 50mA (0.1mA resolution)
- Select Type K, J, or T thermocouple for precision calibrations in °F/°C or mV
- Output 0 to 1999mV or 0 to 10.00V
- Measure 0 to 19.99V
- Single/continuous step function for Voltage and Current
- Self-contained 24V loop power supply drives current loads up to 1000Ω
- Memory for 5 user settable output values of each type for fast calibrations
- Complete with six AA batteries, test leads with detachable alligator clips, temperature calibration cable with spade lug connector, carrying case, neckstrap, and 100V-240V AC Universal adaptor (50/60Hz)



422123

Precision Multifunction Calibrator

Accurate calibration source for Thermocouple, mA, mV, V and Frequency devices

- Source DC Current ranges with high 0.001mA resolution
- Drives current loads up to 1000Ω
- User can set output steps from 1% to 100%
- Large 5 digit LCD
- Automatic ramp output
- Beeps if load is open with Current (mA) output or shorted with Voltage output
- External battery pack for extended field applications
- Includes 9V battery, external battery pack (six AA batteries), case, alligator clips, Type K & Type J test cables. Optional AC Adaptor



CMM-17



Optional software records output and input and generates calibration report

Process Calibrator MultiMeter™

Precision DC, mA, Voltage, Frequency Calibrator combined with True RMS DMM

- Simultaneous source/simulate and measure
- Constant current output for loads up to 1200Ω
- Bipolar current (±25mA) and voltage (±1.5V, ±15V) outputs
- Simultaneously source excitation voltage and measure mA output of 2-wire transmitters
- Programmable 16 continuous or timed step outputs, or 999 step ramp
- 1ms Peak Hold for glitch capture, Data Hold, Auto Hold, relative & dynamic recording
- Optional communications software (CMM-17-S) allows you to operate the meter from your PC, document output and input readings, and generate calibration reports
- Includes input/output test leads, protective rubber holster, Type K temperature probe, 8 NiMH rechargeable batteries, 100V-250V AC adaptor, and case

412400	422123	CMM-17
—	—	Yes
0 to 10V (1mV)	0 to 10.000VDC (0.01mV)	±1.5VDC, ±15VDC (0.1mV)
0 to 24mA, -25% to +125% (0.1%)	0 to 24mADC (0.001mA)	± 25mADC (1µA)
K, J, T (0.1°)	Types K, J, E, & T (1°)	—
—	1 to 62.5kHz (1Hz)	0.5 to 4800Hz (28 steps) (0.01Hz)
± 0.075%	± 0.025%	± 0.03%
24VDC	—	15VDC
0 to 20V	—	1µV to 250V DC
0 to 50mA, -25 to +230%	—	1µA to 500mA DC
—	—	1µV to 250V AC
—	—	1µA to 500mA AC
K, J, T	—	-40 to 2502°F (-40 to 1372°C)
—	—	0.1 to 1999.9msec
—	—	0.001Hz to 200kHz
3.8x4.7x2.0" (96x118x45mm) /12oz (340g)	3.5x6.6x1.0" (88x168x26mm)/11.6oz (330g)	2.1x3.54x7.56" (54x90x192mm)/3.75lbs (1.71kg)
CE approved/1 year	CE approved/1 year	CE approved/ ✓3 years

**412300A
412355A**

Current & Voltage Calibrators/Meters

Precision "source" for calibrating process devices and measuring DC process signals

Features:

- Upgraded models now feature super large LCD display and touch keypad
- LCD displays readings in mA or as a % of the 0 to 24mA range or as mV in voltage ranges
- Five stored calibration values for fast calibrations
- **412355A Current + Voltage Calibrator** provides adjustable 0 to 25mA and 0 to 10V calibration source
- **412300A Current Calibrator** provides 0 to 24mA output displayed as mA or % and provides 24VDC power to measure a two-wire current loop
- Complete with 9V battery, calibration cable with spade lug terminals, carrying case, neckstrap and 100V-240V AC Universal Adaptor (50/60Hz)



Specifications	Functions		
	Operating Modes		
	Source	Output 0 to 24mA current for loads up to 1000 ohms Output 0 to 10V (412355A only)	
	Measure	0 to 50mA current signal 0 to 19.99V (412355A only)	
	Power/Measure	Provides power (24VDC) to loop & measures current (412300A only)	
	Input/Output	Ranges and Display	Resolution
		-25.0 to 125.0% (representing 0 to 24mA)	0.1%
		0 to 19.99mA	0.01mA
		0 to 24.0mA	0.1mA
		0 to 1999mV	1mV
		0 to 10.00V	10mV
	Accuracy	0.075% ±1 digit	
Power	9V battery or AC adaptor		
Dims/Wt	3.8x4.2x1.8" (96x108x45mm) folded/ 12oz (340g)		

Ordering

- 412300ACurrent Calibrator/Meter
- 412300A-NIST....412300A with NIST Certificate
- 412355ACurrent & Voltage Calibrator/Meter
- 412355A-NIST....412355A with NIST Certificate

**433201
433202**

Multi-Type Calibrator Thermometer

Source and measure 8 thermocouple type devices J, K, T, E, C, R, S, and N

Features:

- Upgraded model now features super large LCD display and touch keypad
- Five stored calibration values for fast calibrations
- Versatile thermometer measures over a wide temperature range
- Large LCD display built into adjustable cover
- Displays output in terms of mV or °F/°C temperature based on built-in thermocouple tables



Includes Type K Thermocouple Calibration Cable, Copper calibration cable, 9V NiCad rechargeable battery, neckstrap, AC adaptor/recharger, and case



Specifications	Functions	Calibration & Measurement ranges	Basic Accuracy
	Type J	-58 to 1830°F (-50 to 1000°C)	0.15% rdg ±1°
	Type K	-58 to 2498°F (-50 to 1370°C)	0.15% rdg ±1°
	Type T	-184 to 752°F (-270 to 400°C)	0.15% rdg ±1°
	Voltage	-5.00mV to +55.00mV	10µV ±2d
	Resolution	0.1° (up to 999.9°) or 1° (over 999.9°)	
	Warranty/CE	1 year warranty/ CE approved	
	Dims/Wt	3.5x6.6x1" (88x168x26mm)/ 11.6oz (330g)	

Ordering

- 433201Calibrator Thermometer (w/115V AC adaptor)
 - 433201-NIST.433201A with NIST Certificate
 - 433202-220....Calibrator Thermometer (w/220V AC adaptor)
 - 433202-240....Calibrator Thermometer (w/240V AC adaptor)
- Order thermocouple probes from p. 78.

IRC350

Portable InfraRed Calibrator

NEW

Provide a stable blackbody target for calibrating non-contact IR Thermometers up to 662°F (350°C)

Features:

- Large 2.25" (57mm) blackbody target for a wide field of view area
- RTD contact reference well for higher precision located behind the blackbody surface
- Built-in PID temperature controller for high temperature stability
- Dual display for set temperature and blackbody temperature
- Used for IR thermometer and Pyrometer calibration or accuracy verification
- Small, compact design for use on the benchtop or in the field
- Complete with power cord



Specifications

Functions	
Temperature Range	122 to 662°F (50 to 350°C)
Resolution	0.1°F/°C
Accuracy	±1°F@212°F (±0.5°C@100°C) ±2.4°F@662°F (±1.2°C@350°C)
Stability	±0.2°F@212°F (±0.1°C@100°C) ±0.4°F@662°F (±0.2°C@350°C)
Heating time	30 minutes to max
Cooling time	30 minutes max to 212°F (100°C)
Target size	2.25" (57mm)
Target emissivity	0.95
Power	110VAC/3A
CE/Warranty	CE/ 1 year
Dimensions/Weight	7x4.4x9.1" (180x114x233mm)/5.9lb (2682g)

Ordering

IRC350.....Portable InfraRed Calibrator 662°F (350°C)

**48VTR
96VTR**

Temperature & Process Autotuning PID Controllers

Dual display of process and setpoint value, Control and Limit Alarm relays plus Ramp-to-setpoint control

Features:

