EXTECH® INSTRUMENTS
A FLIR COMPANY

www.extechinstruments.eu

MultiMeters | Clamp Meters | Thermometers | Airflow Meters
Light Meters | Sound Meters | Water Quality Testers
Tachometers | Humidity & Moisture Meters

INTERNATIONAL CATALOG2011

YOUR SOURCE FOR THE BEST TEST & MEASUREMENT TOOLS

A reputation built on the industry's best meters

Having been a part of Extech for over 25 years, I am amazed at the extraordinary growth Extech has experienced. We've achieved that by constantly striving to be the best in everything we do as a company.

Working with our trusted partners and distributors, Extech has defined a new category of test and measurement equipment: the best meters at the best value on the market. Extech tools deliver innovation, quality, rugged design, and precision measurements—with an unbeatable selection for every budget.

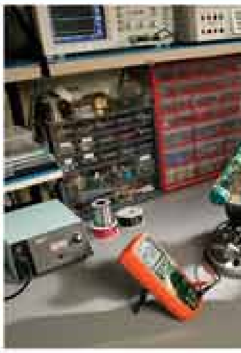
When Extech was acquired by FLIR Systems in late 2007, we became a part of a legendary company, the global leader in infrared cameras. Extech's test and measurement tools are a natural complement to FLIR's infrared cameras, offering you the Complete Solution: Find it with FLIR, Solve it with Extech.

Looking at back-to-back years of record growth, we thank our many, many customers around the world that discovered the best meters at the best value and said "Make Mine an Extech!". This catalog is filled with more innovative new products than ever, with exclusive features and functions no one else offers. You expect the best, now experience the Extech Advantage!

Arpineh Mullaney

Vice President of Sales & Marketing
Extech Instruments Corp.,
a wholly owned subsidiary of FLIR Systems, Inc.

Expect the



Discover the Company

Designed by Customers, Engineered by Extech

Extech engineers design innovative new products that combine features and functions our customers ask for, and no one else offers.

Best Equipped Inventory

Extech's warehouses deliver fast turnaround to the industry's best distributors, ensuring you get your meter fast.

Experience the Best Customer Support

We work hard to offer our customers a range of support options to ensure that we can respond effectively to your technical product questions, service concerns, and calibration needs.

Find Extech Around the World

Extech products are available world-wide through FLIR Systems and our trusted network of stocking distributors. Visit distributor.extech.com to find one near you.

Best

Experience the Extech Advantage

behind the Best Meters at the Best Value

☎ Customer Support

- support@extech.com

Comprehensive Calibration Services

For many professionals, calibration is as important as the meter. Our in-house calibration lab is focused on making your meter reliably accurate and conforming to NIST Certification standards.

☎ Repair and Calibration

- repair@extech.com

Extech.com: Best Ranked Website

Extech's easy-to-use and information-packed website was ranked the top test and measurement website by Industrial Equipment News. See for yourself.

Our award-winning website is just one of the ways in which we provide exceptional support to our customers

Best-imonials

Extech Clamp Meters

"For alternative energy objects at SolarFest in Vermont, we used Extech's EX623 5-in-1 clamp meter to help get the most out of battery life. Being able to monitor AC and DC current with one tool is invaluable."

Bart B., Energy Efficiency Consultant

Experience the Extech Advantage

The Source
for all your test and
Measurement needs

Leading the Way in Future Market Trends

Frost & Sullivan, a leading market research firm, forecasted "combinational testers" to be a key trend in the future of the test and measurement industry.

Frost & Sullivan Test & Measurement Briefing, February, 2009

Best Meters, Best Value

Extech MultiMeters

"I get into some very high voltage and Extech Instruments are dependable, especially if you're putting your life on it. And, since I'm 58 years old, I especially like the large digital readout!"

Mike S., HVAC Professional, Shelton Mechanical

Extech Thermometers

"In emergency disaster and medical care situations, our Extech Type K thermometer was indispensable for safely storing and using vaccines, medications and food kept in our coolers"

John S, M.D., Grace Ministry

Discover Why Extech is the Brand Professionals Trust

Best Products

Extech garners more product awards than other test equipment manufacturers and is recognized worldwide by industry publications and professional trade organizations. More and more HVAC, electrical, industrial, environmental, water quality and MRO professionals made the switch and said "Make mine an Extech."

Best Selection

No other test equipment manufacturer offers the breadth and depth of 15 product categories. You can count on Extech for all your test and measurement needs, and recommend Extech with confidence. Plus, Extech maintains stock availability around the world to ensure orders are fulfilled quickly and completely.

Best Value

Extech products are designed to deliver precision, durability, high quality, and affordability—a combination no other brand can match. Trade professionals are being pressed to do more with fewer budget dollars. Extech products ensure maximum functionality and no compromises—for less.

Best Service

When you buy an Extech, you're getting a product from a company that stands behind its products. We are committed to delivering the most responsive US-based customer support to answer your technical questions and resolve your repair and return issues expediently.

MultiMeters, Clamp Meters, Thermometers, Humidity &
Sound Meters, Water Quality Testers,

Introducing the Industry's Best New Products

Moisture Meter with built-in IR Thermometer

5-in-1 Clamp Meter

Wireless Circuit Detector for mid-run wires

Non-contact Current Tester

The Best Tools to Helps You Go Green and Save Some Green

Only Extech offers such a wide range of test equipment to deliver high-accuracy readings of all key indicators to measure energy efficiency. Here are some of the ways professionals are using Extech tools to save energy and lower asset expenses:

- Evaluate motor efficiency
- Detect building envelope losses
- Troubleshoot HVAC/R airflow, humidity, and temperature issues
- Analyze power
- Monitor water quality in on-site treatment plants
- Identify electrical connections prone to failure
- Confirm moisture remediation is sufficient

Investing in high-efficiency equipment upgrades in your facility guarantees higher savings in the long run. Some organizations are focusing on ensuring existing equipment is running as efficiently as possible, optimized for energy savings and longevity. Either way, Extech tools enable proper predictive maintenance and accurate diagnostics to go green and save green.

Airflow Meters, Light Meters, Tachometers, Moisture Meters

Wireless Inspection Camera

Experience the Extech Advantage

Fast Responding IR Thermometer

CO$_2$ Monitor

Industrial CAT IV MultiMeter + IR Thermometer

Known for innovation around the world

Award after award, Extech meters have come to be recognized around the world and across industries as the market's best meters at the best value.

EXTECH® INSTRUMENTS
A FLIR COMPANY

Innovation-driven Technology

Designed with the end-user in mind
Unrivaled Selection

MultiMeter Selection Guide

DMM FEATURES

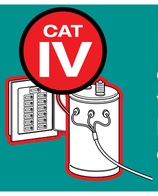
Make yours an Extech MultiMeter!

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.

	Highest Precision CAT IV EX500 Series	Datalogging CAT IV EX500 Series	PC Interface CAT IV MultiPro		Heavy Duty Waterproof CAT IV EX500 Series	
Model	**EX570**	**EX540**	**MP510**	**MP530**	**EX520**	**EX530**
Page	10	11	19		13	13
Key Features	• Built-in non-contact IR Thermometer w/ Laser • Splashproof and Dust Proof (IP64))	• Wireless USB interface transmits readings to a PC • Datalog up to 9,999 data points	• PC interface • High Performance		• Waterproof • Drop proof to 6 feet • Large backlit LCD with bargraph	
Features						
Basic Accuracy (VDC)	0.06%	0.06%	0.08%	0.08%	0.09%	0.06%
Display Counts	40,000	40,000	5000	5000	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

MultiMeter Selection Guide

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 CAT III

EX400 Series

True RMS CAT III

EX400 Series

Built-in NCV CAT III

EX300 Series

Large Display Compact meter CAT III

MN Series

EX470	EX430	EX310	EX320	EX330	MN16	Model
15	15	16			22	**Page**
• Built-in non-contact IR Thermometer w/ Laser	• True RMS	• Built-in non-contact AC Voltage Detector (NCV) • Compact size			• Oversized LCD display • Compact size	**Key Features**
						Features
0.3%	0.3%	0.5%	0.5%	0.5%	0.5%	**Basic Accuracy (VDC)**
4000	4000	2000	2000	4000	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		**Min/Max**
•	•					**Input Alert**
CAT III 600V	CAT III 600V	CAT III 600V	CAT III 600V	CATIII 600V	CAT III 600V	**Category Rating**

...trusted by the professionals.

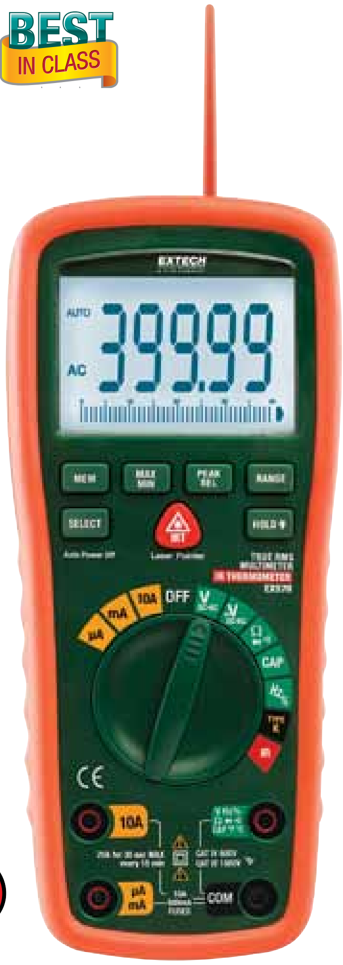
EX570 CAT IV Industrial MultiMeter + IR Thermometer

BEST IN CLASS

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

Features:

- Patented built-in non-contact IR Thermometer design with laser pointer for locating hot spots
- True RMS CAT III-1000V, CAT IV-600V rated with 0.06% basic DCV accuracy
- Diode open circuit voltage of 2.8V DC
- Heavy duty Double molded, water resistant package
- Large backlit 40,000 count LCD with 40-segment bargraph
- Memory for storage and recall of three measurements
- 1000V input protection on all functions
- Type K thermocouple contact temperature measurements
- Features include Hold, Relative and Peak Hold
- Min, Max and Average recording
- Auto power off with disable feature
- Capacitance, Frequency, Diode and Continuity functions
- Complete with double molded test leads, magnetic hanging strap, general Type K bead wire probe, case, and 9V battery



CAT IV

Patented

Built-in IR Thermometer quickly identifies hot spots on electrical panels.

Measuring the internal temperature on a 3-phase transformer installation

CAT IV application measuring voltage on a 480V 3-phase transformer

Specifications

Functions	
Display Counts	40,000 count
Basic Accuracy	0.06%
DC/AC Voltage	0.01mV to 1000VDC/ 0.1mV to 1000VAC
DC/AC Current	0.01µA to 20A
Resistance	0.01Ω to 40MΩ
Capacitance	0.001nF to 10,000µF
Frequency	0.0001Hz to 40MHz
Temperature (Type K)	-45 to 750°C
IR Temperature	-30 to 550°C
Field of View	30:1 ratio
Duty Cycle	0.01 to 99.99%
Diode (2.8V)/Continuity	Yes
ETL/CE approved	Yes
Warranty	3 years
Dimensions	184x83x57mm
Weight	349g

Ordering

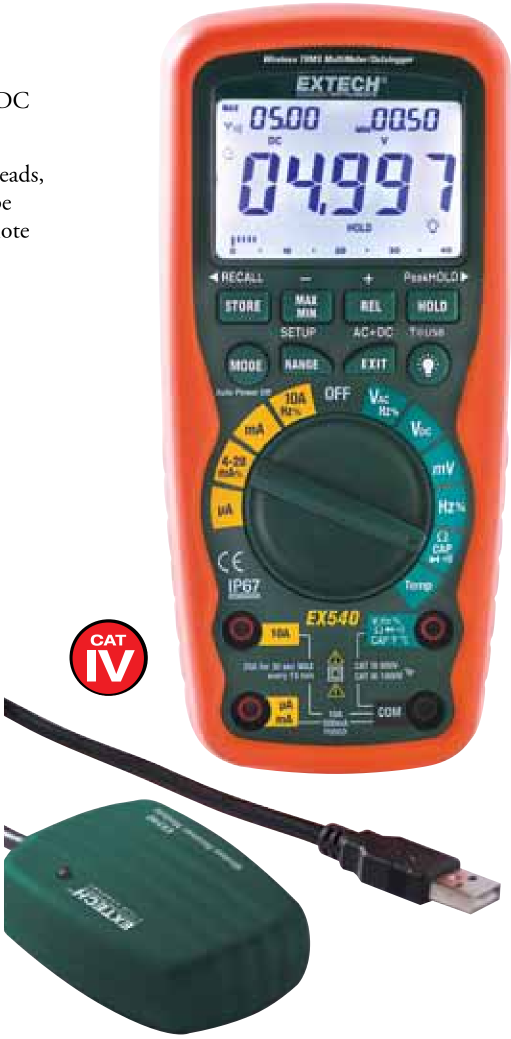
EX570................CAT IV Industrial MultiMeter + IR Thermometer
TL810................Electrical Test Lead Kit (see p. 38)
EX570-NISTL* . EX570 with Limited NIST Certificate
(*Limited NIST - Product certified to all functions except IR Thermometer)

EX542 MultiMeter/Datalogger with Wireless PC Interface

CAT IV True RMS MultiMeter datalogs up to 9,999 readings with wireless USB interface capability to transmit readings to your PC in real time

Features:

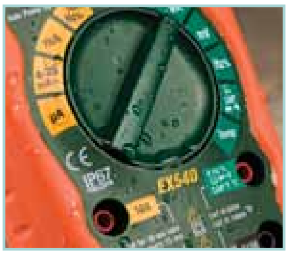
- Real time datalogging or wireless data transmission directly to your PC (10m)
- True RMS measurements for accurate AC Voltage and Current measurements
- Diode open circuit voltage of 2.8V DC
- Double molded construction for waterproof (IP67) protection
- CAT IV-600V safety rating for industrial applications
- 1000V input protection on all functions
- Dual sensitivity frequency functions
- Large backlit triple LCD display
- Diode open circuit voltage of 2.8V DC
- Auto power off with disable feature
- Complete with double molded test leads, magnetic hanging strap, general Type K bead wire temperature probe, remote receiver with USB cable, Windows® compatible software, 9V battery and carrying case



WIRELESS Transmitter

Continuous wireless data transmission from meter to your PC in real time

Drop-proof to 1.8m. Meter is built tough with double molded housing.



Waterproof IP67 for the most extreme operating conditions.

Specifications

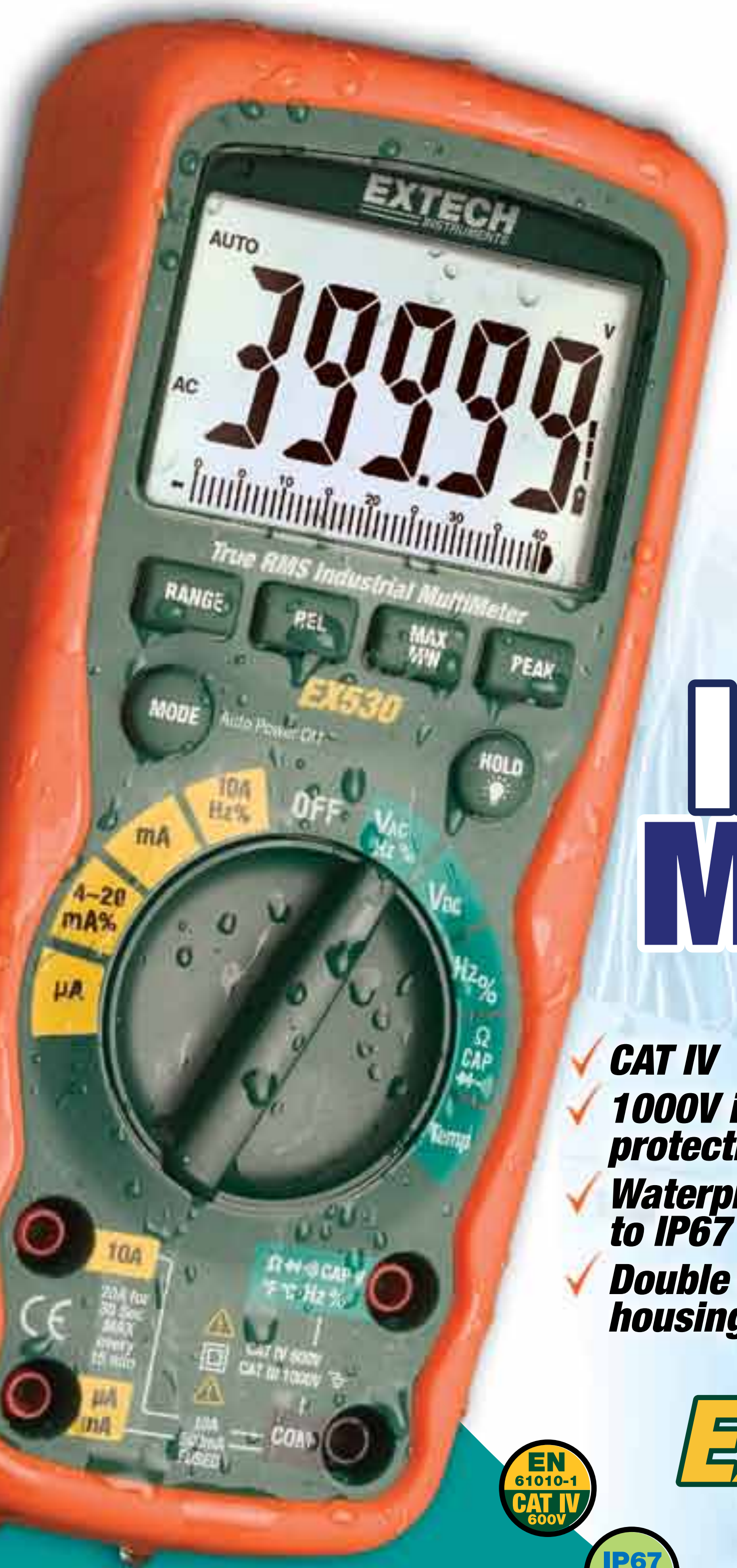
Functions	
Display Counts	40,000 count
Basic Accuracy	0.06%
DC/AC Voltage	0.01mV to 1000VDC; 0.01mV to 1000VAC
DC/AC Current	0.01A to 20A
Resistance	0.01Ω to 40MΩ
Capacitance	0.001nF to 40mF
Frequency (electrical)	40Hz to 400Hz
Frequency (electronic)	0.001Hz to 100MHz
Temperature	-45 to 750°C
Duty Cycle	0.1 to 99.90%
Diode (2.8V)/Continuity	Yes
CE approved	Yes
Warranty	3 years
Dimensions	184x83x57mm
Weight	349g

Ordering

EX542................True RMS MultiMeter/Datalogger with Wireless PC Interface (433MHz)
EX542-NIST.....EX542 with NIST Certificate
(NOTE: USA, Mexico, and Canada use 914MHz model and majority of other countries use 433MHz model)

EXTECH INSTRUMENTS
A FLIR COMPANY

Extech 500 Series Industrial MultiMeters



Waterproof IP67
for the most extreme operating conditions.

Drop-proof
to 6 feet (1.8m). Meter is built tough with double molded housing.

Waterproof Industrial grade MultiMeters Built Tough!

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

EX500 Series MultiMeters

EN 61010-1 CAT IV 600V

IP67 Waterproof Dustproof

CE

c UL us LISTED

Experience the Extech Advantage

EX500 Series Heavy Duty Industrial MultiMeters CAT IV

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

Common Features:

- 1000V input protection on all functions
- Dual sensitivity frequency functions
- Diode open circuit voltage of 2.8V DC
- Auto power off with disable feature
- CAT IV-600V, CAT III-1000V
- Dimensions: 184x83x57mm; Weight: 349g
- Complete with double molded test leads, magnetic hanging strap, carrying case, one 9V battery, and general Type K bead wire temperature probe

True RMS EX505

- 4,000 count large backlit LCD
- 0.5% accuracy
- Data hold, Relative, and 10A max current

True RMS EX520

- 6000 count large backlit LCD with bargraph
- 0.09% accuracy
- Min/Max, Relative, Data Hold, 20A max current

True RMS EX530

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

EX500 SERIES

Functions	EX505	EX520	EX530
Averaging/True RMS	True RMS	True RMS	True RMS
Basic Accuracy	0.5%	0.09%	0.06%
DC/AC Voltage	0.1mV to 1000VDC 0.1mV 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 20A	0.01µA to 20A
Resistance	0.1Ω to 40MΩ	0.1Ω to 60MΩ	0.01Ω to 40MΩ
Capacitance	0.01nF to 100µF	0.01nF to 1000µF	0.001nF to 40mF
Frequency (electrical)	5Hz to 1kHz	10Hz to 400Hz	40Hz to 400Hz
Frequency (electronic)	0.001Hz to 10MHz	0.001Hz to 40MHz	0.001Hz to 100MHz
Temperature (Type K)	-20 to 750°C	-20 to 750°C	-20 to 750°C
Duty Cycle	0.1 to 99.9%	0.1 to 99.9%	0.1 to 99.90%
Diode (2.8V)/Continuity	Yes	Yes	Yes
UL/ETL/CE/FCC	UL/CE	UL/CE	UL/CE
Waterproof	IP67	IP67	IP67
Drop proof	1.8m	1.8m	1.8m
Warranty	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/NCSL Z540-1-1994.

EX505-NIST	EX505 with NIST Certification
EX520-NIST	EX520 with NIST Certification
EX530-NIST	EX530 with NIST Certification

Accessories

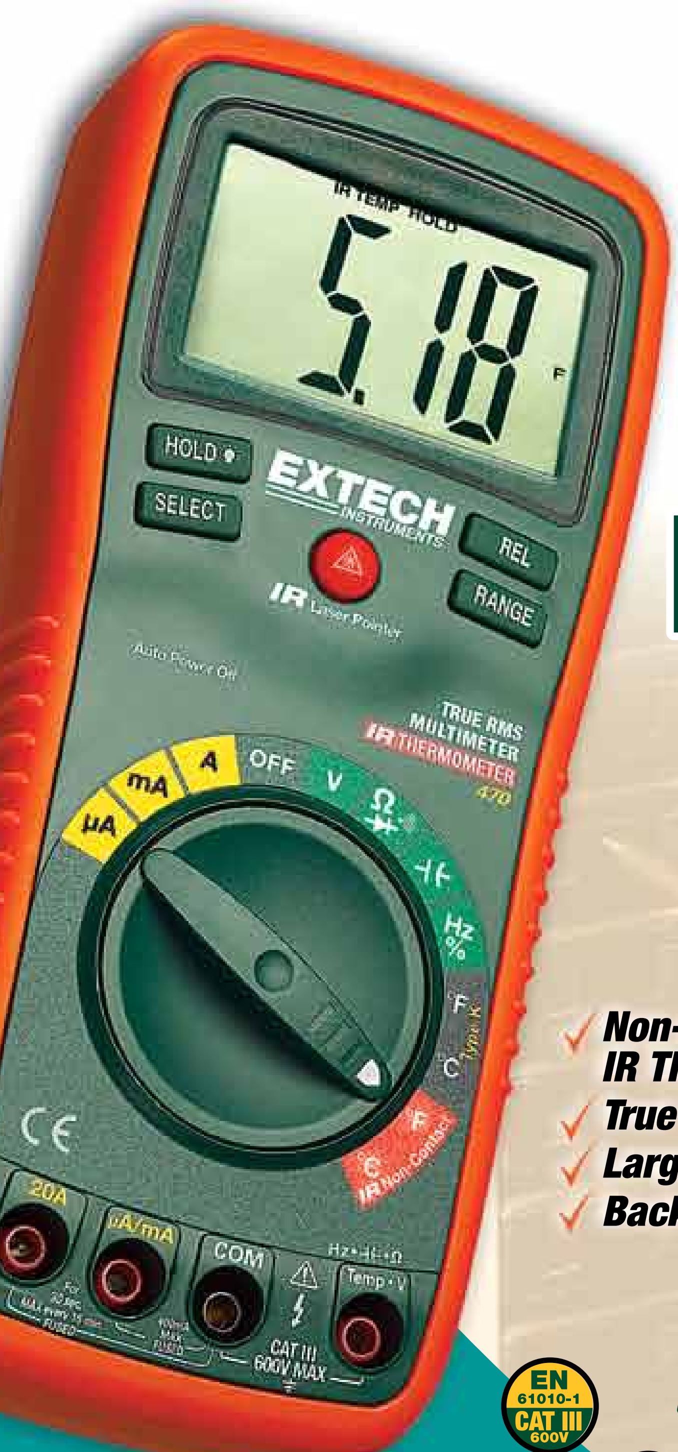
TL810	Electrical Test Lead Kit (see p. 38)
TP200	Type K Clamp Probe (100°C)
HG500	Magnetic Hanging Strap

EXTECH INSTRUMENTS
A FLIR COMPANY

Extech 400 Series Professional MultiMeters

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

*EX470 model only

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

EX400 Series MultiMeters

EN 61010-1 CAT III 600V

1 YEAR WARRANTY

Experience the Extech Advantage

EX400 Series Professional MultiMeters

Featuring models with built-in non-contact InfraRed Thermometer

Common Features:

- Large backlit LCD display with easy-to-read 2.5cm digits
- Type K thermometer built-in for temperature measurements
- Low current capability: measure down to 0.1µA
- Input fuse protection and mis-connection warnings
- Dims: 187x81x50mm
  Wt: 342g
- Complete with CAT III test leads, multi-position tilt stand and velcro strap for hanging, protective holster with test lead holder, general Type K bead wire temperature probe, and 9V battery

Models EX410

- Manual Ranging

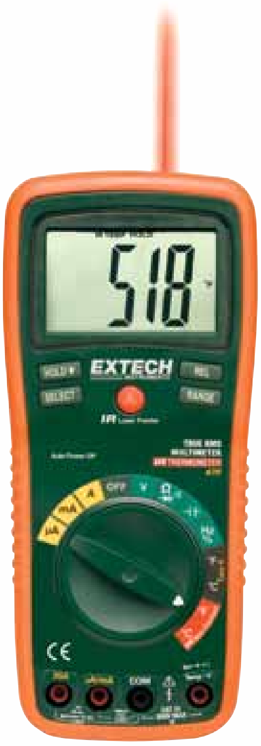
Models EX420/EX430

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

Model EX470

- Patented built-in non-contact IR Thermometer design with laser pointer
- True RMS
- Autoranging
- Capacitance
- Frequency
- Relative function

BUILT IN IR Thermometer
Patented



EX400 SERIES

Functions	EX410	EX420	EX430	EX470
Averaging/True RMS	Averaging	Averaging	True RMS	True RMS
Basic Accuracy (VDC)	±0.5%	±0.3%	±0.3%	±0.3%
AC Voltage	1mV to 750V	0.1mV to 750V	0.1mV to 750V	0.1mV to 750V
DC Voltage	0.1mV to 1000V	0.1mV to 1000V	0.1mV to 1000V	0.1mV to 1000V
AC Current	0.1mA 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
Resistance	0.1Ω to 20MΩ	0.1Ω to 40MΩ	0.1Ω to 40MΩ	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)***	—	—	—	-50 to 270°C
Temperature (Type K)	-20 to 750°C	-20 to 750°C	-20 to 750°C	-20 to 750°
Duty Cycle	—	0.1% to 99.9%	0.1% to 99.9%	0.1% to 99.9%
Continuity / Diode	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
Warranty	2 years	2 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/NCSL Z540-1-1994.

EX410-NIST.......EX410 MultiMeter w/NIST Certification
EX420-NIST.......EX420 MultiMeter w/NIST Certification
EX430-NIST.......EX430 MultiMeter w/NIST Certification
EX470-NISTL*...EX470 MultiMeter w/NIST Certification

** Product certified to all functions except IR Thermometer*

Accessories

CA500......Case with shoulder strap & side pockets
TP873......Replacement Bead wire Temperature Probe (-30 to 300°C)
HG500.....Magnetic Hanging Strap

CA500: Durable case with compartments for meter and test leads

EX300 Series Mini Digital MultiMeters + Voltage Detector

Combination MultiMeter with non-contact AC Voltage Detector

BUILT-IN 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 2.5cm digits makes display easy to read
- UL/CE approved; CAT III-600V
- Dimensions: 147x76x42mm; Weight: 260g
- Complete with stand, test leads, protective holster, batteries, general Type K bead wire temperature probe (EX330 only)

Model EX310

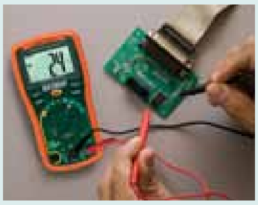
- Manual Ranging
- Battery test 1.5V and 9V

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
- Capacitance
- Frequency



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

EX300 SERIES

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	—	—	-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

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-NIST	EX310 MultiMeter w/NIST Certification
EX320-NIST	EX320 MultiMeter w/NIST Certification
EX330-NIST	EX330 MultiMeter w/NIST Certification

Accessories

409996	Vinyl pouch carrying case
TP873	Replacement Bead wire Temperature Probe (-30 to 300°C)
TL803	Replacement Test Leads

EX200 Series Mini Digital MultiMeters + IR Thermometer

Rugged design with built-in IR Thermometer to quickly identify overheating motors or locate hot spots on electrical panels and HVAC vents without contact

BUILT IN IR Thermometer
Patented

Common Features:

- Large backlit dual LCD with easy-to read digits
- Low current capability
- Input fuse protection
- Auto power off and Data Hold
- ETL/CE approved; CAT III-600V
- Complete with test leads, general purpose bead wire temperature probe (Model EX230), and 9V battery

Model EX210

- 2000 counts
- 4:1 Distance to Target Ratio
- Max Hold

Model EX230

- 4000 counts
- 6:1 Distance to Target Ratio
- Advanced functions include Type K Temperature, Capacitance, Frequency, and Duty Cycle
- Relative Mode

Built-in non-contact IR Thermometer quickly identifies hot spots on electrical panels

AC/DC Voltage measurements

Type K Temperature function (EX230 model)

EX200 SERIES

Model	EX210	EX230
Display Counts	2000	4000
Basic Accuracy (VDC)	±0.5%	±0.5%
AC/DC Voltage	0.1mV to 600V	0.1mV to 600V
AC/DC Current	0.1µA to 10A	0.1µA to 10A
Resistance	0.1Ω to 20MΩ	0.1Ω to 40MΩ
Capacitance	—	0.01nF to 100µF
Frequency	—	0.001Hz to 10MHz
Temperature (IR)	-20 to 230°C	-20 to 230°C
Temperature (Type K)	—	-20 to 760°C
Duty Cycle	—	0.1% to 99.9%
Continuity / Diode	Yes	Yes
Dimensions	147x76x42mm	147x76x42mm
Weight	260g	260g

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.

