

**EXTECH**  
INSTRUMENTS®



Measure **UP**  
with Extech

MultiMeters | Clamp Meters

Thermometers | Airflow Meters

Light Meters | Sound Meters

Water Quality Meters | Tachometers

Humidity Meters | Moisture Meters

Video Borescopes and More!

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

**45<sup>th</sup>**  
Celebrating Our  
Anniversary



As Extech celebrates our 45th anniversary, I can't help but think about the journey we've been on for almost five decades. We take pride in making a difference in your world by providing you with the tools you need to get your job done right. We understand that minimizing down time and providing a safe work environment while controlling costs are challenges you face every day.

Our products have always offered unique functionality at affordable prices and we've grown significantly because we learned about your application needs and focused on delivering quality and innovative products for professionals like you.

We work hard to earn your trust by offering top quality tools, a comprehensive product selection and proactive customer support so that you always feel confident on the job with your Extech meter.

We ask the question "What do you need to measure today?" because we're all about test and measurement. Whether your measurement requirements are on the shop floor, in the electrical or HVAC department, the safety department, or the test lab, we've got the test equipment you need to get the job done.

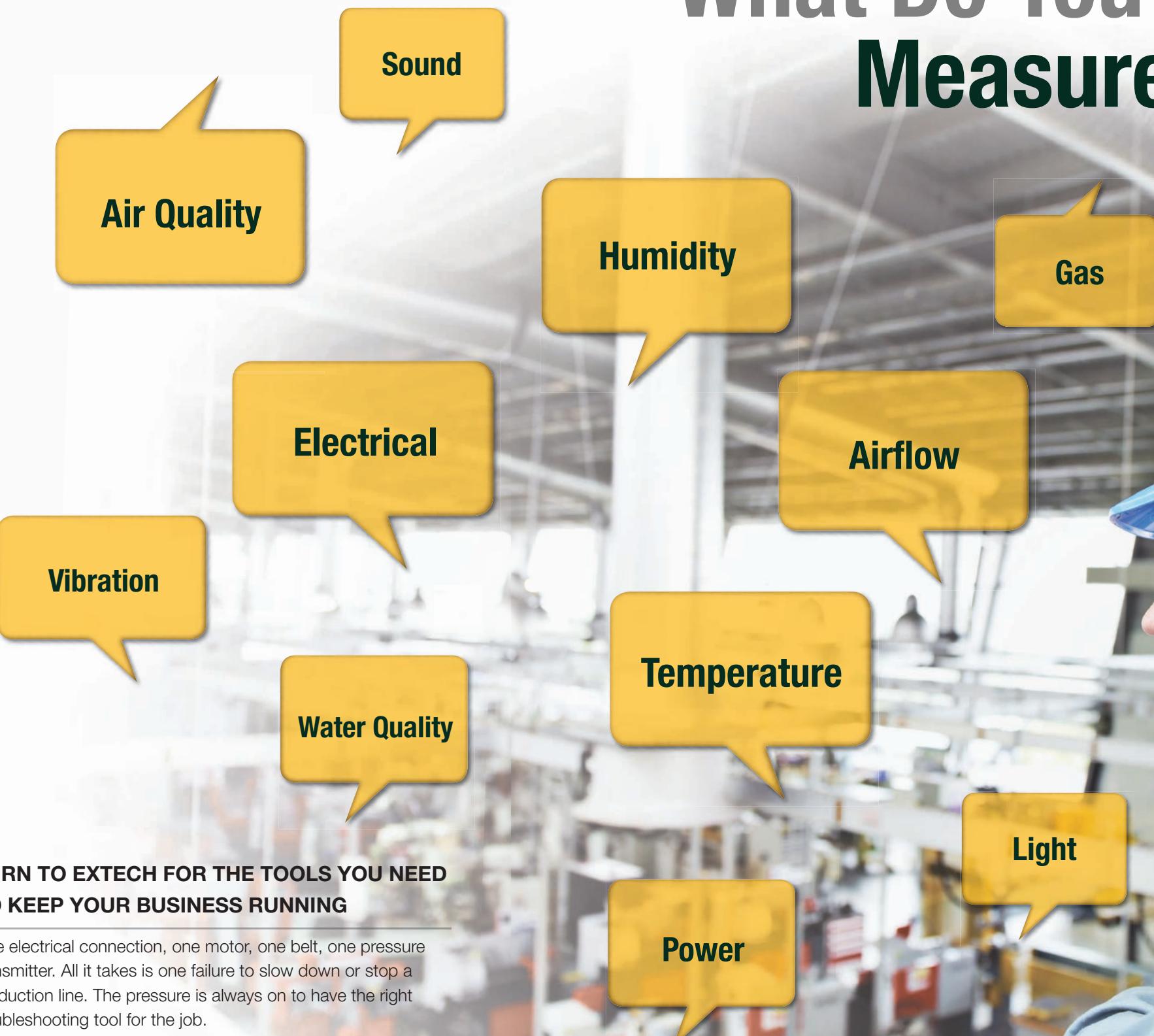
Arpineh Mullaney  
VP Sales, Extech Instruments  
A division of FLIR Systems

## TURN TO EXTECH FOR THE TOOLS YOU NEED TO KEEP YOUR BUSINESS RUNNING

One electrical connection, one motor, one belt, one pressure transmitter. All it takes is one failure to slow down or stop a production line. The pressure is always on to have the right troubleshooting tool for the job.

No matter what part of your facility—offices, production floor, engineering, warehouse, employee safety areas—Extech has you covered with an end-to-end selection of meters and testers to get the problem solved ASAP.

# What Do You Need To Measure Today?



Gas

Light

Power

Temperature

Airflow

Humidity

Electrical

Water Quality

Vibration

Air Quality

Sound

# Committed To Customers

SINCE 1970, EXTECH HAS COME TO BE TRUSTED BY MILLIONS OF CUSTOMERS FOR OUR COMMITMENT TO QUALITY AND SERVICE.



## Dedicated Support and Service

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

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

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

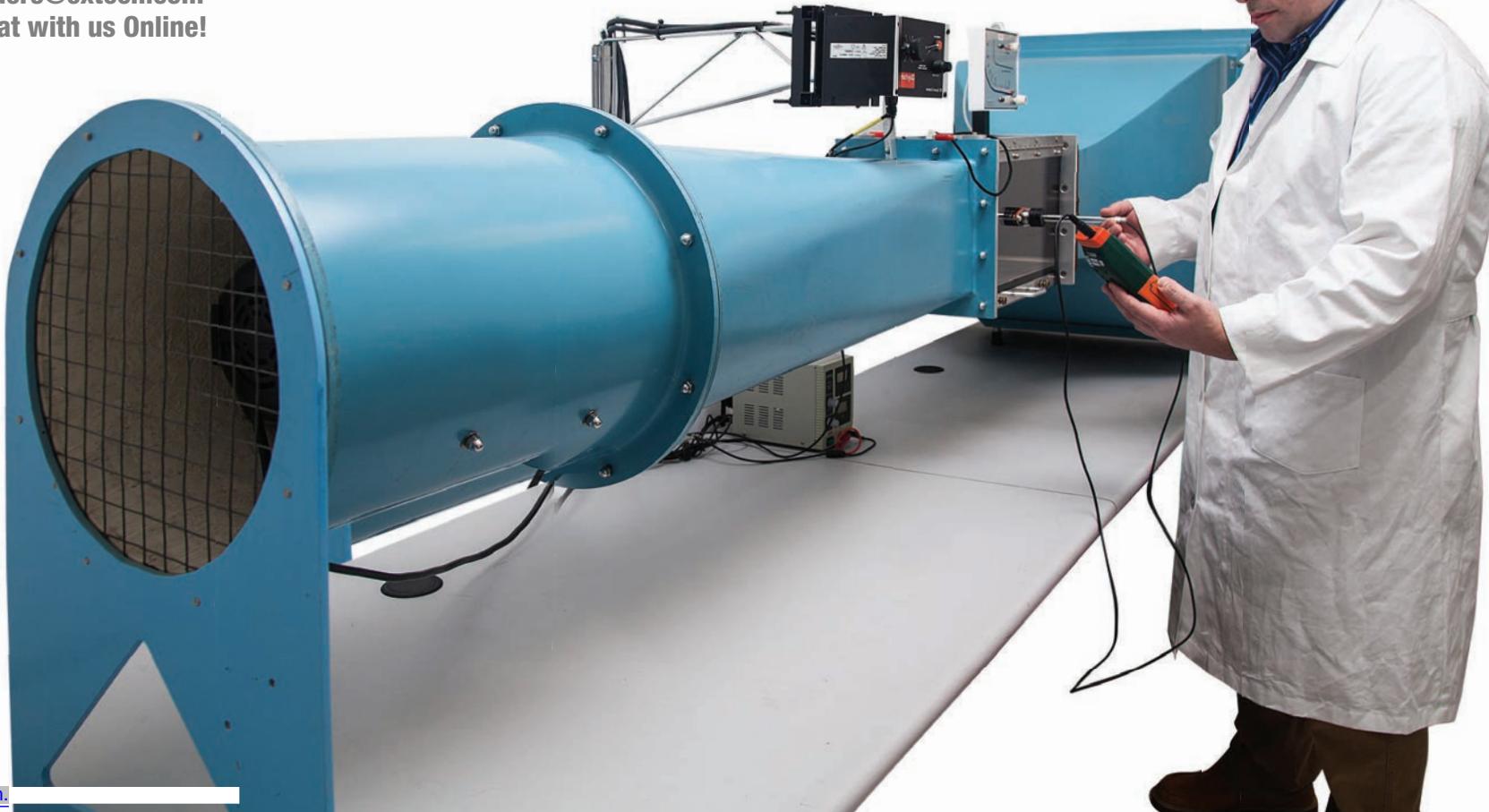
## Calibration Traceable to NIST

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

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

Look for the  icon indicating that NIST-traceable certification is available for a product. (See pages 160-165 for a full listing.)

Call or email:  
877-4-EXTECH (877-439-8324)  
orders@extech.com  
Chat with us Online!



In a growing market of test equipment, Extech stands out as a trusted, well-known brand focused on building lifelong relationships with our customer community. Only Extech can achieve that with a dedicated team of customer support and service, as well as a relentless pursuit of quality.

# Trusted By The Pros

TRADESMEN AND INDUSTRIAL MAINTENANCE PROFESSIONALS  
TURN TO EXTECH TO HELP THEM GET THE JOB DONE.



## Electrical and Facilities Maintenance

Manufacturing and processing plants can represent the most diverse array of systems under one roof. From process equipment requiring calibration, to pumps, motors and compressors at risk for vibration and electrical issues, to wastewater treatment, to sensitive facility environmental factors such as temperature and humidity, Extech has you covered.

## HVAC/R Mechanical

Extech tools help you perform simpler residential air conditioning repairs as well as more complex maintenance at a large hospital with a co-generation plant for example. Extech meters identify problems related to electrical, air and water temperature, humidity, airflow, filtration effectiveness, superheat and subcooling, boiler tube corrosion, occupant comfort and so much more.

## Safety and Health

Workplace safety and health programs not only improve and protect employee health, they can also boost productivity. Extech meters and dataloggers for effective “industrial hygiene” programs cover air monitoring/exposure assessments, health and safety audits, noise surveys, indoor air quality (IAQ) and respiratory protection and task lighting compliance tests.



# Innovation That Gets The Job Done

EXTECH DELIVERS THE TOOLS YOU NEED TO INSTALL EQUIPMENT, SOLVE PROBLEMS AND TROUBLESHOOT MORE EFFICIENTLY.

## Unlock Your Datalogging

Troubleshoot for extended periods with 3-channel voltage or current dataloggers that record in MS Excel® format on an SD card.

SD900/  
SD910  
p.35



## Ground Control

4-wire earth ground resistance/ resistivity tester ensures effective grounding installations.

GRT350  
p.53



## Anywhere Access

For current testing challenges large and small, Extech introduces CAT IV rated flex clamp meters to wrap around large conductors, an open jaw clamp meter for quick testing, and a mini jaw clamp to access the tightest spots.

MA3010/  
MA3018  
p.33



MA260  
p.27



MA61  
MA63  
p.31



## Cut Through the Noise

Extech introduces meters equipped with LoZ and available Low Pass Filter to tackle electrical diagnostics prone to errors from ghost voltages or noisy signals.

EX650/  
EX655  
p.24



EX350  
EX355  
p.11



## Comprehensive Condition Monitoring

If you're the eyes and ears of your plant's MRO program, Extech can help you perform equipment inspections with tools like a compact, go-anywhere vibration meter or a high-definition videoscope with articulating probe.

VB450  
p.136



HDV450  
p.132



## Go In-Depth

Extech introduces advanced coating thickness testers for automotive, paint and industrial inspections for quality, wear and corrosion. Bluetooth® simplifies data transfer to your laptop.

CG104  
CG206  
p. 142



CG304  
p.143



## Electro-Magnetic & RF Testing

From industrial induction and dielectric heaters to mobile devices, to transmitting antennas, Extech's AC/DC magnetic field meter and datalogger, as well as a multi-field EMF meter, help you measure environmental and occupational EMF exposure.

MF100  
SDL900  
p.63



EMF450  
p.62



## Power On The Go

Never slow down with mobile devices that need a charge. Quickly recharge smartphones and tablets anytime, anywhere.

PWR5  
p.83



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EX365	Industrial CAT IV TRMS MultiMeter+NCV	12
381676A	Pen MultiMeter + NCV	17
MG325	CAT IV Insulation Tester/MultiMeter	18
MN62-K	True RMS MultiMeter + AC Volt Detector	19
MA445	True RMS 400A AC/DC Clamp Meter	26
MA145	TRMS 300A AC/DC Clamp Meter+NCV	27
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DV23	CAT IV AC Voltage Detector	38
TG20	Wire Tracer Kit	45
MG310	Compact Digital Insulation Tester	58

# What's Your Environmental Challenge?

TACKLE ENVIRONMENTAL CHALLENGES: FROM HVAC/SICK BUILDING ISSUES TO OUTDOOR HEAT-STRESS WORK CONDITIONS, WATER QUALITY, UV HAZARDS & MORE.



## Humidity & Temperature: Measure Your Way

Extech introduces several new hygro-thermometer instruments for a wide range of applications. Focus on heat-stress; measure with your mobile device; add dataloggers to shipments; or use tabletop/wall-mount monitors that use graphical or numerical indicators.

RH210  
p.86



RHT3  
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HT200  
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RH35  
p.79



CTH10A  
p.77



THD5  
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EC210  
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PH210  
p.154

DO210  
p.159

## Tackle Every Water Quality Challenge

New water quality meters from Extech designed to accurately measure and monitor factors essential to sustaining vibrant ecosystems, preserving public safety and responsibly managing water resources. Measure temperature as well as: Conductivity/TDS; DO; and pH/ORP.



## Options for Indoor Air Quality

For ongoing or on-the-spot air quality measurements, Extech's innovative multifunction meters track carbon dioxide, temperature, humidity as well as calculating dew point and wet bulb. Measure formaldehyde and volatile organic compounds (VOC) hazards from building materials.