- Dual 4-digit LED displays of process and setpoint values
- Tactile keypad for easy programming
- One-touch autotuning; Countdown timer
- 48VTR- UL recognized, CE approved
- Single stage Ramp Soak and Auto/manual control modes
- Includes Limit Alarm relay(s) with 8 programmable modes and adjustable deadband provides for dual control



Includes mounting brackets and screw terminals; 1 year warranty on meters

Specifications

Function	Ranges
Temperature Inputs	Type J: -58 to 1830°F (-50 to 1000°C); Type K: -58 to 2498°F (-50 to 1370°C) (Also Types B,E,N,R,S) Type T: -454 to 752°F (-270 to 400°C); RTD (PT-100Ω): -392 to 932°F (-200 to 500°C)
DC Process Inputs	4-20mA or 1-5VDC
Accuracy	±0.2% FS (indicating and setpoint)
Control Action	Proportional Band: 0 to 100% (autotuneable) Integral & Derivative Time: 0 to 3000sec (autotuneable) Cycle Time: 1 to 100sec ; Anti-Reset: Standard (fixed)
Hysteresis	0.0 to 25.5% (for ON/OFF control)
Ramp Rate	0 to 100°C/min
Limit Alarm Relays	5A at 110V (48VT: 1 alarm relay; 96VTR 2 alarm relays)
Panel Cutout	1/16DIN: 1.77x1.77" (45x45mm); 1/4DIN: 3.5x3.5" (92x92mm)
Power	85 to 260VAC 50/60Hz
Depth Behind Panel	4" (102mm) including screw terminals

Ordering

Complete part number below with your desired input and output

48VTR□□ ...1/16 DIN PID Ramp to Setpoint Controller

96VTR□□ ...1/4 DIN PID Ramp to Setpoint Controller

- 1 Thermocouple inputs (User selectable J,K,T,B,E,R,S,N)
- 1.....5A at 110VAC Relay control output
- 3.....4-20mA control output

Accessories

404216 1/16 DIN NEMA-4X Cover



Stopwatch/Timers

Extech's stopwatches accurately time single or repetitive events including sporting periods or laps, industrial processes, and task length.



HW30

Featuring Model HW30

▶ Stopwatch/Timer

Multi-function stopwatch includes UP/DOWN timer, laps, Temperature and Humidity

▶ Temperature & Humidity

Monitor your environment

▶ 30 Lap Memory

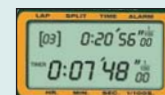
Track the consistency of an activity

▶ Heat Index

Measures how hot it feels when humidity is combined with the actual temperature



Patent Pending



Stopwatch display

**Humidity/
Thermometer
Stopwatch**

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

- User settable Heat Index alarm
- Stopwatch/chronograph mode with 1/100 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" (1m) lanyard and one 3V CR2032 battery



Only Extech offers a Stopwatch with Humidity, Temperature and Heat Index function.



HW30 HeatWatch is recommended by the National Health & Wellness Club

Order Meter with NIST Certificate*

All Extech meters come factory calibrated. For an additional charge, Extech will supply your meter complete with a Certificate of Calibration Traceable to N.I.S.T. with Data at multiple points. **To order meter with NIST:**

- 365528-NIST
- 365510-NIST
- 365515-NIST

Limited NIST (-NISTL): Product certified to Stopwatch functions only.
HW30-NISTL

*Only products listed are available with NIST Certificate. Meter must be ordered with NIST Certificate at time of purchase.

Specifications

Model	HW30
Timing capacity	9hrs, 59mins, and 59secs
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%
Dimensions	3.1x2.6x0.8" (79x66x21mm)
Weight	3oz (85g)
CE	Yes
Warranty	1 year



365528



Stopwatch display



365510



Stopwatch display



NEW

365515



Backlit display

Stopwatch/Timer

Large Function Keys for Digital Clock readings plus UP/DOWN timer and Alarm

- Stopwatch/Chronograph mode with 1/100sec and resolution
- 12 or 24 hour clock operation
- Programmable alarm with an hourly chime
- Pace setting mode
- 24 hour countdown timer with audible beeper warning for the last 5 seconds
- 10 lap/split memory
- Calendar displays day, month, and date
- Water resistant housing is complete with CR2016 lithium battery and 39" (1m) neckstrap

Stopwatch/Clock

Digital Stopwatch plus Calendar and Alarm

- Stopwatch/Chronograph mode with 1/100sec 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" (1m) neckstrap

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 date
- Programmable alarm and hourly chime setting
- Backlight turns off after 4 seconds
- Water resistant housing is complete with LR44 battery and 39" (1m) neckstrap

365528

9hrs, 59mins and 59.99secs
±5 seconds/day
Yes
Yes
10 laps
—
—
2.5x3.2x0.8" (63x81x20mm)
2.8oz (79g)
—
Life Time Warranty

365510

23hrs, 59mins and 59.99secs
±3 seconds/day
Yes
—
—
—
—
2.3x2.8x0.5" (57x70x15mm)
2oz (50g)
Yes
1 year

365515

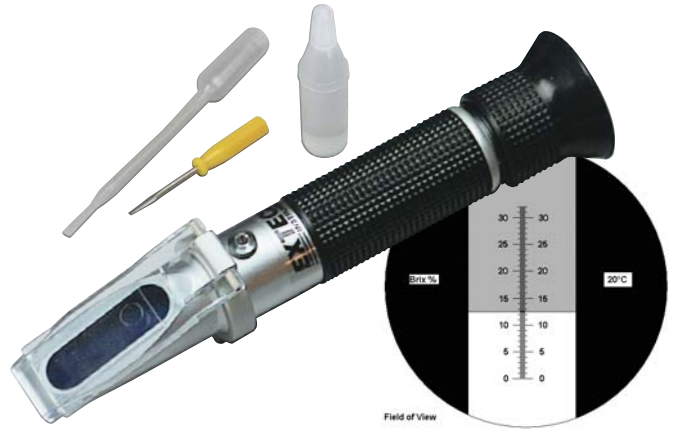
23hrs, 59mins and 59.99secs
±3 seconds/day
Yes
—
—
—
—
2.3x2.8x0.5" (57x70x15mm)
2oz (50g)
Yes
1 year

RF Series Portable Brix Refractometers

Measure the concentration of Sugar, Salt or industrial cutting/cooling lubricants

Features:

- Easy to operate refractometers provide accurate and repeatable measurements on easy to read scales
- Automatic Temperature Compensation (RF15 and RF20 models)
- Requires only 2 or 3 drops of solution
- The prism and lens with a simple focus adjustment provides repeatable results
- One year warranty
- Complete with case, calibration screwdriver, and calibration solution



Scale view through eyepiece

Specifications

Model	Type	Ranges	Resolution	Accuracy
RF10	Sucrose	0 to 32% Brix	0.2	±0.2%
RF15	Sucrose (ATC)	0 to 32% Brix (10 to 30°C)	0.2	±0.2%
RF18	Brix (Lubricants)	0 to 18% Brix	0.1%	±0.2%
RF20	Salt (ATC)	0 to 100ppt (10 to 30°C) 1.000 to 1.070 Specific Gravity	1ppt 0.001	±0.1‰ ±0.001

Sucrose (RF10, RF15, and RF18)

- RF10 Dims/Wt: 6.6x1.3x1.3" (168x32x32mm)/ 3.2oz (91g)
- RF15 Dims/Wt: 6.3x1.4x1.4" (159x35x35mm)/ 7oz (200g)
- Sucrose brix refractometers measure the concentration of sugar in fruit juice and industrial fluids

Brix (RF18)

- RF18 Dims/Wt: 6.7x1.6x1.2" (170x41x31mm)/ 3.2oz (91g)
- Maintain proper lubricant cooling concentration to extend equipment life and prevent corrosion

Salinity (RF20)

- Salinity refractometer measures the concentration of dissolved salt in water
- Dims/Wt: 7.6x1.5x1.5" (194x38x38mm)/ 8oz (227g)