EX210-NIST	EX210 MultiMeter w/NIST Certification
EX210-NISTL	EX210 with Limited NIST Certification
EX230-NIST	EX230 MultiMeter w/NIST Certification
EX230-NISTL	EX230 with Limited NIST Certification

Accessories

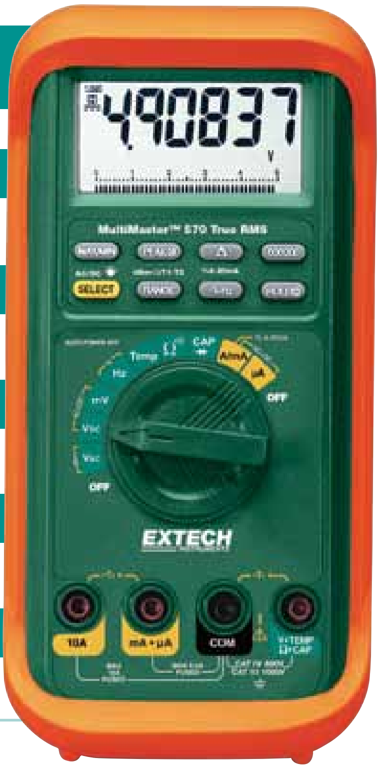
TP873	Replacement Bead wire Temperature Probe (-30 to 300°C)
TL803	Replacement Test Leads

Precision MultiMeters

Choose the MultiMaster® CAT IV Series for high precision and repeatability and the MultiPro® Series for accuracy and functionality. All the meters have CAT IV safety rating and include PC interface.

Featuring Model MM570A

EN 61010-1 CAT IV 600V



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

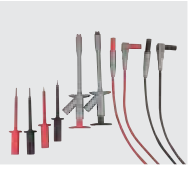
Splash-proof Housing

Use the meter in even the harshest conditions

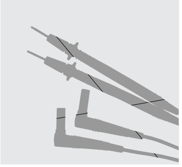
PC Interface

Capture and analyze data

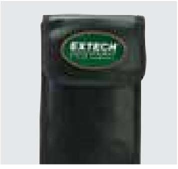
Accessories (See p.38-39 for Test Leads)



TL810: Electrical Test Lead Kit



TL805: Double Injected Test Leads



CA899: Soft Vinyl Pouch Case with Shoulder Strap

Optional PC Software

Accessories:

Software
SW810A Software Diskette and Serial Cable

Test Leads, Probes, and Fuses

TL805...Spare set of CAT IV - 600V Test Leads
TL807...Set of Alligator Clips (2pk) for TL805
TL810...Electrical Test Lead Kit (see photo above)
TP873...Spare Bead Wire Temperature Probe (-30 to 300°C)

Carrying Case
CA899 ..Vinyl Pouch Case with Shoulder Strap

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:

MP510A-NIST, MP530A-NIST, MM560A-NIST, and MM570A-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
DC/AC Voltage
Basic DCV accuracy
DC/AC Current
Resistance
Capacitance
Frequency
Temperature
AC Bandwidth
Category rating
CE/UL Listed
Dimensions/Weight
Warranty

High Resolution

MP510A/MP530A
MultiPro® Series

High performance, True RMS (MP530A) multimeters with RS-232 PC Interface

- MP530A 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
- Optional SW810A (p. 18) PC software and cable sold separately
- Complete with built-in stand, test leads, protective holster, 9V battery, and general Type K bead wire temperature probe for MP530A

MM560A/MM570A
MultiMaster® Series

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

- 0.02% (MM570A) and 0.03% (MM560A) 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 SW810A (p. 18) PC software and cable
- Complete with stand, test leads, holster, 9V battery, and general Type K probe for MM570A

MP510A	MP530A	MM560A	MM570A
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
0.01mV to 1000V	0.01mV to 1000V	0.001mV to 1000V	0.001mV to 1000V
±0.08%rdg	±0.08%rdg	±0.03%rdg	±0.02%rdg
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
0.01nF to 9999μF	0.01nF to 9999μF	0.01nF to 9999μF	0.01nF to 9999μF
10Hz to 125kHz	10Hz to 125kHz	5Hz to 200kHz (Line)/5Hz to 2MHz (Logic)	
—	-50 to 1000°C	—	-50 to 1000°C
40Hz to 20kHz	40Hz to 20kHz	20Hz to 20kHz	20Hz to 100kHz
CAT IV-600V	CAT IV-600V	CAT IV-600V	CAT IV-600V
Yes	Yes	Yes	Yes
186x87x35.5mm/ 340g	186x87x35.5mm/ 340g	186x87x35.5mm/340g	186x87x35.5mm/340g
✓3 years	✓3 years	✓3 years	✓3 years

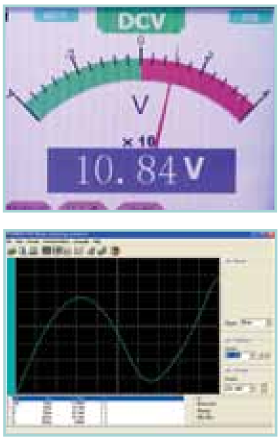
MS420/MS460 20MHz and 60MHz 2-Channel Digital Oscilloscopes

96mm color LCD display makes viewing multiple waveforms easy

Features:

- MS420 — 20MHz bandwidth
  MS460 — 60MHz bandwidth
- 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, Duty Cycle, Average, Peak to Peak, RMS
- Waveform Math: Add, Subtract, Multiply, and Divide
- Average Mode for smoothing waveforms
- Persistence Mode for observing dynamic signals
- Store and recall up to 4 waveform screens and setups
- USB interface and PC software for transferring waveforms and data

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



Software PC screens display analog bargraph and graphical waveform

Specifications

Oscilloscope Functions	
Display Size	96mm color LCD; 320 x 240 pixels
Bandwidth	20MHz (MS420); 60MHz (MS460)
Real time sample rate	100MS/s (MS420); 250MS/s (MS460)
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
Dimensions/Weight	180x113x40mm/ 690g

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

Ordering

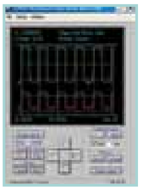
MS420 .... 20MHz Dual Channel MultiScope®
MS460 .... 60MHz Dual Channel MultiScope®

381295A 5MHz Dual Channel MultiScope®

With 25MS/s dual channel sampling time (50MS/s single channel)

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 with USB cable 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



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

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	
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	mini-plug to USB connection
Power	Li-Ion Battery/120V 60Hz adaptor/charger
Dimensions/Wt	195x90x40mm/ 260g

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

Ordering

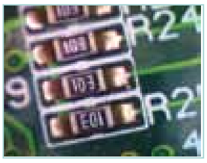
381295A............5MHz Dual Channel MultiScope®

MC108 Digital Mini Microscope

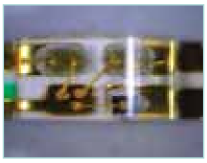
Compact device with TFT color display enlarges, measures and captures images up to 108x

Features:

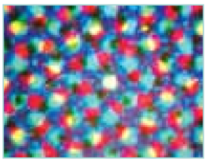
- Capture images of objects as small as to 0.01mm with built in scale to measure dimensions of the object being enlarged
- 46mm TFT color LCD plus 2MB memory displays up to 60 320x240 JPEG images
- 7x to 108x magnification range
  — Optical Zoom: 7x to 27x
  — Digital Zoom: 4x
- Four white LEDs with adjustable brightness for object illumination
- 5 Image Effect modes: Normal, Gray, Inverse, Emboss, and Dual Window View
- Dual Window View simultaneously displays the magnified image next to the original image
- Real-time imaging on your PC screen via USB interface and included software
- Ideal for QC, Circuit board inspections, Printed materials, and Education
- Dims: 120 x 56 x 25mm; Wt: 70g without batteries
- Complete with stand, three AAA Ni-MH rechargeable batteries, 100 to 240VAC (50/60Hz) adaptor/ charger, Windows® compatible software with mini USB cable, cleaning cloth, and wrist strap



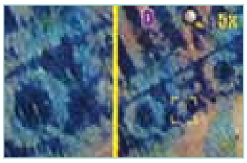
PC board inspection



Soldering check



Analysis of printing



Dual window view simultaneously displays magnified image next to the original image

Ordering

MC108 ....Mini Microscope

MN16 Digital Mini MultiMeter

Compact Autoranging multimeter

Features:

- Functions include AC Current, Capacitance, Frequency, Type K temperature, and Duty Cycle
- Auto power off with disable feature
- Large easy to read digital display
- Complete with 2 AAA batteries, general Type K bead wire probe, and test leads

Troubleshoot electronic and electrical equipment

Specifications

Function	Ranges	Basic Accuracy
DC Voltage	600V (1mV)	±1.2%
AC Voltage	600V (0.1mV)	±1.5%
DC Current	10A (0.1µA)	±1.5%
AC Current	10A (0.1µA)	±1.8%
Resistance	40MΩ (0.1Ω)	±1.2%
Capacitance	100µF (0.01nF)	±3.0%
Frequency	5MHz (0.001Hz)	±1.2%
Temperature	-20 to 750°C	±(3%rdg + 8 digits)
Duty Cycle	0.1 to 99.9%	±1.2%
Category rating	CAT III-600V	
Dims/ Wt	138x72x38mm/ 153g	
CE/ETL	CE/ETL	

Ordering

MN16.......Autoranging MiniTec® MultiMeter with Temperature
TP873.......Spare Type K Bead Wire Temperature Probe (-30 to 300°C)

DM220 CAT IV Pocket MultiMeter + NCV

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
- Complete with test leads and two AAA batteries

BUILT-IN VOLTAGE DETECTOR

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	120x55x540mm/ 145g		

Ordering

DM220..............Mini Pocket MultiMeter + NCV

VT30 Digital Voltage Tester with Bargraph

Phase Tester with Flashlight and backlit digital display with bargraph

Features:

- Large backlit LCD displays AC Voltage (0 to 480V) and DC Voltage (0 to 690V)
- Polarity detection with LEDs for positive and negative DC; Continuity beeper; low impedance; Double molded housing
- Phase rotation test for motors
- IEC1010-1 CAT IV 600V and CAT III 1000V safety rating, CE approved
- Dims: 240x78x40mm
  Wt: 237g
- Complete with 2 AAA batteries, protective cap, and pouch case

Ordering

VT30..................Digital Voltage Tester with Bargraph

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: 152x19x25mm
  Wt: 57g
- Complete with pocket clip and two AAA batteries

DV20/DV24 AC Voltage Detectors+Flashlight

Rugged double molded housing

- Suitable for outlets or against wire insulation testing
- For use on 50/60Hz circuits
- Built-in bright flashlight
- CE approved, UL listed
- Dims: 159x25mm
  Wt: 42g
- Complete with two AAA batteries;
- **Model DV20** - CAT III-600V; 100V to 600V AC Voltage
  Model DV24 - CAT IV-1000V; 50V to 1000V AC Voltage

DV25 Dual Range AC Voltage Detector + Flashlight

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

- Two ranges: 24 to 1000VAC and 100 to 1000VAC
- For use on 50/60Hz circuits
- Tip fits into outlets or against wire insulation testing
- Audible and Visual voltage indication
- Built-in bright flashlight
- Compact size with pocket clip
- CAT IV-1000V; CE approved, UL listed
- Dims: 159 x 25mm
  Wt: 42g
- Complete with two AAA batteries

DV30 Adjustable AC Voltage Detector

Non-contact detection of AC Voltage 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
- Dimensions: 155x28x25mm
  Weight: 42g
- Complete with pocket clip and four LR44 button batteries

Built in IR Thermometer

Patent Pending

DV40 AC Voltage Detector + IR Thermometer

Non-contact Voltage detector that measures non-contact temperature

- Detects AC Voltage from 50V to 1000V
- Built-in InfraRed Thermometer measures from -30 to 230°C with 0.1° resolution; 1:1 field of view; Fixed 0.95 emissivity covers
- Tip fits into outlets or against wire insulation
- Low battery indicator; Auto power off
- CAT III-1000V; CE approved, ETL listed
- Dims: 159x25mm;
  Weight: 42g
- Complete with pocket clip and three LR44 batteries

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: 192x31x24mm
  Weight: 60g
- Complete with four LR44 button batteries and pocket clip

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 a soft carrying case that provides protection and organization for the meters and accessories
- Dimensions: 241x173x71mm; Weight: 1.2kg

Special Value Kit

Model EX430	**Model MA200**	**Model 40130**
Autoranging True RMS MultiMeter with 11 functions including Capacitance, Frequency and Temperature. (see p. 15)	400A Clamp Meter with basic AC Current and 1mA resolution. (see p. 34)	Non-Contact Voltage Detector detects AC Voltage from 100VAC to 600VAC without touching the source. (see p. 23)

Ordering

TK430 .... Electrical Test Kit
480172 ...... AC Line Splitter

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 and accessories
- Dimensions: 368x280x114mm; Weight: 2kg

Special Value Kit

Model EX430	**Model MA200**	**Model 42510**
Autoranging True RMS MultiMeter with 11 functions including Capacitance, Frequency and Temperature. (see p. 15)	400A Clamp Meter with basic AC Current and 1mA resolution. (see p. 34)	Wide range mini IR Thermometer measures -50 to 538°C. Built-in laser identifies target area; 8:1 distance to target ratio

Ordering

TK430-IR.. Electrical Test Kit with IR

EX505-K Heavy Duty Industrial MultiMeter Kit

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

Features:

- Kit includes EX505 True RMS waterproof (IP67)/drop-proof MultiMeter, DV25 Dual Range Non-contact AC Voltage Detector + Flashlight, TL808 8-piece Professional Test Lead Kit, plus professional double-molded test leads, Type K thermocouple bead probe with banana input adaptor, and magnetic hanging strap
- Supplied in a soft carrying case that provides protection and organization for the meters and accessories
- Dimensions: 248x203x51mm; Weight: 544g

Special Value Kit

Model EX505
Industrial grade, CAT IV-600V, 4000 count display, waterproof (IP67), CE/UL listed, drop-proof, rugged multimeter with True RMS functions. (see p. 13)

Model DV25
Dual Range Non-contact voltage detector (24 to 1000VAC/100 to 1000VAC) + Flashlight with Audible/ Visual indication, and double-molded housing CAT IV-1000V, CE/UL (see p. 23)

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

TL808 Test Lead Kit included

Ordering

EX505-K.......Heavy Duty Industrial MultiMeter Kit

MA620-K Industrial DMM/Clamp Meter Test Kit

CAT IV MultiMeter and True RMS Clamp Meter with integrated AC Voltage Detector

Features:

- Kit contains EX505 rugged, waterproof multimeter with 11 functions, MA620 600A True RMS AC Clamp-on MultiMeter with built-in non-contact AC Voltage Detector, test leads and Type K thermocouple bead probe with banana input adaptor, and magnetic hanging strap
- Supplied in a soft carrying case that provides protection and organization for the meters and accessories
- Dimensions: 248x203x54mm; Weight: 680g

Special Value Kit

Model EX505
Industrial grade, CAT IV-600V, 4000 count display, waterproof (IP67), CE/UL listed, drop-proof, rugged multimeter with True RMS functions. (see p. 13)

Model MA620
600A True RMS 6000 count AC Clamp-on MultiMeter with built-in non-contact AC Voltage Detector, test leads and temperature probe; CE/ETL approved (see p. 35)

ALSO See Page 46 for Extech's Phase Rotation/ Clamp Meter Test Kit MA640-KIT

True RMS Clamp Meter with multimeter functions, 3-phase rotation tester, and CAT IV AC Voltage Detector. Ideal kit for plant maintenance.

Ordering

MA620-K ....Industrial DMM/Clamp Meter Test Kit

Clamp Meter Selection Guide

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 µA current. Features include inrush current, peak hold and auto power off.

Built in IR Thermometer

EX800 series

Peak Hold for Inrush Currents

EX700 series

Built in IR Thermometer

EX600 series

Dual Type K Thermocouples

EX600 series

	EX800 series			EX700 series			EX600 series	EX600 series
Model	**EX820**	**EX830**	**EX840**	**EX710**	**EX720**	**EX730**	**EX623**	**EX613**
Page Number	31			33			29	29
Key Features	• Built-in non-contact InfraRed Thermometer • Double molded housing • Capacitance, Temperature, Peak Hold			• Inrush, Capacitance and Temperature • AC, AC True RMS or AC/DC True RMS models			• Built-in non-contact InfraRed Thermometer • Dual Type K inputs • DC µA current • Built-in NCV	• Dual Type K Thermocouple inputs • DC µA current • Built-in NCV
Features								
AC Current	1000A	1000A	1000A	800A	800A	800A	400A	400A
Counts	4000	4000	4000	4000	4000	4000	4000	4000
True RMS	•	•	•		•	•	•	•
Jaw Opening	43.2mm			30.5mm			35.6mm	35.6mm
Basic ACA Accuracy	±2.5%	±2.5%	±2.5%	±2.8%	±2.5%	±2.5%	±1.5%	±1.5%
DC Current		•	•		•		•	•
AC/DC Voltage	•	•	•	•	•	•	•	•
Resistance	•	•	•	•	•	•	•	•
Capacitance	•	•	•	•	•	•	•	•
Frequency	•	•	•	•	•	•	•	•
Temperature (Type K)	•	•	•		•	•	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 IV 600V	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 600V

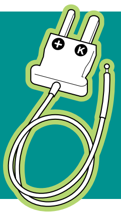
Clamp Meter Selection Guide

KEY FEATURES

BUILT-IN VOLTAGE DETECTOR

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

BUILT-IN VOLTAGE DETECTOR			Compact Size			Mini Jaw size	High Resolution	
Best Value			MA200 Series			Mini Clamp	Mini Clamp	
MA410	**MA620**	**MA640**	**MA200**	**MA220**	**MA250**	**380950**	**380942**	**Model**
35			34	34	34	36	36	**Page Number**
• Built-in NCV • Autoranging with MultiMeter functions • AC or AC/DC models			• AC Current or AC/DC Current model • Built-in NCV (MA250)			• Smallest jaw size	• Highest resolution and accuracy at low currents • Compact size	**Key Features**
400A	600A	600A	400A	400A	200A	80A	30A	**AC Current**
4000	6000	6000	2000	4000	4000	4000	4000	**Counts**
	•	•					•	**True RMS**
30.5mm	38.1mm	38.1mm	22.9mm	22.9mm	30.5mm	12mm	22.9mm	**Jaw Opening**
±2.5%	±2.8%	±2.8%	±2.5%	±3.0%	±2.5%	±2.5%	±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 III 600V	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 300V	**Category Rating**

EXTECH INSTRUMENTS
A FLIR COMPANY

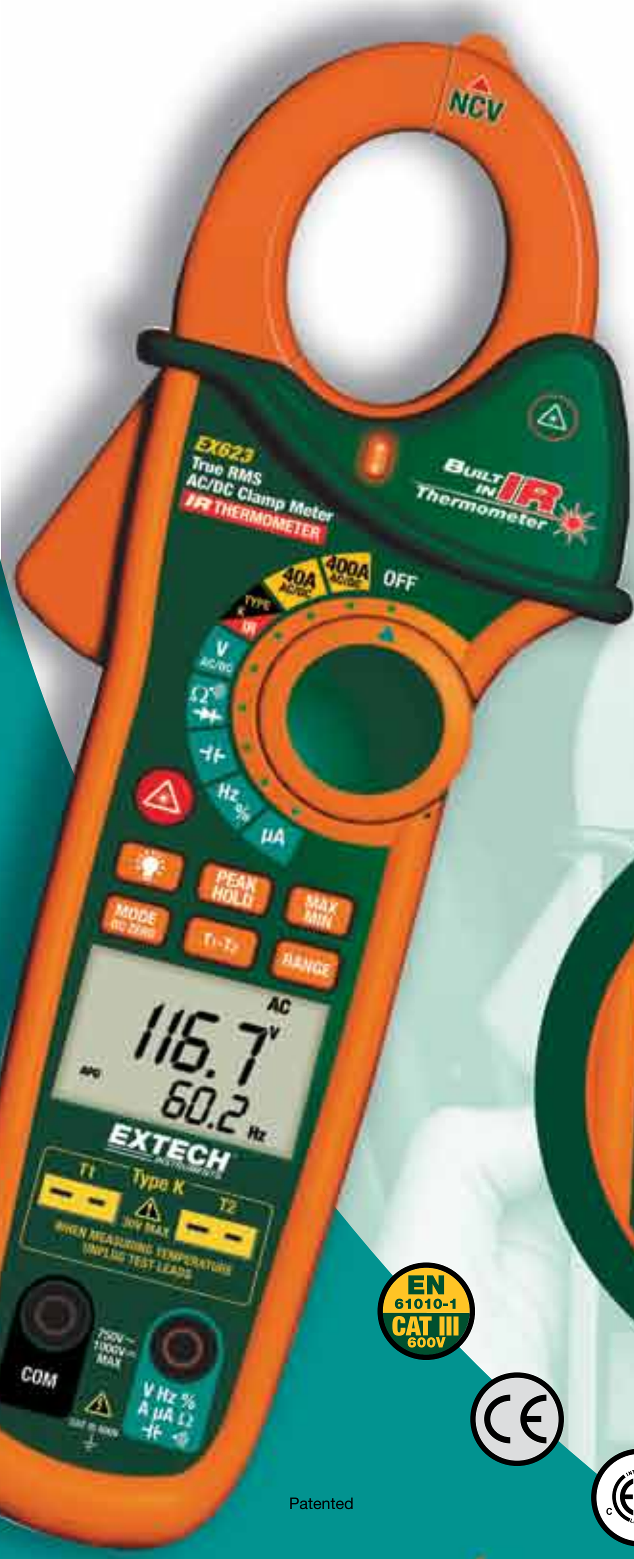
True RMS Clamp Meters + IR Thermometer + NCV

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

EN 61010-1 CAT III 600V

Patented

- ✓ 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 Clamp Meters + Dual Type K Inputs + IR Thermometer

Dual thermocouple inputs for differential temperature measurement plus built-in IR Thermometer and Non-contact Voltage Detector

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 µA multimeter function for HVAC flame rod Current measurements
- Diode open circuit voltage of 2.8V DC
- Data Hold plus fast Peak Hold of current surges during motor startup
- Measures motor capacitors to 40,000µF
- 32mm 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: 229x80x49mm; Weight: 303g
- Complete with CAT III-600V, double molded test leads, 9V battery, two general Type K bead wire probes, and carrying case

EX623 Additional Feature

- Patented built-in non-contact IR Thermometer design 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

EX600 SERIES

Model	EX613	EX623
AC Current	400.0A	400.0A
DC Current	400.0A	400.0A
Max resolution	10mA	10mA
Basic ACA accuracy	±1.5%	±1.5%
AC/DC Voltage (Max Res.)	600V (0.1mV)/600V (0.01mV)	600V (0.1mV)/600V (0.01mV)
DC µA Current	4000µA (0.01µA)	4000µA (0.01µA)
Resistance (Max Res.)	40.000MΩ (0.01Ω)	40.000MΩ (0.01Ω)
Capacitance (Max Res.)	40mF (0.01nF)	40mF (0.01nF)
Frequency (Max Res.)	40MHz (0.001Hz)	40MHz (0.001Hz)
Temperature (Type K-dual input)	-50 to 1000°C	-50 to 1000°C
Temperature (IR)	—	-50 to 270°C
Diode (2.8V)/ Continuity	Yes	Yes
Duty Cycle	0.5 to 99.0%	0.5 to 99.0%
ETL/CE/Category Rating	ETL/CE/CAT III-600V	ETL/CE/CAT III-600V

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.

EX613-NIST..........EX613 with NIST Certificate
EX623-NISTL*......EX623 with NIST Certificate

** Product certified to all functions except IR Thermometer*

Accessories

TP200 ... Type K Pipe Clamp Probe (100°C)
TP400 ... Type K Pipe Clamp Probe (232°C)

***TP200** Type K Pipe Clamp Probe for hands-free superheat/sub-cooling temperature measurement (max. 100°C) without the use of tape or Velcro®. **TP400** model measures up to 232°C.*

1000A Clamp Meters + IR Thermometer

Double Molded Clamp Meters + IR Thermometer

Introducing Extech's Series of ergonomically designed Clamp Meters with rugged double molded housings. 1000A measuring capabilities plus True RMS, built-in InfraRed Thermometer, plus model with CAT IV safety rating.

Featuring Model *EX840*

▶ CAT IV Safety Rating

Assures maximum safety and functionality in hazardous industrial applications

▶ Non-Contact IR Thermometer

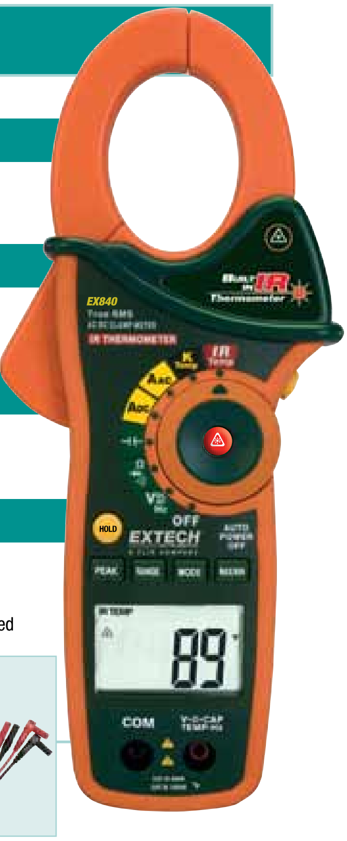
Built-in IR Thermometer with laser pointer to detect hot spots on motors and on electrical devices

▶ Double Molded Housing

Rugged housing is ergonomically designed and has better grip

▶ True RMS

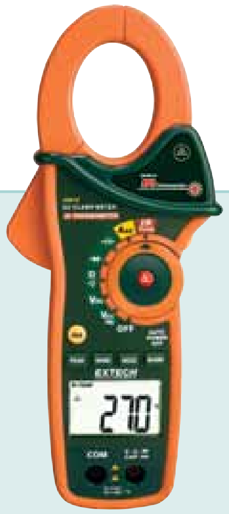
Accurate AC Voltage and Current measurement regardless of waveforms



EX800 Series Patented

Professional Test Lead Set

Built in IR Thermometer



EX810 1000A AC Clamp Meter + IR Thermometer

Average responding AC clamp-on multimeter with built-in non-contact InfraRed Thermometer

- Patented built-in non-contact IR Thermometer design with laser pointer for locating hot spots
- Diode open circuit voltage of 2.8V DC
- Peak hold captures inrush currents and transients
- Features include Data Hold and Min/Max
- Auto Power off
- Complete with test leads, 9V battery, and case

Accessories:

TP873......Replacement Bead wire Temperature probe (-30 to 300°C)
TL803......Replacement Test Leads
TL810......Electrical Test Lead Kit

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:
EX810-NISTL, EX820-NISTL, EX830-NISTL, and EX840-NISTL

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

NISTL - Product certified to all functions except IR Thermometer

Specifications

Model	EX810
True RMS/Averaging	Averaging
Display counts	4000 count backlit LCD
Jaw size/Cable size	43mm; 750MCM
AC Current	1000A
DC Current	—
Max resolution	0.1A
Basic ACA Accuracy (% rdg)	±2.8% (AC)
AC/DC Voltage (Max Res.)	600V (0.1mV)
Resistance (Max Res.)	40MΩ (0.1Ω)
Capacitance (Max Res.)	40mF (0.001nF)
Frequency (Max Res.)	4kHz (1Hz)
Temperature (Type K)	—
Temperature (*IR*)	-50 to 270°C
Diode (2.8V)/ Continuity	Yes
Category Rating	CAT III-600V
CE/UL	CE/UL
Dimensions/Weight	270x110x50mm/ 386g

1000A Clamp Meters + IR Thermometer

EX820 1000A True RMS AC Clamp Meter + IR Thermometer

True RMS AC clamp-on multimeter gives you accurate readings of non-sinusoidal waveforms

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

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

True RMS AC clamp-on multimeter and DC Current function

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

BEST IN CLASS

CAT IV

Includes 8-piece Professional Test Lead Set

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

CAT IV 600V approval rating assures maximum safety and functionality

- AC/DC Voltage measurement to 1000V and AC/DC Current to 1000A
- True RMS AC Voltage and Current measurements provide accurate readings regardless of waveforms
- Patented built-in non-contact IR Thermometer design with laser pointer
- Diode open circuit voltage of 2.8V DC
- Peak Hold, Data Hold, Min/Max, and Auto Power off
- Complete with CAT IV test leads, 9V battery, Professional test lead set, general Type K probe, and case

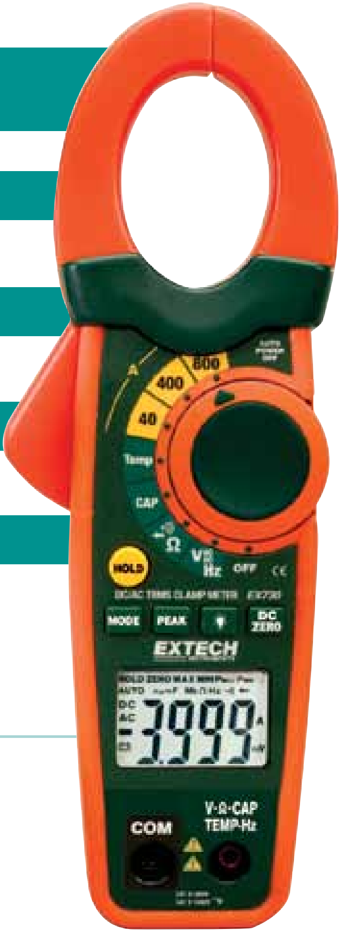
EX820	EX830	EX840
True RMS	True RMS	True RMS
4000 count backlit LCD	4000 count backlit LCD	4000 count backlit LCD
43mm; 750MCM	43mm; 750MCM	43mm; 750MCM
1000A	1000A	1000A
—	1000A	1000A
0.1A	0.1A	0.1A
±2.5% (AC)	±2.5% (AC); ±2.5% (DC)	±2.5% (AC); ±2.5% (DC)
600V (0.1mV)	600V (0.1mV)	1000V (0.1mV)
40MΩ (0.1Ω)	40MΩ (0.1Ω)	40MΩ (0.1Ω)
40mF (0.001nF)	40mF (0.001nF)	40mF (0.001nF)
4kHz (1Hz)	4kHz (1Hz)	4kHz (1Hz)
-20 to 760°C	-20 to 760°C	-20 to 760°C
-50 to 270°C	-50 to 270°C	-50 to 270°C
Yes	Yes	Yes
CAT III-600V	CAT III-600V	CAT IV-600V; CAT III-1000V
CE/UL	CE/UL	CE
270x110x50mm/ 386g	270x110x50mm/ 386g	270x110x50mm/ 386g

800A Clamp-on MultiMeters

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 760°C for wide range of applications

Extech Advantage®

800A Full featured professional AC/DC Clamp Meter

Accessories:

TL803......Replacement Test Leads
TP873......Replacement Bead wire Temperature probe (-30 to 300°C)

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, and 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

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 True RMS 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, general Type K bead wire probe, and belt holster

EX730 800A True RMS 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, general Type K bead wire probe, and belt holster

EX710	EX720	EX730
Averaging	✓True RMS	✓True RMS
4000 count backlit LCD	4000 count backlit LCD	4000 count backlit LCD
30mm; 500MCM	30mm; 500MCM	30mm; 500MCM
40.00A, 400.0A, 800A	40.00A, 400.0A, 800A	40.00A, 400.0A, 800A
—	—	✓40.00A, 400.0A, 800A
0.01A (AC)	0.01A (AC)	0.01A AC/0.1A DC
±2.8%	±2.5%	±2.8% (AC); ±2.5% (DC)
600V (0.1mV)	600V (0.1mV)	600V (0.1mV)
40MΩ (0.1Ω)	40MΩ (0.1Ω)	40MΩ (0.1Ω)
40mF (0.001nF)	40mF (0.001nF)	40mF (0.001nF)
4kHz (1Hz)	4kHz (1Hz)	4kHz (1Hz)
—	-20 to 760°C	-20 to 760°C
CAT III-600V	CAT III-600V	CAT III-600V
CE/UL	CE/UL	CE/UL
229x80x49mm / 303g	229x80x49mm / 303g	229x80x49mm / 303g

Clamp Meters

Extech's Clamp meters provide solutions to all your electrical needs from general AC electrical work to specialty projects that requires a built-in voltage detector function.