C0230  
p.106



C0240  
p.106



FM200  
p.108



FM100  
p.108



VFM200  
p.109



M050  
p.90



## Check Moisture in Building Materials

Compact go-anywhere moisture meter.

Part#	Product	Page#
IR267	IR Thermometer + Type K	65
IR300UV	IR Thermometer with Leak Detector	69
MO55	Combination Pin/Pinless Moisture Meter	93
45168CP	Mini Thermo-Anemometer with Compass	96
45170CM	Environmental Meter	97
CO30	Carbon Monoxide (CO) Monitor	104
SL400	Noise Dosimeter/Datalogger	124
407790A	Octave Band Sound Analyzer	125
RPM40	Combination Contact/Laser Photo Tachometer	128
PH90	Waterproof pH Meter	148

## Digital MultiMeter (DMM) Index Guide

Pick the right Clamp Meter for your application



**MN Series**  
Compact and affordable Digital MultiMeters with choice of Manual Ranging or Autoranging models. Perfect for DIYers, students, hobbyists, mechanics and technicians.  
p. 16



**EX300 Series**  
Mini Digital DMMs with built-in Non-contact Voltage Detector and numerous electrical functions and temperature.  
p. 10



**EX350 Series**  
These professional True RMS DMMs are loaded with advanced features and functions. Low Impedance (LoZ) mode eliminates false readings caused by ghost voltages. Low Pass Filter (LPF) attenuates high frequencies to reduce noise for accurate readings.  
p. 11



**EX360 Series**  
Professional CAT IV True RMS MultiMeters designed for Electrical, HVAC, or Industrial Applications. Advanced LoZ feature eliminates false readings caused by ghost voltages. CAT IV safety rating ensures the highest level of protection.  
p. 12



**EX400 Series**  
Professional Full Size Series Digital MultiMeters. Features include Large Digits, True RMS or Averaging, and Type K and/or built-in IR Thermometer.  
p. 13



**EX500 Series**  
Industrial Series Digital DMMs are accurate and rugged. Waterproof, dustproof, drop tested to 2m (6.5"), and CAT IV safety rated for higher voltage applications. Wireless datalogging model or built-in IR Thermometer.  
p. 14-15



**MG300 Series**  
Combines a 1000V Insulation Resistance Tester with a True RMS CAT-IV Digital MultiMeter plus wireless connectivity to a PC for safer monitoring, data recording and diagnostics.  
p. 18



**WIRELESS Transmitter**

Look for this symbol: indicating products that are available with optional calibration traceable to NIST. See complete listing on p. 160-165.

## EX300 Series Mini Digital MultiMeters + Voltage Detector



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

## Combination MultiMeter with non-contact AC Voltage Detector

- Built-in non-contact AC Voltage Detector with red LED indicator and audible beeper
- Large 1" digits makes display easy to read
- Dimensions: 5.7x2.9x1.6" (147x76x42mm); Weight: 9oz (260g)
- 1 year warranty
- Complete with stand, test leads, protective holster, batteries, general purpose Type K bead wire temperature probe (EX330 only)

## Model EX310 (Manual Ranging)

- Battery test 1.5V and 9V

## Model EX320 (Autoranging)

- Max Hold, Data Hold, and Auto Power Off

## Model EX330 (Autoranging)

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

SPECIFICATIONS	EX310	EX320	EX330
Display Counts	2000 counts	2000 counts	4000 counts
Basic Accuracy	0.50%	0.50%	0.50%
NCV Detector	100 to 600VAC	100 to 600VAC	100 to 600VAC
DC Voltage	0.1mV to 600V	0.1mV to 600V	0.1mV to 600V
AC Voltage	0.1V to 600V	0.1mV to 600V	0.1mV to 600V
DC/AC Current	0.1mA to 10A	0.1μA to 10A	0.1μA to 10A
Resistance	0.1Ω to 2000kΩ	0.1Ω to 20MΩ	0.1Ω to 40MΩ
Capacitance	—	—	0.001nF to 200μF
Frequency	—	—	0.001Hz to 10MHz
Temperature	—	—	-4 to 1382°F (-20 to 750°C)
Duty Cycle	—	—	0.1 to 99.9%
Diode/Continuity	Yes	Yes	Yes
Category Rating	CAT III-600V, CAT II-1000V	CAT III-600V, CAT II-1000V	CAT III-600V, CAT II-1000V

## ORDERING

EX310 Manual Ranging 9 Function Mini MultiMeter + Non-Contact Voltage Detector  
 EX320 Autoranging 8 Function Mini MultiMeter + Non-Contact Voltage Detector  
 EX330 Autoranging 12 Function Mini MultiMeter + Non-Contact Voltage Detector  
 409996 Vinyl soft case  
 TP873 Replacement Bead wire Temperature Probe (-22 to 572°F/-30 to 300°C)  
 TL803 Replacement Test Leads

## EX350 Series True RMS MultiMeters with LPF and LoZ



EX350

**NEW**

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

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

## Model EX350

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

## Model EX355

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

## SPECIFICATIONS

	EX350	EX355
Display counts	4000	6000
Basic DCV Accuracy	±0.5%	±0.5%
NCV Detector	Yes	Yes
DC/AC Voltage	0.01mV to 600V	0.01mV to 600V
DC/AC Current	0.1μA to 10.00A	0.1μA to 10.00A
Resistance	0.1Ω to 40.00MΩ	0.1Ω to 60.00MΩ
Capacitance	1pF to 60.00mF	1pF to 60.00mF
Frequency	0.001Hz to 10MHz	0.001Hz to 10MHz
Temperature (Type K)	—	-40 to 1832°F (-40 to 1000°C)
Duty Cycle	0.1 to 99.9%	0.1 to 99.9%
Diode Test	3.2V	3.2V
Continuity	Audible	Audible
Dimensions/ Weight	6.7x3.2x1.9" (175x81x48.5mm)/ 13.1oz (370g)	6.7x3.2x1.9" (175x81x48.5mm)/ 13.1oz (370g)
Warranty	3 years	3 years

## ORDERING

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



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



Verify Temperature output on HVAC units using Model EX355



## Calibration Traceable to NIST

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

## EX360 Series CAT IV True RMS MultiMeters + NCV + LoZ

NEW

Model EX360  
Electrical DMMModel EX363  
HVAC DMMModel EX365  
Industrial DMM

Includes test leads, 9V battery, holster with tilt stand and built-in magnet, and general purpose bead wire temperature probe (Model EX363); 1 year warranty

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

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

## Model EX360 – for Electrical applications

- Frequency and Capacitance measurement

## Model EX363 – for HVAC applications

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

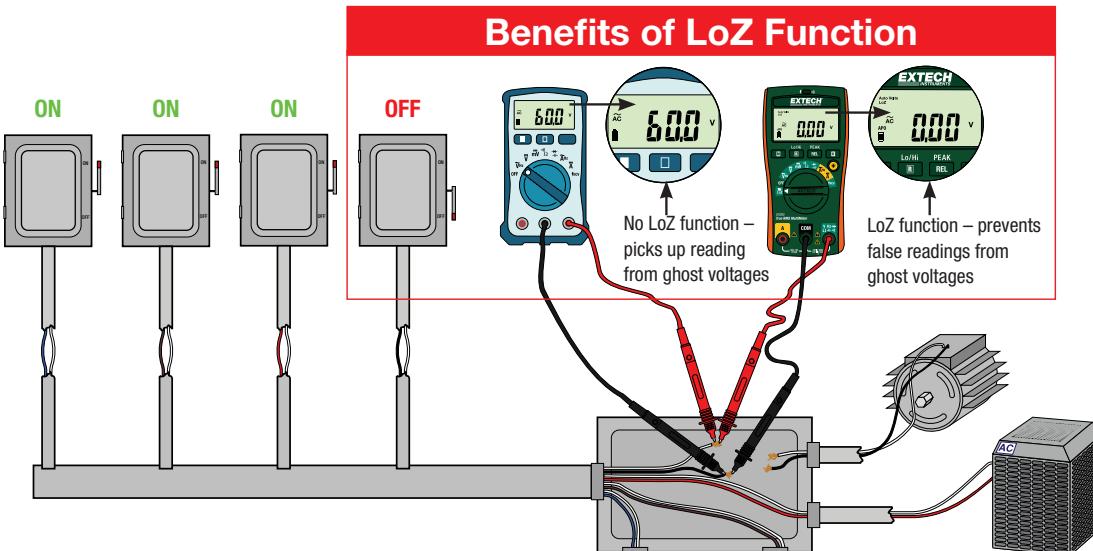
## Model EX365 – for Industrial/Commercial applications

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

SPECIFICATIONS	EX360	EX363	EX365
Basic Accuracy (DCV)	0.5%	0.5%	0.5%
NCV Detector	Yes	Yes	Yes
DC/AC Voltage	0.1mV to 1000V	0.1mV to 1000V	0.1mV to 1000V
DC/AC Current	—	—	1mA to 10A
DC/AC $\mu$ A Current	—	600 $\mu$ A	—
Resistance	0.1 $\Omega$ to 40M $\Omega$	0.1 $\Omega$ to 40M $\Omega$	0.1 $\Omega$ to 40M $\Omega$
Capacitance	1nF to 10mF	1nF to 10mF	1nF to 10mF
Frequency	0.01Hz to 100kHz	0.01Hz to 100kHz	0.01Hz to 100kHz
Temperature (Type K)	—	-40 to 742°F (-40 to 394°C)	—
Diode Test/Continuity	Yes	Yes	Yes
Dimensions/ Weight	6.5x3.2x1.7" (164x82X44mm)/ 5.9oz (450g)		

## ORDERING

EX360 Electrical CAT IV True RMS MultiMeter + NCV  
EX363 HVAC CAT IV True RMS MultiMeter + NCV  
EX365 Industrial CAT IV True RMS MultiMeter + NCV

CALIBRATION  
TRACEABLE TO  
NIST

## EX400 Series Professional MultiMeters



EX410

EX430

EX470

DMM+IR Thermometer



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

Watch the  
Video

www.extech.com/video

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

- Large backlit LCD display with easy-to-read 1" digits
- Type K thermometer built-in for temperature measurements
- Low current capability: measure down to 0.1 $\mu$ A
- Input fuse protection and mis-connection warnings
- CAT III-600V, CAT II-1000V rating
- Complete with CAT III test leads, multi-position tilt stand and velcro strap for hanging, protective holster with test lead holder, bead wire temperature probe, and 9V battery

## Model EX410 (Manual Ranging)

- Averaging multimeter

## Model EX430 (Autoranging)

- True RMS for accurate AC measurements
- Relative function

## Model EX470 (Autoranging)

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

SPECIFICATIONS	EX410	EX430	EX470
Temperature (IR)	—	—	58 to 518°F (-50 to 270°C)
Averaging/True RMS	Averaging	True RMS	True RMS
Basic Accuracy (VDC)	$\pm 0.5\%$	$\pm 0.3\%$	$\pm 0.3\%$
AC Voltage	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
AC Current	0.1 $\mu$ A to 20A	0.1 $\mu$ A to 20A	0.1 $\mu$ A to 20A
DC Current	0.1 $\mu$ A to 20A	0.1 $\mu$ A to 20A	0.1 $\mu$ A to 20A
Resistance	0.1 $\Omega$ to 20M $\Omega$	0.1 $\Omega$ to 40M $\Omega$	0.1 $\Omega$ to 40M $\Omega$
Capacitance	—	0.01nF to 100 $\mu$ F	0.01nF to 100 $\mu$ F
Frequency	—	0.001Hz to 10MHz	0.001Hz to 10MHz
Temperature (Type K)	-4 to 1382°F (-20 to 750°C)	-4 to 1382°F (-20 to 750°C)	-4 to 1382°F (-20 to 750°C)
Duty Cycle	—	0.1% to 99.9%	0.1% to 99.9%
Diode Test/Continuity	Yes	Yes	Yes
Dimensions/ Weight	7.4x3.2x2" (187x81x50mm)/ 0.75lbs (342g)	7.4x3.2x2" (187x81x50mm)/ 0.75lbs (342g)	7.4x3.2x2" (187x81x50mm)/ 0.75lbs (342g)
Warranty	1 year	3 years	3 years

## ORDERING

EX410 Manual Ranging MultiMeter  
EX430 True RMS Autoranging MultiMeter  
EX470 True RMS Autoranging MultiMeter + IR Thermometer  
TL810 Electrical Test Lead Kit  
TL803 Standard Test Leads  
TP200 Type K Clamp Probe (212°F/100°C)  
HG500 Magnetic Hanging Strap



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

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



MultiMeters Voltage Detectors Clamp Meters Psychrometers Humidity Meters Moisture Meters Tachometers Air Flow Meters

## EX500 CAT IV Heavy Duty True RMS MultiMeters

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

- True RMS for accurate AC measurements
- 1000V input protection on all functions
- Dual sensitivity frequency functions
- Large backlit LCD
- Diode open circuit voltage of 2.8V DC
- Auto power off with disable feature
- CAT IV-600V safety rating
- Complete with double molded test leads, magnetic hanging strap, general purpose Type K bead wire temperature probe, soft case, and one 9V battery

## Model EX505

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

## Model EX520

- 6000 count—high resolution
- 0.09% basic accuracy
- Min/Max/Relative/Data Hold
- 20A max current

## Model EX530

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



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

## SPECIFICATIONS

	EX505	EX520	EX530
True RMS	True RMS	True RMS	True RMS
Basic Accuracy	±0.5%	±0.09%	±0.06%
DC Voltage	0.1mV to 1000VDC	0.1mV to 1000VDC	0.01mV to 1000VDC
AC Voltage	0.1mV to 1000VAC	1mV to 1000VAC	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 40MΩ	0.01Ω to 40MΩ
Capacitance	0.001nF to 100µF	0.001nF 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)	-4 to 1382°F (-20 to 750°C)	-4 to 1382°F (-20 to 750°C)	-4 to 1382°F (-20 to 750°C)
Duty Cycle	0.1 to 99.9%	0.1 to 99.9%	0.1 to 99.90%
Diode (2.8V)/Continuity	Yes	Yes	Yes
Category Rating	CAT IV-600V, CAT III-1000V	CAT IV-600V, CAT III-1000V	CAT IV-600V, CAT III-1000V
Waterproof / Drop proof	IP67 / 6.5ft (2m)	IP67 / 6.5ft (2m)	IP67 / 6.5ft (2m)
Dimensions	7.25x3.25x2.25" (184x83x57mm)	7.25x3.25x2.25" (184x83x57mm)	7.25x3.25x2.25" (184x83x57mm)
Weight	12.3oz (349g)	12.3oz (349g)	12.3oz (349g)
Warranty	3 years	3 years	3 years

## ORDERING

EX505 <b>N</b>	True RMS Industrial MultiMeter (4000 count)
EX520 <b>N</b>	True RMS Industrial MultiMeter (6000 count)
EX530 <b>N</b>	True RMS Industrial MultiMeter (40,000 count)
TL810	Electrical Test Lead Kit
TL805	Double Injected Test Leads
TP200	Type K Clamp Probe (212°F/100°C)
HG500	Magnetic Hanging Strap



## EX570 CAT IV MultiMeter + IR Thermometer



Built-in IR Thermometer quickly locates hot spots on electrical panels and HVAC vents without contact.