Ordering

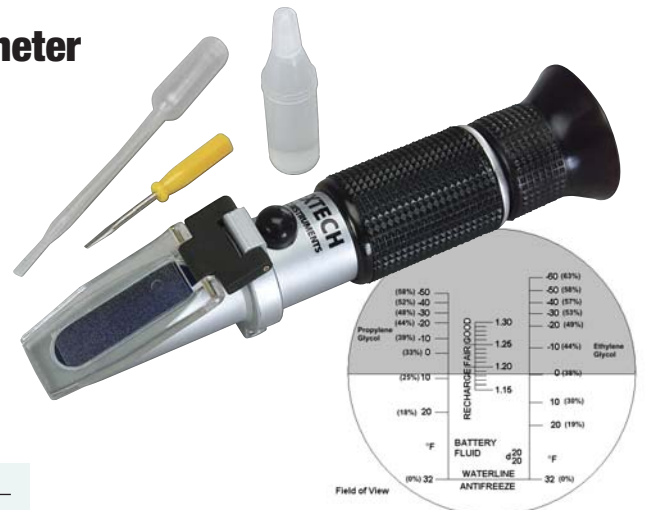
- RF100 to 32% Brix Refractometer
- RF150 to 32% Brix Refractometer with ATC
- RF180 to 18% Brix Refractometer
- RF20Salinity Refractometer with ATC

RF40 Battery Coolant/ Glycol Refractometer

Measure the % of Ethylene Glycol and Propylene Glycol

Features:

- Measures the freezing point of automotive coolants plus battery charge condition
- Provide accurate and repeatable measurements of % Ethylene Glycol and Propylene Glycol and °F on easy to read scale
- Automatic Temperature Compensation
- Requires only 2 or 3 drops of solution
- Complete with case, calibration screwdriver, and calibration solution



Scale view through eyepiece

Specifications

Function	Ranges	Resolution	Basic Accuracy
Propylene Glycol freeze point	-60°F (63%) to 32°F (12%)	2°F (1%)	±5°F (2%)
Ethylene Glycol freeze point	-60°F (59%) to 25°F (16%)	2°F (1%)	±5°F (2%)
Specific Gravity of Battery Acid	1.15 to 1.30	0.01	
Warranty	1 year		
Dimensions	6.5x1.5x1.5" (165x38x38mm)		
Weight	7oz (200g)		

Ordering

- RF40Battery Coolant/Glycol Refractometer w/ATC

BR136 Flexible Borescope

Fiberscope Inspection tool with built-in light source

Features:

- High resolution image bundle and optical system
- Easy to use eyepiece and handle
- Focus adjustment
- Bright light to illuminate viewed object
- Flexible gooseneck retains configured shape
- Removable 90 degree side viewing adaptor rotates 360 degrees
- Can be exposed to water, diesel, gasoline, brake fluid, antifreeze, oil and other liquids
- Complete with 3 AA batteries and storage case

Specifications	Function	
	Viewing direction	0°; Viewing Angle 45°
	Depth of observation	1 to 6" (30 to 150mm)
	Side view adaptor	90°; Viewing Angle 45°
	Shaft diameter	0.35" (9mm)
	Working length	36" (914mm)
	Weight	13oz (370g)
	Case dimensions	12.6x9.84x2.75" (320x250x70mm)



Ordering

BR136.....Flexible Borescope

DT100 Ultrasonic Distance Meter NEW

Laser pointer identifies target area and improves aim

Features:

- Measures from 1'8" to 50' (0.5 to 15m)
- Takes the sum of consecutive length measurements
- Automatically calculates Area and Volume
- Store/Recall up to 3 readings
- Built-in white LED flashlight
- Visual and audible error alarms
- Low battery indicator; Auto power off
- Complete with 9V battery

Specifications	Function	
	Measurement Range	1'8" to 50' (0.5 to 15m)
	Accuracy	±(0.3% reading + 3 digits)
	Resolution	0.1" (0.01m)
	Length Add calculation	99'11" (99.99m)
	Area calculation	999.99 sq. ft. (999.99m ²)
	Volume calculation	999.99 cu. ft. (999.99m ³)
	Dims/Wt	5.4x2.4x1.7" (136x61.5x44mm)
	Weight	4.1oz (117g)



Ordering

DT100Ultrasonic Distance Meter

PH50 PH60 pH Pens

Easy-to-use, low cost waterproof pH pens

Features:

- Waterproof housing
- Easy to calibrate single CAL key with automatic pH buffer recognition (4, 7, and 10pH calibration buffers sold separately)
- Data hold with Low battery indicator
- Auto power off with disable feature
- Complete with built in electrode, sensor cap, inner pH electrode protection cap, and four LR44 button batteries

Specifications	Function	Model PH50	Model PH60
	pH	2.0 to 12.0pH	0.0 to 14.0pH
	Temperature	—	32 to 122°F (0 to 50°C)
	Resolution	0.1pH, 0.1°	0.1pH, 0.1°
	Accuracy	±0.3pH	±0.2pH; ±1°F/±0.5°C
	CE/Warranty	CE approved / 1 year	
	Dimensions	6x1.5x0.9" (152x37x24mm)	
	Weight	2.3oz (65g)	

Ordering:

PH50.....Waterproof pH Pen
 PH60.....Waterproof pH Meter with Temperature
 PH103.....Tripak buffers (6ea - 4,7,10pH+2 Rinse solutions)



Model PH50

- Measures pH only

Model PH60

- Measures pH and Temperature
- Automatic Temperature Compensation



ExStik® Series (Patent Pending)
Provide great versatility in measuring pH, Chlorine, ORP and Temperature with interchangeable rugged flat surface electrode modules to meet your application needs.

Featuring Model PH110

▶ Flat Surface Electrode

For any application that requires direct contact such as food, paper, cement and wet surfaces

▶ Refillable pH Electrode

Refill with reference solution when depleted

▶ Built-in Memory

Record/Recall up to 15 labeled readings

▶ Built-in Smart Chip

Tells you when to replace your electrode or when to recalibrate your meter



Only Extech offers choice of flat surface gel filled or refillable pH Electrodes.

Accessories

Electrode Modules

- CL205 ..Spare Chlorine ExStik® Electrode Module
- PH105 ..Spare pH ExStik® Electrode Module
- PH115 ..Spare Refillable pH ExStik® Electrode Module
- PH113 ..Reference Refill Solution Kit for PH110, PH115
- RE305 ..Spare ORP ExStik® Electrode Module

pH Buffers

- 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 (6ea. 4, 7, 10pH and 2 Rinse solutions)

EX006 Weighted base with 5 solution cups

ExTab™ Reagents

CL203 ..ExTab™ Reagent tablets (10pk - 100 tests)

Specifications

Did You Know?

pH Meters require pH buffers for calibration before taking accurate pH measurements. For low pH range, calibrate with 4 and 7pH buffers. For high pH range, calibrate with 7 and 10 pH buffers. Order pH Buffers listed above under Accessories to work with your new ExStik pH meter.

	PH100	PH110
Model	PH100	PH110
Chlorine (ppm)	—	—
pH	0.00 to 14.00pH	0.00 to 14.00pH
ORP (mV)	—	—
Temperature	23° to 194°F (-5 to 90°C)	23° to 194°F (-5 to 90°C)
Max. Resolution	0.01pH, 0.1°	0.01pH, 0.1°
Basic Accuracy	±0.01pH, ±1.8°F/1°C	±0.01pH, ±1.8°F/1°C
Dimensions	1.4x6.8x1.6" (35.6x172.7x40.6mm)	1.4x6.8x1.6" (35.6x172.7x40.6mm)
Weight	3.8oz (110g)	3.8oz (110g)
CE	Yes	Yes
Warranty	1yr (meter)/6mo conditional warranty (electrode)	1yr (meter)/6mo conditional warranty (electrode)



PH100



Flat Surface pH Electrode

ExStik® pH Meter

Flat Surface technology provides fast and easy on-the-spot pH measurements

- **RENEW feature** tells you when it's time to replace your pH electrode
- **CAL feature** tells you when it's time to recalibrate your meter
- **Waterproof** to IP57 protects meter from wet environment
- **Flat Surface pH electrode** rugged design to withstand harsh environments and to also measure pH on solid and semi-solid surfaces
- **Analog bargraph** originates at neutral point (pH 7.00) to conveniently view trends in acidity or alkalinity
- ATC plus measures Temperature
- 1, 2 or 3 point calibration (order PH103 pH buffers separately)
- Complete with gel-filled flat surface pH electrode, sensor cap, sample cup with cap, four 3V CR2032 button batteries and 48" (1.2m) neckstrap



PH110



Refillable pH Electrode

ExStik® Refillable pH Meter

Rugged refillable flat surface pH electrode

- Same features as PH100
- Refillable flat surface pH electrode that can be reused by refilling the reference solution once it depletes
- Obtains continuous high accuracy using fresh reference solution
- Fast and easy to refill electrode
- Maximizes electrode shelf life
- **Waterproof** to IP57 protects meter from wet environment
- 1, 2 or 3 point calibration (order PH103 pH buffers separately)
- Complete with refillable flat surface pH electrode, 15mL of refill solution, reference junction removal tool, protective sensor cap, sample cup with cap, four 3V CR2032 button batteries and 48" (1.2m) neckstrap. Order PH113 KCl Reference Kit separately.