Featuring Model MA640

AC/DC Measurements

For general purpose use

Temperature

To measure operating temperature of motors and other electrical devices

Capacitance

For checking motor starting capacitors

Non-contact Voltage Detector

Built-in function offers convenient live voltage detection

Convenient built-in Non-contact Voltage Detector quickly detects presence of live wires before testing

MA200/MA220 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

MA220 Additional Features

- DC Current Measurement
- One touch "Auto Zero"
- Capacitance, Frequency, Temperature and Duty Cycle
- Complete with test leads, case and two AAA batteries. MA220 also comes with a general Type K bead wire probe

MA250 200A AC Clamp Meter + NCV

20A and 200A Current ranges plus built-in non-contact Voltage detector with LED alert

- 30mm jaw size for conductors up to 350MCM
- Relative Mode for Capacitance Zero, and Offset Adjustment
- Data Hold and MIN/MAX
- Auto Power Off
- Complete with test leads, general Type K bead wire probe, two AAA batteries, and carrying case

Accessories

TP873 ... Bead wire probe (-30 to 300°C)
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:**

MA200-NIST, MA220-NIST, MA250-NIST, MA410-NIST, MA620-NIST, and MA640-NIST

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

Specifications

Model	**MA200**	**MA220**	**MA250**
Averaging/True RMS	Averaging	Averaging	Averaging
Display counts	2000 count LCD	4000 count LCD	4000 count LCD
Jaw size/Cable size	23mm; 300MCM		30mm; 350MCM
AC Current	2.000A, 20.00A, 200.0, 400A		20A, 200A
DC Current	—	2.000A, 20.00A, 200.0, 400A	—
Max resolution	0.001A (AC)	0.01A (AC); 0.01A (DC)	0.01A (AC)
Basic ACA Accuracy (% rdg)	±2.5%	±3%	±2.5%
AC Voltage (Max Res.)	600V (0.1mV)	600V (0.1mV)	600V (0.1mV)
DC Voltage (Max Res.)	600V (0.1mV)	600V (0.1mV)	—
Resistance (Max Res.)	20MΩ (0.1Ω)	40MΩ (0.1Ω)	40.00MΩ (0.1Ω)
Capacitance (Max Res.)	—	100µF (0.01nF)	100µF (0.01nF)
Frequency (Max Res.)	—	150kHz (0.001Hz)	10kHz (1Hz)
Temperature	—	-50 to 1000°C	-20 to 760°C
Duty Cycle	—	0.5% to 99.0%	0.1 to 99.9%
Diode/Continuity	Yes	Yes	Yes
Data Hold	Yes	Yes	Yes
Min/Max	Max	—	Min/Max
UL/ETL/CE/Category Rating	UL/CE/CAT III-600V		UL/CE/CAT III-600V
Dimensions/Weight	200x50x35mm/200g		200x66x37mm/ 205g

MA410 400A AC Clamp Meter + NCV

40A and 400A Current ranges plus built-in non-contact Voltage detector with LED alert

- 30mm jaw size for conductors up to 350MCM
- Relative Mode for Capacitance Zero, and Offset Adjustment
- Data Hold and MIN/MAX
- Auto Power Off
- Complete with test leads, general Type K bead wire probe, two AAA batteries, and carrying case

MA620 600A AC True RMS Clamp + NCV

True RMS for accurate readings of non-sinusoidal waveforms

- 40mm jaw size for conductors up to 500MCM
- Backlit LCD with bargraph
- Relative Mode for Capacitance Zero and Offset Adjustment
- Data Hold, MIN/MAX, and Auto Power Off
- Complete with test leads, general Type K bead wire probe, 9V battery and carrying case

MA640 600A AC/DC True RMS Clamp + NCV

True RMS for accurate readings of non-sinusoidal waveforms

- DC Current and Voltage functions
- 40mm jaw size for conductors up to 500MCM
- Backlit LCD with bargraph
- Relative Mode for Capacitance Zero and Offset Adjustment
- Data Hold, MIN/MAX, and Auto Power Off
- Complete with test leads, general Type K bead wire probe, 9V battery and carrying case

MA410	MA620	MA640	Model
Averaging	True RMS	True RMS	**Averaging/True RMS**
4000 count LCD	6000 count LCD (backlit)	6000 count LCD (backlit)	**Display counts**
30mm; 350MCM	40mm; 750MCM	40mm; 750MCM	**Jaw size/Cable size**
40A, 400A	60A, 600A	60A, 600A	**AC Current**
—	—	60A, 600A	**DC Current**
0.01A (AC)	0.01A (AC)	0.01A (AC); 0.01A (DC)	**Max. resolution**
±2.5%	±2.8%	±2.8%	**Basic ACA Accuracy (% rdg)**
600V (0.1mV)	600V (1mV)	600V (1mV)	**AC Voltage (Max. Res.)**
—	—	600V (1mV)	**DC Voltage (Max. Res.)**
40.00MΩ (0.1Ω)	60MΩ (0.1Ω)	60MΩ (0.1Ω)	**Resistance (Max. Res.)**
100µF (0.01nF)	4000.0µF (0.01nF)	4000.0µF (0.01nF)	**Capacitance (Max. Res.)**
10kHz (1Hz)	10kHz (0.001Hz)	10kHz (0.001Hz)	**Frequency (Max. Res.)**
-20 to 760°C	-20 to 760°C	-20 to 760°C	**Temperature**
0.1 to 99.9%	0.1 to 99.9%	0.1 to 99.9%	**Duty Cycle**
Yes	Yes	Yes	**Diode/Continuity**
Yes	Yes	Yes	**Data Hold**
Min/Max	Min/Max	Min/Max	**Min/Max**
CE/CAT III-600V	ETL/CE/CAT III-600V	ETL/CE/CAT III-600V	**ETL/CE/Category Rating**
200x66x37mm/ 205g	232x77x39mm/ 271g	232x77x39mm/ 271g	**Dimensions/Weight**

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 MA1500

True RMS

Accurate AC Voltage and Current measurement regardless of waveforms

CAT IV Safety Rating

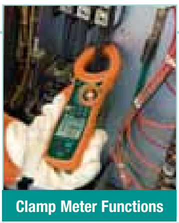
Assures maximum safety and functionality in hazardous industrial applications

InrushFunction

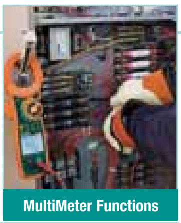
Captures transients during motor startups

Non-Contact Voltage Detector

Built-in function offers convenient live voltage detection

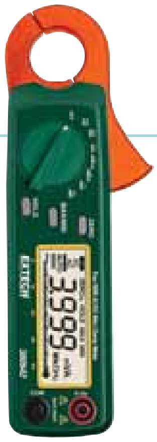


Clamp Meter Functions



MultiMeter Functions

Non-Contact Voltage Detection



380942 30A Mini True RMS AC/DC 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

380950 80A Mini AC/DC Clamp Meter

Small jaw size (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

Specifications

Model	380942	380950
True RMS/Averaging	✓True RMS	Averaging
Display counts	4000 count LCD	4000 count LCD
Jaw size/Cable size	23mm; 4/0AWG	12mm; 3/0AWG
AC Current	400mA, 4A, 30A	4.000A, 80.0A
DC Current	4A, 30A	4A, 80A
Max resolution	AC: 0.1mA, DC: 0.001A	1mA
Basic ACA Accuracy (% rdg)	±1.5%	±2.5%
AC Voltage (Max Res.)	400V (0.1V)	600V (0.1mV)
DC Voltage (Max Res.)	400V (1V)	600V (0.1mV)
Resistance (Max Res.)	—	40MΩ (0.1Ω)
Capacitance (Max Res.)	—	—
Frequency (Max Res.)	—	10MHz (0.001Hz)
Temperature	—	—
Diode/Continuity	—	Yes
Data Hold	Yes	Yes
Min/Max/Peak	Min/Max	Max
Category Rating	CAT III-300V	CAT III-600V
UL/CE	UL/CE	CE
Dimensions	178X45X32mm	210x70x37mm
Weight	225g	200g

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:** 380942-NIST, 380950-NIST, 380976-NIST, 380926-NIST, and MA1500-NIST

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

380976 1-Phase and 3-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. 49 for details)
- AC+DC µA Current with 10nA resolution for flame rod tests
- Auto power off with disable
- Complete with test leads, general Type K bead wire probe, case, and 9V battery

380926 2000A AC/DC Clamp Meter

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

- AC/DC Current via clamp with 0.1A resolution
- Large 60mm jaw size fits 750MCM conductor size
- Data Hold
- Push button Zero adjust improves DC accuracy
- Complete with built-in stand, test leads and 9V battery

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

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

- Built-in non-contact Voltage detector with LED alert
- 52mm jaw size for conductors up to 500MCM
- Inrush function captures transients during motor startups
- Relative Mode for Capacitance Zero and Offset Adjustment
- Data Hold, Peak Hold, MIN/ MAX, and Auto Power Off
- Complete with test leads, general Type K bead wire temperature probe, 9V battery and carrying case

380976	380926	MA1500	**Model**
✓True RMS	✓True RMS	✓True RMS	**True RMS/Averaging**
9999 count LCD	5000 count Backlit LCD	40,000/4000 count Backlit Dual LCD	**Display counts**
40mm; 500MCM	60mm; 750MCM	52mm; 500MCM	**Jaw size/ Cable size**
100.0A, 1000.0A	400.0A, 2000A (Clamp); 400mA (DMM)	400.00A, 1500.0A	**AC Current**
—	400.0A, 2000A Clamp); 400mA (DMM)	400.00A, 1500.0A	**DC Current**
0.010A (Clamp); 0.01µA (DMM)	0.1A (Clamp); 0.1µA (DMM)	0.01A	**Max. resolution**
±2% (Clamp), ±1% (DMM)	±2%	±2.8%	**Basic ACA Accuracy (% rdg)**
600V (0.1mV)	1000V (1mV)	750V (0.01mV)	**AC Voltage (Max Res.)**
600V (0.1mV)	1000V (0.1mV)	1000V (0.01mV)	**DC Voltage (Max Res.)**
100MΩ (0.1Ω)	40MΩ (0.1Ω)	40MΩ (0.01Ω)	**Resistance (Max Res.)**
7000µF (1nF)	50µF (10pF)	40mF (0.01nF)	**Capacitance (Max Res.)**
1kHz (0.1Hz)	100kHz (0.001Hz)	40MHz (0.001Hz)	**Frequency (Max Res.)**
-50 to 900°C	—	-100 to 100°C	**Temperature**
Yes	Yes	Yes	**Diode/Continuity**
Yes	Yes	Yes	**Data Hold**
Min/Max	—	Yes	**Min/Max/Peak**
CAT III-600V	CAT IV-600V	CAT IV-600V	**Category Rating**
UL/CE	CE	ETL/CE	**UL/ETL/CE**
228x76x39mm	255x73x38mm	130x80x43mm	**Dimensions**
465g	380g	430g	**Weight**

TL831 Master Electrical Test Lead Kit

10-piece kit industrial grade test leads

- TL726 Double Molded Silicone Test Leads
- TL747 Electronic Sharp Test Probe Set
- TL741 Heavy Duty Plunger Style Hook Clip Set
- TL742 Heavy Duty Plunger Style Pincer Grip Set
- TL740 Industrial Plunger Style Test Clips
- TL709 Medium Alligator Clip Set
- Conveniently stored in a pouch case

TL810 Electrical Test Lead Kit

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

- Two 1m PVC lead extensions (1000V rating) with shrouded banana plugs on both ends
- Two very sharp, extra long 7mm stainless steel tipped plug-on test probes
- Two stainless steel flat tip test probes (15mm long)
- Two plunger activated retractable jaw clips with a wide 19mm jaw opening

TL809 Electronic Test Lead Kit

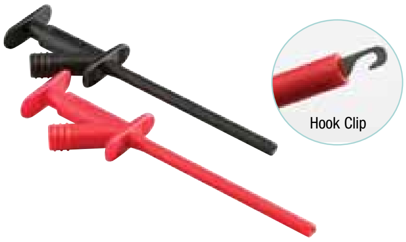
Ideally suited for the testing of digital Circuitry, this 8-piece kit includes:

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

TL806/7 Alligator Clips

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

- **TL806** — Extra large, double insulated, CAT III-1000V clips mate with banana plug patch cords. Jaw opens to 20mm with sharp teeth for piercing insulated wire. IEC1010 compliant. Optional accessory to TL810 or TL809
- **TL807** — Alligator clips with insulated rubber boot fit onto test leads, CAT III-1000V. Compatible with TL805 (bottom left).
  TL807C..fits TL803 leads
  TL806..... Extra Large Alligator Clips
  TL807..... Insulated Alligator Clips
  TL807C.. Insulated Alligator Clips



TL741 Heavy Duty Plunger Style Hook Clips

Spring loaded clip ideal for gripping component lead or wire

- 1000V, 10A
- 2mm gripping diameter
- 140mm overall length
- CAT IV-600V/3A max; CAT III-1000V

TL742 Heavy Duty Plunger Style Pincer Grip Set

Insulated, flexible silicon shaft with good heat resistance

- 1000V, 4A
- 5mm jaw opening
- 152mm overall length
- CAT IV-600V; CAT III-1000V

Leads, Clamp Adaptors, and Temperature Probes

TL805 Double Injected Test Leads

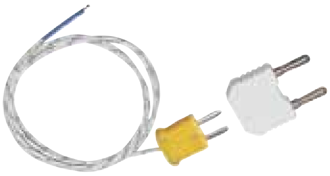
Non-slip comfort grip

- 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.
- Optional accessory — Insulated Alligator Clip (TL807), shown above

TL726 Double Molded Silicone Test Lead Set

Right angle and straight end flexible leads with shrouded banana plugs

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



TP873 Bead Wire Type K Temperature Probe

Use with a multimeter that has Type K temperature functions

TP873 . Bead wire with Type K connector and with banana adaptor (-30 to 300°C)

(See p. 60 for Penetration/Surface Temperature Probes)

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: 111x50x33mm Weight: 129g
- Complete with built-in 163cm cable with banana plugs

CA250 400A AC/DC Current Clamp Adaptor + NCV

Built-in non-contact AC voltage detector

- 30mm clamp jaw
- Measures AC/DC Current in two ranges: 0 to 40A (10mV per Amp output) and 0 to 400A (1mV per Amp output)
- ±2.5% basic accuracy, CAT III-600V; CE approved
- DC zero adjust
- Optional CA250-NIST available
- Dims: 146x60x32mm; Weight: 226g
- Complete with built-in 1.1m cable with banana plugs and two AAA batteries

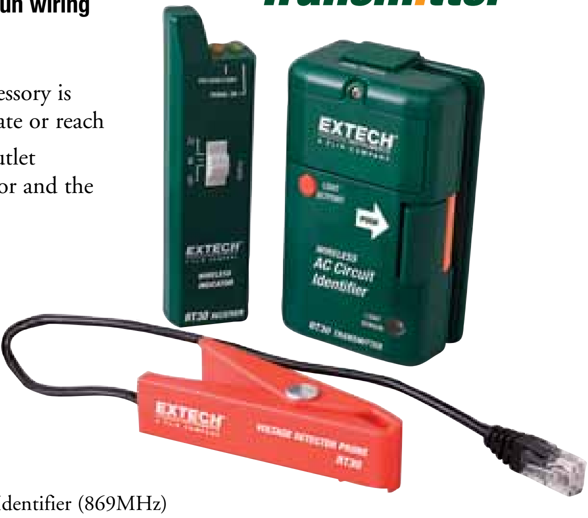
TP200/TP400 Type K Pipe Clamp Temperature Probes

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

- Spring-loaded jaw for secure grip on pipes; 6.35mm to 38mm diameter
- For use with any Thermometer or MultiMeter with a Type K input
- **Model TP200**: -20 to 93°C; ±5%FS basic accuray **Model TP400**: -20 to 232°C; ±1.8°C basic accuracy
- Complete with attached 0.9m cable and Type K connector

RT32 Wireless Remote AC Circuit Identifier

Virtual electrician's helper remotely identifies and confirms correct circuit for mid-run wiring



Features:

- Simplify mid-run wiring jobs by easily identifying the correct circuit powering the cable to be spliced or repaired
- The innovative RT32 combines non-contact voltage detection with wireless signals to monitor and remotely report the presence of voltage on a wire
- Clamped onto a live wire, the transmitter signals the user at the breaker panel with LED and audible alerts on the receiver (up to 100m range); The alerts stop when the correct circuit breaker is switched and work can then be performed safely
- Eliminates the need for an assistant or back-and-forth trips to confirm the correct circuit is powered down
- The RT32's clamp-style probe accessory is ideal for wires that are hard to isolate or reach
- Plus, easily identify lighting and outlet circuits with the built-in light sensor and the AC Outlet Extender accessory
- Includes transmitter, receiver, remote clamp-style probe, AC outlet extender, 4 "AAA" batteries and pouch case

FC Patent Pending

Ordering

RT32................ Wireless AC Circuit Identifier (869MHz)

(NOTE: USA, Mexico, and Canada use 914MHz model and majority of other countries use 869MHz model)

Finding a Live Circuit by Detecting Voltage
The RT32 can be directly clamped on installed building wiring and will detect the voltage applied to the wiring. When voltage is present, the Voltage/Light LED on the Transmitter and Receiver will illuminate and an audible tone will be heard. When the voltage is removed (i.e. by opening the circuit breaker or splice), the Voltage/Light LED will go out and the audible tone will stop.

Finding a Live Circuit by Detecting Light
If access to circuit wiring is limited, the RT32 can also detect room lighting changes. Using the built-in light sensor, the Transmitter can be set to detect when lighting is on or off. When a light is on, the Voltage/Light LED and audible tone is also on. When the light goes out (i.e. opening the circuit breaker or splice), the Voltage/Light LED will go out and the audible tone will stop.

1. Clamp the transmitter directly onto installed wiring to detect voltage.
2. The receiver alerts the user at the breaker panel with a voltage-present LED indicator and audible beep. Alerts cease when the right circuit breaker is switched off or a junction splice is opened in the circuit.
3. The compact, clamp-style probe accessory can be used on wires that are hard to isolate or reach, or where the RT32 transmitter cannot fit.

1

2

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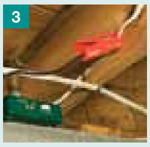


CT100 Network Cable Tester

Continuity Tester for twisted pair cables and F Type coaxial cables

Features:

- Tests cable lengths from 0.9-183m; Dims/Wt: 83x51x32mm/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

CT100 ....Network Cable Tester

CT40 16-Line Cable Identifier/Tester Kit

Troubleshoot electrical/electronic circuits and identify up to 16 local or installed lines

Features:

- CAT III-600V MultiMeter with 7 functions
- Transmitter/Receiver enables one person to remotely identify up to 16 wires
- Wire voltage check from 5 to 16VDC
- Data Hold, Max Hold, and Auto power off
- Low battery indicator (transmitter and receiver)
- Complete with 16-line Transmitter, MultiMeter/ Receiver, two 9V batteries, 2 AAA batteries, and case

Specifications

Function	
MultiMeter	
Basic Accuracy	1.0% DCV
DC/AC Voltage	0.1mV to 600VDC/ 1mV to 600VAC
DC/AC Current	0.1μA to 200mA
Resistance	0.1Ω to 20MΩ
Diode/Continuity	Yes
Transmitter/Receiver	
Display	Two blue LED lamps (Transmitter) Two digit red LED display (Receiver)
Test Leads	17 alligator clips -16 red, 1 black (Transmitter) 2 alligator clips - 1 red, 1 black (Receiver)
Cable resistance	10kΩ max
Dimensions/Wt	162x74.5x44mm/ 308g

Ordering

CT40 ....16-Line Cable Identifier/Tester Kit

CT20 Continuity Tester Pro

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

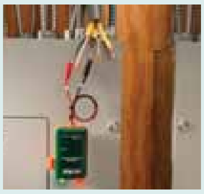
Features:

- Provides positive continuity checks with bright flashing LED and loud pulsating beeper
- Identify wire pairs and cables remotely using external probe
- Wire verification distance up to 3000m; cable size of 26AWG minimum
- 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
- Dims: 90x57x29mm; Wt: 260g
- Includes Remote probe with bi-color LED for wire identification highlight, test leads with alligator clips, 9V battery and pouch

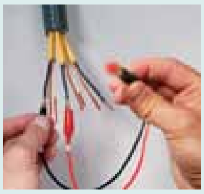
Patent pending

Applications:

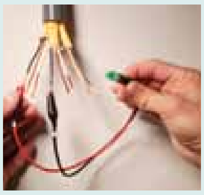
- Great for Electricians and Helpers, Cable TV and Audio System Installers, Alarm Technicians, HVAC Installers, and Auto Repair Technicians



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

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 - 228x57x25mm; generator - 64x64x38mm
  Weight: 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

40180.........Tone 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 - 147x28x28mm / 30g; Generator - 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

382252 Earth Ground Resistance Tester Kit

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

Features:

- Large dual display with backlight
- Test Hold function and Automatic Zero adjustment
- AC/DC Voltage, Resistance, and Continuity
- Auto Power off, Overrange and low battery indication

Specifications

Function	Range	Resolution	Basic Accuracy
Earth Ground Resistance ranges	20Ω/ 200Ω/2000Ω	0.01Ω/ 0.1Ω/1Ω	±(2%rdg+2d)
Test Current (Freq.)	<2.5mA (820Hz)		
AC Earth Voltage (Freq.)	0 to 200VAC (50 to 400Hz)		±(3%rdg+3d)
DC Voltage	0 to 1000V	0.1V	±(0.8%rdg+3d)
Resistance	0 to 200kΩ		±(1%rdg+2d)
Continuity	40Ω		
CE/Category rating	CE approved/ CAT III-1000V		
Dimensions/ Weight	200x92x50mm/ 700g (meter only)		

Complete with test leads, two auxiliary earth bars, carrying case,rubber holster and six 1.5V AA batteries

Ordering

382252 ....Earth Ground Resistance Tester Kit
382252-NIST ...382252 with NIST Certificate
382253 ....Replacement Earth Bars (2pk)
382254 ....Replacement Set of Test Leads

480846 8GHz RF EMF Strength Meter

Highest frequency radiation measurement in the 10MHz to 8GHz frequency range

Features:

- For electromagnetic field strength measurement including mobile phone base station antenna radiation, RF power measurement for transmitters, wireless LAN (Wi-Fi) detection/installation, wireless communication applications (CW, TDMA, GSM, DECT) and microwave leakage
- Non-directional (isotropic) measurement with three-channel (triaxial) measurement probe
- Max Hold and Average functions
- Manual store/recall up to 99 sets
- Level exceed audible alarm with user selectable threshold
- Complete with 9V battery and carrying case

Specifications

Sensor Type	Electric field
Frequency range	10MHz to 8GHz
Directional Characteristic	Isotropic, 3-dimensional
Measurement Ranges	20mV/m to 108.0 V/m 53µA/m to 286.4mA/m 1µW/m^2 to 30.93 W/m^2 0µW/cm^2 to 3.093 mW/cm^2
Audible Alarm	Adjustable threshold with On/Off
Memory	Manual save/recall of 99 sets
Dimensions/Weight	67x60x247xmm/ 250g

Ordering

480846 .....RF EMF Strength Meter (8.0GHz)

480836 3.5GHz RF EMF Strength Meter

High frequency radiation measurement in the 50MHz to 3.5GHz frequency range

Features:

- For electromagnetic field strength measurement of mobile phones, cell phone and base stations, microwave leakage
- Non-directional (isotropic) measurement with three-channel (triaxial) 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 53µA/m to 286mA/m 1µW/m^2 to 30.93mW/m^2 0µW/cm^2 to 3.093mW/cm^2
Audible Alarm	Adjustable threshold with On/Off
Memory	Manual save/recall of 99 sets
Dimensions/Weight	60x60x237mm/ 200g

Ordering

480836 .....RF EMF Strength Meter (3.5GHz)

480823 EMF/ELF Meter

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

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 19.99µTesla)
- ELF frequency bandwidth of 30 to 300Hz Single axis - sampling 2.5 times per second
- Dims: 132x71x25mm; Weight: 170g
- Complete with 9V battery

Ordering

480823 .....Electromagnetic Field Meter

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 with alligator clip, 9V battery, software, cable, and protective holster; CE approved

Specifications

Function	Range	Basic Accuracy
Inductance	2000.0µH, 20.000mH, 200.00mH, 2000.0mH 20.000H, 200.00H, 2000.0H, 10000H	±(0.7%rdg+Lux/10000+5d) (DF<0.5)
Capacitance	2000.0pF, 20.000nF, 200.00nF, 2000.0nF, 20.000µF, 200.00µF, 2000.0µF	±(0.7%rdg+5d) (DF<0.1)
Resistance	20.000Ω, 200.00Ω, 2.0000kΩ, 20.000kΩ, 200.00kΩ, 2.0000MΩ, 20.000MΩ,	±(0.5%rdg+8d)
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	19.2x9.1x5.25cm / 365g	

Ordering

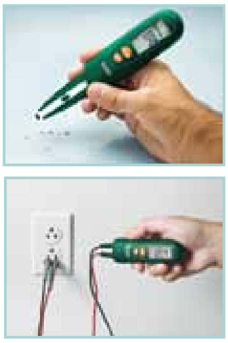
380193............... Passive Component LCR Meter
153220............... 230VAC adaptor

RC200 MultiMeter with SMD Tweezer Component Test

Interchangeable test leads for voltage and SMD Tweezers for fast, precise identification and measurement of surface mount components

Features:

- 6000 count LCD
- Measures AC/DC Voltage, Resistance, Capacitance, Continuity and Diode test
- Auto/manual ranging
- Overange and low battery indicators
- Auto Power off
- Complete with two AG13/LR44 batteries, test leads, SMD tweezers, and carrying case



SMD component for sorting or inspection using the attachable Tweezer Tip or take voltage measurements using the attachable test lead tip

Specifications

Function	Range	Resolution	Basic Accuracy
AC Voltage	600mV, 6V, 60V, 600V	0.1mV	±(1.0% of rdg + 4d)
DC Voltage	600mV, 6V, 60V, 600V	0.1mV	±(0.8% of rdg + 2d)
Resistance	600, 6k, 60k, 600k, 6M, 60MΩ	0.1Ω	±(1.5% of rdg + 8d)
Capacitance	6nF, 60nF, 600nF, 6µF, 60µF,	1pF	±(3.0% of rdg + 5d)
	600µF, 6mF, 60mF		
Diode Test	1mA @ 1.5V approx		
Continuity	<40Ω; 1.5mA test current Max.		
Dimensions	181 x 35 x 20mm		
Weight	65g		

Ordering

RC200............... MultiMeter with SMD Tweezer Component Test

---

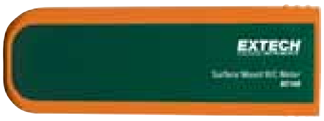
RC100 Passive Component R/C SMD Tweezer Tester

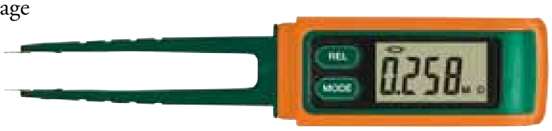
Fast, precise identification and measurement of surface mount components

Features:

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

One-handed operation for SMD component sorting or inspection





Specifications

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	181x35x20mm		
Weight	65g		

Ordering

RC100............... Passive Component R/C SMD Tweezer Tester

380462 Precision Milliohm Meter

Portable Milliohm meter provides resolution to 0.1mΩ

Features:

- High accuracy and performance for low resistance measurements
- Large 18mm LCD 1999 count
- Manual zero display adjust
- Overrange indication
- Compact, durable field service housing with protective cover

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	220VAC, 50Hz			
Dims/Wt	160x120x85mm/ 680g			

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

Ordering

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

380260 Handheld Megohmmeter

1000V digital tester with large dual backlit display

Features:

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

Specifications

Function	
Insulation Resistance	200MΩ, 2000MΩ
Max Resolution	0.1MΩ
Basic Accuracy	±3%
Insulation Test Voltages	250V, 500V, 1000V
AC Voltage Test	Yes
Low Resistance Test	Yes
Power source	6 x AA batteries
Dimensions	200 x 92 x 50mm
Weight	700g

Ordering

380260 .... Handheld Megohmmeter

380320 Analog Insulation Tester

Three Insulation Test Ranges with Live Circuit Warning that displays the actual AC voltage measurement

Features:

- Large easy to read analog display
- Three test voltages 250V, 500V, and 1000V
- Insulation Resistance to 400MΩ
- Lock Power On feature for extended test times
- Automatic discharge circuit
- Measures continuity to 3Ω , Resistance to 500Ω, and AC Voltage to 600V
- 1.3mA short circuit current
- Complete with test leads, 6 x AA batteries, hanging strap, and hard carrying case

Measures the insultation resistance of motors

Specifications

Function	
Test Voltage	250V/500V/1000V
Insulation Resistance	0 to 100MΩ, 0 to 200MΩ, 0 to 400MΩ
Accuracy	±5% of scale
AC Voltage	0 to 600V
Accuracy	±5% of scale
Resistance	1 to 500Ω
Accuracy	±3% of scale
Continuity	3Ω
Accuracy	±3% of scale
Dimensions/Weight	200 x 92 x 50mm/ 546g (includes batteries)

Ordering

380320 .... Analog Insulation Tester

480400/480403 Motor Rotation and 3-Phase Testers

Check 3-phase sequence and motor rotation

Features:

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

480400 3-Phase Tester

- Multi-line LCD Displays; No battery required

480403 Motor Rotation and 3-Phase Tester

- LEDs display motor rotation and phase status
- Indicates rotation direction of motor
- Determine rotation of a motor without contact
- Ensures motor is not damaged from incorrect wiring

Specifications

Function	480400	480403
Phase Sequence	Yes	Yes
Voltage	40 to 600V	40 to 600V
Frequency	15 to 400Hz	2 to 400Hz
Motor Rotation	—	Yes
CE/Category Rating	CE, CAT III-600V	
Dimensions	130x69x32mm/130g	

Ordering

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

MA640-K Phase Rotation/ Clamp Meter Test Kit

Ideal kit for plant maintenance — True RMS Clamp Meter with multimeter functions, 3-phase rotation tester, and CAT IV AC Voltage Detector

Features:

- **Model MA640** — 600A True RMS 6000 count AC/DC Clamp-on MultiMeter with built-in non-contact AC Voltage Detector (see p. 35 for specifications)
- **Model 480400** — 3-Phase Rotation Tester with multi-line LCD display, durable double-molded housing, and easy-to-open wide-jaw alligator clips (see above page for specifications)
- **Model DV25** — Dual Range AC Voltage Detector (24 to 1000VAC/100 to 1000VAC) + Flashlight with Audible/ Visual indication, double-molded housing, and CAT IV-1000V safety rating (see p. 23 for specifications)
- Set of double molded professional test leads
- Type K thermocouple bead probe and Type K to Banana Input Adaptor
- Supplied in a heavy duty carrying case that provides protection and organization for the meters whenever they are needed
- Dimensions: 248x203x54mm; Weight: 590g

Ordering

MA640-K.............. Phase Rotation/Clamp Meter Test Kit

DL152 True RMS AC Voltage/Current Datalogger

Datalog up to 100,000 readings with user programmable sample rate from 1 second to 24 hours

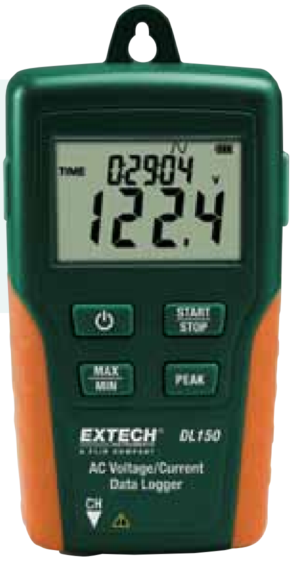
Features:

- Measure True RMS AC Voltage (600V) or Current (200A)
- Readings can be downloaded to your PC via the USB interface and analyzed using the included software or exported to a spreadsheet
- High/Low user-settable alarms
- LCD indicates time/date, current readings, Min/Max, and whether alarm settings have been exceeded
- Normal, Peak and Capture (user-specified trigger level) recording modes
- Auto Power off and battery check
- Complete with current clamp, test leads, alligator clips, USB cable, Windows® compatible software, AC adaptor, and 3.6V Lithium battery

Specifications

Function	Range	Resolution	Basic Accuracy
AC Current	2 to 200A	0.1A	±(2% rdg ± 1A)
AC Voltage	6 to 600V	0.1V	±(1.5% rdg ± 1V)
Memory	100,000 points		
Sampling Rate	1 second to 24 hours		
PC Interface	USB includes software		
Power	3.6V Lithium battery		
Dimensions	114 x 63 x 34mm		
Weight	248g		

Datalogger and accessories are conveniently packaged in a protective hard carrying case



Ordering

DL152 .... True RMS AC Voltage/Current Datalogger

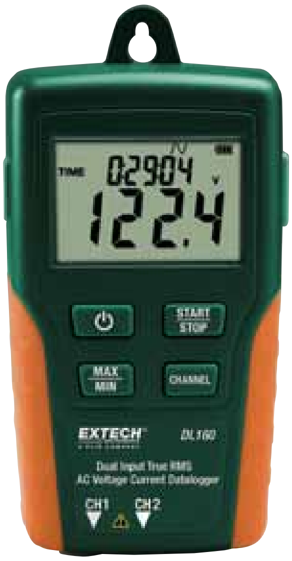
DL160 Dual Input True RMS AC Voltage/Current Datalogger

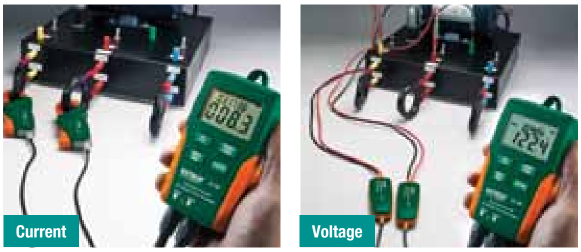
Datalog up to 256,000 readings with user programmable sample rate from 1 second to 24 hours

Features:

- Simultaneously measure two AC Voltage inputs or two AC Current inputs or one AC Voltage and one AC Current input
- Readings can be downloaded to your PC via the USB interface and analyzed using the included software or exported to a spreadsheet
- High/Low user-settable alarms
- LCD indicates time/date, current readings, Min/Max, and whether alarm settings have been exceeded
- Auto Power off and battery check
- Complete with two Current sensor modules, two Voltage sensor modules, two sets of test leads, two sets of alligator clips, USB cable, Windows® compatible software, universal AC Adaptor, 4 AAA batteries and two memory 2032 button batteries

Datalogger and accessories are conveniently packaged in a protective hard carrying case





Datalog up to 256,000 True RMS Current and Voltage readings. Captured readings can be downloaded to your PC, using the included USB cable and software, for further analysis. Readings can also be exported into a spreadsheet for creating charts and graphs.

Specifications

Function	Range	Resolution	Basic Accuracy
AC Current	2 to 200A	0.1A	±(2% rdg ± 1A)
AC Voltage	6 to 600V	0.1V	±(1.5% rdg ± 1V)
Memory	100,000 points		
Sampling Rate	1 second to 24 hours		
PC Interface	USB includes software		
Power	3.6V Lithium battery		
Dimensions	114 x 63 x 34mm		
Weight	248g		

Ordering

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

380363 Digital Insulation Tester

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

Features:

- 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

Function	
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
Dimensions	235 x 116 x 54mm
Weight	520g

Ordering:
380363 .Digital Insulation Tester

380396 Digital High Voltage Insulation Tester

High test Voltages up to 5kV with Insulation Resistance to 60GΩ

Features:

- Test Voltages of 500V, 1000V, 2500V, and 5000V
- Measure Insulation Resistance to 60GΩ
- Large 6000 count display with bargraph and backlight
- Polarization Index measurement (PI)
- Dielectric Absorption Ratio measurement (DAR)
- AC/DC Voltage measurement from 0 to 600V with Max/Min, Peak and Relative functions
- 1 to 15 minute timer function for IR measurements
- Resistance measurement
- Indication of output voltage and discharge voltage
- Auto-discharge function and voltage output warning function
- Autoranging, Auto Power off and battery check functions
- Complete with test leads, 8 x C batteries, AC adaptor, and heavy duty carrying case

Specifications

Function	
Test Voltage	500V/1000V/2500V/5000V
Insulation Resistance	0 to 6MΩ , 0 to 60MΩ , 0 to 600MΩ , 0 to 6GΩ , 0 to 60GΩ
Accuracy	±2.5% of reading
AC/DC Voltage	0 to 600V
Accuracy	±1% of reading
Resistance	0 to 600Ω
Accuracy	±1.5% of reading
Continuity	50Ω
Power	Eight type C batteries
Dimensions	198 x 148 x 86mm
Weight	1438g

Ideal for motor insulation test

Ordering:
380396 .Digital High Voltage Insulation Tester

380976 1ϕ/3ϕ 1000A AC Power Clamp Meter

Measures Current, Insulation Resistance, Temperature (Type K) and Power including True Power, Apparent Power, and Reactive Power

Features:

- 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
- Max/Min recording with elapsed time indication
- 40mm clamp jaw opening
- Auto Detect AC/DC Voltage measurements with simultaneous frequency display
- Capacitance, Resistance, Type K temperature, Diode and Continuity tests
- Auto power off with disable feature
- Complete with test leads, general Type K probe, carrying case and 9V battery

Specifications

Function		
True Power	600kW / 10W	±5%+ 20d
Apparent Power	600kVA / 10kVA	±2%+ 20d
Reactive Power	600kVAR/10VAR	±5%+ 20d
Horsepower	800HP/0.01HP	±5%+ 20d
Phase Angle	-60 to +60° / 0.1°	±6°
AC Current	1000A / 10mA	±2%+ 20d
µA Current (AC+DC) (Trms)	1000µA / 10nA	±1%+ 20d
AC/DC Voltage (Trms)	600V / 0.1mV	±1%+ 20d
Resistance	1000kΩ / 0.1Ω	±1%+ 10d
Resistance	100MΩ / 1kΩ	±5%+ 10d
Capacitance	7000µF / 1nF	±1.5%+ 5d
Frequency	40Hz to 1kHz / 0.1Hz	±0.5%+ 2d
Temperature (Type K)	-50 to 900°C / 0.1°C	±1%+ 1°C
Dimensions/ Weight	228 x 76 x 39mm/ 465g	

Ordering

380976 .... 1ϕ/3ϕ 1000A AC Power Clamp Meter

382091 1000A 3-Phase Power Analyzer/Datalogger

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

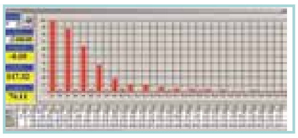
Features:

- Large backlighting LCD displays 10 parameters simultaneously (kW, kVAR, kVA, PF plus the voltage and current of the 3 phases)
- Auto datalogs up to 20,000 sets of readings and manually logs up to 99 sets
- Clamp-on True RMS power measurements with software for Harmonics analysis
- Programmable Start/Stop datalogging times
- Up to four current probes can be connected to the analyzer
- Measures Current, Voltage, Frequency, and Phase sequence
- PC interface with Windows® compatible software for single and three phase voltage/ current Waveform display & Harmonic analysis
- Auto power off with disable feature

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

Specifications

Function	Range	Basic Accuracy
AC Voltage (True rms)	999.9V	±0.5%rdg
AC Current	250.0, 500.0, 1000.0A	±1%rdg
Active Power (kW)	999.9kW	±1.5%rdg
Apparent Power (kVA)	999.9kVA	±1.5%rdg
Reactive Power (kVAR)	999.9kVAR	±1.5%rdg
Power Factor	-1.000 to +1.000	±3%rdg
Frequency	60Hz to 100Hz	±0.5%rdg
Phase	+90.0°~ 0°~ -90.0°	±3°
Active Power Energy (kWh)	0.0kWh to 119.3MWh	±1.5%rdg
Apparent Power Energy (kVAh)	0.0kVAh to 119.3MVAh	±1.5%rdg
Reactive Power Energy (kVARh)	0.0kVARh to 119.3MVARh	±1.5%rdg
Harmonics	1 to 31 (with the software)	±1.5%rdg
Datalogging	20,000 reading (automatically); 99 sets (manually)	
UL/CE/CAT rating	UL/CE/CAT III-1000V	
Dimensions/ Weight	235 x 116 x 54mm/ Meter: 730g; Clamp: 333g	



Software included for Harmonics Analysis

Ordering

382091 .... 1000A 3-Phase Power Analyzer/Datalogger (220V)

Accessories

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

EXTECH INSTRUMENTS
A FLIR COMPANY

3-Phase Power Analyzer/Datalogger

Extech's Advanced Power Analyzers can optimize your plant energy efficiency potential and drive down electrical costs:

- Simplify troubleshooting and analysis of electrical demand trends throughout your plant.
- Reveal peak-demand periods, power factor inefficiency, voltage fluctuations, under or over utilized and imbalanced motors
- Identify equipment inefficiencies and electrical conditions that may cause plant shutdowns
- Rapidly pays for itself through substantial energy savings and promotes a power system that is well managed and a cost efficient part of a facility

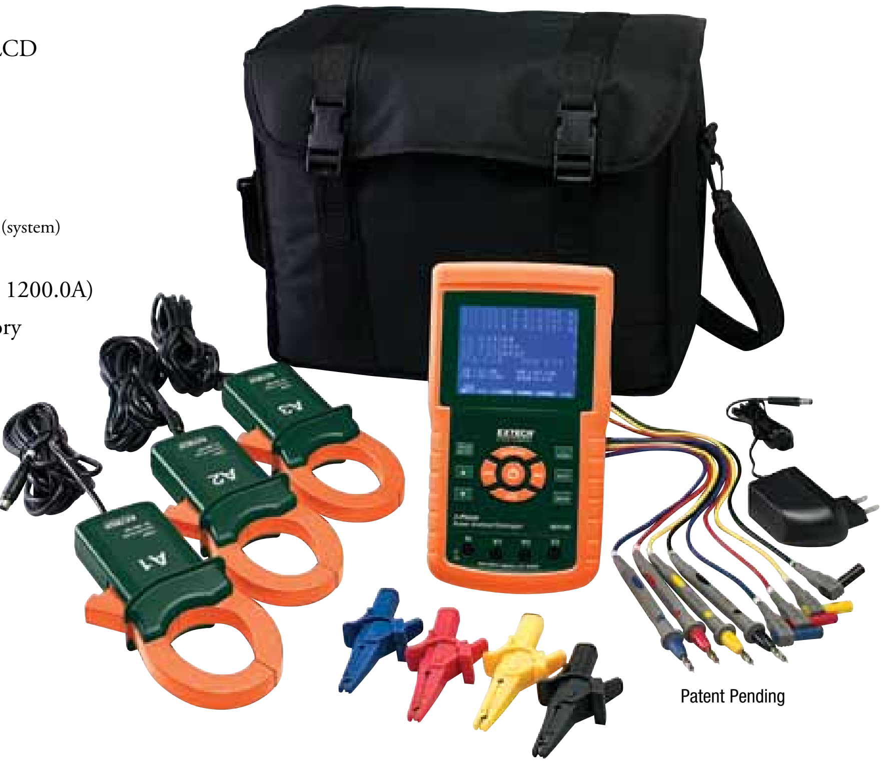
382100 1200A 3-Phase Power Analyzer/Datalogger

Saves data on SD card in Excel® format for easy PC analysis

Numerical display (sun readable) plus SD card data storage

Features:

- Large, dot-matrix, sun readable, numerical, backlit LCD
- Full system analysis with up to 35 parameters
  - V(phase-to-phase), V(phase-to-ground)
  - A(phase-to-ground)
  - KW(phase)/ KVA(phase)/ KVAR(phase)/ PF(phase)
  - KW(system)/ KVA(system)/ KVAR(system)/ PF(system)
  - KWH(system)/ KVAH(system)/ KVARH(system)/ PFH(system)
  - Phase angle
- High accuracy auto ranging current clamps (0.2A to 1200.0A)
- Log up to 60,000 reading on a removable SD memory card in Microsoft Excel® format
- 600.0 VAC input with CATIII 600V safety rating
- Adjustable Current Transformer (CT) and Voltage Transformer (VT) Ratio, for high power distribution systems.
- Wide sampling rate range (2 seconds to 2 hours)
- Easy to use on-screen menu
- Easy to grab rugged over molded housing



Patent Pending

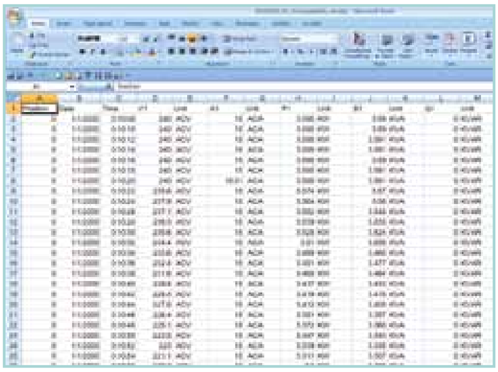
Complete with 3 current clamps, 4 voltage leads with alligator clips, 8 AA batteries, SD memory card, Universal AC adaptor (100 to 240V), and case

Applications

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

Specifications

Function	Range	Basic Accuracy
AC Voltage (True rms)	600.0V	±0.5%rdg
AC Current	1200A	±0.5%rdg
Active Power (MW)	9.999MW	±1.0%rdg
Apparent Power (MVA)	9.999MVA	±1.0%rdg
Reactive Power (MVAR)	9.999MVAR	±1.0%rdg
Power Factor	0.00 to 1.00	±0.04
Frequency	45Hz to 65Hz	±0.1Hz
Phase Angel	-180.0° to +180.0°	±1°
Active Power Energy (MWh)	0.0kWh to 9.999MWh	±2.0%rdg
Apparent Power Energy (MVAh)	0.0KVAh to 9.999MVAh	±2.0%rdg
Reactive Power Energy (MVARh)	0.0kVARh to 9.999MVARh	±2.0%rdg
Datalogging	60,000 reading (2GB SD memory card)	
CE/CAT rating	CE/CAT III-600V	
Dimensions	225 x 125 x 64mm	
Weight	Meter: 1049g; Clamp: 522g	



Transfer data from meter to PC using Excel® software and datalogged readings from the SD memory card (included)

Backlit LCD displays numerical values

SD memory card included

Ordering

382100 .... 1200A 3-Phase Power Analyzer/Datalogger

Accessories

382000 .... Voltage Test Leads with Alligator Clips (4 leads)

382096 1000A 3-Phase Graphical Power & Harmonics Analyzer

Graphical display for analysis of measured data

Features:

- Large, dot-matrix, Graphical, backlit LCD
- Full system analysis with up to 35 parameters
  - V(phase-to-phase), V(phase-to-ground)
  - A(phase-to-ground)
  - KW(phase)/ KVA(phase)/ KVAR(phase)/ PF(phase)
  - KW(system)/ KVA(system)/ KVAR(system)/ PF(system)
  - KWH(system)/ KVAH(system)/ KVARH(system)/ PFH(system)
  - Maximum Demand (MDkW, MW, kVA, MVA)
  - Unbalance factor (VUR, IUR)
  - Phase angle
- On-screen Harmonics display (1-99th order)
- High accuracy manual ranging current clamps (10.0A, 100.0A, 1000.0A)
- Display of Waveform with Peak Values (1024 samples/period)
- 600.0 VAC input with CAT III-600V safety rating
- Full system graphical phase diagram
- Adjustable Current Transformer (CT) and Voltage Transformer (VT) Ratio, for high power distribution systems
- Log up to 52,428 reading (1P2W) on internal non-volatile memory
- Capture 28 Transient events (Dips,Swells and Outages)
- Wide sampling rate range (2 seconds to 2 hours)
- Optically isolated USB interface with software
- Easy to use on-screen menu

Applications

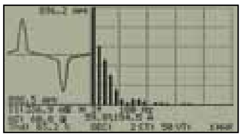
- AC Power Quality Evaluation
- Harmonics Analysis
- Motor/Generator Installation
- Energy Audits

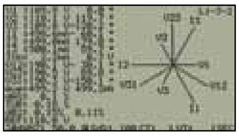
Specifications

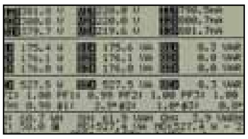
Function	Range	Basic Accuracy
AC Voltage (True RMS)	600V	±0.5%rdg
AC Current (True RMS)	100A, 1000A, *3000A	±0.5%rdg
Active Power (kW)	9.999MW	±1%rdg
Apparent Power (kVA)	9999kVA	VA=Vrms x Arms
Reactive Power (kVAR)	9999kVAR	VAR= sqr (VA^2-W^2)
Power Factor	0.0 to +1.00	±1.5%rdg
Frequency	45-65Hz	0.1Hz
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)	
CE/CAT rating	CE approved/ CAT III-600V	
Dimensions	Meter: 257 x 155 x 57mm Clamp: 55mm, 64x24mm busbar	
Weight	Meter: 1160g; Clamp: 1.3 lbs (600g)	

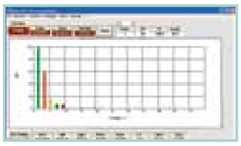
Graphical display plus Harmonics function

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

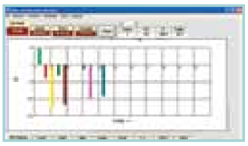

Harmonics Analysis


Phase Analysis


Power Analysis


Software Harmonics Analysis

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


Software Harmonics Phase Analysis

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

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

Ordering

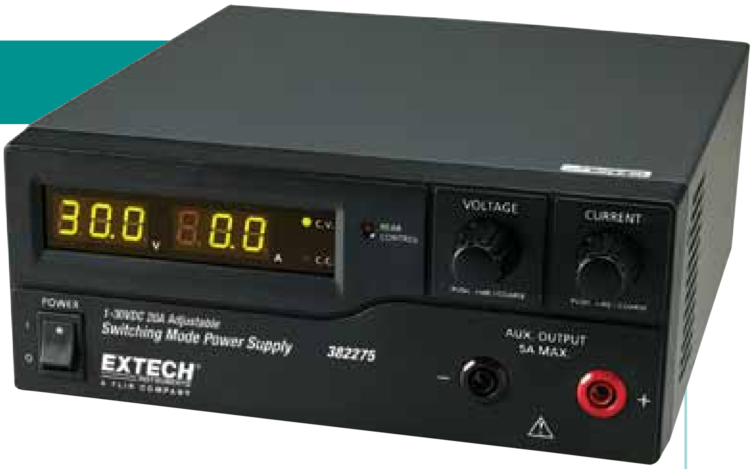
382096 .. 1000A 3-Phase Power & Harmonics Analyzer (220V)

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)

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 382276



600 Watt Switching Power Supply

High effeciency single output with minimum power loss

User-Defined Presets

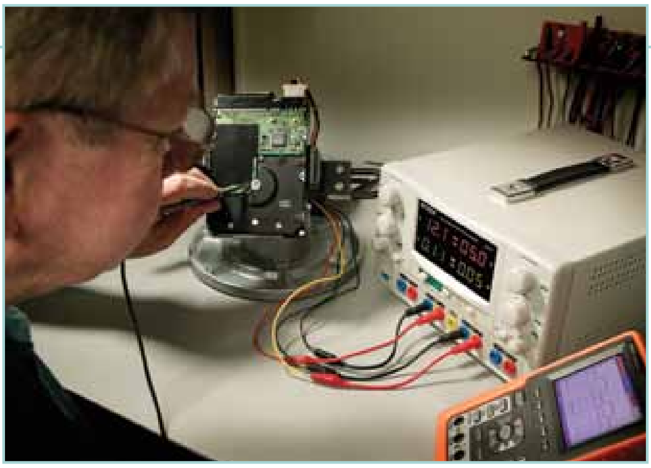
Two user-defined presets and one 13.8V/20A factory preset

Intelligent Fan Speed Control

Produces a quiet running power supply

Remote Control

For Output Voltage/Current and On/Off



Specifications

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

382270 210 Watt Quad Output DC Power Supply

Two fully adjustable outputs combined with two auxiliary (semi adjustable) outputs

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

382280 200 Watt Triple Output Programmable DC Power Supply

40V/5A programmable supply with high resolution output and 200 test setup memories; 1 adjustable and 2 fixed outputs

- 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

382276 600 Watt Single Output Laboratory Grade DC Power Supply

Dual Action Voltage and Current Controls with push knob for fine and coarse adjustments

- Remote Control for output Voltage/Current and On/Off
- Two user-defined Voltage and Current presets and one 13.8V/20A factory preset
- Adjustable 0 to 30V/ 0 to 20A output
- Automatic Constant Current crossover
- Dual 3-Digit LED displays
- High RFI immunity and excellent EMI
- Thermostatic Control Fan from zero to full speed
- Overload, over-temperature, and short circuit protection
- Low profile and small footprint
- Complete with power cord

382270	382280	382276
Digital LED (Dual display)	Digital Backlit LCD (dual display)	Digital LED (Twin display)
0 to 30V, 0 to 30V, 3 to 6.5V, 8 to 15V	0 to 40V (1mV)	0 to 30V (0.1V)
5A 5A 3A 1A	0 to 5A (1mA)	0 to 20A (0.1A)
±(0.5%+2 digits)	±(0.05%+9mV), ±(0.2%+9mA)	±(0.5%+2 digits)
Linear	Linear	Switching
<0.5mV	<3mV	<5mV
<0.02%+3mV	—	<20mV
<0.02%+3mV	1mV/A	<50mV/100mA
110/240VAC (50/60Hz)	110/220 VAC (50/60Hz)	220 VAC (50/60Hz)
260x160x370mm	310x250x135mm	200x90x215mm
12kg	4.5kg	2.6kg
—	Yes	Yes

42509 IR Thermometer with Color Alert

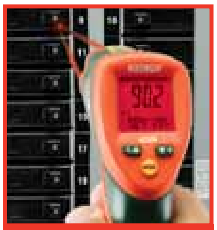
Programmable alarm with fast two-color display and audible alarm

Fastest and Easiest to use

Features:

- Great for processes that require temperature control and monitoring
- Fast, accurate measurements at 30.5cm where the two lasers converge with 12:1 field of view
- Measures up to 510°C
- Blue backlit dual LCD display changes to Red when reading exceeds High or Low set points
- Exclusive 150 millisecond instantaneous response for capturing spikes in temperature
- Max mode captures and holds rapidly changing temperatures
- Lock function for continuous readings
- 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 case and 9V battery

Blue backlight: within temperature range



Red backlight plus audible alert: exceeds temperature

Specifications

Function	
Laser Convergence Distance	30.5 cm
Range	-20 to 510°C
Repeatability	±0.5% or 1°C
Basic Accuracy	±(1% of rdg + 1°C)
Max resolution	0.1°C
Emissivity	0.10 to 1.00 Adjustable
Field of View (Distance to Target)	12:1
Warranty	3 years
Dimensions/Weight	146x104x43mm/163g

Ordering

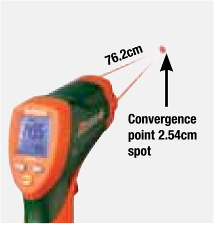
42509	30.5cm Distance Dual Laser InfraRed Thermometer
42509-NIST	42509 with NIST Certificate

42512 Dual Laser IR Thermometer

Fast and accurate measurements to 1000°C

Features:

- Dual laser simplifies distance-to-target ratio—no more calculations!
- Accurate measurements at 76.2cm distance
- Exclusive 150 millisecond instantaneous response for capturing spikes in temperature
- Max mode captures and holds rapidly changing temperatures
- Lock function for continuous readings
- White backlit dual LCD display
- Adjustable emissivity increases measurement accuracy for different surfaces
- Double molded housing
- Adjustable High/Low set points with audible alarm alerts user when temperature exceeds the programmed set points
- Complete with carrying case and 9V battery



76.2cm Distance IR

Fast response captures hot spots

Specifications

Function	
Laser Convergence Distance	76.2 cm
Range	-50 to 1000°C
Repeatability	±0.5% or /1°C
Basic Accuracy	±(1% of rdg + 1°C)
Max resolution	0.1°C
Emissivity	0.10 to 1.00 Adjustable
Field of View (Distance to Target)	30:1
Warranty	3 years
Dimensions/Weight	146x104x43mm/163g

Ordering

42512	76.2cm Distance Dual Laser InfraRed Thermometer
42512-NIST	42512 with NIST Certificate

42570 High Temperature IR Thermometer

Fast response (100mS) with highest accuracy at point where dual lasers converge plus Type K input and USB interface

Features:

- High 50:1 distance to target ratio measures smaller surface areas at greater distances
- Dual Laser Targeting indicates ideal measuring distance when two laser points converge to 2.5cm target spot
- Fast 0.10 second response time
- Lock function for continuous measurements
- Stores up to 100 readings
- White backlit LCD with bargraph
- MAX/MIN/AVG/DIF functions
- Adjustable emissivity
- Adjustable High/Low set points with audible alarm
- Tripod mounting feature
- Complete with general Type K bead wire probe, USB cable and PC software, tripod, 9V battery and case

(See page 60 for Type K Thermocouple probes)

Type K input

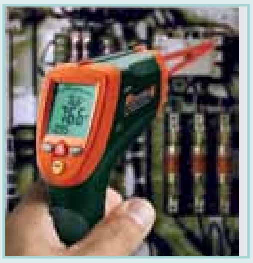
Specifications

Function	
Laser Convergence Distance	1.27m
IR Temperature Range	-50 to 2200°C
Repeatability	±0.5% or 1°C
Basic Accuracy	±(1% of rdg + 1°C)
Max resolution	0.1°C
Emissivity	0.10 to 1.00 Adjustable
Field of View (Distance to Target)	50:1
Type K Range	-50 to 1370°C
Warranty	3 years
Dimensions/ Weight	204x155x52mm/ 320g

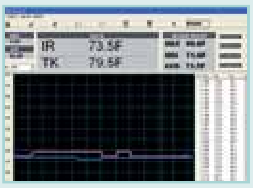
Ordering

42570	1.27m Distance Dual Laser InfraRed Thermometer
42570-NISTL*	42570 with NIST Certificate

**Limited NIST for Certificate of Traceability from -20 to 815°C.*



Fast, easy-to-use, dual laser pointer converge at 1.27m distance from target providing precise reading without the guesswork.