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



## Built-in IR Thermometer quickly identifies hot spots without contact

- Built-in non-contact IR Thermometer design with laser pointer
- 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; Auto off with disable feature
- Memory for storage and recall of three measurements
- 1000V input protection on all functions
- Type K thermocouple contact temperature measurements
- Features Hold, Relative and Peak Hold, Min, Max and Average recording
- Complete with double molded test leads, magnetic hanging strap, general purpose Type K bead wire probe, case, and 9V battery; 3 year warranty

## SPECIFICATIONS

Basic Accuracy	±0.06%
DC/AC Voltage	0.01mV to 1000V
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/ non-contact IR)	Type K: -50 to 1382°F (-45 to 750°C) / IR: -22 to 1022°F (-30 to 550°C)
Field of View	30:1 ratio
Duty Cycle	0.01 to 99.99%
Diode (2.8V)/Continuity	Yes
Dimensions/ Weight	7.25x3.25x2.25" (184x83x57mm)/ 12.3oz (349g)

## ORDERING

EX570 **N** CAT IV Industrial MultiMeter + IR Thermometer

## EX540/EX542 CAT IV Datalogging MultiMeter with Real Time Streaming



Meter features include continuous wireless data streaming to a PC in real time, drop-proof tested to 6.5ft (2m), and waterproof design (IP67).



## 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

- Real time datalogging or wireless data transmission directly to your PC (30ft/10m)
- True RMS measurements for accurate AC Voltage and Current measurements
- Diode open circuit voltage of 2.8V DC and 1000V input protection on all functions
- Double molded construction for waterproof (IP67) protection
- CAT IV-600V safety rating for industrial applications
- Dual sensitivity frequency functions
- Large backlit triple LCD display with 40,000 counts; Auto off with disable feature
- Complete with double molded test leads, magnetic hanging strap, general purpose Type K bead wire temperature probe, remote receiver with USB cable, Windows® compatible software, 9V battery and carrying case; 3 year warranty

## SPECIFICATIONS

Basic Accuracy	±0.06%
DC/AC Voltage	0.01mV to 1000V
DC/AC Current	0.01µA to 20A
Resistance	0.01Ω to 40MΩ
Capacitance	0.001nF to 40mF
Frequency	40Hz to 4kHz (electrical) / 0.001Hz to 100MHz (electronic)
Temperature	-58 to 1382°F (-50 to 750°C)
Duty Cycle	0.1 to 99.9%
Diode (2.8V) / Continuity	Yes
Dimensions/ Weight	7.25x3.25x2.25" (184x83x57mm)/ 12.3oz (349g)

## ORDERING

EX540 **N** CAT IV Datalogging MultiMeter with Real Time Streaming (915MHz)

EX542 **N** CAT IV Datalogging MultiMeter with Real Time Streaming (433MHz)

(NOTE: USA, Mexico, and Canada use 915MHz model and majority of other countries use 433MHz model)

## MN15A/MN16A Digital Mini MultiMeters



## Compact Autoranging or Manual ranging multimeters with Temperature

- Large easy to read digital display
- Complete with battery, Type K bead wire probe and test leads; 1 year warranty

## MN15A (Manual Ranging)

- 1.5V and 9V Battery tests under load

## MN16A (Autoranging)

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

SPECIFICATIONS	MN15A	MN15A Basic Accuracy	MN16A	MN16A Basic Accuracy
DC Voltage	600V (0.1mV)	±0.5%	600V (1mV)	±1.2%
AC Voltage	600V (0.1V)	±1.2%	600V (0.1mV)	±1.5%
DC Current	10A (0.1mA)	±1.2%	10A (0.1μA)	±1.5%
AC Current	—	—	10A (0.1μA)	±1.8%
Resistance	20MΩ (0.1Ω)	±0.8%	40MΩ (0.1Ω)	±1.2%
Capacitance	—	—	100μF (0.001nF)	±3.0%
Frequency	—	—	5MHz (0.001Hz)	±1.2%
Temperature	-4 to 1400°F (-20 to 750°C)	±(3%rdg+9°F/5°C)	-4 to 1400°F (-20 to 750°C)	±(3%rdg+9°F/5°C)
Duty Cycle	—	—	0.1 to 99.9%	±1.2%
Battery Test	9V & 1.5V Batteries	—	CAT III-600V	—
Category rating	CAT III-600V	—	CAT III-600V	—
Dimensions/Weight	5.43x2.83x1.5" (138x72x38mm)/ 5.4oz (153g)	—	—	—

## ORDERING

MN15A	Manual Ranging MiniTec® MultiMeter with Temperature
MN16A	Autoranging MiniTec® MultiMeter with Temperature
TP873	Spare Type K Bead Wire Probe (-22 to 572°F/-30 to 300°C)
409992	Small Soft Case

## MN35/MN36 Digital Mini MultiMeters



Displays AC Voltage of an outlet receptacle

## Autoranging or Manual ranging multimeters with Temperature function

- Large easy to read digital display
- Type K Temperature measurements and Continuity and Diode tests
- 1 year warranty
- Includes holster with stand, Type K bead wire probe, battery, and test leads

## MN35 (Manual Ranging/ 8 Functions)

- 1.5V and 9V Battery test

## MN36 (Autoranging/ 10 Functions)

- AC Current, Capacitance and Frequency measurements

SPECIFICATIONS	Model MN35	Basic Accuracy	Model MN36	Basic Accuracy
DC Voltage	600V (0.1mV)	±0.5%	600V (0.1mV)	±0.5%
AC Voltage	600V (0.1V)	±1.2%	600V (0.1V)	±1.2%
DC Current	10A (0.1mA)	±1.5%	10A (0.1μA)	±1.2%
AC Current	—	—	10A (0.1μA)	±1.5%
Resistance	20MΩ (0.1Ω)	±0.8%	40MΩ (0.1Ω)	±1.2%
Capacitance	—	—	100μF (0.001nF)	±3.0%
Frequency	—	—	5MHz (0.001Hz)	±1.0%
Temperature	-4 to 1400°F (-20 to 750°C)	±(1%+4°)	-4 to 1400°F (-20 to 750°C)	±(1%+4°)
Battery Test	9V and 1.5V	—	—	—
Power	one 9V battery	—	2 x AAA batteries	—
Dimensions/Wt	5.43x2.83x1.5" (138x72x38mm)/ 5.4oz (153g)	—	—	—

## ORDERING

MN35	Manual Ranging Mini Digital MultiMeter
MN36	Autoranging Mini Digital MultiMeter
TP873	Spare Type K Bead Wire Temperature Probe (-22 to 572°F/-30 to 300°C)
409992	Vinyl pouch carrying case



## DM220 CAT IV Pocket MultiMeter + NCV



CAT IV  
CE  
Includes test leads and two AAA batteries; 1 year warranty

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

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

SPECIFICATIONS	RANGE	MAX RESOLUTION	BASIC ACCURACY (%RDG)
DC/AC Voltage	600V	0.1mVDC/1mVAC	±0.8%DC/±1.5% 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%
Duty Cycle	0.5 to 99%	0.5%	±(2.0% reading + 5 digits)
Diode/Continuity	Yes	—	—
Dimensions/Weight	4.72x2.2x1.6" (120x55x540mm) / 5.12oz (145g)	—	—

## ORDERING

DM220	CAT IV Pocket MultiMeter + NCV
409992	Vinyl pouch case

## DM110 Mini Pocket MultiMeter



NEW  
Reduced Price!  
UL LISTED  
CE

Includes test leads, protective holster, button battery, and case; 1 year warranty

## 10 function Autoranging including Frequency, Capacitance, and Duty Cycle

- Large 4000 count LCD display
- Auto power off with disable feature
- Relative and Data Hold functions
- Built-in storage compartment for integrated test leads
- CAT II - 600V safety rating; Over-range and low battery indication

SPECIFICATIONS	RANGE	MAX RESOLUTION	BASIC ACCURACY (%RDG)
AC/DC Voltage	500V	1mV	AC: ±2.3%; DC: ±1.3%
AC/DC Current	400mA	0.01mA	AC: ±2.5%; DC: ±2.0%
Resistance	400 to 40MΩ	0.1Ω	±2.0%
Capacitance	100μF	0.001nF	±3.0%
Frequency	5Hz to 10MHz	0.001Hz	±2%
Duty Cycle	0.1% to 99.9%	0.1%	±1.2%
Diode/Continuity	Yes	—	—
Dimensions/Weight	4.25 x 2.2 x 0.5" (108 x 56 x 11.5mm) / 1.7oz (50g)	—	—

## ORDERING

DM110	Mini Pocket MultiMeter
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## 381676A Pen DMM with Non-Contact Voltage Detector



CE  
Includes test leads, two alligator clips, two 1.5V AAA batteries, and soft case; 1 year warranty

## Autoranging multimeter with non-contact voltage detection

- Large 2000 count LCD display
- Autoranging with Data Hold, Range Hold, and Maximum Hold features
- CAT III-600V; Auto power off, overload and low battery indication

SPECIFICATIONS	Range	Max Resolution	Basic Accuracy (%rdg)
Non-contact Voltage	>110VAC	—	—
AC/DC Voltage	200mV, 2, 20, 200, 600V	0.1mV	AC: ±0.8%; DC: 0.7%
AC/DC Current	20mA, 200mA	0.01μA	AC: ±2%; DC: 0.15%
Resistance (Ω)	200, 2k, 20k, 200k, 2M, 20M	0.1Ω	±0.8%
Logic Test	0 to 1.5V (Green LED), 1.5 to 3.5V (LED off), 3.5 to 5V (Red LED)	—	—
Diode/Continuity	Yes	—	—
Dimensions/Weight	8.2x1.5x1.1" (208x38x29mm) / 4.6oz (129g)	—	—

## ORDERING

381676A	Pen DMM with Non-Contact Voltage Detector
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## MG325 CAT IV Insulation Tester/MultiMeter



NEW



Includes test leads, alligator clip, remote probe with built-in test button, 6 x AA batteries, and soft case; 1 year warranty



CAT IV

CE

## High Insulation Resistance range (200GΩ) and fully loaded DMM functions

- Polarization Index (PI) and Dielectric Absorption Ratio measurements (DAR)
- Low Resistance measurement with Zero function
- Programmable Timer feature sets the duration of test
- Comparison Mode allows user to set the Pass/Fail values
- Step Voltage (10% steps at 50% to 120% of range)
- Auto-discharge of voltage test signal
- Lock Power On Function for hands-free operation
- Manually store/recall up to 99 readings
- Backlit 10,000 count display with analog bargraph
- High voltage and overload indication
- Data Hold, Auto Power Off and Low battery indication
- CAT IV-600V safety category

## SPECIFICATIONS

Insulation Resistance	50MΩ, 100MΩ, 200MΩ, 500MΩ, 2000MΩ, 1GΩ, 10GΩ, 20GΩ, 50GΩ, 100GΩ, 200GΩ
Insulation Test Voltages	50V, 100V, 250V, 500V, 1000V
AC/DC Voltage	600V
Leakage Current	2000µA
Resistance	10MΩ
Low Resistance	100Ω
Capacitance	500µF
Frequency	1kHz
Continuity	Yes (audible)
Dimensions/ Weight	8.9 x 4.1 x 2.3" (225 x 103 x 59mm)/ 1.5lbs (0.7kg)

## ORDERING

MG325 **N** CAT IV Insulation Tester/MultiMeter with Remote Test Probe

## MG300/MG302 CAT IV Insulation Tester/MultiMeter with Wireless PC Interface



WIRELESS Transmitter



CAT IV

CE



www.extech.com/video

Includes remote receiver with USB cable, Windows® compatible software, heavy duty test leads, alligator clip test lead, Type K bead wire temperature probe, hard case, and 6 x AA batteries; 1yr warranty

CALIBRATION TRACEABLE TO NIST

## MG300-ETK Electrical Troubleshooting Kit



Special Value Kit

Includes three compact tools that are indispensable at a customer site for electrical installation, troubleshooting, and repair

- Model MG300 or MG302: 13 Function, Wireless PC Interface, True RMS Multimeter/Insulation Tester (see p. 18)
- Model 42509: 12:1 Infrared Thermometer with high/low alarm and fast 2-color display for processes that require temperature control and monitoring; measures from -4 to 950°F/-20 to 510°C (see p. 66)
- Model MA430T: 400A True RMS AC Clamp Meter with built-in non-contact voltage detector and ideal for noisy or non-sinusoidal AC measurement
- 1.2" (30mm) jaw size for conductors up to 350MCM
- Supplied with test leads, Type K thermocouple bead wire probe, batteries, and case

## ORDERING (VISIT WWW.EXTECH.COM FOR PRODUCT SPECIFICATIONS)

MG300-ETK	Electrical Troubleshooting Kit (with MG300)
MG302-ETK	Electrical Troubleshooting Kit (with MG302)

## MG300-MTK Motor &amp; Drive Troubleshooting Kit



Special Value Kit

Includes three compact tools that are indispensable at a customer site for troubleshooting 3-phase motors and drives

- Model MG300 or MG302: 13 Function, Wireless PC Interface, True RMS Multimeter/Insulation Tester (see p. 18)
- Model 480403: Motor Rotation and 3-Phase Tester checks phase sequence and indicates rotation direction of the motor to help insure correct wiring (see p. 34)
- Model MA435T: 400A True RMS AC/DC Clamp Meter with built-in non-contact voltage detector and ideal for noisy or non-sinusoidal AC measurement
- 1.2" (30mm) jaw size for conductors up to 350MCM
- Supplied with test leads, 3 large color-coded alligator clips, Type K thermocouple bead wire probe, batteries, and case

## ORDERING (VISIT WWW.EXTECH.COM FOR PRODUCT SPECIFICATIONS)

MG300-MTK	Motor & Drive Troubleshooting Kit (with MG300)
MG302-MTK	Motor & Drive Troubleshooting Kit (with MG302)

## MN62-K True RMS MultiMeter with AC Voltage Detector



NEW

Special Value Kit

FREE Voltage Detector!