CL200



Includes ExTab™ reagent tablets

ExStik® Chlorine Meter

Revolutionary technique measures Direct Total Residual Chlorine

- Obtain readings from 0.01ppm to 10ppm with fast and easy steps
- Makes non-subjective measurements — Unaffected by interferences associated with traditional colorimeters and spectrophotometers
- Uses patented ExTab™ reagent tablets for consistent results
- Automatic electronic self calibration
- EPA approved methodology
- **Waterproof** to IP57 protects meter from wet environment
- Complete with flat surface Chlorine electrode, 5pks of 10 reagent tablets (50 tests), sensor cap, sample cup with cap, four 3V CR2032 button batteries and 48" (1.2m) neckstrap



RE300



Flat Surface ORP Electrode

ExStik® ORP Meter

High resolution of 1mV

- Measures ORP/Redox from -999 to 999mV
- Automatic electronic self calibration
- Simulated analog bargraph displays change in ORP reading
- **Waterproof** to IP57 protects meter from wet environment
- Complete with flat surface ORP electrode, protective sensor cap, sample cup with cap, four 3V CR2032 button batteries and 48" (1.2m) neckstrap



**EX900
EX800**

ExStik® Kits

Complete kit includes interchangeable electrodes to measure Chlorine, pH, ORP, and Temperature

- Expand the capabilities of your Chlorine meter by purchasing **Model EX900** 4-in-1 Kit which includes a Chlorine meter with interchangeable modules for pH and for ORP to give you a complete water testing kit. **Model EX800** 3-in-1 Kit is without ORP electrode.
- Kits include:
 - CL200 Chlorine ExStik®
 - Flat surface pH electrode with cap
 - Flat surface ORP electrode with cap (EX900 kit only)
 - ExTab™ reagent tablets (50 tests)
 - pH 4, 7 & 10 buffer solutions (20mL) and rinse solution
 - Weighted base with 56 sample plastic cups and caps
 - Four 3V CR2032 button batteries
 - 48" (1.2m) neckstrap
 - Carrying case with individual compartments and elastic strap to secure your meter(s), accessories, and manual in place

CL200	RE300	EX800	EX900	Model
0.01 to 10.00ppm	—	—	0.01 to 10.00ppm	Chlorine (ppm)
—	—	—	0.00 to 14.00pH	pH
—	-999 to 999mV	—	-999 to 999mV	ORP (mV)
23° to 194°F (-5 to 90°C)	—	—	23° to 194°F (-5 to 90°C)	Temperature
0.01ppm, 0.1°	1mV	—	0.01pH, 0.01ppm, 1mV, 0.1°	Max. Resolution
±10% rdg ±0.01ppm, ±1.8°F/1°C	±4mV	—	±0.01pH, ±10% rdg ±0.01ppm, ±4mV, ±1.8°F/1°C	Basic Accuracy
1.4x6.8x1.6" (35.6x172.7x40.6mm)	1.4x6.8x1.6" (35.6x172.7x40.6mm)	—	9.5x6.8x2.8" (241x173x71mm)	Dimensions
3.8oz (110g)	3.8oz (110g)	—	1.68lbs (0.76g)	Weight
Yes	Yes	—	Yes	CE
1yr (meter)/6mo conditional warranty (electrode)	1yr (meter)/6mo conditional warranty (electrode)	—	1yr (meter)/6mo conditional warranty (electrode)	Warranty

Introducing ExStik® II Meters

The ExStik® II Series offers meters with dedicated multi-parameter modules for Conductivity/ TDS/Salinity, pH/Conductivity/TDS/Salinity, Dissolved Oxygen, Fluoride. This new series is an expansion of our popular ExStik® Series which features interchangeable modules for pH, ORP or Chlorine.

Featuring Model FL700

▶ **Flat Surface ISE Fluoride Electrode**

Rugged design perfect for field or lab use

▶ **Automatic Temperature Compensation (ATC)**

For precise Fluoride concentration measurements

▶ **Fast Response**

Reading stabilizes within less than 1 minute

▶ **EPA Compliant Method**

In compliance with EPA Method 340.2.
(Potentiometric Ion Selective Electrode)



World's 1st Waterproof Fluoride Stick Meter with built-in ATC ...offered only by Extech!



EC400

Waterproof Conductivity/TDS/Salinity/Temp Meter

High accuracy multi-range sensor measures four parameters including Conductivity, TDS, Salinity, and Temperature

- Autoranging with 8 selectable units: µS, mS, ppm, ppt, mg/L, g/L, °C, and °F
- Analog bargraph indicates trends
- Data Hold, Auto power off, Low battery indicator
- Simultaneous display of Conductivity or TDS plus Temperature
- Internal memory stores up to 25 labeled readings for easy recall
- Adjustable Conductivity to TDS ratio factor from 0.4 to 1.0
- Self calibration on power up
- **Waterproof** to IP57
- Complete with Conductivity cell*, sensor cap, sample cup with cap, four 3V CR2032 button batteries, and 48" (1.2m) neckstrap. *Order Conductivity standards separately.*

Did You Know?

Conductivity Meters require calibration before taking accurate measurements. Extech offers three types of standards for calibration: 84µS for Low range, 1413µS for mid-range, and 12880µS for high range. Order these calibration standards listed below with your meter.



CA895 Small case with belt loop for your ExStik Meter



FL704 TISAB reagent tablets for FL700 Fluoride Meter (100 tablets)

Accessories

Conductivity Standards (Pint size)

- EC-84-P84µS Conductivity Standard (2 bottles - 1 pint each)
- EC-1413-P ..1413µS Conductivity Standard (2 bottles - 1 pint each)
- EC-12880-P 12880µS Conductivity Standard (2 bottles - 1 pint each)

Replacement Electrodes

- EC405*Spare ExStik® II Conductivity Cell Module for EC400
- EC505*Spare ExStik® II pH/Conductivity Cell Module for EC500
- DO605*Spare ExStik® II Dissolved Oxygen Module for DO600 ..
- DO603Membrane Kit for DO600/DO605
- FL705*Spare ExStik® II Fluoride Module for FL700
- FL704TISAB reagent tablets for FL700 (100 tablets)

Extension Cables for DO600 (see p.137 photo)

- EX0103ft (1m) Extension Cable with Probe Guard/Weight
- EX05016ft (5m) Extension Cable with Probe Guard/Weight

Carrying Case

- CA895Small vinyl carrying case with belt loop (See above photo)
- CA904Large hard case for meter and accessories

*ExStik® II electrode modules are not interchangeable with ExStik® pH, ORP, and Chlorine meters

ExStik® II Series meters are CE Certified and include a one year warranty (meter only). Electrode comes with a six month conditional warranty.

Specifications

	EC400
Model	EC400
Conductivity	0 to 199.9µS, 200 to 1999µS, 2.00 to 19.99mS
TDS/Salinity	0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)
pH	—
DO (saturation)/(concentration)	—
Temperature	32° to 149°F (0 to 65°C)
Automatic Temp Compensation	Yes
Max. Resolution	0.1µS, 0.1ppm (mg/L), 0.1°F/°C
Basic Accuracy	±2%FS, ±1.8°F/1°C
CE	Yes
Warranty	1yr (meter)/6mo conditional warranty (electrode)
Dimensions/Weight	1.4x6.8x1.6" (36x173x41mm)/ 3.8oz (110g)



EC500

Patent Pending

Combination flat surface pH electrode with Conductivity cell



**DO600
DO600-K**

DO600-K Special Value Kit!