PC software included

42515 IR Thermometer Type K Input with Memory

Automatic Emissivity Adjustment allows accurate measurement of virtually any surface

Features:

- Wide temperature range for IR temperature and type K thermocouple measurements
- Automatic emissivity adjustment (for temperatures 100°C 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, general type K bead wire probe, and soft case

See page 60 to order other Type K probes

Type K input for contact measurements

Specifications

Function	
Range	IR: -50 to 800°C
	Type K: -50 to 1370°C
Basic Accuracy	IR: (±2% Reading or 2°C) whichever is greater <500°C ±(2.5%rdg+5°)> 500°C Type K: (±1.5% Reading ±3°C)
Max. Resolution	0.1°C
Emissivity	Adjustable 0.10 to 1.00
Field of View	13:1 distance to target ratio
Warranty	3 years
Dimensions/Weight	82 x 42 x 160mm/180g

Ordering

42515	InfraRed Thermometer with Type K Input
42515-NIST	42515 with NIST Certificate

42510A Mini IR Thermometer

Compact thermometer measures up to 650°C

Features:

- Adjustable high/low visual and audible alarm
- Adjustable emissivity for better accuracy on different surfaces
- Measures temperature from -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

Compact Handheld size

Specifications

Function	
Laser Convergence Distance	76.2 cm
Range	-50 to 1000°C
Repeatability	±0.5% or /1°C
Basic Accuracy	±(1% of rdg + 1°C)
Max resolution	0.1°C
Emissivity	0.10 to 1.00 Adjustable
Field of View (Distance to Target)	30:1
Warranty	3 years
Dimensions/Weight	146x104x43mm/163g

Ordering

42510A.................... Mini InfraRed Thermometer (650°C)
42510A-NIST.......... 42510A with NIST Certificate

42505 Mini IR Thermometer

Compact thermometer measures up to 260°C

Features:

- 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

Compact Handheld size

Specifications

Function	
Range	-20 to 260°C
Basic Accuracy	±3% of reading or ±3°C (whichever is greater)
Max. Resolution	1°C
Emissivity	0.95 fixed
Field of View (Distance to Target)	6:1
Dimensions	82x44x170mm
Weight	140g

Ordering

42505....................... Mini InfraRed Thermometer (260°C)
42505-NIST............ 42505 with NIST Certificate

SD200 3-Channel Temperature Datalogger

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

Features:

- Triple LCD simultaneously displays 3 Type-K Temperature channels
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto
- Complete with (6) AAA batteries, 2G SD card, Univeral AC Adaptor, (3) general Type-K bead temperature probes, and mounting bracket

Simultaneously record and time stamp multiple temperature readings.

Specifications

Function	
Temperature	-100 to 1300°C
Resolution	0.1°C
Basic Accuracy	±(0.5% + 0.5°C)
Memory	2,000K data using 2G SD memory card
Dimensions	132 x 80 x 32mm
Weight	282g

Ordering

SD200...................... 3-Channel Temperature Datalogger

421509 Seven Thermocouple Datalogger with Alarm

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

Features:

- 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, and AVG
- 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, Windows® 95/98/ME/NT/2000/XP compatible software, RS-232 cable, protective holster, and 9V battery

Dual Type K Thermometer for differential temperature measurement in HVAC applications

Specifications

Function	Range	Resolution	Basic Accuracy
K type	-200 to 1372°C	0.1°/1°	±(0.05% rdg + 0.3°C)
J type	-210 to 1200°C	0.1°/1°	±(0.05% rdg + 0.3°C)
T type	-200 to 400°C	0.1°/1°	±(0.05% rdg + 0.3°C)
E type	-210 to 1000°C	0.1°/1°	±(0.05% rdg + 0.3°C)
R type	0 to 1767°C	1°	±(0.05% rdg + 2.0°C)
S type	0 to 1767°C	1°	±(0.05% rdg + 2.0°C)
N type	-50 to 1300°C	0.1°/1°	±(0.05% rdg + 0.4°C) 0°C to 1300°C
Dimensions/Wt	192x91x52.5mm; 365g		

Ordering

421509 .... Seven Thermocouple Datalogger with Alarm
421509-NIST .... 421509 with NIST Certificate

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

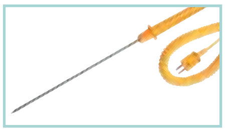
IR Thermometer Probe

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

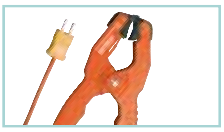
Triple Display

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

Accessories



TP882 High Temperature Penetration Probe



TP200 Clamp Probe

TP200	Type K Clamp Probe (-40 to 100°C)
TP882	Type K Penetration Probe (-45 to 537°C)
872502	Type J Bead Wire Probe (-200 to 200°C)
801515	Type J, 100mm General Purpose Temperature Probe (-200 to 450°C)

See page 60 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, TM100-NIST, EA10-NIST, EA15-NIST, and HD200-NIST

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

EA11A EasyView® Type K Single Input Thermometer

Large dual LCD display with 0.3% accuracy and memory

- Simultaneously displays current temperature and Max/Min/Avg or stored memory location
- Manually store/recall up to 150 readings
- Data Hold and Auto power off
- Records MAX/MIN/AVG readings for later recall
- Complete with built-in stand, protective holster, general Type K bead wire probe and 6 AAA batteries. (Optional temperature probes available on page 60)

TM100 Type J/K Single Input Thermometer

Side-mounted controls allow for convenient one-handed operation

- Large backlit LCD display
- Wide temperature range with 0.1°/1° resolution
- Readout in °C, °F, or K (Kelvin)
- Data Hold function freezes reading on display
- Max/Min/Avg readings with relative time stamp
- Offset key used for zero function to make relative measurements
- Auto Power off with disable feature
- Complete with general Type K bead wire temperature probe and 9V battery. (Optional temperature probes available on page 60)

Specifications

Model	EA11A	TM100
Single or Dual Input	Single	Single
Type K	-50 to 1300°C	-200 to 1372°C
Type J	—	-210 to 1100°C
InfraRed	—	—
Basic Accuracy	±0.3% rdg	±0.15% rdg
Resolution	0.1°/1°	0.1°/1°
Datalogging	—	—
Dimensions	150x72x35mm	220x 63 x 28mm
Weight	235g	200g
CE	Yes	Yes

Software Included

USB port with
PC Software

EA10 EasyView® Type K Dual input Thermometer

Big backlit display with relative and elapsed time indication

- Displays [T1 and T2] or [T1-T2 and T1] or [T1-T2 and T2]
- Selectable units of °C/°F or Kelvin
- Timer function displays elapsed time plus the time when MAX/MIN readings are taken
- OFFSET key used for zero function to make relative measurements
- Data hold and Auto power off
- Complete with built-in stand, protective holster, two general Type K bead wire temperature probes, and 6 AAA batteries. (Optional temperature probes available on page 60)

EA15 EasyView® 7 Thermocouple Datalogger

Internal memory stores up to 8800 data sets

- Seven Thermocouple type selections: K, J, T, E, R, S, N
- Large backlit display
- Stores Time, T1 and T2
- Manual push-button datalogging or automatic with programmable sample rate of 3 to 355 seconds per reading
- Manual record/recall of data
- Data Hold and Auto power off
- MAX/MIN/AVG or MAX/MIN with elapsed time
- Complete with two general Type K bead wire temperature probes, Windows® 95/98/ME/NT/ 2000/XP compatible software, RS-232 cable for data transfer, protective holster, case, and 6 AAA batteries. (Optional temperature probes available on page 60)

HD200 Differential Thermometer Datalogger + IR

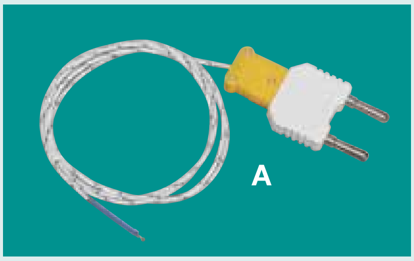
Automatically stores up to 18,000 readings and takes differential temperature readings with dual Type K thermocouple probes plus non-contact surface temperature measurement using IR Thermometer Probe

- 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 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 general Type K bead wire temperature probes, IR probe, built-in stand, Windows® compatible software, USB cable, hard carrying case, and 9V battery; 3 year warranty

(Optional temperature probes available on page 60)

EA10	EA15	HD200	**Model**
Dual	Dual	Dual + IR	**Single or Dual Input**
-200 to 1360°C	-150 to 1090°C	-200 to 1372°C	**Type K**
—	-150 to 1370°C	—	**Type J**
—	—	-30 to 550°C with IR probe	**InfraRed**
±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**
152x72x37mm	150x72x35mm	201x75x50mm	**Dimensions**
235g	235g	280g	**Weight**
Yes	Yes	Yes	**CE**

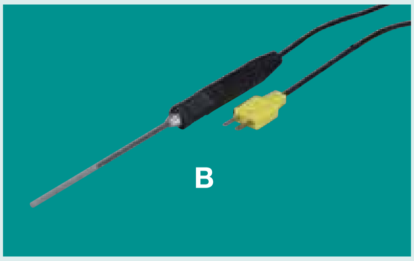
Thermocouple Temperature Probes



Bead Wire probe

Probe for air and surface temperature measurement (not suitable for liquids).

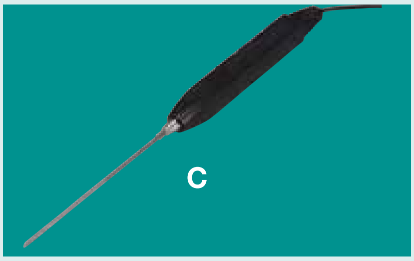
A. TP873 ...... Type K Bead Wire Temperature Probe (-30 to 300°C)



General Purpose probe

Suitable for air and liquid temperature measurement.

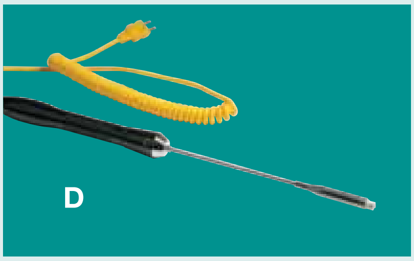
B. 871515 ..... Type K, 4" (100mm) General Purpose Probe (-200 to 700°C)



Penetration probe

Ideal for food service, liquids or gels.

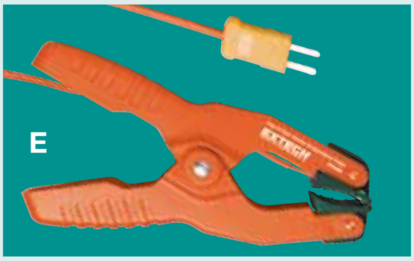
C. 881603 ..... Type K, 150mm Immersion Probe, (-50 to 700°C)



Surface probe

Flat tip is specially designed for making surface temperature measurements.

D. 881602 .... Type K, 150mm Surface Probe, (-50 to 800°C)



Clamp probe (100°C)

Conveniently fits 6.4 to 38mm pipes

E.TP200 .... Type K Pipe Clamp Probe, (-40 to 100°C)

High Temperature Clamp probe (232°C)

Conveniently fits 6.4 to 38mm pipes

F. TP400 ...... Type K Pipe Clamp Probe, (-20 to 232°C)

Carrying Cases

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

CA899......Large case w/ shoulder strap2 54x127x76mm

CA895......Small Vinyl case w/ Belt Loop 216x95x44mm

CA904......Large hard case for meter and accessories

CA899

CA895

CA904

Temperature Indicators and Stem Thermometers

Soft pouch case included

392085 Pocket Thermometer

Audible High/Low Alarms

- Audible alarm alerts user when pre-set MAX/MIN temperature is reached or exceeded; Data Hold
- Durable 64mm stainless steel probe with 508mm cable
- Temperature: -50 to 150°C, ±1°C basic accuracy, 0.1°/1° resolution
- Dims: 122x76x20mm Weight:96g
- Complete with case, stainless steel probe, and 1.5V button battery

401014 Big Digit Indoor/Outdoor Thermometer

Built-in memory stores Minimum and Maximum Temperature readings

- Large LCD displays 25mm digits for indoor/outdoor temperature
- Indoor Range: -10 to 60°C Outdoor Range: -50 to 70°C, ±1°C accuracy; 0.1°C resolution
- Dims: 112x102x22mm; Weight: 186g
- Complete with weatherproof temperature sensor with 3m thin cable, stand, AAA battery, and wall mounting bracket

392050 Penetration Dial Thermometer

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

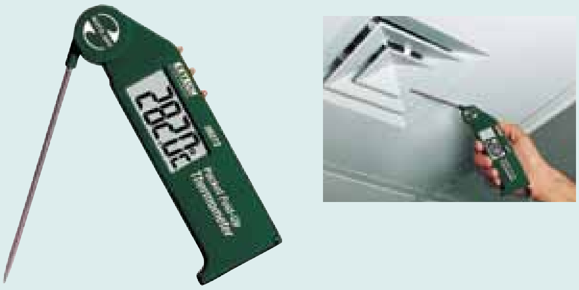
- 130mm stainless steel probe with 54mm dial
- Range: -50 to 150°C
- ±1°C accuracy, 0.1°/1° resolution
- ON/OFF switch saves battery life
- Auto Power off after 1 hour
- Weight: 29g
- Complete with 1.5V LR44 battery

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

39240 Waterproof Thermometer

Pocket-size with MAX/MIN recording

- 70mm Stainless steel stem
- Data Hold and Auto power off
- Temperature: -40 to 200°C, ±1°C accuracy, 0.1°/1° resolution
- Dims: 150x20x18mm; Weight: 20g
- Complete with one LR44 button battery and protective cover



39272 Pocket Fold-up Thermometer

114mm stainless steel probe adjusts from 0 to 180°

- Detents at 45°, 90°, 135°, and 180°
- Fast response; Auto Power off after 1hour
- Data Hold and Min/Max
- Temperature: -50 to 300°C, ±1°C, 0.1°/1° resolution
- Dims: 154x50x20mm; Weight: 71g
- Complete with wrist strap & AAA battery

RH520A Humidity+Temperature Chart Recorder

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

Includes Software

Features:

- Simultaneous numerical & graphical display of Humidity and Temperature readings, plus Time and Date
- Large dual graphical LCD displays with adjustable vertical and horizontal resolution indicate % of memory remaining
- Internal memory records up to 49,000 data points can be transferred to a PC
- Detachable probe extends to 1m
- Audible and visual alarm with Hi/Low setpoints
- Output socket used with optional external alarm module
- Complete with built-in stand, detachable probe with 1m cable, RS232 cable, RS-232 to USB adaptor, LabView-based PC software, 100-240VAC 50/60Hz adaptor, and 3 AA batteries

Specifications

Function	
Relative Humidity range	10.0 to 95.0%
Temperature range	-28.0 to 60.0°C
Basic Accuracy	±3% Relative Humidity; ±1°C
Dimensions	129 x 195 x 22mm
Weight	357g

Ordering

RH520A-220	Humidity+Temperature Chart Recorder (220V adaptor)
RH520A-240	Humidity+Temperature Chart Recorder (240V adaptor)
RH522	Replaceable Humidity/Temperature Probe
SL123	AC Alarm Relay Module 3m cable
SL124	DC Alarm Relay Module 3m cable

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)

Wall mountable

RHT10/TH10 Humidity & Temperature USB Dataloggers

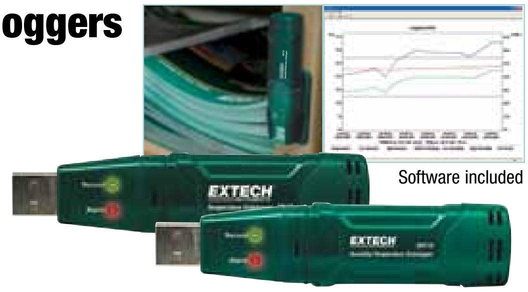
Two models to choose from with USB interface for easy set-up and data download

Features:

- **Model RHT10** datalogs 16,000 Temperature/ 16,000 RH readings; Dew point indication via Windows® compatible software

  RHT10-SW software for RHT10 to calculate Grains Per Pound (grams per kilogram) to 1120GPP (160g/kg)

  Model TH10 datalogs 32,000 Temperature readings
- Selectable data sampling rate: 2s, 5s, 10s, 30s, 1m, 5m, 10m, 30m, 1hr, 2hr, 3hr, 6hr, 12hr, 24hr
- User-programmable alarm thresholds for RH and Temperature
- Humidity: 0 to 100%RH (Model RHT10 only) Temperature: -40 to 70°C; Accuracy: ±3%RH; ±0.5°C
- 1yr battery life; Dims: 130x30x25mm/ Wt: 20g



Software included

Complete with 3.6V Lithium battery, protective USB cap, mounting bracket, and Windows® compatible software for analysis

Ordering

RHT10	Humidity and Temperature USB Datalogger
RHT10-SW	GPP (g/kg) Software for RHT10
TH10	Temperature USB Datalogger

RHT50 Humidity/Temperature/Pressure Datalogger

Records Humidity, Temperature and Atmospheric Pressure Datalogs up to 10,000 readings with a user programmable sample rate

Features:

- USB interface for easy set-up and data download
- Selectable Atmospheric Pressure Units:
  13.7 to 15.2psi, 950 to 1050hPa,
  95 to 105kPa, 0.9 to 1.0bar
- Selectable data sampling rate (1 sec to 18hrs)
- Programmable Min/Max alarm thresholds
- Manual and Programmable start modes
- Status Indication via Red/Yellow LED and Green LED
- Long battery life
- Humidity: 0 to 100%RH Temperature: -40 to 70°C; Basic Accuracy: ±3.5%RH; ±1°C
- Complete with 3.6V Lithium battery, mounting bracket, and Windows® 98, 2000, XP, and Vista compatible analysis software

Monitors Humidity, Temperature and Air Pressure levels in clean rooms, warehouses, storage rooms, freezers, shipping vans, and water damage restoration. USB connector easily plugs into a computer for data analysis

Ordering

RHT50	Humidity and Temperature USB Datalogger
42299	3.6V Lithium Batery (pkg of 2)

42275 Temperature & Humidity Datalogger Kit

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

Features:

- Water resistant Temperature and Humidity Datalogger Kit records up to 16,000 readings (8,000readings/parameter)
- Real time clock with date and time
- Logs data for days, weeks or months
- Three start methods: Scheduled, immediate or magnetic
- Multiple Dataloggers (42270) can be programmed and data downloaded from one single docking station
- Programmable sampling rate from 1sec to 2hrs plus Hi/Lo limits with alarm indication

Datalogger Kit available: **42275** includes one 42270 datalogger. Includes Windows® compatible software & docking station.

Specifications

Function	Range	Resolution	Basic Accuracy
Relative Humidity	0 to 100% RH	0.1%RH	±3%RH
Temperature	-40 to 85°C	0.1°C	±0.6°C
Dims/Wt	42270 — 76.2x57.2x22.3mm; 72.6g 42275 — 123.8x95.3x51mm; 254g		

Ordering

42275	Temperature/Humidity Datalogger Kit with PC Interface
42270	Temperature/Humidity Datalogger for 42275
42299	Replacement 3.6V Lithium batteries (2pk)
USB100	RS-232 to USB Adaptor

RHT20 Humidity and Temperature Datalogger

Datalogs 16,000 Humidity and 16,000 Temperature readings

Features:

- USB interface for easy setup and data download to a PC
- Dew point indication via Windows® compatible software (included)
- Selectable data sampling rate from 2 seconds to 24 hour
- User-programmable alarm thresholds for RH and Temperature
- LCD displays current readings, Min/Max, and alarm status
- Long battery life (approx. 1 year)
- Complete with 3.6V Lithium battery, mounting bracket with combination lock, and Windows® 98, 2000, XP, and Vista compatible analysis software

Monitors Humidity and Temperature levels in warehouse, storage rooms, freezers, shipping vans, and offices. USB connector easily plugs into a computer for data analysis.

Specifications

Function	Range	Resolution	Basic Accuracy
Temperature	-40 to 70°C	0.1°C	±1.0°C
Humidity	0 to 100%RH	0.1%RH	±3%RH
Datalogging interval	2s, 5s, 10s, 30s, 1m, 5m, 10m, 30m, 1hr, 2hr, 3hr, 6hr, 12hr, 24hr		
Memory	Temperature: 16,000 points; Relative Humidity: 16,000 points		
Dimensions	94.4 x 48.9 x 31.2mm		
Weight	90.7g		

Ordering

RHT20	Humidity and Temperature Datalogger

42280 Temperature and Humidity Datalogger

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

Features:

- Programmable from keypad or PC
- Selectable data sampling rate
- User programmable audible and visual alarms
- Wall, desktop, or tripod mount

Complete with Windows® compatible software, USB cable, AC adaptor, and four AA batteries

Software included

Specifications

Function	
Relative Humidity range	0 to 100% RH
Temperature range	-20 to 70°C
Resolution	0.1%RH, 0.1°C
Basic Accuracy	±3% Relative Humidity; ±0.6°C
Dims/Wt	120.7x88.9x38.1mm/ 163g

Ordering

42280	Temperature and Humidity Datalogger

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.

Featuring Model SD500

Monitor and Record

Temperature and Humidity values in clean rooms, cal labs, offices, and storage facilities

Dual LCD

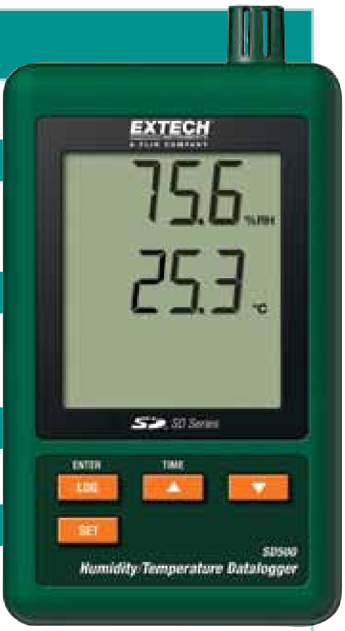
Simultaneously displays Relative Humidity and Temperature

Datalogger with date/time stamp

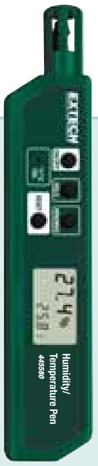
Stores readings in Excel® format

SD Memory Card

For easy transfer to a PC for analysis



Monitor and record temperature and humidity values in the calibration rooms, office, clean rooms, and storage facilities



445580 Humidity/ Temperature Pen

Compact, Digital Hygro-Thermometer, ideal for field use

- Simultaneous display of Temperature (°C/°F) and Relative Humidity
- MAX/MIN and Data Hold
- Complete with pocket clip and 3V lithium battery

Accessories

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, and SD500-NIST

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

Specifications

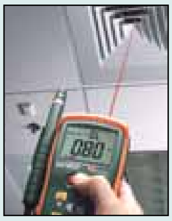
Model	445580
Sensor Type	Capacitance
Humidity	10 to 90%
Temperature (Wet Bulb Globe)	—
Temperature (Black Globe)	—
Temperature (Air)	-10 to 50°C
Temperature (*IR*)	—
Basic Accuracy	±5%, ±1.5°
Max. Resolution	0.1%, 0.1°
PC Interface	—
Datalogging	—
Dimensions	145x30x25mm
Weight	65g
CE	Yes

HT30 Heat Stress WBGT Meter

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

- Heat Stress Index measures how hot it feels when humidity is combined with temperature, air movement, and radiant heat
- Black Globe Temperature (TG) monitors the effects of direct solar radiation on an exposed surface
- In/Out Function displays the WGBT 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

BUILT IN IR Thermometer
Patented



Non-contact Temperature measurements

RH101 Hygro-Thermometer + IR

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

- Large backlit LCD dual display
- Primary and Secondary displays:

  Primary display is user selectable for IR or Humidity; Secondary displays ambient temperature
- InfraRed thermometer has built-in laser pointer, 8:1 distance to target ratio, and fixed 0.95 emissivity
- Auto power off, MAX and Data Hold
- Remote humidity sensor with 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

SD500 SD Series Hygro-Thermometer Datalogger

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

- Dual LCD simultaneously displays Relative Humidity and Temperature readings
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto
- Complete with 6 AAA batteries, 2G SD card, Universal AC Adaptor, and mounting bracket

HT30	RH101	SD500
Capacitance	Capacitance	Capacitance
0 to 100%RH	10 to 95%	10 to 95%
0 to 50ºC	—	—
-30 to 550ºC	—	—
0 to 50ºC	-20 to 60°C	0 to 50°C
—	-50 to 500°C	—
±3%, ±0.6°C	±3.5%RH; ±2% or ±2°C (IR); ±1.5°C (Air)	±4%RH, ±0.8°C
0.1%, 0.1°	0.1%, 0.1°	0.1%, 0.1°
Yes	—	Yes
—	—	2M readings (2G SD card)
Meter: 254x49x30mm; Ball: 40mm dia, 35mm high	150x75x40mm	132x80x32mm
136g	200g	282g
Yes	Yes	Yes

RH390/RH490 Precision Hygro-Thermometer Psychrometers

Highest 2% RH accuracy with Fast 30 second Response Time

Features:

- 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

Specifically designed for HVAC and water damage restoration contractors

- **Model RH490** measures grams per kilogram (Grains Per Pound) to 160g/kg (1120GPP)
- Complete with carrying case and 9V battery

High Accuracy

Specifications

Function	
Humidity	0 to 100%RH
Temperature (Internal)	-30 to 100°C
Basic Accuracy	±2%RH, ±1°C
Max. Resolution	0.1%RH, 0.1°C
Dewpoint	-30 to 100°C
Wet Bulb	0 to 80°C
Absolute Humidity (RH490)	0 to 160g/kg (0 to 1120GPP)
Dimensions	200x45x33mm
Weight	200g

Ordering:

RH390................Precision Hygro-Thermometer Psychrometer
RH390-NIST .....RH390 with NIST Certificate
RH490................Precision Hygro-Thermometer Psychrometer with g/kg
RH490-NIST .....RH490 with NIST Certificate

HD500/HD550 Psychrometers + 30:1 InfraRed Thermometer

Combination Humidity Meter, Type K thermometer, and InfraRed Thermometer

Features:

- Built-in IR Thermometer for non-contact surface temperature measurements
- Type K Thermometer for contact temperature measurement
- Highest 2% RH accuracy
- Large triple LCD backlit display
- USB port includes PC software
- Auto power Off

Patented non-contact InfraRed Thermometer technology built into a Hygro-Thermometer is perfect for Home inspection applications.