Kit ideal for troubleshooting appliances, electrical wiring, automotive repair and electronic devices

## Model MN62 True RMS MultiMeter:

- 9 functions including Frequency and Capacitance
- VFC Low pass filter for accurate measurement of variable frequency drive signals
- Built-in non-contact voltage detection with audible beeper indication
- CAT III-600V category safety rating
- Complete with test leads and two AA batteries

## Model DV23 AC Voltage Detector:

- Safely determine if wires are hot or not
- 50 to 600V, 50/60Hz
- Audible and visual alerts
- CAT IV-600V category safety rating
- Complete with two AAA batteries

## ORDERING (VISIT WWW.EXTECH.COM FOR SPECIFICATIONS)

MN62-K	True RMS MultiMeter with AC Voltage Detector
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**ETK30/ETK35 Electrical Test Kits with 400A Clamp Meter****BEST  
VALUE!**

Two kits to choose from providing all the electrical testing needs for installation & repair of electrical systems, HVAC equipment, and automotive

- Model ETK30 kit includes **MA430**: 400A AC Current Meter
- Model ETK35 kit includes **MA435T**: True RMS 400A AC/DC Current for troubleshooting large appliances, automotive and motor applications
- 1.2" (30mm) jaw size and built-in Non-Contact Voltage Detector with LED alert
- Both kits include **EX205T**: True RMS Multimeter with Max Hold
- Data Hold and Max Hold
- Exceptional Value Kit is supplied with test leads, batteries, and attractive storage case that provides protection and organization for the meters and accessories

**ORDERING (VISIT WWW.EXTECH.COM FOR PRODUCT SPECIFICATIONS)**

ETK30	Electrical Test Kit with 400A AC Clamp Meter
ETK35	Electrical Test Kit with True RMS 400A AC/DC Clamp Meter

**TK430 Electrical Test Kit**Watch the  
Video  
[www.extech.com/video](http://www.extech.com/video)**Meets plant maintenance, HVAC or electrical technician's needs**

- 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: 9.5x6.8x2.8" (241x173x71mm); Weight: 2.6lbs (1.2kg)
- **Model EX430**: Autoranging True RMS MultiMeter with 11 functions including Capacitance, Frequency and Temperature. (see p. 13)
- **Model MA200**: 400A Clamp Meter with basic AC Current and 1mA resolution. (see p. 26)
- **Model 40130**: Non-Contact Voltage Detector detects AC Voltage from 100VAC to 600VAC without touching the source. (see p. 38)

**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**

- 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: 14.5x11x4.5" (368x280x114mm); Weight: 4.5lbs (2kg)
- **Model EX430**: Autoranging True RMS MultiMeter with 11 functions including Capacitance, Frequency and Temperature. (see p. 13)
- **Model MA200**: 400A Clamp Meter with basic AC Current and 1mA resolution. (see p. 26)
- **Model 42510**: Wide range mini IR Thermometer measures -58 to 1000°F (-50 to 538°C). Built-in laser identifies target area; 8:1 distance to target ratio

**ORDERING (VISIT WWW.EXTECH.COM FOR PRODUCT SPECIFICATIONS)**

TK430-IR	Electrical Test Kit with IR
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**CALIBRATION  
TRACEABLE TO  
NIST****EX505-K Heavy Duty Industrial MultiMeter Kit****CAT IV MultiMeter and AC Voltage Detector With 8 piece test lead kit**

- Kit includes EX505 True RMS waterproof (IP67)/drop-proof MultiMeter, DV25 Dual Range Non-contact AC Voltage Detector + Flashlight, TL808 8-piece Professional Test Lead Kit, plus professional double-molded test leads, Type K thermocouple bead probe with banana input adaptor, and magnetic hanging strap
- Supplied in a soft carrying case that provides protection and organization for the meters and accessories
- Dimensions: 9.8x8x2" (248x203x51mm); Weight: 1.2lbs (544g)

**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. 14)**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. 38)**Model TL808**: 8-Piece Professional Test Lead Kit with CAT III-1000V rating**ORDERING (VISIT WWW.EXTECH.COM FOR PRODUCT SPECIFICATIONS)**

EX505-K	Heavy Duty Industrial MultiMeter Kit
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**MA620-K Industrial DMM/Clamp Meter Test Kit****CAT IV MultiMeter and True RMS Clamp Meter with integrated AC Voltage Detector**

- Kit contains EX505 rugged, waterproof multimeter with 11 functions, MA620 600A True RMS 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: 9.8x8x2" (248x203x54mm); Weight: 1.5lbs (680g)

**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. 14)**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**ORDERING (VISIT WWW.EXTECH.COM FOR PRODUCT SPECIFICATIONS)**

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

- **MA640**: 600A True RMS 6000 count AC/DC Clamp-on MultiMeter with built-in non-contact AC Voltage Detector
- **480400**: 3-Phase Rotation Tester with multi-line LCD display, durable double-molded housing, and easy-to-open wide-jaw alligator clips (see p. 34 for specifications)
- **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. 38 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: 9.8x8x2" (248x203x54mm); Weight: 1.3lbs (590g)

**ORDERING (VISIT WWW.EXTECH.COM FOR PRODUCT SPECIFICATIONS)**

MA640-K	Phase Rotation/Clamp Meter Test Kit
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## Clamp Meter Index Guide

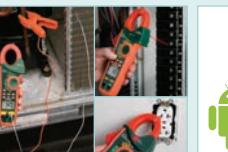
Pick the right Clamp Meter for your application



**Compact Clamp Series**  
Compact, capable and affordable Clamp Meters are ideal for tight areas. Features range from built-in NCV detection to Autoranging. Ideal for DIYers, mechanics and technicians.  
p. 26-31



**Mini Clamp Series**  
Extra-small jaw size clamps for reaching into tight areas while providing high resolution and low-current sensitivity. Choice of Averaging or True RMS models.  
p. 29-31



**Open Jaw Clamps**  
Open jaw design provides quick current measurements in tight locations without breaking the circuit.  
p. 27



**EX600 HVAC Series**  
Best-in-class multifunctional Clamp Meters. 400A AC/DC True RMS with dual Type K thermocouple input for differential temperature measurements. Built-in Non-Contact Voltage Detector and multimeter functions plus advanced model with built-in IR Thermometer for surface temperatures.  
p. 23



**EX800 Series**  
Professional grade, 1000A True RMS AC or AC/DC Clamp Meters with built-in Type K thermocouple input for differential temperature measurements. Built-in Non-Contact Voltage Detector and multimeter functions plus advanced model with built-in IR Thermometer for surface temperatures.  
p. 32-33



**High Current Clamp Series**  
Powerful clamp meters that measure high current with models that go up to 3000A. Large jaw sizes from 2" (5cm) to 18" (45.7cm) flex clamps. Choose from AC or AC/DC measurements, power quality diagnostics, True RMS accuracy, and much more.  
p. 32-33

Look for this symbol: indicating products that are available with optional calibration traceable to NIST. See complete listing on p. 160-165.



### EX850 Monitor Readings via Bluetooth®

Clamp meter transmits readings to Android smartphones and tablets. View key electrical readings taken by the EX850 at a safe distance from your Android device. Power up equipment from remote switches or use your Android to show readings to a customer/manager. Download the Extech ExView™ EX850 App at play.google.com.



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#### ACCESSORIES (SEE P. 36-37 FOR TEST LEAD ACCESSORIES)

TP873	Replacement Bead wire Temperature probe (-22 to 572°F/-30 to 300°C)
TL803	Standard Test Leads



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



### 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
- 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 transients
- Data Hold, Min/Max, and Auto Power off
- Complete with test leads, 9V battery, general purpose 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
- 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 transients
- Data Hold, Min/Max, and Auto Power off
- Complete with test leads, 9V battery, general purpose Type K probe, and case



### EX840/EX850 CAT IV 1000A True RMS AC/DC Clamp Meters + IR and Bluetooth®

CAT IV 600V approval rating assures maximum safety and functionality

- AC/DC Voltage to 1000V and AC/DC Current to 1000A
- True RMS AC Voltage and Current measurements
- Built-in non-contact IR Thermometer with laser pointer
- Peak Hold, Data Hold, Min/Max, and Auto Power off
- Includes CAT IV test leads, 9V battery, Professional test lead set, general purpose Type K probe, and case
- **Model EX850** - Integrated Bluetooth® connects with most Android devices to transmit readings for remote viewing; Works with free Android App; Download the Extech EX850 ExView™ App at play.google.com

#### SPECIFICATIONS

	EX820	EX830	EX840  ▲ EX850
True RMS	Yes	Yes	Yes
Display counts	4000 count backlit LCD	4000 count backlit LCD	4000 count backlit LCD
Jaw size/Cable size	1.7" (43mm); 750MCM	1.7" (43mm); 750MCM	1.7" (43mm); 750MCM
AC Current (Max Res.)	1000A (0.1A)	1000A (0.1A)	1000A (0.1A)
DC Current (Max Res.)	—	1000A (0.1A)	1000A (0.1A)
Basic ACA Accuracy (% rdg)	±2.5% (AC)	±2.5% (AC); ±2.5% (DC)	±2.5% (AC); ±2.5% (DC)
AC/DC Voltage (Max Res.)	600V (0.1mV)	600V (0.1mV)	1000V (0.1mV)
Resistance (Max Res.)	40MΩ (0.1Ω)	40MΩ (0.1Ω)	40MΩ (0.1Ω)
Capacitance (Max Res.)	40mF (0.001nF)	40mF (0.001nF)	40mF (0.001nF)
Frequency (Max Res.)	4kHz (1Hz)	4kHz (1Hz)	4kHz (1Hz)
Temperature (Type K)	-4 to 1400°F (-20 to 760°C)	-4 to 1400°F (-20 to 760°C)	-4 to 1400°F (-20 to 760°C)
Temperature (IR) / Field of View	-58 to 518°F (-50 to 270°C) / 8:1 ratio	-58 to 518°F (-50 to 270°C) / 8:1 ratio	-58 to 518°F (-50 to 270°C) / 8:1 ratio
Diode (2.8V)/ Continuity	Yes	Yes	—
Wireless Communication	—	—	■ No   ▲ Bluetooth
UL, ETL, CE, Category Rating	UL, CE, CAT III-600V	UL, CE, CAT III-600V	ETL, CE, CAT IV-600V; CAT III-1000V
Dimensions/Weight	10.6x4.3x2" (270x110x50mm)/ 13.6oz (386g)	10.6x4.3x2" (270x110x50mm)/ 13.6oz (386g)	10.6x4.3x2" (270x110x50mm)/ 13.6oz (386g)
Warranty	1 year	1 year	3 years



## EX650 Series True RMS 600A Clamp Meters



cUL us

CE

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

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

**Model EX650**

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

**Model EX655**

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

**SPECIFICATIONS**

	EX650	EX655
AC Current (Max Res.)	6A, 60A, 600A (0.001A)	60A, 600A (0.01A)
DC Current	—	60A, 600A (0.01A)
Basic accuracy	ACA: ±2.5% of rdg	ACA: ±2.5% of rdg; DCA: ±2.5% of rdg
AC/DC μA Current (Max Res.)	600μA (0.1μA)	600μA (0.1μA)
DC Voltage (Max Res.)	1000V (0.1mV)	1000V (0.1mV)
AC Voltage (Max Res.)	750V (1mV)	750V (1mV)
Basic accuracy	ACV: ±1.2% of rdg; DCV: ±0.8% of rdg	ACV: ±1.2% of rdg; DCV: ±0.8% of rdg
Non-Contact Voltage (NCV)	100 to 1000V	100 to 1000V
Resistance (Max Res.)	60MΩ (0.1Ω)	60MΩ (0.1Ω)
Capacitance (Max Res.)	60mF (0.01nF)	60mF (0.01nF)
Frequency (Max Res.)	—	10Hz to 1MHz (0.01Hz)
Temperature (Max Res.)	—	-40 to 1832°F (1°F) -40 to 1000°C (1°C)
Continuity Beeper	Yes	Yes
Diode Test	Yes	Yes
Dimensions	9x3x1.6" (228x77x41mm)	9x3x1.6" (228x77x41mm)
Weight	9.4oz (265g)	9.4oz (265g)

**ORDERING**

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



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

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



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

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

**SPECIFICATIONS**

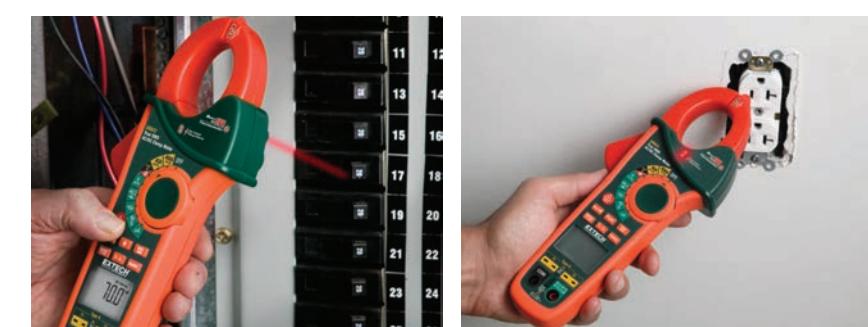
	EX613	EX623
AC/DC Current (Max Res.)	400.0A AC/DC (10mA)	400.0A AC/DC (10mA)
Basic ACA accuracy	±1.5%	±1.5%
AC/DC Voltage (Max Res.)	600V (0.1mV)/600V (0.01mV)	600V (0.1mV)/600V (0.01mV)
DC μA Current (Max Res.)	4000μA (0.01μA)	4000μA (0.01μA)
Resistance (Max Res.)	40.000MΩ (0.01Ω)	40.000MΩ (0.01Ω)
Capacitance (Max Res.)	40mF (0.01nF)	40mF (0.01nF)
Frequency (Max Res.)	40MHz (0.001Hz)	40MHz (0.001Hz)
Temperature - Type K	-58 to 1832°F (-50 to 1000°C)	-58 to 1832°F (-50 to 1000°C)
Temperature - IR	—	-58 to 518°F (-50 to 270°C)
Diode (2.8V)/ Continuity	Yes	Yes
Duty Cycle	0.5 to 99.0%	0.5 to 99.0%
Dimensions	9x3.1x1.9" (229x80x49mm)	9x3.1x1.9" (229x80x49mm)
Weight	10.7oz (303g)	10.7oz (303g)

**ORDERING**

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



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



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

Non-Contact Voltage Detection.