DO sensor with easy screw on membrane cap assembly



FL700

Flat Surface Fluoride electrode with built-in ATC

Waterproof pH/Conductivity Meter

Combination rugged flat surface pH electrode with autoranging high accuracy Conductivity cell measures Conductivity, TDS, Salinity, pH, and Temperature

- 9 units of measure: pH, μS , mS, ppm, ppt, mg/L, g/L, $^{\circ}\text{C}$, and $^{\circ}\text{F}$
- Analog bargraph indicates trends
- Internal memory stores up to 25 labeled readings for easy recall
- Adjustable Conductivity to TDS ratio from 0.4 to 1.0
- 0.5 fixed Salinity ratio
- RENEW feature warns to check calibration, but allows continued use
- Data Hold, Auto power off, Low battery indicator
- **Waterproof** to IP57
- Complete with electrode, protective sensor cap, sample cup with cap, four 3V CR2032 batteries, and 48" (1.2m) neckstrap. *Order Conductivity standards separately.*

Waterproof Dissolved Oxygen Meter

Easy to replace screw on membrane cap with optional extension cables

- Oxygen level displayed as % Saturation or Concentration (mg/L [ppm])
- Adjustable Altitude Compensation (0 to 20,000ft in 1,000ft increments)
- Adjustable Salinity Compensation from 0 to 50ppt
- Analog bargraph indicates trends
- Memory stores up to 25 data sets with DO and Temperature reading
- Self calibration on power up
- **Waterproof** to IP57
- **DO600 meter** includes DO electrode, protective sensor cap, spare membrane cap, electrolyte, four 3V CR2032 batteries, and 48" (1.2m) neckstrap
- **DO600-K Kit** includes DO600 meter, DO603 membrane kit, 16ft (5m) extension cable, weighted probe guard, and hard carrying case

Waterproof Fluoride Meter

Direct reading of Fluoride down to 0.1ppm with ATC

- First Fluoride meter with built-in Automatic Temperature Compensation
 - Fastest response Fluoride meter (<1min)
 - Easy use for Field or Lab fluoride testing
 - Small sample/TISAB volume required for testing (10mL)
 - 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 readings
 - Waterproof to IP57
 - Large LCD simultaneously displays ppm of Fluoride, Temperature, and analog bargraph indicator
 - Complete with electrode, TISAB reagent tablets, sensor cap, four 3V button batteries, and 48" (1.2m) neckstrap
- Contact Extech or your local lab supply for Fluoride calibration standards*

EC500	DO600	DO600-K	FL700
0 to 199.9 μS , 200 to 1999 μS , 2.00 to 19.99mS	—	—	—
0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)	—	—	0.1 to 10ppm
0.00 to 14.00pH	—	—	—
—	0 to 200.0% / 0 to 20.00ppm (mg/L)	—	—
23 $^{\circ}$ to 194 $^{\circ}\text{F}$ (-5 to 90 $^{\circ}\text{C}$)	32 $^{\circ}$ to 122 $^{\circ}\text{F}$ (0 to 50 $^{\circ}\text{C}$)	—	32 $^{\circ}$ to 140 $^{\circ}\text{F}$ (0 to 60 $^{\circ}\text{C}$)
Yes	Yes	—	Yes
0.1 μS , 0.1ppm (mg/L), 0.01pH, 0.1 $^{\circ}\text{F}/^{\circ}\text{C}$	0.1%, 0.01ppm (mg/L), 0.1 $^{\circ}\text{F}/^{\circ}\text{C}$	—	0.1ppm, 0.1 $^{\circ}$
$\pm 2\%$ FS, $\pm 0.01\text{pH}$, $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$	$\pm 2.0\%$ FS, 0.4ppm (mg/L), $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$	—	$\pm 3.0\%$ of reading
Yes	Yes	—	Yes
1yr (meter)/6mo conditional warranty (electrode)	1yr (meter)/6mo conditional warranty (electrode)	—	1yr (meter)/6mo conditional warranty (electrode)
1.4x7.3x1.6" (36x186x41mm)/ 3.8oz (110g)	1.4x6.9x1.6" (36x176x41mm)/ 3.8oz (110g)	—	1.4x6.8x1.6" (36x173x41mm)/ 3.8oz (110g)

CL200 ExStik® Waterproof Chlorine Meter

Direct reading of Total chlorine down to 0.01ppm and is unaffected by color or Turbidity of the sample

Features:

- Direct reading of Total Chlorine provides fast and easy measurements
- Low detection limit down to 0.01ppm
- Wide dynamic range to 10ppm
- 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
- Optional Special Value Kits for complete water quality analysis including pH/ORP. (See page 131)
- Complete with meter and flat surface Chlorine electrode, ExTab™ reagent tablets (50 tests), protective sensor cap, sample cup with cap, four 3V button batteries, and 48" (1.2m) neckstrap



Patent Pending

EPA Approved Methodology

- Designed as a simple method to test for Total Chlorine following "Standard Methods for Examination of Water and Waste Water" (4500-Cl I)
- Approved by the U.S. EPA as an acceptable alternative method for 40 CFR Part 136 wastewater compliance monitoring



CL207 Chlorine standards (1ppm)

Extech Advantage
Only Extech offers a stick meter that measures Chlorine and is EPA approved!

Specifications	Function	
	ppm	0.01 to 10.00ppm
	Temperature	23° to 194°F (-5 to 90°C)
	Resolution	0.01ppm; 0.1°F/°C;
	Basic accuracy	±10% of reading ±0.01ppm; ±1.8°F/±1°C
	Power	Four 3V CR2032 button batteries
	Dimensions	1.4x6.8x1.6" (35.6x172.7x40.6mm)
Weight	3.85oz (110g)	

Ordering

- CL200ExStik® Chlorine Meter
- CA895Small vinyl carrying case with belt loop
- CL207Chlorine Standard (1ppm) - 3 ampules (20mL ea.)

(See accessories below or Special Value Kits on p. 131)

EX006 Weighted Base & Solution Cups

Features:

- Complete with weighted base and 5 solution cups with caps to hold meter and solution when taking a measurement to obtain a stable reading



RECOMMENDED FOR EXSTIK® CHLORINE

CL203 CL204 ExTab™ Chlorine Reagent tablets

Features:

- 1 tablet per test
- Foil packaging provides very stable environment with long shelf life
- No dosing equipment required
- No messy powder reagents
- Available in 10pk (100 tests) or Value pack 100pk (1000 tests)



Patent Pending

CL205 Replacement Flat Surface Chlorine Electrode Module

Features:

- Easy to clean flat surface electrode
- Measures Chlorine and Temperature
- Interchangeable with ExStik® pH or ORP Meter
- Complete with protective connector cap. Six month conditional warranty



CL207 Chlorine Standard

Features:

- 1ppm standard for chlorine meter calibration
- Complete with 3 ampules (20mL each) 1ppm calibration standards



Ordering

- EX006.....Weighted base with 5 solution cups
- EX007.....Spare sample solution cups (24pk)
- CL203ExTab™ Reagent tablets (10pk - 100 tests)
- CL204ExTab™ Reagent tablets (100pk - 1000 tests)
- CL205Spare Chlorine electrode
- CL207Chlorine Standard (1ppm) - 3 ampules (20mL ea.)

EX900

ExStik® 4-in-1 Kit

Complete kit allows you to measure Chlorine, pH, ORP, and Temperature with all the necessary accessories

Kit Includes:

- CL200 Chlorine ExStik® meter, flat surface pH electrode, flat surface ORP electrode, ExTab™ reagent tablets (50 tests), pH 4, 7 & 10 buffer solutions (20mL) and rinse solution, weighted base with 6 sample plastic cups with caps, four 3V CR2032 button batteries, 48" (1.2m) neckstrap, and case
- Also available EX800 Kit includes all of the above except for ORP electrode. EX800-R includes refillable pH electrode.