- **Model HD550** measures grams per kilogram (Grains Per Pound) to 160g/kg (1120GPP)
- Complete with general Type K bead wire probe, PC software,USB cable, built-in stand, case, & 9V battery

Built in IR Thermometer
Patented

Specifications

Function	Range	Basic Accuracy
InfraRed Thermometer	-50 to 500°C	±2% or ±2°C
Distance to Target Ratio	30:1	
Type K Temperature	-100 to 1372°C	±(1% + 1°C)
Air Temperature	-10 to 60°C	±(2% ±2°C)
RH Range	0 to 100%RH	±2%RH
Dew Point	-68 to 60°C	
Wet Bulb	-21.6 to 60°C	
Mixing Ratio (HD550)	0 to 160g/kg (0 to 999GPP)	
Dimensions	255 x 75 x 50mm	
Weight	350g	

Ordering:

HD500 .... Psychrometer + IR Thermometer
HD500-NIST........ HD500 with NIST Certificate
HD550 .... Psychrometer + IR Thermometer with g/kg
HD550-NIST........ HD550 with NIST Certificate

MO260/MO265 Combination Pin/Pinless Moisture Meters

Choice of measuring moisture in wood and other building materials with pinless technology creating virtually no surface damage or use traditional pin type measurement directly from the meter or a remote pin probe (included)

Features:

- %WME (wood moisture equivalent) pin moisture reading
- Relative pinless moisture reading for non-invasive measurement
- Digital LCD readout with backlighting feature and tri-color LED bargraph
- Quickly indicates the moisture content of materials
- Pinless measurement depth to 22mm below the surface
- Electro-magnetic sensing technology
- Built-in calibration check
- Replaceable measurement electrode pins
- Low battery indication
- Cap protects pins during storage and can be snapped on to the side of the housing during use
- **MO265** - Includes remote pin probe to measure moisture in difficult to access areas
- Complete with 9V battery, replacement pins, protective cap, and pouch case

Specifications

Function	
Non-Penetrating (Pinless) range	0 to 99.9 (relative)
Penetrating (Pin) range	6.0 to 99.9%
Max Resolution	0.1%
Dimensions	203x58.4x43.2mm
Weight	204g

Pinless Moisture Measurement

Pin Moisture Measurement

Remote Pin Probe Moisture Measurement (MO265 only)

Ordering:

MO260...............Combination Pin/Pinless Moisture Meter
MO265...............Combination Pin/Pinless Moisture Meter
MO-P1 ....Replacement Moisture Pin Probe with cable for MO265
MO100-PINS.....Replacement Pins (20 pins)

See p. 70 for specialty Moisture Probes for MO265

MO750 Soil Moisture Meter

Integrated 20cm Heavy Duty Moisture Probe monitors the moisture level in soil

Features:

- Soil moisture content measurement from 0 to 50%
- Easy one-hand operation
- Min/Max records minimum and maximum moisture readings
- Data hold to freeze reading on display
- Water resistant housing
- Replaceable Heavy Duty Moisture Probe (MO750-P)
- Complete with moisture probe, 4 x AAA batteries and sensor cap

Check the moisture of soil content to insure healthy plant growth

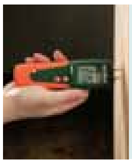
Specifications

Function	
Sensor Type	Integrated Contact Probe
Moisture Content	0 to 50%
Max Resolution	0.1%
Dimensions	374 x 40 x 40mm
Weight	267g

Large LCD display

Ordering:

MO750.................. Soil Moisture Meter
MO750-P .... Replacement Moisture Probe for MO750



Moisture Meters

Extech's Moisture meters determine % moisture in building materials including, wood, brick, tile, plaster, concrete slabs, and roofing plus soil.

Featuring Model MO220

▶ Wide Moisture Ranges

Measures from 6 to 99.9% Wood moisture

▶ Automatic Temperature Compensation

Displays temperature up to 80°C

▶ Remote Moisture Probe (included)

Used to measure moisture in hard to reach areas

▶ Replaceable Threaded Pins

Easy to replace threaded pins help extend the life of the meter

Measure moisture directly on the material or use remote handpress moisture probe (included) on hard materials. Also includes a temperature probe to measure Temperature and adds automatic Temperature Compensation (ATC) to your Moisture measurements for better accuracy.

Accessories

MO100-PINS..Replacement pins for MO100 (20 pins)
MO200-PINS..Replacement pins for MO210 and MO230 (50 pins)
MO220-PINS..Replacement pins for MO220 (50 pins)

Multi-position sensor with safety storage and position lock

MO100 Pocket Size Moisture Detector

Convenient adjustable pins for wood and building materials

- Unique dual LCD displays wall moisture (0 to 100) and air temperature (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

Specifications

Model	MO100
Sensor Type	Contact Pins
Moisture Content	0 to 100
Max. Resolution	0.1
Temperature	0°C to 50°C
Dimensions/Weight	192x30x45mm/ 108g
CE	Yes

Battery check
and measurement
verification test

M0210 Pocket Size Moisture Detector

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

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

Includes remote
moisture and
temperature probes

M0220 Wood Moisture Detector

Specifically designed for monitoring moisture in wood

- Memory contains 8 wood groups with calibrations for approximately 170 species of wood
- Measurements can be taken using the integral pin electrodes or a heavy duty remote probe (included)
- Automatically temperature compensated (ATC) readings when used with the temperature probe (included)
- Built-in calibration check
- Replaceable measurement electrode pins
- User 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

Battery check
and measurement
verification test

M0230 Pocket Moisture Meter

Large Dual Graphical LCD displays moisture in wood and other building materials plus Air Temperature and Relative Humidity

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

M0210	M0220	M0230
Contact Pins	Contact Pins	Contact Pins
6 to 44% (Wood); 0.2 to 2.0% (Materials)	6 to 99.9% (Wood)	1 to 75% (Wood); 0.1 to 2.4% (Materials)
1% (Wood) / 0.1% (Materials)	±1% (Wood)	0.1%
—	-35 to 80°C	-40 to 70°C
130x40x25mm/ 100g	180x50x31mm/ 175g	139x47x25mm/ 100g
Yes	Yes	Yes

Pinless Moisture Meters

The versatile Moisture Meters allow for pinless moisture measurement preventing any surface damage.

Featuring Model MO297

Bluetooth® Transmitter with MeterLink™

Wirelessly transmits moisture and humidity data to devices with Bluetooth capability

20 Point Memory

Stores/Recall 20 readings of each parameter: Moisture, Relative Humidity, Air Temperature, g/kg, Dew Point (DP), and Vapor Pressure

Remote Moisture Probe (included)

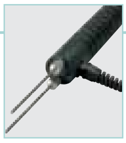
Used to measure moisture in hard to reach areas

Built-in InfraRed Thermometer

Take non-contact surface Temperature readings

MO290-P

MO290-HP


MO290-EP

MO290-EXT

MO290-BP

Accessories for MO265, MO290, MO295, and MO297

Moisture Extension Probe

MO290-EP	Moisture Extension Probe with 76cm cable. Includes 4 pins (8.5cm pin depth)
MO290-PINS-EP	Replacement pins (20 pins, 8.5cm pin depth) for MO290-EP probe
MO290-EXT	30cm Extender Handles (set of 2) for MO290-EP

Moisture Hammer Probe

MO290-HP	Moisture Hammer Probe with 76cm cable. Includes 4 pins (4cm pin depth)
MO290-PINS-HP	Replacement pins (20 pins, 4cm pin depth) for MO290-HP

Moisture Pin Probe

MO290-P	Moisture Pin Probe with 76cm cable. Includes 4 pins (1cm pin depth)
MO220-PINS	Replacement pins (50 pins, 1cm pin depth) for MO290-P probe

Moisture Baseboard Probe

MO290-BP	Moisture Baseboard Probe (Dual fixed flat pins with 10.5cm pin length) w/76cm cable

MO257 Pinless Moisture Meter

Non-invasive measurement monitors moisture in wood and other building materials with virtually no surface damage

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

MO280 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 22mm below the surface
- Automatic internal test and calibration
- Electro-magnetic testing technology
- Low battery indication
- Complete with 9V battery and pouch case

Specifications

Model	**MO257**	**MO280**
Pinless Moisture	0.0 to 100.0 (Relative)	0 to 99% (limited by wood type)
Pin-type Moisture (remote probe)	—	—
Relative Humidity	—	—
Temperature (Air)	—	—
Temperature (*IR*)	—	—
Max Resolution	0.1	0.1%
Dimensions/Weight	235x63x28mm/ 218g	192x30x45mm/ 108g
CE	Yes	Yes

Patent Pending

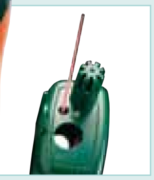
Includes MO290-P remote moisture probe

MO290 Pinless Moisture Meter + IR Thermometer

5-in-1 Meter with patented built-in IR Thermometer

- Quickly identify surface temperature changes with built-in IR thermometer and verify moisture levels with pinless sensor or pin-type probe (included)
- Pinless measurement depth to 19mm below the surface
- Patented IR design measures non-contact surface temperature; 8:1 distance to spot ratio with 0.95 fixed emissivity
- Measures Relative Humidity, Air Temperature plus Grains Per Pound (GPP), grams/kg, Dew Point (DP), Condensation levels, and Vapor Pressure
- Programmable high/low Moisture and Humidity alarms
- Calculation of differential Temperature (IR - DP) to determine condensation point
- Min/Max, Data Hold, Auto power off and low battery indication
- Complete with pin moisture probe, 9V battery, and case

Patent Pending


Non-contact InfraRed Thermometer

MO295 Pinless Moisture Meter with Memory + IR Thermometer

Memory stores up to 20 readings of each parameter and displays trending bargraph of Moisture level

- Stores 20 readings of Moisture, Relative Humidity, Air Temperature plus Grains Per Pound (GPP), grams/kg, Dew Point (DP), Condensation levels, and Vapor Pressure
- Pinless measurement depth to 19mm below the surface
- Remote Pin-type probe (included) allows for surface contact moisture readings
- Patented IR design measures non-contact surface temperature; 8:1 distance to spot ratio with 0.95 fixed emissivity
- Programmable high/low Moisture and Humidity alarms
- Calculation of differential Temperature (IR - DP) to determine condensation point
- Min/Max, Data Hold, Auto power off and low battery indication
- Complete with pin moisture probe, 9V battery, and case

Patent Pending

Meterlink wireless function

MO297 Pinless Moisture Meter Bluetooth® + IR Thermometer

Bluetooth Transmitter with MeterLink™ wirelessly transmits moisture and humidity data to devices with wireless capability

- Wireless communication
- Stores 20 readings of Moisture, Relative Humidity, Air Temperature plus Grains Per Pound (GPP), grams/kg, Dew Point (DP), Condensation levels, and Vapor Pressure
- Pinless measurement depth to 19mm below the surface
- Remote Pin-type probe (included) allows for surface contact moisture readings
- Patented IR design measures non-contact surface temperature; 8:1 distance to spot ratio with 0.95 fixed emissivity
- Programmable high/low Moisture and Humidity alarms
- Calculation of differential Temperature (IR - DP) to determine condensation point
- Min/Max, Data Hold, Auto power off and low battery indication
- Complete with pin moisture probe, 9V battery, and case

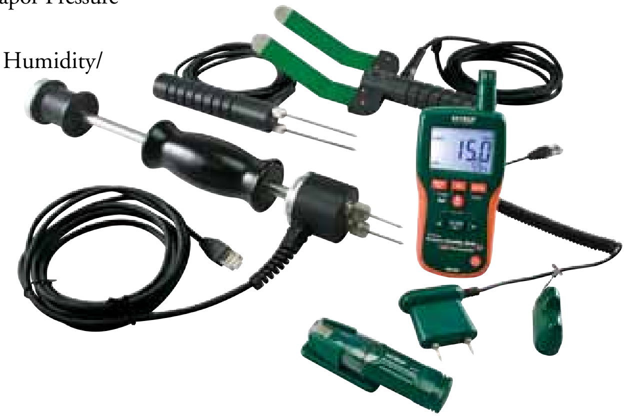
MO290	MO295	MO297	Model
0 to 99.9 (Relative)	0 to 99.9 (Relative)	0 to 99.9 (Relative)	**Pinless Moisture**
0 to 99.9%	0 to 99.9%	0 to 99.9%	**Pin-type Moisture (remote probe)**
0 to 99.9% RH	0 to 99.9% RH	0 to 99.9% RH	**Relative Humidity**
-20 to 170°F (-29 to 77°C)	-29 to 77°C	-29 to 77°C	**Temperature (Air)**
-4 to 392°F (-20 to 200°C)	-20 to 200°C	-20 to 200°C	**Temperature (*IR*)**
0.1%, 0.1°C	0.1%, 0.1°C	0.1%, 0.1°C	**Max Resolution**
165x70x38mm/ 210g	165x70x38mm/ 210g	165x70x38mm/ 210g	**Dimensions/Weight**
Yes	Yes	Yes	**CE**

MO290-RK Water Restoration Contractor Kit

A complete solution for the Restoration Contractor

Features:

- Use combination moisture meter/ thermal hygrometer to capture all ambient conditions as well as moisture levels in one meter. Includes essential probes to measure moisture levels under baseboards, in between walls, and in hard wood and plywood subfloors. Use USB Humidity/ Temperature datalogger for GPP calculations
- MO290 includes: Pin Probe, Hammer Probe, Deep Wall Probe, and Baseboard Probe for contact moisture readings (see p. 70 for details)
- Supplied in a rugged hard carrying case
- **Model MO290 Pinless Moisture Psychrometer + IR Thermometer** monitors moisture in wood and building materials with no surface damage. Built-in patented IR Thermometer for non-contact temperature; Fixed probe measures Air Temperature, RH, Grains Per Pound (GPP), Dew Point (DP), & Vapor Pressure (see p. 71)
- **Model RHT10/RHT10-SW** Humidity/ Temperature USB Datalogger + GPP (g/kg) Calculation datalogs 16,000 data (RH and Temperature). USB interface and software included (see p. 62).



Special Value Kit

MO290

RHT10

Ordering

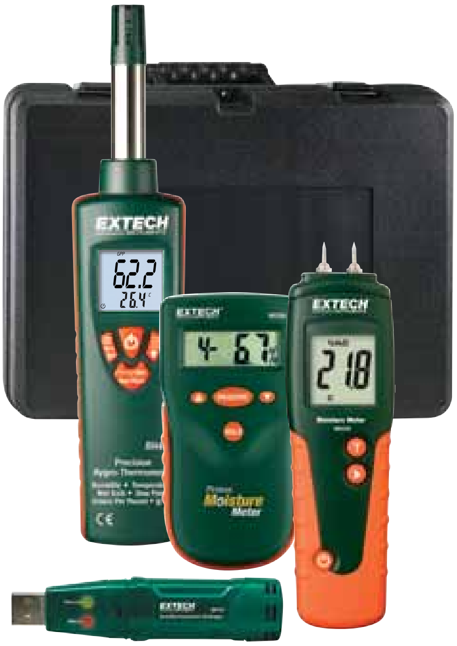
MO290-RK.. Water Restoration Contractor Kit

MO280-RK Restoration Contractor's Kit

A complete solution for the Restoration Contractor

Features:

- Use pin and pinless meters to better diagnose the amount of moisture content. Thermal Hygrometer provides fast, accurate readings of ambient room conditions and GPP (g/kg) calculations
- Supplied in a rugged hard carrying case
- **Model MO280 Pinless Moisture Meter** displays 0 to 99% moisture (select from 10 wood types). Measurement surface depth to 20mm with virtually no surface damage (see p. 70).
- **Model MO220 Wood Moisture Meter** with integral pins or remote pin probe displays 6 to 99.9% moisture level (8 wood types with calibrations for approx. 170 species of wood) (see p. 69).
- **Model RH490 Precision Hygro-Thermometer** with 2%RH accuracy and fast 30sec RH response time. Measures Humidity, Temperature, Dew Point, Wet Bulb, GPP and g/kg (see p. 66).
- **Model RHT10/RHT10-SW** Humidity/ Temperature USB Datalogger + GPP (g/ kg) Calculation datalogs 16,000 data (RH and Temperature). USB interface and software included (see p. 62).



Special Value Kit

MO220

RHT10

MO280

RH490

Ordering

MO280-RK.. Restoration Contractor's Kit

MO280-KH2 Home Inspector Kits

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

Features:

- Specifically designed for home inspection professionals
- Supplied in an attractive storage case
- Dims: 241x173x71mm; Wt: 0.7kg
- **Model MO280 Pinless Moisture Meter** displays 0 to 99% moisture (select from 10 wood types). Measurement surface depth to 20mm with virtually no surface damage (see p. 70).
- **Model 42500 IR Thermometer** for testing HVAC supply and return. Measures from -20 to 260°C
- **Model 39240 Waterproof Stem Thermometer** for testing hot water heaters. Measures temperature from -40 to 200°C (see p. 61)

Special Value Kit

39240

MO280

42500

Ordering

MO280-KH2 ..Home Inspector Kit

MO280-KW Water Damage Restoration Kit

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

Features:

- Specifically designed for water damage restoration contractors
- Supplied in an attractive storage case
- Dims: 241x173x71mm; Wt: 0.7kg
- **Model MO280** Pinless Moisture Meter displays 0 to 99% moisture (select from 10 wood types). Measurement surface depth to 20mm with virtually no surface damage (see p. 70).
- **Model RH490** Precision Hygro-Thermometer with 2%RH accuracy and fast 30sec RH response time. Measures Humidity, Temperature, Dew Point, Wet Bulb, GPP and g/kg (see p. 66).
- **Model MO210** Pocket Moisture Meter measures moisture of wood or other building materials displaying both digital and graphical readings (see p.69).

Special Value Kit

RH490

MO280

MO210

Ordering

MO280-KW....Water Damage Restoration Kit

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 Humidity (10 to 99%), Temperature (-10 to 60°C), and Dew Point temperature; ±4%RH/±1°C basic accuracy
- Probe clips onto meter or extends on 45.7cm cable
- Max/Min with reset function
- Rear calibration adjustment pot for Humidity and Temperature
- 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 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

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 Humidity (10 to 99%), Temperature (-10 to 60°C), and Dew Point temperature; ±4%RH/±1°C basic accuracy
- Built-in Humidity and Temperature sensors
- Max/Min with reset function
- Rear calibration adjustment pot for Humidity and Temperature
- Ideal for warning when conditions for mold growth exist
- Complete with built-in stand, wall mount bracket, sensor and 1 AAA battery

445715

Big Digit Remote Probe Hygro-Thermometer

NIST Traceable* and Calibrateable

- Probe clips onto meter or extends on 457mm cable
- Large dual display for easy viewing
- Simultaneous display of Temperature (-10 to 60°C) and Humidity (10 to 99%); ±4%RH/±1°C basic accuracy
- MAX/MIN with reset function
- Rear calibration adjustment pot
- Complete with built-in stand, wall mount bracket, sensor and AAA battery

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

445703

Big Digit Hygro-Thermometer

25.4mm Digits on Large LCD

- Large dual display for easy viewing
- Simultaneous display of Temperature (-10 to 60°C) and Humidity (10 to 99%); ±4%RH/±1°C basic accuracy
- MAX/MIN with reset function
- Complete with stand, wall mounting bracket, and 1 AAA battery

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

Features:

- Large backlit LCD displays Time, Temperature (0 to 45°C), Barometric Pressure, Weather Symbols (sunny, slightly cloudy, cloudy, rainy, stormy) and Moon phase
- Accuracy of 1 second per day, ±8mb@25°C, and ±1°C
- 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
- Alarm Clock with snooze
- Dimensions/Weight: 109x71x30mm/113g
- Complete with built-in stand, and two AAA batteries

Bright backlit display

Ordering

WTH100.........Radio Controlled Wireless Clock with Weather Station

445702 Hygro-Thermometer Clock

Combines three displays for Time, Temperature, and Humidity

Features:

- Simultaneously displays Time (12/24 hour time), Temperature (-10 to 60°C) and Relative Humidity (10 to 85%); ±1°C and ±6%RH basic accuracy
- MAX/MIN with “reset” function
- Adjustable clock alarm
- Dimensions/Weight: 109x71x20mm/113g
- Complete with stand, wall mounting bracket, and one AAA battery

Ordering

445702 ....Hygro-Thermometer Clock

44550 Humidity and Temperature Pen

Pocket size for quick and reliable measurements at any location

Features:

- Built-in sensors provide simultaneous readings of Relative Humidity (20 to 90%) and Temperature (-10 to 50°C) on dual LCD
- ±5%RH and ±1°C basic accuracy
- 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
- Dimensions/Weight: 150x20x18mm/ 20g
- Complete with pocket clip and one LR44 button battery

Ordering

44550...............Humidity and Temperature Pen

AN400 Cup Thermo-Anemometer

Rotating cups provide accurate air velocity measurements from any direction

Features:

- Dual LCD digital display of Air Velocity and Temperature
- Record MAX/MIN values
- Record up to 100 readings
- Water resistant housing
- Complete with four AAA batteries

Specifications

Function	Range	Resolution	Basic Accuracy
m/s	0.9 to 35.0 m/s	0.1 m/s	±(2% + 0.2 m/s)
km/h	2.5 to 126.0 km/h	0.1 km/h	±(2% + 0.8 km/h)
knots	1.4 to 68.0 knots	0.1 knots	±(2% + 0.4 Knots)
ft/min	144 to 6895 ft/min	1 ft/min	±(2% + 40 ft/min)
MPH	1.6 to 78.2 MPH	0.1 MPH	±(2% + 0.4 MPH)
Temperature	0 to 50°C	0.1°C	±0.8°C

Ordering

AN400 .... Cup Thermo-Anemometer

45170 4-in-1 Environmental Meter

Measures Humidity, Temperature, Airflow, and Light Level

Features:

- Characters on display reverse direction depending on function
- Utilizes precision photo diode and color correction filter
- Cosine/color corrected light measurements
- Type K function (See p. 60 for probes)
- MAX/MIN, Data hold, Auto power off with disable feature
- Low friction vane wheel
- Thin-film capacitance humidity sensor for fast response
- Includes wrist strap & 9V battery

Air Velocity

Humidity Level

Light Intensity

Type K Temperature

Specifications

Function	Range	Resolution	Basic Accuracy
m/s	0.4 to 30m/s	0.1m/s	±3%
km/h	1.4 to 108km/h	0.1km/h	±3%
ft/min	80 to 5910 ft/min	10ft/min	±3%
MPH	0.9 to 67MPH	0.1MPH	±3%
knots	0.8 to 58.3 knots	0.1knots	±3%
Foot Candles	0 to 1860Fc	0.1Fc	±(5% rdg + 8 digits)
Lux	0 to 20,000Lux	1Lux	±(5% rdg + 8 digits)
Temperature (thermistor)	0 to 50°C	0.1°C	±1.2°C
% Relative Humidity	10 to 95%RH	0.1%RH	±4%RH of reading
Temperature (thermistor)	0 to 50°C	0.1°C	±1.2°C
Temperature (Type K)	-100°C to 1300°C	0.1°C	±(1%+1°C) of reading
Dimensions/Weight	Meter: 156 x 60 x 33mm; Vane: 31mm / 160g		

Ordering

45170............... 4-in-1 Environmental Meter

45158 Mini Thermo-Anemometer+Humidity

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

Features:

- 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 229mm for better reach
- Tripod mount (optional TR100 Tripod — sold separately)
- Data Hold with Auto power off
- Water resistant housing floats
- Replaceable plastic vane 45156
- Complete with CR2032 lithium battery and 1.09m lanyard

Specifications

Function	Range	Resolution	Basic Accuracy
m/s	0.5 to 28m/s	0.1m/s	± (3%rdg + 0.2m/s)
km/h	1.8 to 100.6 km/h	0.7km/h	± (3%rdg + 1.4km/h)
ft/min	100 to 5500 ft/min	20ft/min	± (3%rdg + 40ft/min)
MPH	1.1 to 62.5 MPH	0.2MPH	± (3%rdg + 0.4MPH)
knots	1.0 to 54.3 knots	0.3knots	± (3%rdg + 0.6knots)
Beaufort Force	1 to 17 BF	1 BF	± 1
Temperature	-18 to 50°C	0.1° C	±1°C
Relative Humidity	10% to 95%	1%	± 4%
Dew Point	0°C to 50°C	1°	± 2%
Dimensions/Weight	Meter: 133x70x19mm ; Vane: 24mm diameter / 95g		

Ordering

45158............... Mini Thermo-Anemometer+Humidity

AN100/AN200 CFM/CMM Thermo-Anemometers

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

Features:

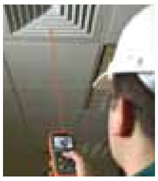
- Simultaneous display of Ambient Temperature and Air Flow or Air Velocity
- Up to 8 easy to set Area dimensions stored in internal memory (ft ^{2} or m ^{2})
- 20 point AVG for Air Flow
- Low friction72mm diameter ball bearing vane wheel
- Data Hold, MIN/MAX, Auto off

AN200 Additonal Features

- Built-in IR Thermometer
- Complete with vane sensor on 120cm cable, 9V battery, protective holster, and case

AN100

Patented



AN200 — non-contact InfraRed Thermometer

Measuring airflow from heating vents

Specifications

Function	Range	Resolution	Basic Accuracy
m/s	0.40 to 30.00 m/s	0.01 m/s	±3% m/s
km/h	1.4 to 108.0 km/h	0.1 km/h	±3% km/h
ft/min	80 to 5906 ft/min	1 ft/min	±3% ft/min
mph	0.9 to 67.2 mph	0.1 mph	±3% mph
knots	0.8 to 58.3 knots	0.1 knots	±3% knots
Air Temperature	-10 to 60˚C	0.1˚C	±3˚C
InfraRed Temperature	-50 to 260˚C	0.1˚C	±2% rdg or ±2˚C whichever is greater
Airflow	0 to 9999 CMM (m³/min)		0.1
	0 to 9999 CFM (ft³/min)		0.1

Ordering

AN100 .... CFM/CMM Thermo-Anemometer
AN100-NIST .... AN100 with NIST Certificate
AN200 .... CFM/CMM Thermo-Anemometer with IR Temperature
AN200-NIST .... AN200 with NIST Certificate
AN200-NISTL ...... AN200 with Limited NIST Certificate
Limited NIST are certified to all functions except IR Thermometer

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HD300 CFM/CMM Thermo-Anemometer + IR Thermometer

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

Features:

- 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 stored in memory
- Large backlit LCD
- 20 point AVG for air flow
- USB port includes PC software
- Includes PC software, cable, vane sensor on 120cm cable, built-in stand, case, & 9V battery

Patented

Specifications

Function	Range	Basic Accuracy
IR Temperature (non-contact)	-50 to 500ºC	±2%
m/s	0.4 to 30.00 m/s	±3%
km/h	1.4 to 108.0 km/h	±3%
ft/min	80 to 5900 ft/min	±3%
MPH	0.9 to 67.0 MPH	±3%
knots	0.8 to 58.0 knots	±3%
Temperature	-10 to 60ºC	±2ºC
CFM/CMM	0 to 999900	
Dimensions	203x75x50mm	
Weight	280g	

AN200 — non-contact InfraRed Thermometer

Measuring airflow from heating vents

Ordering

HD300 .... CFM/CMM Thermo-Anemometer with IR Temperature
HD300-NIST .... HD300 with NIST Certificate
HD300-NISTL..... HD300 with Limited NIST Certificate
Limited NIST are certified to all functions except IR Thermometer

407119 Hot Wire CFM Anemometer

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

Features:

- Air velocity measurements as low as 0.2m/s
- Telescoping probe extends up to 940mm long
- Air Flow displayed in 2 modes as an instantaneous value or up to 20 point average
- Record and Recall MIN/MAX
- Data Hold plus Auto power off
- Complete with telescoping probe with 167.6cm cable, and four AA batteries

Ordering

407119 .... Hot Wire CFM Anemometer
407119-NIST ..... 407119 with NIST Certificate

Specifications

Function	Range	Resolution	Basic Accuracy
m/s	0.2 to 17.0m/s	0.1 m/s	± (5% + 5 digits)
km/h	0.7 to 61.2km/h	0.1km/h	± (5% + 5 digits)
ft/min	40 to 3346ft/min	1ft/min	± (5% + 5 digits)
MPH	0.5 to 38.0MPH	0.1MPH	± (5% + 5 digits)
knots	0.4 to 33.0knots	0.1 knots	± (5% + 5 digits)
Temperature	0 to 50°C	0.1 °C	±0.8°C
	Range	**Resolution**	**Area**
CMM	0 to 36,000m^3/min	0.001 to 1m^3/min	0.001 to 30.0m^2
CFM	0 to 1,271,200ft^3/min	0.01 to 100ft^3/min	0.001 to 322.91ft^2

407123 Heavy Duty Hot Wire Thermo-Anemometer

Telescoping probe is designed to fit into small openings and measure airflow down to 0.2m/s

Features:

- Telescoping probe is ideal for measuring in HVAC ducts and other small vents; extends up to 2.1m maximum length with cable
- Large 36mm dual LCD display
- MAX/MIN, Data Hold
- Complete with telescoping probe with cable, six AAA batteries and protective holster.