## MA443/MA445 True RMS 400A Clamp Meters + NCV



Includes test leads, general purpose Type K bead wire probe, three AAA batteries, and pouch; 1 year warranty

Pocket-sized meter with built-in Non-Contact Voltage detector and choice of AC or AC/DC Current model

- 1.2" (30mm) jaw size accommodates conductors up to 500MCM
- Model MA443 with True RMS AC Current function
- Model MA445 with True RMS AC/DC Current functions
- Type K Temperature function with probe included
- 4000 count backlit LCD display
- Built-in flashlight illuminates work area
- Relative mode for Capacitance Zero and Offset Adjustment
- Min/Max, Data Hold, Auto Power Off and Low battery indicator
- CAT III-600V category rating

SPECIFICATIONS	Model MA443	Model MA445
AC Current	4.000A, 40.00A, 400.0A (1mA)	40.00A, 400.0A (10mA)
DC Current	—	40.00A, 400.0A (10mA)
Current accuracy	AC: $\pm 1.8\%$	AC: $\pm 2.5\%$ , DC: $\pm 2.0\%$
DC Voltage	400.0mV, 4V, 40, 400V 600V (0.1mV)	400.0mV, 4V, 40, 400V 600V (0.1mV)
AC Voltage	4V, 40V, 400V 600V (0.1mV)	4V, 40V, 400V 600V (0.1mV)
Basic accuracy	AC: $\pm 1.2\%$ DC: $\pm 0.8\%$	AC: $\pm 1.2\%$ DC: $\pm 0.8\%$
Resistance ( $\Omega$ )	400, 4k, 40k, 400k, 4M, 40M (0.1 $\Omega$ )	400, 4k, 40k, 400k, 4M, 40M (0.1 $\Omega$ )
Capacitance	40nF, 400nF, 4 $\mu$ F, 40 $\mu$ F, 400 $\mu$ F, 4mF, 40mF (0.01nF)	40nF, 400nF, 4 $\mu$ F, 40 $\mu$ F, 400 $\mu$ F, 4mF, 40mF (0.01nF)
Frequency	10Hz to 1MHz (0.01Hz)	10Hz to 1MHz (0.01Hz)
Temperature	-40° to 1832°F/-40° to 1000°C (1°F/°C)	-40° to 1832°F/-40° to 1000°C (1°F/°C)
Dimensions/ Weight	9x3x1.6" (228x77x41mm)/ 9.3oz (265g)	9x3x1.6" (228x77x41mm)/ 9.3oz (265g)

## ORDERING

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

## MA200 Series 400A Clamp Meters



Includes test leads, case, and two AAA batteries; MA220 also includes general purpose Type K bead wire probe; 1 year warranty

## Easy-to-use, economical clamp meters

- Compact size allows measurements in tight locations
- 0.9" (23mm) jaw size accommodates conductors up to 300MCM
- Data Hold, Auto Power Off
- Overload protection, Overrange and low battery indicators

## Model MA200 (AC Current)

- Max Hold

## Model MA220 (AC/DC Current)

- One touch "Auto Zero"
- Functions include Capacitance, Frequency, Temperature, and Duty Cycle

SPECIFICATIONS	MA200	MA220
AC Current	2, 20, 200, 400A (0.001A)	40, 400A (0.01A)
DC Current	—	40, 400A (0.01A)
Basic accuracy	$\pm 2.5\%$	AC: $\pm 3\%$ , DC: $\pm 2.5\%$
AC/DC Voltage	200mV, 2V, 20, 200V, 600V (0.1mV)	400mV, 4V, 40V, 400V, 600V (0.1mV)
Basic accuracy	AC: $\pm 1.5\%$ DC: $\pm 1.2\%$	AC: $\pm 2\%$ , DC: $\pm 1.5\%$
Resistance	200, 2k, 20k, 200k, 2M, 20M (0.1 $\Omega$ )	400, 4k, 40k, 400k, 4M, 40M $\Omega$ (0.1 $\Omega$ )
Capacitance	—	40nF, 400nF, 4 $\mu$ F, 40 $\mu$ F, 100 $\mu$ F (0.01nF)
Frequency	—	5Hz, 50Hz, 500Hz, 5kHz, 150kHz (0.001Hz)
Temperature	—	-58 to 1830°F (-50 to 1000°C) (1°)
Duty Cycle	—	0.5 to 99.0% (0.1%)
Continuity Beeper	$\leq 30\Omega$ Beeper $\leq 30\Omega$	$\leq 30\Omega$ Beeper $\leq 30\Omega$
Dims/Wt.	7.9x2x1.4" (200x50x35mm)/ 7oz (200g)	7.9x2x1.4" (200x50x35mm)/ 7oz (200g)

## ORDERING

MA200 **N** 400A AC Clamp Meter  
MA220 **N** 400A AC/DC Clamp Meter



## MA140 Series True RMS 300A Mini Clamp Meters + NCV



Smart Auto Sense feature enables the meter to recognize the input to automatically switch to the correct mode of operation (i.e. AC to DC Current measurement)

## Choice of AC Current or AC/DC Current model with high accuracy

- True RMS for accurate readings of noisy, distorted or non-sinusoidal waveforms
- Model MA140 — AC Current
- Model MA145 — AC/DC Current and Zero function for accurate DC measurements
- Compact 0.8" (22mm) jaw size accommodates conductors up to 300MCM
- Unique Smart Auto Sense feature
- Low Pass Filter (LPF) for accurate measurement of variable frequency drive signals
- Built-in Non-Contact Voltage (NCV) detector
- Inrush current measurement
- 6000 count backlit LCD display
- Smart Data Hold: Audiovisual alert when a new reading exceeds 50 digits of a held reading
- Low battery indicator and Auto Power Off feature
- CAT III-600V safety rating
- Complete with carrying case and two LR44 batteries; 1 year warranty

SPECIFICATIONS	MA140	MA145
AC Current (max resolution)	60A, 300A (0.01A)	60A, 300A (0.01A)
DC Current (max resolution)	—	60A, 300A (0.01A)
Basic accuracy	$\pm 2.0\%$	AC: $\pm 1.5\%$ , DC: $\pm 1.5\%$
Non-Contact Voltage (NCV)	80 to 600V	80 to 600V
Dimensions/ Weight	5.8x2.4x1.2" (147x60x31mm)/ 4.9oz (140g)	

## ORDERING

MA140 **N** True RMS 300A AC Mini Clamp Meter+NCV  
MA145 **N** True RMS 300A AC/DC Mini Clamp Meter+NCV

## MA160/MA260 True RMS 200A AC Open Jaw Clamp Meters



MA160 ETL Listed; MA260 UL Listed

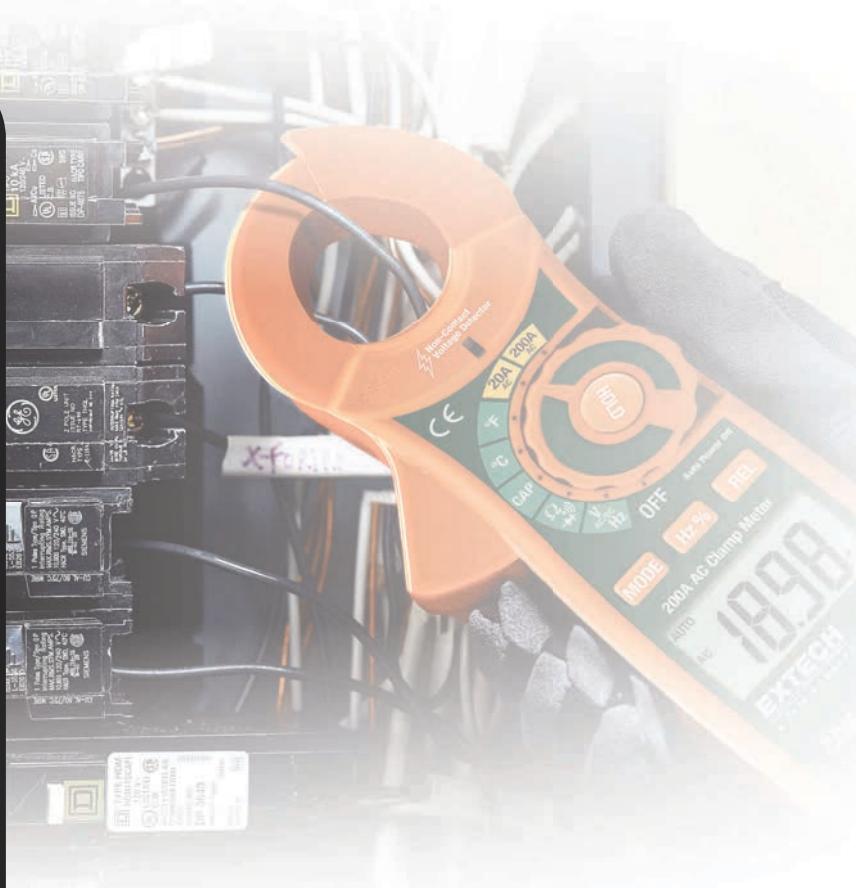
0.6" (16mm) Open jaw design provides quick current measurements in tight locations without breaking the circuit

- True RMS for accurate readings of noisy, distorted or non-sinusoidal waveforms
- Built-in Non-Contact Voltage (NCV) detector with audible alert and LED indicator
- Auto Power Off with disable
- Model MA160 (CAT III-600V rating; ETL listed)
  - 2000 count 2-level backlit LCD display
  - Convenient LED worklight for viewing in dimly lit area
  - Relative Mode for Capacitance Zero and offset adjustment
  - Complete with test leads, two AA batteries, and pouch
- Model MA260 (CAT IV-600V rating, UL Listed)
  - Smart Auto Sensing technology enables the meter to recognize the input and automatically switch to the correct mode of operation
  - For AC Voltage, Auto Sense feature evaluates input signal and adjusts Input Impedance to eliminate effects of ghost voltages
  - 10,000 count backlit LCD display with Smart Data Hold feature
  - Complete with test leads and two AAA batteries; 1 year warranty

SPECIFICATIONS	MA160	MA260
AC Current (max res.)	200A (0.1A)	200A (0.1A)
DC Current (max res.)	200A (0.1A)	—
AC/DC Voltage (max res.)	AC: 750V (1mV); DC: 1000V (1mV)	1000V (0.1V)
Non-contact Voltage	100 to 750V	80 to 1000V AC (50 to 60Hz)
Resistance (max res.)	60M $\Omega$ (0.1 $\Omega$ )	10k $\Omega$ (1 $\Omega$ )
Capacitance (max res.)	60mF (0.01nF)	—
Diode/ Continuity	Yes	Yes
Dimensions/ Weight	8.3x2.1x1.4" (210x53x35mm)/ 5.8oz (164g)	7.6x2.1x1.2" (193x54x31mm)/ 9.9oz (280g)

## ORDERING

MA160 **N** True RMS 200A AC/DC Open Jaw Clamp Meter  
MA260 **N** CAT IV True RMS 200A AC Open Jaw Clamp Meter



## Compact, Capable CAT III Safety Rated

Troubleshooting low energy current measurements



### MA120 200A AC/DC Mini Clamp Meter + Voltage Detector

Clamp meter with built-in AC Voltage detector + flashlight

- Compact 0.7" (17mm) jaw size allows measurements in tight locations
- DC Current and Zero Function
- Non-Contact AC Voltage (NCV) detector via clamp tip
- Built-in white LED flashlight
- Data Hold freezes reading on display
- Backlit LCD
- Auto Power Off
- Complete with pouch case and two AAA batteries



### MA250 200A AC Clamp Meter + NCV

20A and 200A Current ranges plus built-in Non-Contact Voltage (NCV) detector with LED alert

- 1.2" (30mm) jaw size for conductors up to 350MCM
- Relative Mode for Capacitance Zero and Offset Adjustment
- Type K temperature function
- Data Hold freezes reading on display
- Auto Power Off
- Complete with test leads, general purpose Type K bead wire probe, two AAA batteries, and carrying case



### 380941 200A AC/DC Mini Clamp Meter

High resolution mini clamp with Voltage, Frequency, and Resistance

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



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

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

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

SPECIFICATIONS	MA120	MA250	380941	380947
True RMS	—	—	—	True RMS
Display counts	2000 count backlit LCD	4000 count LCD	4000 count LCD	4000 count LCD
Jaw size/Cable size	0.7" (18mm); 300MCM	1.2" (30mm); 350MCM	0.9" (23mm); 4/0 AWG	0.9" (23mm); 4/0 AWG
AC Current	200A	20A, 200A	40A, 200A	4A, 40A, 100A, 400A
DC Current	200A	—	40A, 200A	40A, 400A
Max Resolution	0.1A	0.01A (AC)	0.01A AC/DC	AC: 0.001A, DC: 0.01A
Basic ACA Accuracy (% rdg)	±3%	±2.5%	±1.0%	AC: ±1.5%, DC: ±1.0%
AC Voltage (Max Res.)	NCV	600V (0.1mV)	400V (0.1V)	—
DC Voltage (Max Res.)	—	600V (0.1mV)	400V (0.1V)	—
Resistance (Max Res.)	—	40.00MΩ (0.1Ω)	400Ω (0.1Ω)	—
Capacitance (Max Res.)	—	100μF (0.01nF)	—	—
Frequency (Max Res.)	1kHz (0.01Hz)	10kHz (1Hz)	100kHz (0.001Hz)	10kHz (0.01Hz)
Temperature	—	-4 to 1400°F (-20 to 760°C)	—	—
Duty Cycle	—	0.1 to 99.9%	—	—
Diode/Continuity	—	Yes	Continuity	—
Data Hold	Yes	Yes	Yes	Yes
Min/Max	—	Min/Max	Min/Max	Min/Max
UL, ETL, CE, Category Rating	CE, CAT III-300V	ETL, CE, CAT III-600V	UL, CE, CAT III-300V	UL, CE, CAT III-300V
Dimensions/Weight	6.5x2.6x1.3" (164x65x32mm) / 6.2oz (176g)	7.9x2.6x1.5" (200x66x37mm) / 7.2oz (205g)	7x1.75x1.25" (178x45x32mm) / 8oz (225g)	7x1.8x1.3" (178x45x32mm) / 8oz (225g)
Warranty	1 year	1 year	1 year	1 year





## Small Size, Big Performance

Performs essential troubleshooting tasks in plant maintenance, electrical, HVAC, and telecom work



### 480172 AC Line Splitter:

- Enables users of a clamp meter to measure AC current on a 2-wire or 3-wire power cord to 15A
- Fits clamp jaw size 0.75" (19mm) and above
- Plugging the power connector into the Line Splitter separates the hot/live conductor from the neutral (and ground)
- Dims: 5.25x2x1" (133x51x25mm), Wt: 5.8oz (164.4g)

### ACCESSORIES (SEE P. 36-37 FOR TEST LEADS)

480172 AC Line Splitter (120V/15A)



### 380942 30A AC/40A DC True RMS Mini Clamp Meter with 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
- Data Hold
- Complete with test leads, wrist strap, 2 AA batteries and case



### 380950 80A AC/DC Mini Clamp Meter

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

- 1mA resolution
- Voltage, Resistance, Frequency and Duty Cycle measurement
- Auto power off
- CAT III-600V
- Complete with test leads, carrying case and two 1.5V AAA batteries



### MA61 True RMS 60A AC Clamp Meters + NCV

AC Current meter with high accuracy

- Compact 0.7" (17mm) jaw size allows measurements in tight locations
- True RMS for accurate readings of noisy, distorted or non-sinusoidal waveforms
- Relative function
- Variable Frequency Control (VFC): Low pass filter for accurate measurement of variable frequency drive signals
- Built-in Non-Contact Voltage (NCV) detector
- Full range overload protection
- Backlit LCD display
- Data Hold freezes reading on display
- Low battery indicator and Auto Power Off feature
- Complete with test leads, carrying case, and two AAA batteries