See p. 126-127 for more details on the ExStik Meters

Function	Range	Max. Resolution	Basic Accuracy
ppm	0.01 to 10.00ppm (10 to 50ppm using dilution method)		
pH	0.00 to 14.00pH		
ORP	-999 to 999mV		
Temperature	23° to 194°F (-5 to 90°C)		
Resolution	0.01ppm; 0.01pH; 0.1mV; 0.1°		
Accuracy	±10% of reading ±0.01ppm; 0.01pH; ±4mV; ±1.8°F/±1°C		
Power	Four 3V CR2032 button batteries		
Dims/Wt	9.5x6.8x2.8" (241x173x71mm)/1.68lbs (0.76kg)		

Ordering

EX900ExStik® 4-in-1 Kit Chlorine, pH, ORP, Temp
 EX800ExStik® 3-in-1 Kit Chlorine, pH, Temp
 EX800-R .ExStik® 3-in-1 Kit Chlorine, Ref. pH, Temp

EC410

ExStik® II* Conductivity Kit

Highly accurate multi-ranging sensor that measures Conductivity, TDS, Salinity, and Temperature

Kit Includes:

- EC400 ExStik® II Conductivity/TDS/Salinity/ Temperature meter with sensor, protective cap, 84µS, 1413µS and 12880µS standards (30mL bottle each), weighted base, 3 sample plastic cups with caps, four 3V CR2032 button batteries, 48" (1.2m) neckstrap, and carrying case



See p. 128 for more details on the EC400 meter

Function	Range	Max. Resolution	Basic Accuracy
Conductivity	0 to 199.9µS	0.1µS	±2% FS
	200 to 1999µS	1µS	
	2.00 to 19.99mS	0.01mS	
TDS/Salinity	0 to 99.9ppm (mg/L)	0.1ppm (mg/L)	±2% FS
	100 to 999ppm (mg/L)	1ppm (mg/L)	
	1.00 to 9.99ppt (g/L)	0.01ppt (g/L)	
Temperature	32° to 149°F (0 to 65°C)	0.1°	±1.8°F/1°C
Power	Four 3V CR2032 button batteries		
Dims/ Wt	9.5x6.8x2.8" (241x173x71mm)/1.56lbs (0.71kg)		

*ExStik® II Series electrodes are not interchangeable with ExStik® pH/Chlorine/ORP meters

Ordering

EC410ExStik® Conductivity Kit

EC510

ExStik® II pH/Conductivity Kit

Measures pH, Conductivity, TDS, Salinity, and Temperature using a combination electrode

Kit Includes:

- EC500, 84µS, 1413µS, 12880µS calibration standards, pH buffer pouches (1 each of 4, 7, 10pH plus rinse solution), weighted base, 3 sample cups with caps, four 3V CR2032 batteries, neckstrap, and case



See p. 129 for more details on the EC500 meter

Function	Range	Max. Resolution	Basic Accuracy
pH	0.00 to 14.00pH	0.01pH	±0.01pH
Conductivity	0 to 199.9µS	0.1µS	±2% FS
	200 to 1999µS	1µS	
	2.00 to 19.99mS	0.01mS	
TDS/Salinity	0 to 99.9ppm (mg/L)	0.1ppm (mg/L)	±2% FS
	100 to 999ppm (mg/L)	1ppm (mg/L)	
	1.00 to 9.99ppt (g/L)	0.01ppt (g/L)	
Temperature	32° to 149°F (0 to 65°C)	0.1°	±1.8°F/1°C
Power	Four 3V CR2032 button batteries		
Dims/ Wt	9.5x6.8x2.8" (241x173x71mm)/1.56lbs (0.71kg)		

Ordering

EC510ExStik® pH/Conductivity Kit

D0610

ExStik® II* DO/pH/EC Kit

Measures Dissolved Oxygen, pH, Conductivity, TDS, Salinity, and Temperature

Kit Includes:

- 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 3V CR2032 batteries and neckstrap with each meter, and case

See p. 129 for more details on the EC500 and DO600 meters

Ordering

D0610ExStik® II DO/pH/Conductivity Kit



pH/mV/Temperature Meters

Extech's pH meters perform with laboratory accuracy and withstand the rigors of field testing. ATC and automatic buffer recognition provide simplicity and repeatable measurements.

Featuring Model PH220

Choice of Electrodes

Available with stick or cabled electrode

Durable Waterproof Housing

Protects against splashes and accidental drops

Large LCD Display

Simultaneously displays pH (or mV) and Temperature

Push Button Calibration

Automatic calibration buffer recognition



pH Calibration Buffers



PH103 includes 6 each of pH 4, pH 7, & pH 10 Buffers plus 2 Rinse solutions.



Pint size pH buffers for pH 4, 7, and 10 available (Models PH4-P, PH7-P, and PH10-P).

Accessories

pH Electrodes

- PH105Spare pH ExStik® Electrode Module
- PH115Spare Refillable pH ExStik® Electrode Module
- PH113Reference Refill Solution Kit for PH110
- 6015WC.....Waterproof pH Electrode with cable for Palm pH
- 6012WSWaterproof Stick Type pH Electrode for Palm pH
- 6750WC.....Waterproof ORP Electrode with cable for Palm pH
- 6750WSWaterproof Stick Type ORP Electrode for Palm pH

pH Buffers

- PH4-PpH 4 Buffer Solution (2 bottles - 1 pint each)
- PH7-PpH 7 Buffer Solution (2 bottles - 1 pint each)
- PH10-PpH 10 Buffer Solution (2 bottles - 1 pint each)
- PH103Tripak Buffer pouches (see photo above)

Temperature Probes

- 850185RTD Stainless Steel Temp. Probe for the Oyster™
- 850188Temperature probe, stainless steel for 407228

AC Adaptors and cases

- 151117-UL 117V AC Adaptor for the Oyster pH Meter
- 152320220V AC Adaptor for the Oyster pH Meter
- 156119117V AC Adaptor for 407228
- 156221220V AC Adaptor for 407228
- CA895Vinyl Pouch Carrying Case for PH100

See pages 136 for replacement electrodes and other pH accessories



**PH100
PH110**



Unique gel filled or refillable (pictured) flat surface electrode design

Patent Pending

Waterproof ExStik® pH Meters

Choice of rugged gel filled or refillable Flat surface 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
- Stores/recalls up to 15 labeled readings
- **Waterproof** to IP57
- Complete with protective sensor cap, sample cup with cap, four 3V button batteries, 48" (1.2m) neckstrap
- **Select PH100** for meter with gel filled pH flat surface electrode
- **Select PH110** for meter with refillable flat surface pH electrode, reference junction removal tool; Order PH113 KCl reference kit separately (see p.126 for more details)

Note: Requires pH buffers to calibrate the meter before taking measurements. pH buffers sold separately.

Specifications

Model	PH100	PH110
Type	Gel Filled pH Electrode	Refillable pH Electrode
Waterproof	Yes	
pH	0.00 to 14.00pH	
mV	—	
Temperature	23° to 194°F (-5 to 90°C)	
Max Resolution	0.01pH, 0.1°	
Basic Accuracy	±0.01pH, ±1.8°F/1°C	
PC interface	—	
Memory	15 readings	
Dimensions/ Weight	1.4x6.8x1.6" (35.6x172.7x40.6mm)/ 3.8oz (110g)	
CE	Yes	
Warranty	1 year (meter)/6 months conditional warranty (electrode)	



**PH220-C
PH220-S**



PH220-C includes pH electrode with 39" (1m) cable.