Ordering

407123 .... Hot Wire Thermo-Anemometer
407123-NIST .. 407123 with NIST Certificate

Specifications

Function	Range	Resolution	Basic Accuracy
m/s	0.2 to 20m/s	0.1m/s	±3%
km/h	0.7 to 72km/h	0.1km/h	
ft/min	40 to 3940ft/min	10ft/min	
MPH	0.5 to 45MPH	0.1MPH	
knots	1.0 to 31knots	0.1knots	
Temperature & Windchill	0 to 50°C	0.1°	±0.8°C
Dimensions	178 x 74 x 33mm		
Weight	482g		

HD350 Pitot Tube Anemometer + Differential Manometer

Measures Air Velocity/Airflow in tight locations

Features:

- Simultaneous display of Pressure, Air Velocity or Air Flow plus Temperature
- 5 selectable pressure units
- MIN/MAX/AVG recording and Relative time stamp
- Data Hold, Auto power off and Zero functions
- Large backlit LCD display
- Record up to 99 readings
- USB port includes software
- Includes PC software with cable, 9V battery, pitot tube with two connection hoses, 100V-240V universal AC Adaptor, and hard case

Specifications

Function	Range	Resolution	Basic Accuracy
Pressure			
psi	0.7252psi	0.0001psi	±0.3%FS
mbar	50.00mbar	0.01mbar	±0.3%FS
inH$_2$O	20.07inH$_2$O	0.01inH$_2$O	±0.3%FS
mmH$_2$O	509.8mmH$_2$O	0.01mmH$_2$O	±0.3%FS
Pa	5000Pa	1Pa	±0.3%FS
Repeatability	±0.2% (Max. ±0.5%FS)		
Linearity/Hysteresis	±0.29FS		
Maximum Pressure	10psi		
Response Time	0.5s typical		
Air Velocity			
m/s	1 to 80.00m/s	0.01m/s	±3% rdg
km/h	3.5 to 288.0km/h	0.1km/h	±3% rdg
ft/min	200 to 15733ft/min	1ft/min	±3% rdg
MPH	2.25 to 178.66MPH	0.01MPH	±3% rdg
knots	2.0 to 154.6knots	0.1knots	±3% rdg
Air Flow			
CFM	0 to 99,999CFM	0.001CFM	±3% rdg
CMM	0 to 99,999CMM	0.001CMM	±3% rdg
Temperature	0 to 50°C	0.1°	±1°C
Dimensions/Weight	Meter: 210 x 75 x 50mm / 340g Pitot Tube: 390 x 195mm / 204g		

Includes Pitot Tube sensor and two connection hoses

Ordering

HD350 .... Pitot Tube Anemometer+Differential Manometer

CO10 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: 160x56x40mm; Weight: 180g
- CE approved
- Complete with 9V battery, protective holster, and case

Ordering

CO10.....Carbon Monoxide Meter

EZ40 EzFlex™ Combustible Gas Detector

Quickly Identifies and Pinpoints gas leaks

Features:

- 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

Applications:

- Natural Gas, Methane, Ethan, Propane, Butane, LPG

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	221 x 72 x 46mm
Weight	520g

Ordering

EZ40......ExFlex™ 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: 164mm x 21mm Weight: 25g
- CE approved
- Complete with pocket clip and two AAA batteries

Ordering

FG100...Combustible Gas Leak Detector

CO200 Desktop Indoor Air Quality CO_2 Monitor

Measures Carbon Dioxide (CO_2), Air Temperature and Humidity with user-settable high/low alarms

Features:

- Checks for Carbon Dioxide (CO_2) concentrations
- Maintenance free NDIR (non-dispersive infrared) CO_2 sensor
- Indoor Air Quality displayed in ppm with Good (380 to 420ppm), Normal (<1000ppm), Poor (>1000ppm) indication
- Visible and Audible CO_2 warning alarm with relay output for ventilation control
- Displays Year, Month, Date, and Time
- Max/Min CO_2 value recall function
- Auto Baseline Calibration (minimum CO_2 level over 7.5 days) or manual calibration in fresh air
- Complete with Universal AC adaptor

Desktop Carbon Dioxide (CO_2) Meter monitors the air quality in conference rooms insuring proper air ventilation

Specifications

Function	Range	Resolution
CO_2	0 to 9,999ppm	1ppm
Temperature	-10 to 60°C	0.1°C
Humidity	0.1 to 99.9%	0.1%
CE approval	Yes	
Dimensions	117x102x102mm	
Weight	204g	

Ordering

CO200...............Desktop Indoor Air Quality CO^2 Monitor

CO250 Portable Indoor Air Quality CO_2 Meter

Measures Carbon Dioxide (CO_2) , Temperature, Humidity, Dew Point, and Wet Bulb and calculates statistical 8 hour and 15 minute time weighted averages

Features:

- Checks for Carbon Dioxide (CO_2) concentrations
- Calculates statistical weighted averages of TWA (8 hour time weighted average) and STEL (15 minute short term exposure limit)
- Maintenance free NDIR (non-dispersive infrared) CO_2 sensor
- User programmable audible alarm
- Backlit triple LCD display
- RS-232 interface, Data acquisition software and cable included to analyze data on a PC
- Complete with software and cable, 4 AA batteries, and carrying case

Measure CO_2 level in office buildings to check the air quality of conference rooms insuring proper ventilation.

Specifications

Function	Range	Resolution
CO_2	0 to 5,000ppm	1ppm
Temperature	-10 to 60°C	0.1°C
Humidity	0.0 to 99.9%	0.1%
Wet Bulb and Dew Point	Calculated	
CE	Yes	
Dimensions/Weight	200x70x57mm/ 190g	

Ordering

CO250...............Portable Indoor Air Quality CO_2 Meter

SD800 CO_2/Humidity/Temperature Datalogger

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

Features:

- Checks for Carbon Dioxide (CO_2) concentrations
- Maintenance free dual wavelength NDIR (non-dispersive infrared) CO_2 sensor
- Triple LCD simultaneously displays CO_2, Temperature and Relative Humidity
- Measurement ranges:
  - CO_2: 0 to 4,000ppm
  - Temperature: 0 to 50°C
  - Humidity: 10 to 90%RH
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto
- Complete with (6) AAA batteries, 2G SD memory card, Universal AC adaptor, and mounting bracket

Monitor air quality in schools, office buildings, greenhouses, hospitals and anywhere that high levels of carbon dioxide are generated

Specifications

Function	Range	Resolution	Basic Accuracy
CO_2	0 to 4,000ppm	1ppm	±40ppm (<1000ppm); ±5% rdg (>1000ppm)
Temperature	0 to 50°C	0.1°C	±0.8°C
Humidity	10 to 90%	0.1%	±4%RH
Datalogging	2M data using 2G SD memory card		
Dimensions	132 x 80 x 32mm		
Weight	282g		

Ordering

SD800................CO_2/Humidity/Temperature Datalogger

EA80 Indoor Air Quality CO_2 Meter/Datalogger

Measures Carbon Dioxide (CO_2), Temperature, Humidity, Dew Point and Wet Bulb

Features:

- Checks for Carbon Dioxide (CO^{2}) concentrations
- Maintenance free dual wavelength NDIR (non-dispersive infrared) CO^{2} sensor
- Continuous (20,000 sets) or manual (99 sets) data logging
- Data hold, Max/Min with Time stamp, Alarm, and Auto Power Off
- Easy calibration in fresh air
- Complete with (6) AAA batteries, RS-232 cable, and Windows® 95/98/NT/2000/ME/XP compatible software

Specifications

Function	Range	Resolution
CO_2	0 to 6,000ppm	1ppm
Temperature	-20 to 60°C	0.1°C
Humidity	10 to 95%	0.1%
Datalogging	Continuous: 20,000 sets/Manual 99 sets	
Dimensions/ Weight	135x72x31mm/ 235g	

Ordering

EA80..................Indoor Air Quality CO_2 Meter/Datalogger

461880 Vibration Meter + Laser Combination Tachometer

Measures Acceleration, Velocity and Displacement plus RPM and Linear Surface Speed

Features:

- Unique large LCD displays characters on reverse direction depending on contact, photo, or vibration mode
- Windows® 95/98/NT/2000/XP compatible software (included) allows captured readings to be downloaded to your PC for further analysis
- Complete with remote vibration sensor, magnetic mount, wheels for linear surface speed or RPM (cone tip and flat tip), reflective tape, 4 AA batteries, software with cable, and hard carrying case

Vibration Meter Features:

- Remote vibration sensor with magnetic adapter on 1m cable
- Wide frequency range of 10Hz to 1kHz
- RMS or Peak Value measurement modes
- Manual/Auto store/recall up to 1000 readings
- Data Hold freezes the displayed reading
- Auto shut-off saves battery life

Tachometer Features:

- Uses a laser for greater distance non-contact measurements up to 1.5m
- Stores Last, Max, and Min readings

Specifications

Function	
Vibration Meter	
Acceleration	200m/s^2, 656ft/s^2, 20.39g
Velocity	200mm/s, 7.87in/s, 19.99cm/s
Displacement	2mm, 0.078in
Resolution	0.5m/s^2, 2ft/s^2, 0.05g; 0.5mm/s, 0.02in/s, 0.05cm/s; 0.002in, 0.005mm
Basic accuracy	±(5%+2 digits)
Tachometer	
Photo	10 to 99,999rpm
Contact	0.5 to 19,999rpm
Surface Speed	0.05 to 1,999.9m/min (0.2 to 6,560ft/min)
Basic accuracy	±(5%+1 digit)
Dimensions	188 x 75.5 x 46.8mm
Weight with Probe	507g

Contact Tachometer function measures the speed of rotating objects by placing the wheel tip onto the surface.

Photo Tachometer function measures the speed of rotating objects without contacting the surface by using a laser beam and reflective tape

Ordering

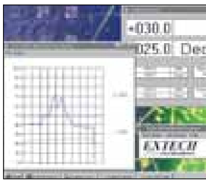
461880............. Vibration Tachometer
461880-NIST.... 461880 with NIST Certificate

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/s^2 or m/s^2 for Acceleration, and in or mm for Displacement
- Velocity range of 200mm/s or 7.87in/s; Acceleration range of 200m/s^2 or 656ft/s^2 Displacement range: 1.999mm or 0.078in Frequency range: 10Hz to 1kHz
- Basic accuracy of ±(5% of reading + 2 digits)
- Remote vibration sensor on 1m cable
- Max/Min, Data Hold and Auto Power off
- RMS or Peak Value measurement modes
- Auto/Manual store/recall up to 500 readings
- Optional 407001 software for downloaded data to your PC for analysis
- Dims: 180x72x32mm; Wt: 395g



Optional Data Acquisition and Datalogging PC software

Meter includes remote sensor with 1.2m cable, magnetic mount, 9V battery, holster with stand and case; 3 year warranty.

Ordering

407860............. Heavy Duty Vibration Meter
407860-NIST.... 407860 with NIST Certificate
407001............. Data Acquisition Software & Serial Cable
156221............. 220 VAC Adaptor

401025 Foot Candle/Lux Meter

Includes analog output and fast/slow response feature

Features:

- Accurately displays light level in terms of Fc or Lux over three ranges
- Fc range: 200.0, 2000, 5000Fc
  Lux range: 2000, 20,000, 50,000Lux
- Basic accuracy of ±5% FS
- Select fast (1 second) or slow (2 seconds) response time
- Cosine and color corrected measurements
- Analog output of 1mV per count for capturing readings to a recorder
- Dims: 163x70x30mm; Wt: 220g
- Complete with 9V battery, light sensor with protective cover and 1.2m cable, and built-in stand

Ordering

401025...............Foot Candle/Lux Meter
401025-NIST....401025 with NIST Certificate

LT300 Light Meter

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

Features:

- Wide range to 20,000 Foot-Candles or 200,000 Lux with high resolution to 0.01 Fc/Lux and 5%rdg basic accuracy
- Relative mode indicates change in light levels
- Peak mode captures highest reading
- Remote light sensor on 305mm coiled cable — expandable to 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
- Dims: 150x75x40mm; Wt: 200g
- Complete with 9V battery, light sensor with protective cover, protective holster, and pouch case

Measure low light levels in parking lots and ATM machines

Ordering

LT300................Light Meter
LT300-NIST......LT300 with NIST Certificate

407026 Heavy Duty Light Meter with PC Interface

Enhance accuracy by selecting one of four lighting types plus PC interface

Features:

- % displays differential from reference point
- "ZERO" Re-Calibration
- Fc Range: 200.0, 2000, 5000Fc
  Lux Range: 2000, 20,000, 50,000Lux
- Basic accuracy of ±4% FS
- Enhance accuracy by selecting lighting type Tungsten/ Daylight, Fluorescent, Sodium, Mercury
- MAX/MIN/AVG, Data Hold, and Auto power off
- Cosine and color corrected measurements
- Built-in RS-232 PC serial interface with optional 407001 Data Acquisition software
- Dims: 178x74x33mm; Wt: 726g
- Complete with 9V battery, light sensor, and protective cover with 1.2m cable, and protective holster with stand. Optional 220V (156221) AC adaptor.

Checking sufficient light level in stairwells

Ordering

407026...............Heavy Duty Light Meter with PC Interface
407026-NIST....407026 with NIST Certificate
4070001.............Data Acquisition Software
156221...............220V AC Adaptor

Light Meters

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

In-house Calibration Lab for Light meters

Certificate of Calibration

NIST Certificate with Data

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
- Complete with built-in stand, light sensor and protective cover with 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 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, and 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	150x72x33mm	150x72x33mm
Weight	235g	235g
CE	Yes	Yes

Software included

Software included

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
- Includes built-in stand, light sensor and protective cover with 0.9m coiled cable, protective holster, 6 AAA batteries, and case

HD400 Light Meter

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

- Wide range to 40,000Fc or 400,000Lux
- 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 cover with 1m cable, Windows® 95/98/NT/2000/ME/XP compatible software with USB cable, built-in stand, hard carrying case, and 9V battery; 3 yr warranty

HD450 Light Meter Datalogger

Automatically stores up to 16,000 readings or manually store/recall up to 99 readings

- Records in a continuous mode up to 16,000 readings
- Wide range to 40,000Fc or 400,000Lux
- 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 cover with 1m cable, Windows® 95/98/NT/2000/ME/XP compatible software, USB cable, built-in stand, case, and 9V battery; 3yr warranty

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, 4000, 40kFc	40, 400, 4000, 40kFc	**Fc Range**
99.99, 999.9, 9999, 99,990, 999,900Lux	400, 4000, 40k, 400kLux	400, 4000, 40k, 400kLux	**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**
150x72x33mm	170x80x40mm	170x80x40mm	**Dimensions**
320g	390g	390g	**Weight**
Yes	Yes	Yes	**CE**

407730 Digital Sound Level Meter

Analog bargraph with 30dB range updates every 40ms

Features:

- Measures from 40 to 130dB with ±2dB accuracy and 0.1dB resolution
- A & C weighting
- Fast/Slow response time
- AC analog output
- Record MAX/MIN values over time
- Auto power off and MAX Hold functions
- Utilizes 12.7mm condenser microphone
- Dimensions: 230x57x44mm; Weight: 160g
- Tripod mount for field use (optional TR100 Tripod — sold separately)
- Complete with microphone wind cover and four AAA batteries

Ordering

407730...............Digital Sound Level Meter
407730-NIST....407730 with NIST Certificate
TR100................Tripod

407732 Type 2 Sound Meter

Two range meter with backlit LCD display

Features:

- High ±1.5dB accuracy meets Type 2 standards (ANSI S1.4-1983, IEC 60651, EN 60651)
- Measuring ranges:
  Low: 35 to 100dB
  High: 65 to 130dB
- 0.1dB resolution
- A & C weighting
- Fast/Slow response time
- 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, 407722 94dB Sound Calibrator, and protective hard carrying case *(Optional NIST available for kit: 407732-KIT-NIST includes 407732-NISTL and 407722-NIST)*

Optional 407732-KIT comes complete with a sound calibrator and case

Ordering

407732...........................Type 2 Sound Meter
407732-NIST................407732 with NIST Certificate
407732-NISTL..............407732 with Limited NIST Certificate
407732-KIT..................Sound Meter Kit
407732-KIT-NIST........407732-KIT with NIST Certificate

HD600 20,000 Point Datalogging Sound Level Meter

Double Molded housing with USB port

Features:

- Measures from 30 to 130dB with 1.4dB high 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
- A & C weighting and Fast/Slow response time
- MIN/MAX and Data Hold
- AC/DC Analog output
- USB port includes PC software
- Tripod included for convenient field use
- Auto power off with disable capability
- Dimensions: 278x76x50mm; Weight: 350g
- Complete with AC Adaptor, Windows® compatible software with USB cable, wind cover, tripod, built-in stand, hard carrying case, and 9V battery

Meets new IEC 61672-1 Class 2 accuracy standard for OSHA and other local and national noise ordinances

Meter and accessories are packaged in a rugged hard carrying case for added protection

Ordering

HD600...............Datalogging Sound Level Meter
HD600-NIST ....HD600 with NIST

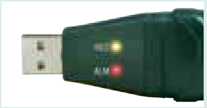
407760 USB Sound Level Datalogger

High accuracy datalogging of up to 129,920 records

Features:

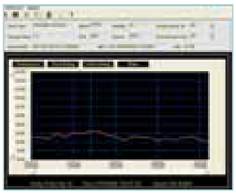
- Designed to meet ANSI and IEC 61672 Class 2 standards
- USB interface for easy setup and data download
- Selectable data sampling rate
- Records readings with real time clock
- Two start methods: programmed (from PC) or manual
- Includes 3.6V Lithium battery, Windows® compatible software, USB cover, tripod, and windscreen

USB connector plugs into PC for quick downloading of Sound Level datalogged readings.



Record LED lights up when meter starts recording data. Alarm LED lights up when sound level exceeds the High or Low set point.

Tripod included for convenient positioning of the meter and for continuous data recording.



Includes PC software for further analysis of downloaded data

Specifications

Functions	
Condenser Microphone	12.7mm
Range	30 to 130dB
Frequency Range	31.5 to 8kHz
Basic accuracy	±1.4dB
Weighting	A and C
Response Time	Fast (125ms)/Slow (1s)
Datalogging	129,920 points
PC Interface	USB
Dimensions/ Weight	130 x 30 x 25mm/ 20g

Ordering

407760 ....USB Sound Level Datalogger
407760-NISTL.407760 with NIST Certificate (single point)
42299................3.6V Lithium Battery (pkg of 2)

SL130G Sound Level Alert with Alarm

Continuous monitoring of Sound Level — 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
- 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 4.5m microphone extension cable (SL125) for remote monitoring
- Complete with AC adaptor and microphone wind cover

Specifications

Display	117x79mm multifunction LCD
Frequency bandwidth	31.5 Hz to 8 kHz
Microphone	12.7mm 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	CE approved
Dimensions /Weight	22x18x3.2cm / 285g

Ordering

SL130G ....Sound Level Alert
SL130G-NIST..SL130G with NIST Certificate

Accessories

SL123 ....AC Alarm Relay Module 3m cable
SL124 ....DC Alarm Relay Module 3m cable
SL125 ....Remote Microphone cable 4.5m
TR100 ....Tripod (for meters with Tripod mount feature)
407766 ....Sound Level Calibrator, 94/114dB

407744/407766 Sound Level Calibrators

94dB or combination 94dB/114dB, 1kHz Professional Calibrator for 12.7mm or 25.4mm microphones

Features:

- Calibrates and verifies Sound Level Meter operation
- Durable die-cast, aluminum housing
- Total Harmonic Distortion (THD) <2% at 94dB
- Meets IEC standard 60942 1997-11
- Dimensions 50mm diameter x 127mm long; Weight 340g
- Complete with two 9V batteries, carrying case, and screwdriver

Model 407744

- Battery test position with battery status LED indicates if battery is good
- 1kHz sine wave at 94dB is generated to an accuracy of 5% (frequency) and ±0.8dB

Model 407766

- LED indicator lights up when power is on
- Level position to select 94dB or 114dB
- 1kHz sine wave at 94dB/114dB is generated to an accuracy of 5% (frequency) and ±0.8dB
- 3 position switch (OFF/94dB/114dB)

Model 407744 Model 407766

Ordering

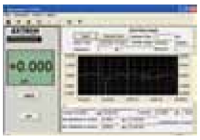
407744 ....94dB Sound Level Calibrator
407744-NIST...407744 with NIST Certificate
407766 ....94dB/114dB Sound Level Calibrator
407766-NIST...407766 with NIST Certificate

HD700 Series Differential Pressure Manometers

Low Range/High Resolution Gauge or Differential Pressure

Features:

- Three models to choose from: Model HD700 (±2psi range) Model HD750 (±5psi range), and Model HD755 (±0.5psi 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

HD755 - (0.5psi)
HD750 - (5psi)
HD700 - (2psi)

Specifications

Function	HD700 Range (Res.)	HD750 Range (Res.)	HD755 Range (Res.)	Basic Accuracy
psi	2psi (0.001psi)	5psi (0.001psi)	0.5psi (0.001psi)	±0.3%FS
inH_2O	55.40inH_2O (0.01inH_2O)	138.3inH_2O (0.1inH_2O)	13.85inH_2O (0.01inH_2O)	±0.3%FS
mbar	137.8mbar (0.1mbar)	344.7mbar (0.1mbar)	34.47mbar (0.01mbar)	±0.3%FS
kPa	13.78kPa (0.01kPa)	34.47kPa (0.01kPa)	3.447kPa (0.001kPa)	±0.3%FS
inHg	4.072inHg (0.001inHg)	10.18inHg (0.01inHg)	1.018inHg (0.001inHg)	±0.3%FS
mmHg	103.4mmHg (0.1mmHg)	258.5mmHg (0.1mmHg)	25.85mmHg (0.01mmHg)	±0.3%FS
ozin^2	32ozin^2 (0.01ozin^2)	80ozin^2 (0.01ozin^2)	8.00ozin^2 (0.01ozin^2)	±0.3%FS
ftH_2O	4.616ftH_2O (0.001ftH_2O)	11.53ftH_2O (0.01ftH_2O)	1.154ftH_2O (0.001ftH_2O)	±0.3%FS
cmH_2O	140cmH_2O (0.1cmH_2O)	350.1cmH_2O (0.1cmH_2O)	2.59cmH_2O (0.01cmH_2O)	±0.3%FS
kgcm^2	0.140kgcm^2 (0.001kgcm^2)	0.351kgcm^2 (0.001kgcm^2)	0.035kgcm^2 (0.001kgcm^2)	±0.3%FS
bar	0.137bar (0.001bar)	0.344bar (0.001bar)	0.034bar (0.001bar)	±0.3%FS
CE/Warranty	CE/ 3 years			
Dimensions	210x75x50mm			
Weight	280g			

Ordering

HD700	Differential Pressure Manometer (2psi)
HD700-NIST	HD700 with NIST Certificate
HD750	Differential Pressure Manometer (5psi)
HD750-NIST	HD750 with NIST Certificate
HD755	Differential Pressure Manometer (0.5psi)
HD755-NIST	HD755 with NIST Certificate

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
- Includes 2 quick-disconnect fittings, 9V battery, protective holster with stand, and case

Specifications

Function	Range	Resolution	Basic Accuracy
psi	±29psi	0.02psi	±1% FS
mbar	±2000mbar	1mbar	±2% FS
kg/cm^2	±2.040kg/cm^2	0.001kg/cm^2	±1% FS
mmHg	±1500mmHg	1mmHg	±1% FS
inHg	±59.05inHg	0.05inHg	±1% FS
mH_2O	±20.40mH_2O	0.01mH_2O	±1% FS
inH_2O	±802.0inH_2O	0.5inH_2O	±1% FS
Atmosphere	±1.974atm	0.001atm	±1% FS
CE/Warranty	CE approved; 3 years		
Dimensions/Weight	178x74x33mm/ 350g		

Ordering

407910	Heavy Duty Manometer
407910-NIST	407910 with NIST Certificate
407001	Data Acquisition software

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 2m

▶ *Built-in InfraRed Thermometer*

Quickly locate overheating motors or bearings

▶ *Double Molded Housing*

for better grip and added durability

Patented

RPM10 - Tachometer's patented built-in InfraRed Thermometer takes non-contact surface Temperature measurements.

461920 Mini Laser Photo Tachometer Counter

Non-contact RPM and Revolution count measurements

- 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

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 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, 0.6m reflective tape, 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:

461920-NIST, 461895-NIST, 461995-NIST, RPM10-NIST, and 461825-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		**461920**	**461895**
Range	**rpm**	2 to 99,999rpm	Photo: 5 to 99,999 / Contact: 0.5 to 19,999
	fpm/rpm	—	—
	ft/min	—	0.2 to 6560
	m/min	—	0.05 to 1999.9
	yd/min	—	—
Basic Accuracy		±0.05%rdg	±0.05%rdg
Max rpm Resolution		0.1rpm	0.1rpm
Laser		Yes	—
Temperature (*IR*)		—	—
Dimensions		160x60x42mm	216x66x38mm
Weight		151g	300g
CE		Yes	Yes

Contact/Photo Tachometers and Stroboscope

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 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, 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 2m
- Contact tachometer for RPM and surface speed measurements
- Recalls Last/MAX/MIN values
- Characters on display reverse direction depending on mode
- Complete with tips/wheel, four 1.5V AA batteries, reflective tape, and carrying case

461825
Combination Photo Tachometer/ Stroboscope

2 meters in one — Stroboscope to analyze rotating objects and Tachometer to measure rpms

- 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 10mm 5 digit LCD display
- Memory stores Last/MAX/MIN readings
- Complete with four 1.5V AA batteries, reflective tape, and carrying case

Accessories

461937
Reflective Tape

- Used with non-contact Photo Tachometers to measure speed of rotating objects
- Includes ten reflective tape strips — 584mm x 6mm each strip

461990
Contact Wheels

- 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)

461995	RPM10	461825	Model
Photo: 10 to 99,999 / Contact: 0.5 to 19,999	Photo: 10 to 99,999 / Contact: 0.5 to 20,000	Photo: 5 to 99,999	Range rpm
—	—	Stroboscope: 100 to 100,000fpm/rpm	fpm/rpm
0.2 to 6560	0.2 to 6560	—	ft/min
0.05 to 1999.9	0.05 to 1999.9	—	m/min
—	—	—	yd/min
±0.05%rdg	±0.05%rdg	±0.1%rdg	Basic Accuracy
0.1rpm	0.1rpm	0.1rpm	Max. rpm Resolution
Yes	Yes	—	Laser
—	-20 to 315°C	—	Temperature (IR)
16x66x38mm	216x66x38mm	215x65x38mm	Dimensions
300g	300g	300g	Weight
Yes	Yes	Yes	CE

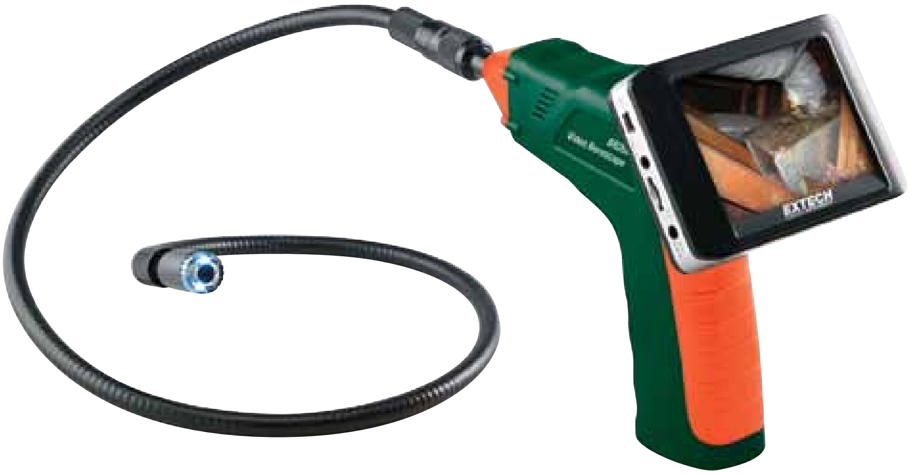
BR200/BR250 Video Borescope/Wireless Inspection Cameras

89mm Color TFT LCD Wireless Monitor with a microSD memory card for capturing images (JPEG) or video (AVI) for viewing on your PC

Features:

- Two models to choose from:

  Model BR200: 17mm diameter camera head
  Model BR250: 9mm diameter camera head
- Detachable wireless color display can be viewed from a remote location up to 10m from measurement point
- 2GB microSD memory card (included) for capturing images (JPEG) or video (AVI) for viewing on your PC
- Captured video and still images with date/time stamp can be played back on the wireless monitor or your PC
- Video and images can also be transferred to your PC via the microSD card (with included SD adaptor) or USB cable (included) and viewed using Windows® Multimedia Player
- Menus in 10 languages: English, Chinese, German, French, Spanish, Portuguese, Italian, Japanese, Dutch, and Russian
- Mini water-proof (IP67) 9mm camera head for high resolution viewing
- Four bright LED lamps with dimmer to illuminate viewed object
- Glare-free close-up field of view
- Optional BR200-EXT extension cable available for increasing viewing depth; 19mm diameter connector and 0.96m cable length; maximum 2 extension cables can be connected to the borescope
- Optional Wireless USB Video Receiver (BRD10) to stream live video to your PC and over your VOIP (Voice Over Internet Protocol) connection

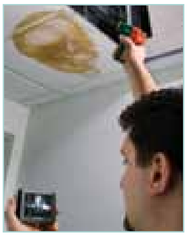


Includes microSD memory card with SD adaptor, USB cable, magnetic base stand, video interconnect cable, extension tools (mirror, hook, magnet), AC adaptor (100-240V, 50/60Hz), 4 AA batteries, and hard case

Detachable wireless 89mm color TFT LCD display can be viewed from a remote location up to 10m from the measurement point.

Memory card included for capturing JPEG images and video (AVI) with date/time stamp.

Camera (17mm diameter) with 2 built-in bright LED lights illuminates dark areas.