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

AC and DC Current meter with high accuracy

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

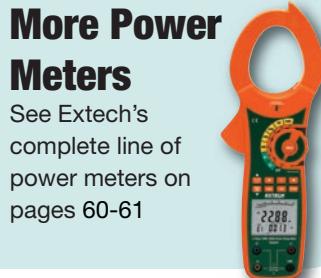
SPECIFICATIONS	380942	380950	MA61	MA63
True RMS	True RMS	—	True RMS	True RMS
Display counts	4000 count LCD	4000 count LCD	6000 count backlit LCD	6000 count backlit LCD
Jaw size/Cable size	0.9" (23mm); 4/0 AWG	0.5" (12mm); 3/0 AWG	0.7" (18mm); 300MCM	0.7" (18mm); 300MCM
AC Current	400mA, 4A, 30A	4.000A, 80.0A	600mA, 6000mA, 60A	600mA, 6000mA, 60A
DC Current	4A, 40A	4A, 80A	—	6000mA, 60A
Max Resolution	AC: 0.1mA, DC: 0.001A	1mA	0.1mA (AC)	0.1mA (AC), 1mA (DC)
Basic ACA Accuracy (% rdg)	±1.5%	±2.5%	±2.0%	AC: ±2.0%, DC: ±2.0%
AC Voltage (Max Res.)	400V (0.1V)	600V (0.1mV)	6V, 60V, 600V (1mV)	6V, 60V, 600V (1mV)
DC Voltage (Max Res.)	400V (0.1V)	600V (0.1mV)	600mV, 6V, 60V, 600V (0.1mV)	600mV, 6V, 60V, 600V (0.1mV)
Resistance (Max Res.)	—	40MΩ (0.1Ω)	600, 6k, 60k, 600k, 6M, 60M (0.1Ω)	600, 6k, 60k, 600k, 6M, 60M (0.1Ω)
Capacitance (Max Res.)	—	—	6.2nF, 620μF, 62mF (1pF)	6.2nF, 620μF, 62mF (1pF)
Frequency (Max Res.)	—	10MHz (0.001Hz)	10Hz to 60kHz (0.001Hz)	10Hz to 60kHz (0.001Hz)
Diode/Continuity	—	Continuity	Yes	Yes
Data Hold	Yes	Yes	Yes	Yes
Min/Max	Min/Max	Max	—	—
UL, ETL, CE, Category Rating	UL, CE, CAT III-300V	CE, CAT III-600V	ETL, CE, CAT III-300V, CAT II-600V	ETL, CE, CAT III-300V, CAT II-600V
Dimensions	7x1.8x1.3" (178x45x32mm)	8.2x2.7x1.4" (210x70x37mm)	6.9x2.4x1.3" (175x60x33.5mm)	6.9x2.4x1.3" (175x60x33.5mm)
Weight	8oz (225g)	7oz (200g)	6oz (170g)	6oz (170g)
Warranty	1 year	1 year	1 year	1 year

CALIBRATION TRACEABLE TO NIST



## Easily fits into tight spaces and large conductors

Flexible Clamps easily wrap around bus bars and cable bundles.



### More Power Meters

See Extech's complete line of power meters on pages 60-61



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

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

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



### 380926 CAT IV 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 2" 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



### MA3000 Series CAT IV True RMS 3000A AC Flex Clamp Meters

Flexible clamp jaw easily wraps around bus bars and cable bundles that may be difficult to access with regular clamp meters

- True RMS for accurate readings
- Flexible clamp cable length: Model MA3010 — 10" (25.4cm) Model MA3018 — 18" (45.7cm)
- 0.3" (7.5mm) cable diameter; 0.51" (13mm) tip diameter
- AC Current in three ranges
- Easy twist clamp cable closure to Lock or Open
- Compatible with most meters with standard sized banana plug inputs
- Data Hold
- Over range and Low battery indicator
- Auto Power Off with disable
- Complete with two AAA batteries



### CA3000 Series\* 3000A AC Flex Clamp Adaptors

Expand your meter's capabilities to measure AC Current up to 3000A

- Flexible clamp cable length: Model CA3010 — 10" (25.4cm) Model CA3018 — 18" (45.7cm)
- 0.3" (7.5mm) cable diameter; 0.51" (13mm) tip diameter
- AC Current in three ranges
- Easy twist clamp cable closure to Lock or Open
- Compatible with most meters with standard sized banana plug inputs
- Battery capacity indicator provides battery condition
- Complete with built-in flex clamp cable, 6.6ft (2m) lead with banana plugs, and two AAA batteries



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

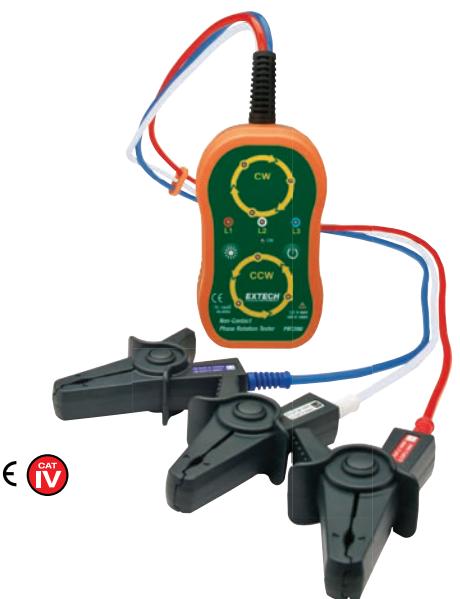
Functions including Power and Current; USB interface

- True/Apparent/Reactive Power, plus Power Factor, Active Power and Phase Angle (see p. 61 for details)
- AC+DC µA Current with 10nA resolution for flame rod tests
- Built-in non-contact Voltage Detector with LED alert
- Store/recall up to 99 data sets
- Data Hold, Max/Min and Auto Power Off
- Software for data analysis
- Complete with test leads, USB cable, PC software, 9V battery, and carrying case

\*CA3010 & CA 3018 adaptors are CAT III-1000V, CAT IV-600V and should only be used with multimeters and clamp meters that have equivalent CAT ratings

SPECIFICATIONS	MA1500	380926	MA3010  MA3018	CA3010  CA3018	PQ2071	SPECIFICATIONS
True RMS	Yes	Yes	Yes	—	Yes	True RMS
Display counts	40,000/4000 count LCD w/bargraph (backlit)	5000 count LCD (backlit)	3000 count LCD display (backlit)	—	9999 count LCD with bargraph (backlit)	Display counts
Jaw size/Cable size	2.0" (52mm); 500MCM	2" (50mm); 750MCM	■ 10" (25.4cm)   ▲ 18" (45.7cm)	■ 10" (25.4cm)   ▲ 18" (45.7cm)	2.2" (55mm); 1000MCM	Jaw size/Cable size
AC Current	1500A	400.0A, 2000A (Clamp); 400mA (DMM)	0 to 30.00A, 30.00 to 300.0A, 300.0 to 3000A	30.00A (100mV per Amp output); 300.0A (10mV per Amp output); 3000A (1mV per Amp output)	1000A	AC Current
DC Current	1500A	400.0A, 2000A Clamp); 400mA (DMM)	—	—	—	DC Current
Max resolution	0.01A	0.1A (Clamp); 0.1µA (DMM)	0.01A	0.01A	100mA	Max resolution
Basic ACA Accuracy (% rdg)	±2.8%	±2%	±(3%+5 digits)	±3%FS (45 to 500Hz)	±3%rdg	Basic ACA Accuracy (% rdg)
AC Voltage (Max Res.)	750V (0.01mV)	1000V (1mV)	—	—	750V (0.1V)	AC Voltage (Max Res.)
DC Voltage (Max Res.)	1000V (0.01mV)	1000V (0.1mV)	—	—	—	DC Voltage (Max Res.)
Resistance (Max Res.)	40MΩ (0.01Ω)	40MΩ (0.1Ω)	—	—	—	Resistance (Max Res.)
Capacitance (Max Res.)	40mF (0.01nF)	50µF (10pF)	—	—	—	Capacitance (Max Res.)
Frequency (Max Res.)	40MHz (0.001Hz)	100kHz (0.001Hz)	—	—	50Hz to 200Hz (1Hz)	Frequency (Max Res.)
Temperature	-148 to 1832°F (-100 to 1000°C)	—	—	—	—	Temperature
Diode/Continuity	Yes	Yes	—	—	Yes	Diode/Continuity
Category Rating	CAT IV-600V	CAT IV-600V	CAT IV-600V, CAT III-1000V	*CAT IV-600V, CAT III-1000V	CAT III-1000V; CAT IV-600V	Category Rating
UL/CE	CE	CE	UL, CE	UL, CE	CE	UL/CE
Dimensions/ Weight	11.6x4.1x1.9" (294x105x47mm)/ 18.9oz (536g)	10x2.9x1.5" (255x73x38mm)/ 14oz (380g)	■ 11x4.7x1" (280x120x25mm)/ 6oz (170g); ▲ 13.8x5.1x1" (350x130x25mm)/ 7.1oz (200g)	■ 11x4.7x1" (280x120x25mm)/ 6oz (170g); ▲ 13.8x5.1x1" (350x130x25mm)/ 7.1oz (200g)	11.5x3.75x1.5" (292x95x38mm)/18.4oz (522g)	Dimensions/ Weight
Warranty	1 year	1 year	1 year	1 year	1 year	Warranty

CALIBRATION TRACEABLE TO NIST

**PRT200 Non-Contact Phase Rotation Tester**

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

- Fully insulated non-contact alligator clips with wide jaws
- 75 to 1000VAC input voltage with 45 to 65Hz frequency range
- LEDs indicate phase orientation (clockwise or counter-clockwise) and whether each phase is live
- Durable housing with mounting magnets
- Adjustable LED brightness switch for making measurements in dimly lit areas or sunlight
- Low battery warning
- Auto power off to save battery life when not in use
- CAT IV-600V safety rating
- Dimensions: 4.7 x 2.7 x 1.5" (118 x 69 x 38mm); Weight: 13oz (370g)
- 1 year warranty
- Complete with three built-in 30" (76cm) test leads with large color-coded alligator clips, four AA batteries, and pouch case

**ORDERING**

PRT200 Non-Contact Phase Sequence Tester

**480400/480403 Motor Rotation and 3-Phase Testers****Check 3-phase sequence and motor rotation**

- Tests phase orientation of 3-Phase power sources
- Indicates phase orientation (clockwise or counter-clockwise) and whether each of the 3-Phases is live
- Easy to open alligator clips with wide jaws
- Durable double molded housing
- 1 year warranty
- 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

**SPECIFICATIONS**

480400

480403

Phase Sequence

Yes

Yes

Voltage

40 to 600V

40 to 600V

Frequency

15 to 400Hz

2 to 400Hz

Motor Rotation

—

Yes

CE/Cat. Rating

CE, CAT III-600V

CE, CAT III-600V

Dimensions

5.1x2.7x1.25" (130x69x32mm)/ 4.5oz (130g)

5.1x2.7x1.25" (130x69x32mm)/ 4.5oz (130g)

**ORDERING**

480400 3-Phase Rotation Tester

480403 Motor Rotation and 3-Phase Tester



**CALIBRATION  
TRACEABLE TO  
NIST**

**SD900/SD910 3-Channel Dataloggers**

CE

Easily monitor and record DC mA or DC mV values from 3 external sensors, transducers, and other sources using one meter

- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- User can select the data sampling rate: 2, 5, 10, 30, 60, 120, 300, 600 seconds or Auto
- Complete with six AAA batteries, SD memory card, Universal AC Adaptor with multi-plugs (US, EU, UK, AUS), 3 input connect sockets, and mounting bracket
- Model SD900 (DC Current)**
- Triple LCD simultaneously displays three DC Current (mA) channels
- Model SD910 (DC Voltage)**
- Triple LCD simultaneously displays three DC Voltage (mV) channels

**SPECIFICATIONS****RANGE****RESOLUTION**

DC mA Current (SD900)

0 to 20mA

0.01mA

DC mV Voltage (SD910)

300.0mV, 3000mV

0.1mV, 1mV

Memory

Approx. 2.7M readings using 4GB SD memory card

Dimensions

5.2 x 3.1 x 1.3" (132 x 80 x 32mm)

Weight

7oz (199g)

**ORDERING**

SD900 3-Channel DC Current (mA) Datalogger

SD910 3-Channel DC Voltage (mV) Datalogger

**DL150/DL160 True RMS AC Voltage/Current Dataloggers**

CE

**Choose model with single or dual inputs for datalogging**

- Readings can be downloaded to your PC via the USB interface and analyzed using the included software or exported to a spreadsheet
- LCD indicates time/date, current readings, Min/Max, and whether alarm settings have been exceeded
- Auto Power off and battery check
- Model DL150 (Single Input)**
- Measure True RMS AC Voltage or Current
- Normal, Peak and Capture (user-specified trigger level) recording modes
- Complete with current clamp, test leads, alligator clips, USB cable, Windows® compatible software, universal AC adaptor, and 4 AAA batteries; 1 year warranty
- Model DL160 (Dual Input)**
- Measures simultaneously:
  - Two True RMS AC Voltage inputs or
  - Two AC Current inputs or
  - One AC Voltage and one AC Current input
- 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 2032 button batteries



Model DL150

Model DL160

**SPECIFICATIONS****RANGE****RESOLUTION**

AC Current

10 to 200A

0.1A

AC Voltage

10 to 600V

0.1V

Memory

DL150: 100,000 points; DL160: 262,000 points (single channel), 131,000 (dual channels)

Sampling Rate

1 second to 24 hours

PC Interface

USB includes software

Dimensions/ Weight

4.5 x 2.5 x 1.3" (114 x 63 x 34mm)/ 8.7oz (248g)

**ORDERING**

DL150 True RMS AC Voltage/Current Datalogger

DL160 Dual Input True RMS AC Voltage/Current Datalogger

**TL809 Electronic Test Lead Kit****Ideal for testing digital circuitry**

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

**ORDERING**

TL809 Electronic Test Lead Kit

**TL810 Electrical Test Lead Kit****Double Insulated with CAT III-1000V****Rating for your protection**

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

**ORDERING**

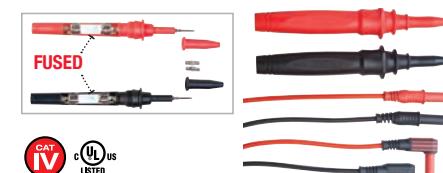
TL810 Electrical Test Lead Kit

**TL808-KIT Industrial **NEW** Test Lead Kit****8-Piece Kit — CAT III-1000V safety rating**

- Two 42" (1m) PVC lead extensions with shrouded banana plugs at both ends, UL listed
- Two modular 4" (102mm) Heavy Duty test probe handles with 0.16" (4mm) banana plug tip, UL listed
- Two standard size, alligator clips with insulated rubber boot
- Two extra large, double-insulated, alligator clips with sharp teeth for piercing insulated wire. Jaws open to 0.8" (20mm)
- Each probe has 2mm probe tip and includes a 4mm brass caged bayonet threaded tip (removable) for connecting accessories