Waterproof Palm pH/ORP Meter

Big Digit LCD display in rugged housing with choice of stick or cabled pH Electrode

- Large LCD displays pH or mV and Temperature simultaneously
- Automatic Buffer recognition
- Automatic Temperature Compensation via Pt-100 sensor built into electrode
- Low Battery indicator and Auto Power off
- Rugged design for handheld or wall mount (magnetic back)
- Complete with waterproof meter, pH electrode, protective holster, pH 4 & 7 buffers (1 pouch ea.), and 9V battery
- **Select PH220-C Kit** to include ATC pH polycarbonate electrode (12mm diameter) with 39" (1m) cable
- **Select PH220-S Kit** to include ATC pH stick type polycarbonate electrode (12mm diameter) for direct connection to meter



Oyster-10 Series

Oyster™ Series pH/ORP/Temp Kits

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
- Neckstrap for "hands-free" operation
- Stores/recalls 25 labeled readings
- Min/Max mode; Auto or Manual Temperature compensation (ATC/MTC)
- Self diagnostics display codes
- Low Battery indicator & Auto Power off
- 5 point buffer recognition (1.68, 4.00, 7.00, 10.00, 12.45) with adjustable buffer values
- **Oyster-15 Kit** includes Oyster-10 meter, neckstrap, 9V battery, 60120B mini pH electrode, sample buffers (4 and 7pH), and carrying case
- **Oyster-16 Kit** is same as Oyster-15 plus RTD Temperature probe. Optional AC Adaptor (see p. 132)



407228



Kit includes pH electrode, Temperature probe, and carrying case

Heavy Duty pH/ORP/Temp Kit

Rugged pH meter plus RS-232 PC interface for Datalogging

- Dual display for pH or mV and Temperature (°C/°F)
- Large 1.4" (36mm) LCD display
- Easy 2 point Cal (pH 7) and Slope (pH 4 or pH 10) adjustments
- Manual and Auto Temperature Compensation using temperature probe
- Low Battery Indicator
- Min/Max/Avg, Auto off and Data Hold
- Built-in RS-232 PC interface with optional 407001 Data Acquisition Software and 380340 Datalogger (see full details on p. 95)
- Includes meter, mini pH electrode (60120B) with 39" (1m) cable, temperature probe (850188), protective holster with stand, and case.

Optional AC adaptor

Note: Requires pH buffers to calibrate the meter before taking measurements. pH buffers sold separately.

PH220-C	PH220-S	Oyster-15	Oyster-16	407228 (Kit)
Cabled pH Electrode	Stick pH Electrode	Meter+pH electrode +case	Meter+pH electrode+ case+Temp probe	Meter+pH electrode+case+ Temperature probe
Yes	—	—	—	—
0.00 to 14.00pH	—	0.00 to 14.00pH	0.00 to 14.00pH	0.00 to 14.00pH
-999 to 999mV	—	-999 to 999mV	-999 to 999mV	0 to 1999mV
32° to 212°F (0 to 99.9°C)	—	32° to 212°F (0 to 99.9°C)	32° to 212°F (0 to 99.9°C)	32° to 149°F (0 to 65°C)
0.01pH, 1mV, 0.1°	—	0.01pH, 1mV, 0.1°	0.01pH, 1mV, 0.1°	0.01pH, 1mV, 0.1°
±0.01pH, ±2mV, ±0.8°F/0.5°C	—	±0.02pH, ±2mV, ±0.8°F/0.5°C	±0.02pH, ±2mV, ±0.8°F/0.5°C	±0.03pH, ±0.5mV, ±1.8°F/1°C
—	—	—	25 readings	Optional 407001 software p. 95
—	—	—	—	Optional 380340 datalogger p. 95
4.4x3.1x1.5" (111x79x39mm)/ 9.2 oz (260g)	—	3.7x4.2x2" (94x107x51mm)/ 12oz (340g)	—	7x2.9x1.3" (178x74x33mm)/ 13oz (388g)
Yes	—	Yes	Yes	Yes
1 year (meter)/6 months conditional warranty (electrode)	—	1 year (meter)/6 months conditional warranty (electrode)	—	✓3 yrs (meter)/6 months conditional warranty (electrode)



Conductivity/TDS/pH Meters

Extech's conductivity meters are used to monitor and maintain the quality of industrial and commercial process waters, conditioning fluids and additives.

Featuring Model EC500

► **5 Meters in One**

Conductivity, TDS, Salinity, and Temperature on large display including bargraph

► **Flat Surface pH Electrode**

For any pH application including wet surfaces

► **Memory**

Stores up to 25 numbered readings with easy recall

► **Autoranging**

Three Conductivity ranges of measurement



Only Extech offers a combination flat surface pH Electrode with Conductivity cell



Pint size Conductivity Standards for 84µS, 1413µS, and 12880µS



Patent Pending

**EC400
EC410**



EC410 kit

**ExStik® II
Conductivity/TDS/
Salinity/Temp Meter**

High accuracy multi-range sensor measures all four parameters

- Autoranging meter offers 3 ranges of measurements
- 8 units of measure include: µS, mS, ppm, ppt, mg/L, g/L, °C, °F
- Simultaneous display of Conductivity or TDS plus Temperature and bargraph
- Memory stores up to 15 labeled readings
- Adjustable Conductivity to TDS ratio factor from 0.4 to 1.0
- Self calibration on power up
- **Waterproof** to IP57
- **EC400 meter** includes Conductivity cell*, protective sensor cap, sample cup with cap, four 3V CR2032 button batteries, and 48" (1.2m) neckstrap; *Calibration standards sold separately*
- **EC410 kit** (p.131) includes EC400, 84µS, 1413µS, 12880µS calibration standards, weighted base, 3 sample cups with caps, and case

Specifications

Model	EC400	EC410 kit
Conductivity	0 to 199.9µS, 200 to 1999µS, 2.00 to 19.99mS	
TDS/Salinity	0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)	
pH	—	
Temperature	32° to 149°F (0 to 65°C)	
Max. Resolution	0.1µS, 0.1ppm (mg/L), 0.1°F/°C	
Basic Accuracy	±2%FS, ±1.8°F/1°C	
Dimensions	Meter: 1.4x6.8x1.6" (36x173x41mm)/3.8oz (110g) Kit: 9.5x6.8x2.8" (241x173x71mm)/1.56lbs (708g)	
CE	Yes	Yes
Warranty	1 year (meter)/ 6 months conditional warranty (electrode)	

Accessories

Conductivity Standards

- EC-84-P.....84µS Conductivity Standard (2 bottles - 1 pint each)
- EC-1413-P...1413µS Conductivity Standard (2 bottles - 1 pint each)
- EC-12880-P...12880µS Conductivity Standard (2 bottles - 1 pint each)

Replacement Conductivity Cells

- EC405*Spare ExStik® II Conductivity Cell Module for EC400
- EC505*Spare ExStik® II pH/Conductivity Cell Module for EC500
- 804407Replacement Conductivity Cell, 1K Carbon for 407303
- 800410Glass Conductivity Cell for 341350 and 341450
- 804010Polymer Conductivity Cell for 341350 and 341450

AC Adaptors

- 156119117VAC Adaptor for 407303
- 156221220VAC Adaptor for 407303

Carrying Case and Data Acquisition

- CA895Small vinyl case with belt loop for EC400, EC500
- 407001Data Acquisition Software, Serial Cable for 407303 (p. 95)
- 380340Datalogger Module with PC software for 407303 (p. 95)

*ExStik® II Conductivity cell is not interchangeable with ExStik® pH, ORP, & Chlorine models



**EC500
EC510**



EC510 kit

Patent Pending

ExStik® II pH/Conductivity/ Temperature Meter

Combination rugged flat surface pH electrode with Conductivity cell measures Conductivity, TDS, Salinity, pH, and Temperature

- 9 units of measure: pH, μ S, mS, ppm, ppt, mg/L, g/L, °C, °F
- Analog bargraph indicates trends
- Memory stores up to 25 labeled readings
- Adjustable Conductivity to TDS ratio from 0.4 to 1.0; 0.5 fixed Salinity ratio
- RENEW feature alerts user when electrode needs replacement
- Auto power off and low battery indicator
- **Waterproof** to IP57
- **EC500 meter** includes electrode, protective sensor cap, sample cup with cap, four 3V CR2032 batteries, and 48" (1.2m) neckstrap; *Calibration standards sold separately*
- **EC510 Kit** includes EC500, 84 μ S, 1413 μ S, 12880 μ S calibration standards, pH buffer pouches (1 each of 4, 7, 10pH plus rinse solution), weighted base, 3 sample cups with caps, and case



407303

Heavy Duty Conductivity/ Temperature Meter

Rugged design Conductivity meter with 3 ranges plus RS-232 PC interface for Datalogging

- Manual or Automatic Temperature Compensation
- Calibration adjust for cell
- Large 1.4" (36mm) LCD display
- Min/Max/Avg, Data Hold, and Auto Power off
- Built-in RS-232 PC interface with optional Data Acquisition Software and Datalogger (See p. 95)
- Complete with conductivity cell on 3.9ft (1.2m) cable, protective holster with stand, 9V battery, and carrying case