Ideal Applications:
- Water Restoration
- HVAC and Refrigeration
- Electrical inspection
- Automotive
- Pest control

Specifications

Camera	
Pixels	712x486 (NTSC)/ 704x576 (PAL)
Transmission Frequency	2468MHz
Transmission Range	10m unobstructed view
Viewing direction	BR200: Viewing Angle 50° BR250: Viewing Angle 45°
Viewing distance	15 to 25cm
Camera diameter	BR200: 17mm/ BR250: 9mm
Working length	0.9m
Dimensions/Weight	186x145x41mm/530g
Monitor	
LCD Screen Type	89mm TFT
Pixels	320 x 240
Video Output Level	0.9 to 1.3V@75Ω
Video/Image Resolution	960 x 240 (AVI format)/ 640x 480 (JPEG format)
Operating/Charge Time	1.5 hours/3 hours
CE/FCC approvals	Yes
Dimensions/Weight	100x70x25mm/140g

Model BRD10 - Optional Wireless USB Video Receiver allows user to stream live video to a PC and also can be remotely viewed via VOIP connection

Ordering

BR200........... Flexible Video Borescope (17mm diameter)
BR250........... Flexible Video Borescope (9mm diameter)
BR200-EXT.. Borescope 0.96m Extension Cable (19mm diameter)
BR-9CAM .... Replacement 9mm Borescope Camera Head with Cable
BR-17CAM .. Replacement 17mm Borescope Camera Head with Cable
BRD10 .... Wireless USB Video Receiver
(Note: Recommended up to two BR200-EXT connected to BR200/BR250 to maintain resolution)

MC108 Digital Mini Microscope

Compact device with color display enlarges, measures and captures images up to 108x

Features:

- Capture and measure images of objects as small as 0.01mm with built in scale
- 46mm TFT color LCD plus 2MB memory displays up to 60 JPEG images
- 7x to 108x magnification range
- Four white LEDs with adjustable brightness for object illumination
- 5 Image Effect and Dual Window View
- Real-time imaging on your PC screen via USB interface and included software
- Complete with stand, three AAA Ni-MH rechargeable batteries, 100 to 240VAC (50/60Hz) adaptor/charger, Windows® compatible software with mini USB cable, cleaning cloth, and wrist strap

PC board inspection

Dual window view simultaneously displays magnified image next to the original image

Ordering (See p. 21 for specifications)

MC108 ....Mini Microscope

MC200 Digital Microscope/Camera

2MP camera with 71mm Color LCD Screen and includes 2G microSD memory card to capture and transfer JPEG images to your PC

Complete with NP120 3.7V rechargeable Li-ion battery, RCA Video cable, 2G microSD memory card, Windows® compatible PC software with mini USB cable, cleaning cloth, wrist strap, and pouch case

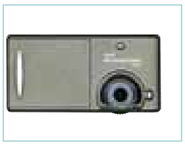
Features:

- 1x to 200x magnification range
  - Optical Zoom: 1x to 10x (continuous) and 40x
  - Digital Zoom: 5x
- LED illumination with adjustable brightness and contrast
- Built-in scale for length and height measurement
- 5 Image Effect modes: Normal, Gray, Inverse, Emboss, and Dual Window View
- Dual Window View simultaneously displays the magnified image next to the original image
- Record videos on the camera and view on TV or PC with included video and USB cables
- Captured video and JPEG images can be transferred to your PC via the included 2G microSD memory card
- Real-time imaging on your PC screen via USB interface and included software
- Battery charges via USB cable
- Dimensions: 129 x 67 x 28mm Weight: 160g including battery

PC board inspection

Soldering check

Dual Window view simultaneously displays a "live" image next to the saved image


Front lens view

Ordering

MC200 ....Digital Microsocpe/Camera

412440-S Calibration Source Checker

Easy to use pocket checker for simulating Current Loops with accuracy to 0.1mA

Features:

- 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
- Sources three discrete current levels: 4mA, 12mA and 20mA
- Bright red LEDs indicate simulation output or battery status
- Overload indication when load exceeds 240Ω
- Compact case features push button output selector switch
- Ideal for checking calibration and as a current source for setting up engineering units on a process indicator or controller
- Dimensions: 89x58.4x25.4mm; Weight: 283.5g

Ordering

412440-S ....Calibration Source Checker
412440-S-NIST...412440-S with NIST Certificate

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 24mA and 0 to 20V 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)

Upgraded Models

Specifications

Functions		
Operating Modes		
Source	Output 0 to 24mA current for loads up to 1000 ohms	
	Output 0 to 20V (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 20.00V	10mV
Accuracy	0.075% ±1 digit	
Power	9V battery or AC adaptor	
Dims/Wt	96x108x45mm folded/ 340g	

Ordering

412300A	Current Calibrator/Meter
412300A-NIST	412300A with NIST Certificate
412355A	Current & Voltage Calibrator/Meter
412355A-NIST	412355A with NIST Certificate

412400 Multifunction Process Calibrator

Precision source and measure for thermocouples, mA, mV and V devices

Features:

- 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

Specifications

Functions	Range	Basic Accuracy (of reading)
DC Source		
Current	0 to 24mA, -25% to +125%	±(0.075% + 1 digit) or ± 3 digits, whichever is greater
Voltage	0 to 10V	±(0.075% + 1 digit) or ± 3 digits, whichever is greater
Type J	-50 to 1000°C	±(0.15% + 1°C)
Type K	-50 to 1370°C	±(0.15% + 1°C)
Type T	-120 to 400°C	±(0.15% + 1°C)
Loop Power	24V	±(10µV ± 1 digit)
Max. Load	1000Ω @ 24mA	
DC Measure		
Current	0 to 50mA, -25% to +230%	±(0.075% + 1 digit) or ± 3 digits, whichever is greater
Voltage	0 to 20V	±(0.075% + 1 digit) or ± 3 digits, whichever is greater
Type J	-50 to 1000°C	±(0.15% + 1°C)
Type K	-50 to 1370°C	±(0.15% + 1°C)
Type T	-120 to 400°C	±(0.15% + 1°C)
Dimensions/Weight		96 x 118 x 45mm/ 340g

Includes 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)

Conduct fast and accurate process controls calibration

Ordering

412400	Multifunction Process Calibrator
412400-NIST	412400 with NIST Certificate

PRC50 Multifunction Process Calibrator

Precision Source and Measure for mA, mV, V, and Hz

Features:

- Source 0 to 22.000mA with 1µA resolution
- Measure -4 to 55.000mA (1µA resolution)
- Output 0 to 1100.00mV or 0 to 11.0000V
- Measure 0 to 55.000V
- Source Frequency from 1.00Hz to 11.0kHz
- Single/continuous step function for Voltage and Current
- Self-contained 24V loop power supply drives current loads up to 1000Ω
- Complete with four AAA batteries and test leads

Specifications

Functions	Range	Accuracy
Source		
Current	0.000 to 22.000mA, -25% to +125%	±(0.02% of reading ± 0.02%FS)
Voltage	-100.00mV to 11.0000V	±(0.02% of reading ± 0.01%FS)
Frequency	1.00Hz to 11.0kHz	±2 digits
Pulse	1 to 100000 cycles	not specified
Loop Power	24V	±10%
Max. Load	1000Ω @ 24mA	
Measure		
Current	-4 to 55.000mA, -25% to +230%	±(0.02% of reading ± 0.01%FS)
Voltage	-20.000mV to 55.000V	±(0.02% of reading ± 0.01%FS)
Frequency	3Hz to 50.000kHz	±0.2 digits
Continuity	<200Ω	
Dimensions/Wt	205 x 95 x 42mm/500g	

Ordering

PRC50.................Multifunction Process Calibrator

PRC70 Multifunction Process Calibrator

For thermocouples (Types R, S, J, K, T, E, N and B), RTD, mA, mV, V, Hz, Ω, and pressure devices

Features:

- Simultaneously source excitation voltage and measure mA output of 2-wire transmitters
- Source 0 to 22mA with 1µA resolution
- Measure 0 to 50mA (1µA resolution)
- Select Type R, S, J, K, T, E, N, or B thermocouple and RTD (Pt100, Pt1000) for precision calibrations in °F/°C
- Output 0 to 100mV, 0 to 1V, or 0 to 10.0000V
- Measure 0 to 50.00V
- Single/continuous step function for Voltage and Current
- Self-contained 24V loop power supply drives current loads up to 1000Ω
- Complete with four AAA batteries and test leads

Specifications

Functions	Range	Accuracy
Source		
Current	0.000 to 22.00mA, -25% to +125%	±(0.02% of reading ± 0.025%FS)
Voltage	-10.00mV to 11.0000V	±(0.02% of reading ± 0.01%FS)
Resistance	0.00 to 40.000KΩ	±(0.02% of reading ± 0.025%FS)
Type J	-200 to 1200°C	±0.5°C
Type K	-200 to 1372°C	±0.5°C
RTD (Pt100)	-250 to 850°C	±0.5°C
Frequency	1.00Hz to 110kHz	±2 digits
Pulse	10 to 100000 cycles	±2 digits
Switch (open/close)	100Hz to 100kHz	±2 digits
Loop Power	24V	±10%
Max. Load	1000W @ 24mA	
Measure		
Current	0 to 50mA, -25% to +230%	±(0.02% of reading ± 0.01%FS)
Voltage	-5.000mV to 55.00V	±(0.02% of reading ± 0.01%FS)
Resistance	0.00 to 5.5000kΩ	±(0.05% of reading ± 0.02%FS)
Type J	-60 to 1200°C	±0.7°C
Type K	-100 to 1372°C	±0.8°C
RTD (Pt100)	-200 to 800°C	±0.5°C
Frequency	2Hz to 11.0kHz	±2 digits
Continuity	<50Ω	
Dimensions/Weight	205 x 95 x 42mm/500g	

Ordering

PRC70.................Multifunction Process Calibrator

Stopwatch/Timers

Extech's stopwatches accurately time single or repetitive events including sporting periods or laps, industrial processes, and task length.

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

Extech Advantage

Only Extech offers a Stopwatch with Humidity, Temperature and Heat Index function.

NATIONAL Health & Wellness CLUB
MEMBER TESTED and RECOMMENDED

HW30 HeatWatch is recommended by the National Health & Wellness Club

Stopwatch display

HW30 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 1m lanyard and one 3V CR2032 battery

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:

365510-NIST, 365515-NIST, and 365535-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	22 to 50°C
Temperature	-10 to 50°C
Humidity	1 to 99%
Dimensions	79x66x21mm
Weight	85g
CE	Yes

Stopwatch display

Stopwatch display

High resolution display

365510 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 1m neckstrap

365515 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 1m neckstrap

365535 Decimal Stopwatch/Clock

User-selectable resolution of 1/100 of a second, 1/1000 of a minute and 1/100,000 of an hour Large triple display with adjustable contrast

- 1/100th second precision for 19 hours
- 500 memory records of Split and Lap times
- Calendar displays day, month and date
- Time of day with daily alarm
- 12 or 24 hour clock format
- 3 Mode Countdown timer: count down stop, count down repeat, count down then count up
- Stroke measurement
- Pacer from 5 to 240 beeps per minute
- Water resistant housing
- Complete with CR2032 lithium battery and 1m neckstrap

365510	365515	365535
23hrs, 59mins and 59.99secs	23hrs, 59mins and 59.99secs	19hrs, 59mins and 59.99secs
±3 seconds/day	±3 seconds/day	±5 seconds/day
Yes	Yes	Yes
—	—	3 Modes
—	—	500 laps
—	—	—
—	—	—
—	—	—
57x70x15mm	57x70x15mm	64x81x20mm
50g	50g	77g
Yes	Yes	Yes

RF Series Portable Brix Refractometers

Measure the concentration of Sugar, Salt or industrial cutting/cooling lubricants

Scale view through eyepiece

Features:

- Easy to operate refractometers provide accurate and repeatable measurements on easy to read scales
- Automatic Temperature Compensation (RF11, RF12, RF15 and RF20 models)
- Requires only 2 or 3 drops of solution
- The prism and lens with a simple focus adjustment provide repeatable results
- One year warranty
- Complete with case, calibration screwdriver, and calibration solution

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)	1ppt	±0.1‰
		1.000 to 1.070 Specific Gravity	0.001	±0.001
RF16	Sucrose	0 to 10% Brix	0.1	±0.1%
RF11	Sucrose (ATC)	0 to 10% (10 to 30°C)	0.1	±0.1%
RF12	Lubricants/Cutting fluids (ATC)	0 to 18% Brix (10 to 30°C)	0.2	±0.2%
RF30	Triple Range	0 to 41% Brix	0.2	±0.2%
	General Service	42 to 71% Brix	0.2	±0.2%
		72 to 90% Brix	0.2	±0.2%

Ordering

RF10....... 0 to 32% Brix Refractometer
RF11....... 0 to 10% Brix Refractometer with ATC
RF12....... 0 to 18% Brix Refractometer with ATC
RF15....... 0 to 32% Brix Refractometer with ATC
RF16....... 0 to 10% Brix Refractometer
RF18....... 0 to 18% Brix Refractometer
RF20....... Salinity Refractometer with ATC
RF30....... Triple Range General Service (0 to 90% Brix) Refractometer

Sucrose (RF10, RF11, RF15, RF16, and RF18)

- RF10 Dims/Wt: 168x32x32mm/ 91g
  RF15 Dims/Wt: 159x35x35mm/ 200g
  RF11/RF16 Dims/Wt: 190x40x30mm/ 185g
- Sucrose brix refractometers measure the concentration of sugar in fruit juice and industrial fluids

Brix (RF12 and RF18)

- RF18 Dims/Wt: 170x41x31mm/ 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: 194x38x38mm/ 227g

General Purpose Brix (RF30)

- Dims/Wt: 200x38x28mm/ 620g

RF41 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 °C 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	-50°C to 0°C	1°C	±2%
Ethylene Glycol freeze point	-50°C to 0°C	1°C	±2%
Specific Gravity of Battery Acid	1.15 to 1.30	0.01	
Dimensions/ Weight	165x38x38mm/ 200g		

Ordering

RF41....... Battery Coolant/Glycol Refractometer w/ATC (°C)

PH150-C Concrete pH Kit

Flat surface electrode provides fast & easy on-the-spot pH measurements on concrete

Features:

- 1m extension cable with probe guard/ weight attaches to the Concrete pH Meter for taking measurements on flat concrete surfaces
- Rust-free metal weight probe guard helps keep electrode in contact with the wet concrete surface and protects the electrode
- RENEW indicator tells you when it's time to replace your electrode
- CAL alert tells you it's time to recalibrate
- Memory records and recalls 25 readings
- 1, 2 or 3 point calibration
- Data Hold, Auto power off, and Low battery indication
- Waterproof/dustproof design (IP57)
- Complete with flat surface concrete pH electrode, protective sensor cap, sample cup with cap, plastic stand, 1m extension cable with weighted probe guard, plastic bottle, four 3V CR2032 button batteries, 1.2m neckstrap, and carrying case

Measure pH level of concrete using a pH meter with a flat surface pH electrode plus a metal weight probe guard for stability and protection

Specifications

Function	
pH	0.00 to 14.00pH
Temperature	-5 to 90°C
Resolution	0.01pH, 0.1°
Accuracy	±0.01pH, ±1°C
Power	four 3V CR2032 button batteries
Dimensions (Meter)	35.6 x172.7 x 40.6mm
Weight (Meter)	110g

Ordering

PH150-C.........Concrete pH Kit
PH155.............Spare ExStik® Concrete pH Electrode Module

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

Model PH50 Measures pH

Model PH60 Measures pH and Temperature Automatic Temperature Compensation

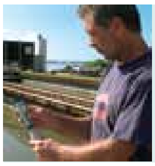
Specifications

Function	Model PH50	Model PH60
pH	2.0 to 12.0pH	0.0 to 14.0pH
Temperature	—	0 to 50°C
Resolution	0.1pH, 0.1°	0.1pH, 0.1°
Accuracy	±0.3pH	±0.2pH; ±0.5°C
Dimensions	152x37x24mm	152x37x24mm
Weight	65g	65g

Ordering:

PH50...............Waterproof pH Pen
PH60...............Waterproof pH Meter with Temperature
PH103............Tripak buffers (6ea - 4,7,10pH+2 Rinse solutions)

ExStik® Waterproof pH and ORP Meters



ExStik® Series (Patent Pending)
Provide great versatility in measuring pH, ORP, Conductivity, Dissolved Oxygen, TDS, Salinity, and Temperature for field or laboratory use.

Featuring Model PH100

Flat Surface Electrode

For any application that requires direct contact such as food, paper, cement and wet surfaces

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

Carrying Case
CA895 .... Small vinyl carrying case with belt loop

See page 102 for replacement electrode modules
*ExStik® II electrode modules are not interchangeable with ExStik® pH/ORP/Chlorine meters

Flat Surface
pH Electrode

PH100/PH110 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 data
- **Waterproof** to IP57
- Complete with protective sensor cap, sample cup with cap, four 3V button batteries, and 1.2m neckstrap
- **Select PH100** for meter with gel filled pH flat surface electrode
- **Select PH110** for meter with refillable flat surface pH electrode; Order PH113 KCl reference kit separately (see p.102)

Note: Requires pH buffers (not included).

Flat Surface ORP
Electrode

RE300 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 1.2m neckstrap

Did You Know?

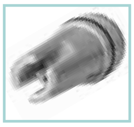
pH Meters require pH buffers for calibration before taking accurate pH measurements. For low pH range, calibrate with 4 and 7pH buffers. For high pH range, calibrate with 7 and 10 pH buffers.

Conductivity Meters require calibration before taking accurate measurements. 84µS for Low range, 1413µS for mid-range, and 12880µS for high range.

Specifications

Model	PH100	PH110	RE300
pH	0.00 to 14.00pH		—
ORP (mV)	—		-999 to 999mV
Conductivity	—		—
TDS/Salinity	—		—
DO saturation/concentration	—		—
Temperature	-5 to 90°C		—
Max. Resolution	0.01pH, 0.1°		1mV
Basic Accuracy	±0.01pH, ±1°C		±4mV
Dimensions (Meter only)	35.6x172.7x40.6mm		35.6x172.7x40.6mm
Weight (Meter only)	110g		110g
CE	Yes		Yes

ExStik® II Conductivity, TDS and DO Meters



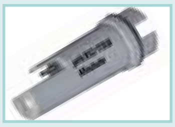
Autoranging Conductivity/TDS cell

EC400/EC410

Conductivity Meter and Kit

Autoranging, high accuracy combination electrode measures multi parameters

- Analog bargraph indicates trends
- Memory stores 25 labeled data
- Adjustable Conductivity to TDS ratio from 0.4 to 1.0
- 0.5 fixed Salinity ratio
- Data Hold, Auto power off, Low battery indicator
- **Waterproof** to IP57
- **EC400 meter** includes Conductivity cell*, protective sensor cap, sample cup with cap, four 3V CR2032 button batteries, and 1.2m neckstrap; *Calibration standards sold separately*
- **EC410 kit** (p.103) includes EC400, 84µS, 1413µS, 12880µS calibration standards, weighted base, 3 sample cups with caps, and case



Combination flat surface pH electrode and Conductivity cell

EC500/EC510

pH/Conductivity Meter and Kit

Combination pH/ Conductivity/ TDS electrode module

- Analog bargraph indicates trends
- Memory stores 25 labeled data
- Adjustable Conductivity to TDS ratio from 0.4 to 1.0
- 0.5 fixed Salinity ratio
- EC500 - RENEW feature tells user to replace electrode
- Data Hold, Auto power off, Low battery indicator
- **Waterproof** to IP57
- Combination pH/Conductivity/ TDS electrode module
- **EC500 meter** includes electrode, protective sensor cap, sample cup with cap, four 3V CR2032 batteries, and 1.2m neckstrap; *Calibration standards sold separately*
- **EC510 Kit** (p.103) 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, and case

DO sensor with easy screw-on membrane cap assembly

DO600/DO600-K

Dissolved Oxygen Meter and Kit

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 25 labeled data
- Self calibration on power up
- **Waterproof** to IP57
- **DO600 meter** includes DO electrode, sensor cap, spare membrane cap, electrolyte, four 3V CR2032 batteries, and 1.2m neckstrap
- **DO600-K Kit** includes DO600 meter, DO603 membrane kit, 5m extension cable, weighted probe guard, and case

EC400	EC410	EC500	EC510	DO600	DO600-K	Model
—		0.00 to 14.00pH		—		**pH**
—		—		—		**ORP**
0 to 199.9µS, 200 to 1999µS, 2.00 to 19.99mS		0 to 199.9µS, 200 to 1999µS, 2.00 to 19.99mS		—		**Conductivity**
0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)		0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)		—		**TDS/Salinity**
—		—		0 to 200.0% / 0 to 20.00ppm (mg/L)		**DO saturation/concentration**
0 to 65°C		-5 to 90°C		0 to 50°C		**Temperature**
0.1µS, 0.1ppm (mg/L), 0.01pH, 0.1°		0.1µS, 0.1ppm (mg/L), 0.01pH, 0.1°		0.1%, 0.01ppm (mg/L), 0.1°C		**Max. Resolution**
±2%FS, ±0.01pH, ±1°C		±2%FS, ±0.01pH, ±1°C		±2.0% FS, 0.4ppm (mg/L), ±1°C		**Basic Accuracy**
35.6x172.7x40.6mm		35.6x172.7x40.6mm		35.6x172.7x40.6mm		**Dimensions (Meter only)**
110g		110g		110g		**Weight (Meter only)**
Yes		Yes		Yes		**CE**

ExStik® Chlorine Meter & Accessories

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 103)
- 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 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

Specifications

Function	
ppm	0.01 to 10.00ppm
Temperature	-5 to 90°C
Resolution	0.01ppm; 0.1°
Basic accuracy	±10% of reading ±0.01ppm; ±1°C
Power	Four 3V CR2032 button batteries
Dimensions	35.6x172.7x40.6mm
Weight	110g

Ordering

CL200	ExStik® Chlorine Meter
CA895	Small vinyl carrying case with belt loop

(See accessories below or Special Value Kits on p. 103)

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

ExStik® Replacement pH, ORP, and Chlorine Electrode Modules

Features:

- Interchangeable pH, ORP, and Chlorine sensor modules for ExStik® series meters featured on (p. 100 and CL200 above)
- 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
- 6 month conditional warranty

Ordering (ExStik Accessories)

CL203	ExTab™ Reagent tablets (10pk - 100 tests)
CL204	ExTab™ Reagent tablets (100pk - 1000 tests)
PH105	pH ExStik® Electrode Module
PH115	Refillable pH ExStik® Electrode Module
PH113	Reference Refilling Solution Kit for PH115
CL205	Chlorine ExStik® Electrode Module
RE305	ORP ExStik® Electrode Module

PH105 **CL205** **RE305**

Flat surface pH, Chlorine, and ORP electrode modules

PH113 Reference Refilling Solution Kit for PH115 Refillable pH electrode module

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 buffer solutions (20mL) and rinse solution, weighted base with 6 sample plastic cups with caps, four 3V CR2032 button batteries, 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. 100, 102 for more details on the ExStik Meters

Specifications

Function	
ppm	0.01 to 10.00ppm
pH	0.00 to 14.00pH
ORP	-999 to 999mV
Temperature	-5 to 90°C
Resolution	0.01ppm; 0.01pH; 0.1mV; 0.1°
Accuracy	±10% of reading ±0.01ppm; 0.01pH; ±4mV; ±1°C
Power	Four 3V CR2032 button batteries
Dims/Wt	241x173x71mm/0.76kg

Ordering

EX900..... ExStik® 4-in-1 Kit Chlorine, pH, ORP, Temperature
EX800..... ExStik® 3-in-1 Kit Chlorine, pH, Temperature
EX800-R. ExStik® 3-in-1 Kit Chlorine, Ref. pH, Temperature

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, 1.2m neckstrap, and carrying case

See p. 101 for more details on the EC400 meter

Specifications

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	0 to 65°C	0.1°	±1°C
Power	Four 3V CR2032 button batteries		
Dims/ Wt	241x173x71mm/0.71kg		

**ExStik® II Series electrodes are not interchangeable with ExStik® pH/Chlorine/ORP meters*

Ordering

EC410...........ExStik® 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. 101 for more details on the EC500 meter

Specifications

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	0 to 65°C	0.1°	±1°C
Power	Four 3V CR2032 button batteries		
Dims/ Wt	241x173x71mm/0.71kg		

Ordering

EC510................ExStik® pH/Conductivity Kit

DO610-K ExStik® II* DO Kit

Convenient kit adds versatility on measuring Dissolved Oxygen in laboratories or out in the field with a 5m extension cable and probe weight guard for taking easy measurements in tanks or streams

Kit Includes:

- DO600 Dissolved Oxygen ExStik® II meter with electrode, replacement membrane cap, electrolyte, and polishing paper

Accessories included:

- DO603 replacement membrane Kit
- EX050 5m extension cable and weighted probe guard
- Four 3V CR-2032 batteries, 1.2m neckstrap, and hard carrying case

See p. 101 for more details on the DO600 meter

Ordering

DO610-K..... ExStik® II Dissolved Oxygen Kit

Dissolved Oxygen/Conductivity/TDS/pH Meters

Extech's Water Quality meters are used to monitor and maintain the quality of industrial and commercial process waters, conditioning fluids and additives.

Featuring Model DO700

8 -in-1 Meter

Measuress Dissolved Oxygen, Conductivity, TDS, Salinity, Resistivity, pH, mV, and Temperatures

Automatic Compensation

For salinity and manual barometric pressure compensation when making DO measurements

One point Conductivity Calibration

Automatically recognizes 8 calibration solutions from USA, Europe and China series

Memory

Stores up to 400 labeled readings

Read to use complete kit includes all the necessary accessories stored in a hard carrying case for easy transportation. Ideal for field use.

Specifications

Model

pH
mV
Conductivity
TDS/Salinity
Dissolved Oxygen
Temperature
Max. Resolution
Basic Accuracy
Memory
Dimensions/Weight
CE

Accessories

PH305 .... Spare pH Electrode for PH300, EC600, DO700
EC605........ Spare Conductivity Cell for EC600 and DO700
DO705 ...... Spare Dissolved Oxygen Electrode for DO700
DO703 ...... Replacement Membrane Caps (3 caps) for DO700

PH300 Waterproof pH/Temperature Kit

Measures pH, mV, and Temperature

- Waterproof housing (meets IP57)
- Automatic calibration (4, 7, and 10pH)
- Choice of 3 point calibration for better accuracy
- Automatic Temperature Compensation
- Memory stores up to 200 labeled readings
- Large blue backlit dual LCD displays both pH and Temperature readings
- Auto power off with disable function
- Complete with pH/mV/Temperature electrode, pH calibration solutions (4, 7, and 10pH), 2 AA batteries, and hard carrying case

EC600 Waterproof Conductivity Kit

Measures Conductivity, TDS, Salinity, Resistivity, pH, mV and Temperature

- Waterproof housing (meets IP57)
- Automatic one button pH calibration (4, 7, and 10pH)
- Choice of 3 point pH calibration for better accuracy
- One point Conductivity calibration – automatically recognizes 8 calibration solutions
- Automatic Temperature Compensation (non-linear compensation for purified water <10µS/cm to improve measuring accuracy)
- Memory stores up to 300 labeled readings
- Large blue backlit dual LCD display
- Auto power off with disable function
- Complete with pH/mV/Temperature electrode, polymer Conductivity cell, pH calibration solutions (4, 7, and 10pH), Conductivity calibration solution (1413µS), 2 AA batteries, and hard carrying case

DO700 Waterproof Dissolved Oxygen Kit

8-in-1 Meter — Measures DO concentration/saturation, pH, mV, Conductivity, TDS, Salinity, Resistivity and Temperature

- Automatic salinity compensation and manual barometric pressure compensation for DO measurements
- Waterproof housing (meets IP57)
- Choice of 3 point pH calibration for better accuracy
- One point Conductivity calibration – automatically recognizes 8 calibration solutions
- Automatic Temperature Compensation
- Memory stores up to 400 labeled readings
- Large blue backlit dual LCD display
- Auto power off with disable function
- Complete with Dissolved Oxygen probe with 3 membrane caps and DO internal fill solution (30mL), pH/mV/ Temperature electrode, polymer Conductivity cell, pH calibration solutions (4, 7, and 10pH), Conductivity calibration solution (1413µS), 2 AA batteries, and hard carrying case

PH300	EC600	DO700
-2 to 19pH	-2 to 19pH	-2 to 19pH
-1999mV to 1999mV	-1999mV to 1999mV	-1999mV to 1999mV
—	0 to 199.9mS	0 to 199.9mS
—	0 to 100g/L, 0 to 100ppt	0 to 100g/L, 0 to 100ppt
—	—	Concentration: 0 to 40.00mg/L; Saturation: 0 to 200.0%
0 to 100°C	pH/mV: 0 to 100°C/ Others: 0 to 50°C	pH/mV: 0 to 100°C/ Others: 0 to 50°C
0.01pH, 1mV, 0.1°	0.01pH, 1mV, 0.01µS, 0.01mg/L, 0.01ppt, 0.1°	0.01m/gL, 0.1%, 0.01pH, 1mV, 0.01µS, 0.1°
±0.02pH, ±0.15mV, ±0.5°C	±0.02pH; ±0.15mV; ±1.5%FS; ±0.5°C	±0.02pH; ±0.15mV; ±1.5%FS; ±0.5°C
200 readings	300 readings	400 readings
120x65x31mm/ 180g	120x65x31mm/ 180g	120x65x31mm/ 180g
Yes	Yes	Yes

Product Number Index

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Category Index

All specifications are subject to change without notice. See page 106-107 for a complete part number index

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