**ORDERING**

TL808-KIT Industrial Test Lead Kit

**TL900 SafeSense™ **NEW** CAT IV Fused Test Leads****UL approved SafeSense™ technology**

- Intelligent SafeSense™ technology makes it easy for user to know if voltage is present on target area being measured, even with a blown fuse, for increased safety
- Two dual-layered silicone test lead cables (5.3ft/1.6m), wear indication construction
- Standard 90° shrouded banana-to-banana plug connectors
- Two CAT IV probes have built-in replaceable fuses (1000V, 11A, 20kA breaking capacity)
- CAT IV-600V, CAT III-1000V, 10A
- Includes pouch that provides storage for the kit and additional space to hold your meter

**ORDERING**

TL900 SafeSense™ CAT IV Fused Test Leads

**TL805 Double Injected Test Leads****Non-slip comfort grip**

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

**ORDERING**

TL805 Double Injected Test Leads

**TL803 Standard Test Leads****Protective tip covers for safe storage**

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

**ORDERING**

TL803 Standard Test Leads

**TL806/TL807C Alligator Clips for Test Lead Tips**

TL806

TL807C

CAT IV

**Add convenience to your test leads**

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

**ORDERING**

TL806 Extra Large Alligator Clips for TL810 or TL809

TL807C Insulated Alligator Clips for TL803

**TL708/TL709 Alligator Clip Sets**

TL708

TL709

CAT IV CE

**Toothed jaws for solid gripping of fine wires****TL708 Heavy Duty Large Alligator Clips**

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

**TL709 Medium Alligator Clips**

- 1000V, 10A, CAT III-1000V
- 1.4" (37mm) jaw length; 0.8" (20mm) opening; 3.9" (98mm) overall length

**ORDERING**

TL708 Large Heavy Duty Alligator Clips

TL709 Medium Alligator Clips

**PQ500/PQ1000 CAT IV Test Lead Kits****Set of Four Test Lead Kit for Power Quality Analyzers and set of 2 Test Lead Kit for other Test Equipment**

- 10 ft test leads (Banana-to-Banana)
- Test probes, Alligator clips, long reach spring loaded clips, and Ergonomic over mold grip
- CAT IV-600V/CAT III-1000V

**PQ500 Test Lead Set**

- 2Φ 2-wire test lead kit (Black, Red and Blue ONLY)

**PQ1000 Test Lead Set**

- 3Φ 4-wire test lead kit (Black, Red, Blue, Yellow)

**ORDERING**

PQ500 2-Phase 2-Wire Test Lead Kit

PQ1000 3-Phase 4-Wire Test Lead Kit

**TL748 Spring Loaded Hook Tip Probes****Ideal for gripping a component lead or fine wire**

- 1000V, 5A max
- 0.04" (1mm) gripping diameter
- 4.7" (120mm) overall length
- CAT IV-600V; CAT III-1000V

**ORDERING**

TL748 Spring Loaded Hook Tip Probes

**Spring loaded clip with steel jaws**

- 1000V, 10A
- 0.6" (15mm) jaw opening
- 6.1" (155mm) overall length
- CAT III-1000V

**ORDERING**

TL740 Industrial Plunger Style Test Clip Set

**TL726 Double Molded Silicone Test Lead Set****Right angle and straight end flexible leads with shrouded banana plugs**

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

**ORDERING**

TL726 Double Molded Silicone Test Lead Set



**ET20 Dual Indicator Voltage Detector****Quickly identify live voltages**

- 100 to 250 Volts AC/DC
- Probes snap on housing for easy one-handed testing of outlets
- Large, high visibility neon indicators positively identify presence of voltage
- 1 year warranty

**ORDERING**

ET20 Dual Indicator Voltage Detector

**ET25 Voltage Tester****Neon glows when voltage is present**

- 90 to 300V AC/DC Voltage Tester
- Neon AC/DC Indicator
- Pocket clip and insulated housing
- 1 year warranty

**ORDERING**

ET25 Voltage Tester

**ET40 Heavy Duty Continuity Tester**

CE

**Check fuses, switches, relays and wiring**

- Test fuses, wires, light bulbs, ground connections
- 30" (76cm) test lead with alligator clip

**ORDERING**

ET40 Heavy Duty Continuity Tester

**CA3000 Series 3000A AC Flex Clamp Adaptors**

NEW

CE

UL LISTED

**Expand your meter's capabilities to measure AC Current up to 3000A**

- Flexible clamp cable length: Model CA3010 — 10" (25.4cm) Model CA3018 — 18" (45.7cm)
- 0.3" (7.5mm) cable diameter; 0.51" (13mm) tip diameter
- Compatible with most meters with standard sized banana plug inputs
- Complete with built-in flex clamp cable, 6.6ft (2m) lead with banana plugs, and two AAA batteries

**ORDERING (SEE P. 33 FOR SPECS)**CA3010 3000A AC Clamp Adaptor (10"/25.4cm)  
CA3018 3000A AC Clamp Adaptor (18"/45.7cm)**ET30A Automotive Circuit Tester**

CE

**For auto, trailers, boats and other low voltage systems**

- 6 to 24 Volts DC
- Ideal for checking fuses, circuits, switches and wiring

**ORDERING**

ET30A Automotive Circuit Tester

**TP870/3/5 Type K Temperature Probes**

TP870 TP873 TP875

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

TP870 Bead wire with Type K connector (-40 to 482°F/-40 to 250°C), 39" (1m) cable

TP873 Bead wire with Type K connector and with banana adaptor (-22 to 572°F/-30 to 300°C), 36" (0.91m) cable; CE approved

TP873-5M TP873 probe with 16.4ft (5m) cable

TP875 High Temperature bead wire probe with Type K connector and banana adaptor; -58 to 1000°F (-50 to 538°C), 39" (1m) cable; CE approved

TP875

TP8

**CT70/CT80 AFCI, GFCI, and AC Circuit Analyzers**CT70  
(GFCI function)

Both models Test 3-wire standard & GFCI receptacles. Display turns red when a problem is detected. CT80 also has AFCI function.



CT70 only

**Check for correct wiring of AFCI/GFCI outlets and circuit breakers**

- AC Load Tester
  - Choose loads of 12, 15 and 20 Amps
  - Measures loaded and unloaded AC Line Voltage (90.0 to 240.0V)
  - Calculates and displays 0.1 to 99.9% Voltage Drop and Line Impedance
  - Displays Peak Line Voltage (350.0V) and Frequency (45.0 to 65.0Hz)
- Outlet Tester functions
  - AFCI (Model CT80 only)
  - GFCI Trip Current
  - GFCI Trip Time
  - EPD Trip Current
  - Neutral to Ground Voltage
  - Hot, Neutral and Ground Impedance
  - Open or Reversed wiring
  - Available Short Circuit Current (ASCC)
- Over-Temperature protection
- Dimensions/Weight: 8 x 2.8 x 2" (203.2 x 71.1 x 50.8mm)/ 11.2oz (317.5g)
- Complete with AC test cord (standard North American 3-prong plug); 1 year warranty

**ORDERING**

CT70 AC Circuit Analyzer with GFCI  
CT80 AC Circuit Analyzer with GFCI and AFCI  
CT70-AC Replacement AC Power/Tester Cord

NOTE: Both models are supplied with a standard North American 3-prong plug

**RT30 Wireless Remote AC Circuit Identifier**

Patent Pending



www.extech.com/video

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

- Simplify mid-run wiring jobs by easily identifying the correct circuit powering the cable to be spliced or repaired
- The innovative RT30 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
- Clamp-style probe accessory is ideal for wires that are hard to isolate or reach
- Easily identify lighting and outlet circuits
- 1 year warranty
- Includes transmitter, receiver, remote clamp-style probe, 4 "AAA" batteries and pouch case

**ORDERING**

RT30 Wireless AC Circuit Identifier (914MHz)  
(NOTE: USA, Mexico, and Canada use 914MHz)



N Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.

**CB10-KIT Electrical Troubleshooting Kit****Handy Electrical Troubleshooting Kit Performs 5 Functions**

- **CB10** Circuit Breaker Finder (see below for details) — quickly locate Circuit Breakers with audible and visual alert
- **CT20** Continuity Tester/Wire Tracer (p. 44) — Use Continuity Tester for local continuity or for remote wiring identification; Continuity testing via bright flashing LED and loud pulsating beeper
- **DV20** AC Voltage Detector/Flashlight — Non-Contact Detection of AC Voltage from 100VAC to 600VAC
- Supplied in a soft carrying case that provides protection and organization for the meters and accessories; 1 year warranty

**ORDERING (VISIT WWW.EXTECH.COM FOR PRODUCT SPECIFICATIONS)**

CB10-KIT Electrical Troubleshooting Kit

**CB10 Circuit Breaker Finder/Receptacle Tester****3-in-1 tester to locate fuses, test receptacles and GFCI circuits**

- Plug the Transmitter tester into an outlet and locate the correct breaker at the electrical box
- Manual sensitivity adjustment to pinpoint correct circuit breaker
- Transmitter & Receiver snap together for storage
- Transmitter/Tester:
  - Tests GFCI circuits
  - Tests Reversed/Open Connections,
  - LED indication of 2 test conditions and 6 wiring faults
  - Lights indicating circuit condition
- Dims/Wt: Receiver: 6.4x2.2x1.5" (162x55x38mm)/ 4oz (113g); Transmitter: 3.25x1.75x1" (83x44x25mm)/1.6oz (45g)
- Complete with one Receiver, one Transmitter tester, and 9V battery for the Receiver; 1 year warranty

**ORDERING**

CB10 Circuit Breaker Finder

**CB20 Circuit Breaker Finder/Receptacle Tester****3-in-1 tester to locate fuses, test receptacles and GFCI circuits**

- Plug the Transmitter tester into an outlet and locate the correct breaker at the electrical box
- Microprocessor-based automatic sensitivity adjustment
- Ergonomic design
- Audible/visual indication and Low battery indicator
- Transmitter/Tester:
  - Tests GFCI circuits
  - Tests Reversed/Open Connections,
  - LED indication of 2 test conditions and 6 wiring faults
  - Lights indicating circuit condition
- Dims/Wt: Receiver: 7.7x2.2x1.4" (196x55x36mm)/4.8oz (136g); Transmitter: 4.6x2.4x1.4" (118x60x35mm)/3.2oz (91g)
- Complete with one Receiver, one Transmitter tester, and 9V battery for the Receiver; 1 year warranty

**ORDERING**

Circuit Breaker Finder/Receptacle Tester

**CT20 Continuity Tester Pro/Wire Identifier**

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

- Provides positive continuity checks with bright flashing LED and loud pulsating beeper
- Identify wire pairs and cables remotely using external probe
- Wire verification distance up to 10,000ft (3000m); cable size of 26AWG minimum
- Flashing remote probe - two lead, bi-colored (red/ green) LED probe allows a single user to identify up to three wires or cables at a time for correct labeling with only one trip to the other end location
- Great for Electricians and Helpers, Cable TV and Audio System Installers, Alarm Technicians, HVAC Installers, and Auto Repair Technicians
- Dims: 3.6x2.2x1.14" (90x57x29mm); Wt: 9.2oz (260g)
- 1 year warranty
- Includes Remote probe with bi-colored LED for wire identification highlight

**ORDERING**

CT20 Continuity Tester Pro

**CT40 16-Line Cable Identifier/Tester Kit****Electrical/electronic circuits — identify up to 16 local or remote lines**

- CAT III-600V MultiMeter with 7 functions
- Transmitter/Receiver enables one person to remotely identify up to 16 wires
- Transmitter displays two red LED lamps and Receiver two digit blue LED display
- Includes 17 built-in alligator clips with the Transmitter and 2 built-in alligator clips with the Receiver
- Cable resistance of 30kΩ max
- Wire voltage check from 5 to 16VDC
- Data Hold, Max Hold, Auto power off; Low battery indicator (transmitter/receiver)
- 1 year warranty
- Complete with 16-line Transmitter, MultiMeter/Receiver, batteries, and case

**MULTIMETER SPECIFICATIONS**

DC/AC Voltage (Basic DCV Accuracy)	0.1mV to 600VDC/ 1mV to 600VAC (±1.0% DCV)
DC/AC Current	0.1µA to 200mA
Resistance	0.1Ω to 20MΩ
Diode/Continuity	Yes
Dimensions/Wt	6.3x2.9x1.7" (162x74.5x44mm)/ 10.8oz (308g)

**ORDERING**

CT40 16-Line Cable Identifier/Tester Kit

**40180 Tone Generator and Amplifier Probe Kit****Heavy duty kit with audible tone easily identifies wires or cables**

- Insulated inductive probe prevents shorting conductors
- Tests wire trace, continuity test, clear/busy/ringing line test and tip/ring identification
- Alligator clips for non-terminated cables and modular connectors for direct connections to telephone and internet wiring
- Built-in speaker with sensitivity control
- Dimensions: Probe - 9x2.3x1" (228x57x25mm); Generator - 2.5x2.5x1.5" (64x64x38mm)/ Weight: 0.6lbs (272g)
- 1 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

**ORDERING**

40180 Tone Generator and Amplifier Probe Kit

**TG20 Wire Tracer Kit****Easily trace wires from source to termination**

- Transmitter with output cables terminated in modular RJ11 phone connector
- Transmitter injects traceable signal into cables, checks telephone lines, and performs continuity checks
- Non-Contact probe audibly identifies selected wire or cable
- Test for properly operating phone lines
- Adjustable sensitivity control improves wire identification and eliminates false detection
- Continuity test — visible indication
- Dimensions/Weight: Probe - 8.7x2x1.3" (220x50x32mm)/ 3.2oz (91g); Transmitter - 2.6x2.7x1.1" (65x68x28mm)/ 3.2oz (91g)
- Complete with Wire Tracer Probe and Transmitter with RJ11 phone connector and pair of alligator clips, and two 9V batteries; 1 year warranty

**ORDERING**

TG20 Wire Tracer Kit

**BT100 Battery Capacity Tester****AC milliohmmeter checks Battery Condition in seconds while the battery is in service**

- On-line testing without disconnecting battery
- Datalogger stores up to 999 tests manually or 9600 sets in continuous mode and download readings to your PC with using software (included)
- Simultaneously measures DC Voltage and AC Milliohms
- Long battery life 7 hours; Auto power off to save battery

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Resistance	40mΩ, 400mΩ, 4Ω, 40Ω	10µΩ, 100µΩ, 1mΩ, 10mΩ	±(1% rdg ± 10d)
Voltage	4V, 40V	1mV, 10mV	±(0.1% rdg ± 6d)
Max Input Voltage	50VDC	50VDC	
Dimensions/ Wt	9.75 x 4 x 1.75" (250 x 100 x 45 mm)/ 17.5oz (500g)		

**ORDERING**BT100 Battery Capacity Tester  
BT102 120V AC Adaptor**MD10 Non-contact Magnet Detector + Flashlight**

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

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

- Blue LED lights up for visual magnetic field detection including AC, DC, and permanent magnets
- Magnetic field detection range: 63H, 98H, 401H, 810H
- Ideal for testing audio speakers, troubleshooting solenoid valves in pneumatic and hydraulic control equipment and testing relays with coils and electrically controlled solenoid valves in vehicles and machinery
- Compact size with pocket clip and built-in bright flashlight with On/Off button
- Dimensions: 6.25 x 0.8 x 1" (159 x 21 x 25mm); Weight: 1.7oz (48g)
- Complete with two AAA batteries; 1 year warranty