341350

pH/Conductivity with TDS Meter

Exclusive Oyster™ Design can be used in the lab or in the field

- Measures Total Dissolved Solids (TDS) to 19,990ppm (mg/L) plus pH and Conductivity
- 0.5" (13mm) LCD built into adjustable "flip-up" cover
- Front panel slope, calibration and temperature controls
- Rugged design for handheld or benchtop use; neckstrap for "hands-free" operation
- Automatic temperature compensation for Conductivity/TDS via thermistor built into conductivity cell
- Manual Temperature Compensation for pH (0 to 100°C)
- Complete with mini pH electrode, sample buffers, choice of glass (order 341350 Kit) or polymer conductivity cell (order 341350-P Kit), 9V battery, neckstrap, and carrying case

EC500	EC510 kit
0 to 199.9 μ S, 200 to 1999 μ S, 2.00 to 19.99mS	0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)
0.00 to 14.00pH	0.00 to 14.00pH
32° to 149°F (0 to 65°C)	32° to 149°F (0 to 65°C)
0.1 μ S, 0.1ppm (mg/L), 0.01pH, 0.1°F/°C	±2%FS, ±1.8°F/1°C
1.4x6.8x1.6" (36x173x41mm)/ 3.8oz (110g)	Kit: 9.5x6.8x2.8" (241x173x71mm)/1.56lbs (708g)
Yes	Yes
1 year (meter)/	1 year (meter)/
6 months conditional warranty (electrode)	6 months conditional warranty (electrode)

407303
0.1 to 199.9 μ S, 0.2 to 1.999mS, 2 to 19.99mS
—
—
32° to 140°F (0 to 60°C)
0.1 μ S, 0.1°F/°C
±(3%FS+1d), ±1.5°F/0.8°C
7x3x1.3" (178x74x32mm)/ 17oz (482g)
—
✓3 years (meter)/
6 months conditional warranty (electrode)

341350 (Glass)	341350-P (Polymer)
10 to 19,990 μ S/cm	10 to 19,990 μ S/cm
TDS range: 10 to 19,990ppm (mg/L)	TDS range: 10 to 19,990ppm (mg/L)
0.01 to 14.00pH	0.01 to 14.00pH
—	—
10 μ S; 0.01pH	10 μ S; 0.01pH
±0.5%, ±0.02pH	±0.5%, ±0.02pH
3.7x4.2x2" (96x108x45mm)/ 12oz (340g)	3.7x4.2x2" (96x108x45mm)/ 12oz (340g)
—	—
1 year (meter)/	1 year (meter)/
6 months conditional warranty (electrode)	6 months conditional warranty (electrode)

pH Electrodes

pH Electrodes

Choice of Standard or Specialized electrodes with Ag/AgCl gel filled (fast response: 95% in 5sec)

Features:

General purpose pH/Ref electrodes 60120B and 601500

- Rugged, polycarbonate construction features glass pH sensing bulb surrounded by protective teeth. pH range (0 to 14pH), operating temperature (0 to 80°C). Choice of Mini or Standard size.

Flat surface electrode (Easy to clean) 601100

- PVC bodied electrode, ideal for pH of solid products with minimal moisture like cheese, soils or electrophoretic/agar gels. pH range (0 to 14pH), operating temperature (5 to 80°C).



60120B
Mini size

601500
Standard size

601100
Flat Surface

Include 39" (1m) cable with BNC connection and storage solution bottle or cap. 6 month conditional warranty.

Ordering

- 60120BMini pH Electrode (10 x 120mm)
- 601500Standard pH Electrode (12 x 160mm)
- 601100Flat Surface pH Electrode (15 x 106mm)

ExStik® Electrodes

ExStik® Replacement pH, ORP, and Chlorine Electrode Modules

Features:

- Interchangeable pH, ORP, and Chlorine sensor modules for ExStik® series meters featured on (p. 110-111)
- ATC via built-in Pt-100Ω sensor (PH105, PH115 & 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 shown on p. 128-129
- 6 month conditional warranty



PH113 Reference Refilling Solution Kit for PH115 Refillable pH electrode module



PH105

CL205

RE305

Flat surface pH, Chlorine, and ORP electrode modules

Ordering

- PH105pH ExStik® Electrode Module
- PH115Refillable pH ExStik® Electrode Module
- PH113Reference Refilling Solution Kit for PH115
- CL205Chlorine ExStik® Electrode Module
- RE305ORP ExStik® Electrode Module

pH Buffers

pH Buffers

Convenient calibration solutions for your pH meter

Features:

- 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 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-PpH 4 Buffer Calibration Solution (2 bottles - 1 pint each)
- PH7-PpH 7 Buffer Calibration Solution (2 bottles - 1 pint each)
- PH10-PpH 10 Buffer Calibration Solution (2 bottles - 1 pint each)
- PH103Tripak Buffer pouches (6ea: 4, 7, 10pH, 2 Rinse solutions)

DO600-K

ExStik® II Dissolved Oxygen Kit

NEW

Waterproof stick meter with Bonded Membrane Caps

Features:

- Oxygen level displayed as % Saturation (0 to 200.0%) or Concentration 0 to 20.00ppm (mg/L) with 2%FS accuracy
- Memory stores up to 25 data readings
- Automatic Temperature Compensation
- Adjustable Altitude and Salinity Compensation
- Includes Extension Cable for remote measurements
- CE approved, 1yr warranty (meter)/ 6 months conditional warranty (electrode)
- Complete DO600 meter, DO603 membrane kit, 16ft (5m) extension cable, weighted probe guard, and carrying case

(See p. 129 for full specifications)

Ordering:

- DO600-KExStik® II Dissolved Oxygen Kit
- DO605Spare ExStik® II Dissolved Oxygen Electrode module
- DO603Membrane Kit for DO600 and DO605 (see p.129)



Extension cable and probe guard/weight attached to meter

407510

Heavy Duty Dissolved Oxygen Meter

Dual display of Oxygen concentration in solutions and Temperature — plus RS-232 PC interface

Features:

- Measures dissolved oxygen, oxygen, plus temperature
- Min/Max/Avg, Data Hold and Auto power off
- Automatic Temperature Compensation
- Super large 1.4" (36mm) LCD display
- Built-in RS-232 PC interface with optional Data Acquisition Software 407001 and Datalogger 380340 (See p. 95)

Specifications	Functions	Dissolved Oxygen	Oxygen	Temperature
	Range	0 to 19.9mg/L	0 to 100.0%	32 to 122°F (0 to 50°C)
Accuracy	±0.4mg/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	
CE/Warranty	CE approved; 3 years (meter)/ 6 months conditional warranty (electrode)			
Dimensions	Meter: 7x3x1.3" (178x74x33mm); Probe: 0.8Dx4.9"L			
Weight	17oz (482g)			



Complete with 0.8" (20mm) probe on 13ft (4m) cable, membranes, protective holster with stand, 9V battery, and carrying case



Ordering

- 407510Heavy Duty Dissolved Oxygen Kit
- 407510-PDissolved Oxygen probe with 13ft (4m) cable
- 780417AReplacement Membranes (10/pack)
- 780418DO Internal Fill Solution (2pks — 50mL each)

FL700

ExStik® II Waterproof Fluoride Meter

NEW

Direct reading of Fluoride down to 0.1ppm with Automatic Temperature Compensation (ATC)

Features:

- First Fluoride meter with built-in ATC
- Fastest response Fluoride meter (<1min)
- Small sample/TISAB volume required for testing (10mL)
- In compliance with EPA Method 340.2.
- Memory stores 25 labeled readings
- Large LCD simultaneously displays ppm (0.1 to 10ppm) of Fluoride, Temperature, and analog bargraph indicator
- Complete with meter and electrode, TISAB reagent tablets, protective sensor cap, four 3V button batteries, and 48" (1.2m) neckstrap (See p. 129 for full specifications)

Ordering

- FL700ExStik® II Waterproof Fluoride Meter
- FL705Spare ExStik® II Fluoride Module for FL700
- FL704TISAB reagent tablets for FL700 (100 tablets)



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All specifications and prices are subject to change without notice. See pages 138-139 for complete part number index

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