**ORDERING**

MD10 Non-contact Magnet Detector + Flashlight

**LCR200 Passive Component LCR Meter**

CE

LCR203 – Optional SMD Tweezer for sorting out SMD components  
LCR205 – Optional SMD Component Fixture**L, C, R measurements with test Frequency up to 100kHz**

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

**SPECIFICATIONS**

SPECIFICATIONS	RANGE	BASIC ACCURACY
Inductance	20µH, 200µH, 2000.0µH, 20.000mH, 200.00mH, 2000.0mH, 20.00H, 200.0H, 2000.0H	±(0.5%rdg)
Capacitance	20pF, 200pF, 2000pF, 20.00nF, 200.00nF, 2000.0nF, 20.00µF, 200.00µF, 20.00mF	±(0.5%rdg)
Resistance	20.00Ω, 200.00Ω, 2,000.0kΩ, 20,000kΩ, 200,000kΩ, 2,000.0MΩ, 20.00MΩ, 200.0MΩ	±(0.5%rdg)
DF (with C)	0.000 to 999	
Q	0.000 to 999	
Phase	±90°	
Test Frequency	100Hz/120Hz/1kHz/10kHz/100kHz	
Dimensions/ Weight	7.6 x 3.5 x 1.6" (193 x 88 x 41mm) / 14.8oz (420g)	

**ORDERING**

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

**380193 Passive Component LCR Meter**

CE

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

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

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

**SPECIFICATIONS**

SPECIFICATIONS	RANGE	BASIC ACCURACY
Inductance	2000.0µH, 20.000mH, 200.00mH, 2000.0mH, 20.00H, 200.0H, 2000.0H, 10000H	±(0.7%rdg)
Capacitance	2000.0pF, 20.00nF, 200.00nF, 2000.0nF, 20.00µF, 200.00µF, 20.00mF	±(0.7%rdg)
Resistance	20.00Ω, 200.00Ω, 2,000.0kΩ, 20,000kΩ, 200,000kΩ, 2,000.0MΩ, 20.00MΩ, 200.0MΩ	±(0.5%rdg)
DF (with C)	0 to 0.9999	±(0.7%rdg)
Q	0 to 9999	±(1.2%rdg)
Test Freq.	120Hz and 1kHz	
Dimensions/Weight	7.56x3.58x2.1" (19.2x9.1x5.25cm) / 12.87oz (365g)	

**ORDERING**

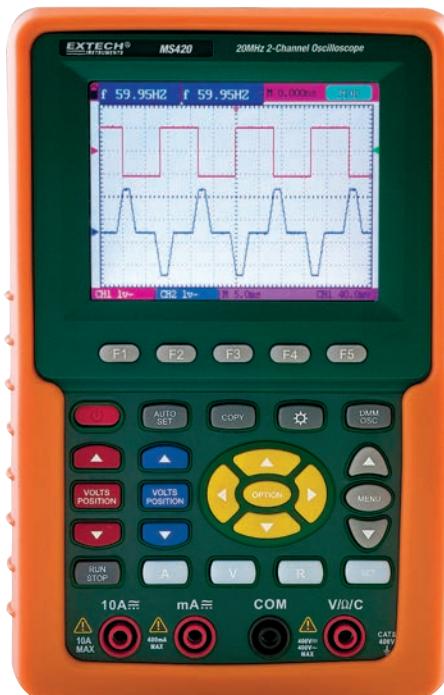
380193	Passive Component LCR Meter
153117	117VAC adaptor
153220	230VAC adaptor

CALIBRATION  
TRACEABLE TO  
NIST

46

N Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.

Downloaded from Arrow.com

**MS420 20MHz 2-Channel Digital Handheld Oscilloscope**

CE

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

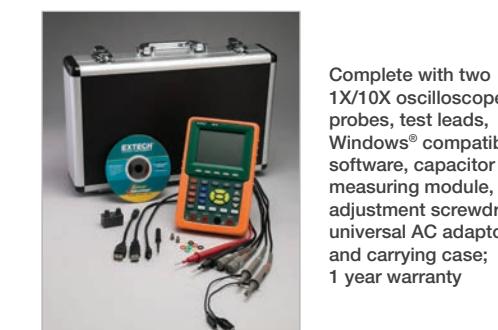
- 20MHz bandwidth
- Auto-set function optimizes the position, range, timebase, and triggering to assure a stable display of virtually any waveform
- Peak Detect function for 50ns glitch capture
- XY Mode
- Five Automatic Measurements: Frequency, Duty Cycle, Average, Peak to Peak, RMS
- Waveform Math: 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

**SPECIFICATIONS**

Display Size	3.8" (96mm) color LCD; 320 x 240 pixels
Bandwidth	20MHz
Real time sample rate	100MS/s
Risetime	17.5ns
Channels	2
Record Length	6K points per channel
Glitch Capture	50ns
Vertical Sensitivity	5mV to 5V/div
Vertical Resolution	8 bits
Timebase Range	5ns to 5s/div
Sample Mode	Sample, Average, Peak Detect
Trigger Modes	Free Run, Single Shot, Edge, Video
Trigger Source	CH1, CH2
Trigger Coupling	AC, DC
Input impedance	1MΩ/20pF
Max Input Voltage	400V (peak)
Cursor Measurement	Voltage and time
True RMS MultiMeter Functions	
AC/DC Voltage	400mV, 4V, 40V, 400V
AC/DC Current	40mA, 300mA, 20A
Resistance	400Ω, 4kΩ, 40kΩ, 400kΩ, 40MΩ
Capacitance	51.2nF to 100µF
Diode and Continuity	Yes
PC Interface	USB cable
Power Supply	6 hours Li-ion rechargeable battery; AC Adaptor/charger
Dimensions/Weight	7x4x1.6" (180x113x40mm) / 24.3oz (690g)

**ORDERING**

MS420	20MHz 2-Channel Oscilloscope
PWRCORD-MS420	European Power Cord for MS420



Complete with two 1X/10X oscilloscope probes, test leads, Windows® compatible software, capacitor measuring module, adjustment screwdriver, universal AC adaptor, and carrying case; 1 year warranty



Software PC screens display analog bargraph and graphical waveform

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com)

47

**382200/382202 Digital Single Output DC Power Supplies****Adjustable 30V/1A and 18V/3A supplies with dual LCD displays**

- Constant voltage or current
- Dual backlit LCD displays, Short circuit protection, Current limiting, High load/line regulation, Low noise/ripple, and Banana plug output terminals
- Complete with power cord; 1 year warranty



CE

**SPECIFICATIONS****MODEL 382200**Display Accuracy (V, A)  $\pm(1.5\% \text{rdg})$ ;  $\pm(2\% \text{rdg})$ 

Voltage Output, DC 30.0 Volts

Current Output, DC 0 – 1.00 Amp

Ripple and Noise  $<0.5\text{mV}/<3\text{mA}$ Line Regulation  $<0.01\% + 3\text{mV}/<0.2\% + 3\text{mA}$ Load Regulation  $<0.01\% + 2\text{mV}/<0.2\% + 3\text{mA}$ 

Power 115V/230V; 50/60Hz

Dimensions/Weight 9.4x4.25x6" (240x108x154mm)/4.4lbs (2kg)

9.4x4.25x6" (240x108x154mm)/6.6lbs (3kg)

**MODEL 382202**Display Accuracy (V, A)  $\pm(1.5\% \text{rdg})$ ;  $\pm(2\% \text{rdg})$ 

Voltage Output, DC 18.0 Volts

Current Output, DC 0 – 3.00 Amps

Ripple and Noise  $<0.5\text{mV}/<3\text{mA}$ Line Regulation  $<0.01\% + 3\text{mV}/<0.2\% + 3\text{mA}$ Load Regulation  $<0.01\% + 2\text{mV}/<0.2\% + 3\text{mA}$ 

Power 115V/230V; 50/60Hz

Dimensions/Weight 9.4x4.25x6" (240x108x154mm)/4.4lbs (2kg)

**ORDERING**

382200 DC Power Supply 30V/1A

382202 DC Power Supply 18V/3A

**382213 Digital Triple Output DC Power Supply****Adjustable to 30V/3A with fixed 5V and 12V outputs**

- Adjustable Voltage and Current output
- Easy snap terminals for fixed 5V/0.5A and 12V/1A outputs
- Constant Voltage or Current, Current limiting indicator, Overload and short circuit protection, and Binding post terminals for variable supply
- Complete with power cord; 1 year warranty



CE

**SPECIFICATIONS**

Display Digital (V&amp;A), 3 digit 0.1 res, LCD

DC Voltage/Current Output 0 to 30 Volts/ 0 to 3 Amps

Ripple and Noise  $<5\text{mV}$ Line/Load Regulation  $<0.05\% + 10\text{mV}$ 

Fixed Output Voltage 5V/0.5A (cont.), 12V/0.5A (cont.), 1A(max)

Power 110/220VAC 50/60Hz

Dimensions/ Weight 6 x 5.6 x 9.5" (152 x 142 x 242)/ 11lbs. (5kg)

**ORDERING**

382213 Digital DC Power Supply, 115/220 VAC

**382260 80 Watt Switching Mode DC Power Supply****3 output ranges perform like 3 power supplies in one**

- Constant voltage or current with 3 selectable ranges
- Compact, lightweight design with 4-Digit LED display & Front/Rear output terminals
- Remote sensing for accurate applied voltage at load point
- Complete with AC Power cord; 1 year warranty



CE



Current limited DC supply for electronic repair and calibration

**SPECIFICATIONS**

Voltage Output (3 ranges) 0.10 to 16.40V, 0.10 to 27.60V, 0.10 to 36.80V

Current Output (3 ranges) 0.100 to 5.100A, 0.100 to 3.100A, 0.100 to 2.300A

Basic accuracy  $\pm 1\%$ Ripple & Noise  $<30\text{mVpp}$ Line Regulation/Load Regulation  $<4\text{mV} / <20\text{mV}$ 

Power 90-264VAC; 47-63Hz

Dimensions/Weight 13 x 5 x 2" (330 x 127 x 53.5mm)/4.2lbs (1.9kg)

**ORDERING**

382260 80W Switching Mode DC Power Supply

**382270 210 Watt Quad Output DC Power Supply****Two fully adjustable 30V/5A outputs combined with 2 auxiliary semi adjustable outputs**

- Selectable Constant Voltage and Constant Current modes
- Two auxiliary outputs with variable voltage and fixed current
- Outputs up to 60V in series mode or 10A in parallel mode
- Includes 4 pairs of test leads (banana plug to alligator clip) & power cord; 1yr warranty



CE

**SPECIFICATIONS**

Output Voltage (4)/ Output Current (4) 0 to 30V, 0 to 30V, 3 to 6.5V, 8 to 15V/ 0 to 5A, 0 to 5A, 3A (fixed), 1A (fixed)

Basic Accuracy  $\pm(0.5\% + 2 \text{ digits})$ Load/ Line Voltage Regulation  $\leq 0.02\% + 3\text{mV}$ Ripple and Noise  $<0.5\text{mVrms}$ 

Power 100 to 240VAC, 50/60Hz

Dimensions/ Weight 10.2x6.3x14.5" (260x160x370mm)/ 26.5lbs (12kg)

**ORDERING**

382270 Quad Output DC Power Supply

**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**

- Selectable constant Voltage or Current modes
- 0 to 60 second programmable overload delay timer
- Forced air cooling fan and Dual output terminal for source and monitor connections
- Bi-directional PC interface commands allow setup and readback using Windows® HyperTerminal or similar PC communications programs
- Complete with power cord; 1 year warranty



CE

**SPECIFICATIONS**Programmable Voltage/ Current Output 0 to 40V (1mV)/ 0 to 5A (1mA) 0.05%  $\pm 9\text{mV}$  0.2%  $\pm 9\text{mA}$ 

Fixed Outputs 5V/2A and 3.3V/3A

Ripple & Noise  $<3\text{mV}$ 

Load Regulation 1mV/A

Power Source 110 or 220VAC, 50/60Hz

Dimensions/ Weight 12.2 x 9.9 x 5.3" (310 x 250 x 135mm)/ 8.4lbs (3.8kg)

**ORDERING**

382280 Triple Output Programmable DC Power Supply

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

CE

**Dual Action Voltage/Current Controls**—push knob for fine/coarse adjustments

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

**SPECIFICATIONS**

Output Voltage/Current (Res.)	0 to 30V (100mV) / 0 to 20A (100mA)
Basic accuracy	±(0.5%+2 digits)
Load/Line Voltage Regulation	50mV/ 20mV
Load/Line Current Regulation	100mA min/ 50mA min
Ripple and Noise	<5mVrms
Dimensions/ Weight	7.9 x 3.5 x 8.5" (200 x 90 x 215mm)/ 5.7lbs (2.6kg)

**ORDERING**

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

**DCP60 600W Single Output Lab Grade Switching Power Supply**

CE

High efficiency switching power supply with low ripple and noise is ideal for demanding laboratory applications

- 60V/10A output
- Maximum current can be limited to 5A using front panel auxiliary output on the front panel (10A main output is on the back panel)
- Three user-defined Voltage and Current presets
- Dual action rotary encoder control with push knob for fine and coarse tuning
- Remote control for Output Voltage/Current and On/Off
- USB port for programming and running ramp/soak cycles with 20 programmable sets of Voltage/Current and varying test durations (up to 999 cycles)
- 1 year warranty
- Complete with power cord and software

**SPECIFICATIONS**

Output Voltage	1 to 60V
Output Current	1 to 10A
Basic Accuracy	±(0.2%+3 digits)
Load Voltage Regulation	50mV
Line Voltage Regulation	20mV
Load Current Regulation	100mA
Line Current regulation	50mA
Ripple and Noise	<5mVrms, <100mVp-p
Dimensions/ Weight	7.9 x 3.5 x 8.5" (200 x 90 x 215mm)/ 5.7lbs (2.6kgs)

**ORDERING**

DCP60	600W Single Output Lab Grade Switching Power Supply (120V)
DCP60-220	600W Single Output Lab Grade Switching Power Supply (220V)

**DT500 Laser Distance Meter with Bluetooth®**

CE

Laser Distance meter transmits readings to Apple® iPhone® and iPad® devices

- Integrated Bluetooth® connects with iOS devices to transmit readings for remote viewing
- Works with free Apple app to display large easy-to-read values up to 30ft (10m) away
- Measures distance up to 229ft (70m) with a target plate
- Automatically calculates Area and Volume
- Indirect measurement using Pythagorean Theorem
- Continuous measurement function with Min/Max distance tracking updates every 5 seconds
- Displays Sum (+) / Difference (-) of multiple readings, Front or rear edge reference, Low battery indicator, and Auto power off
- Built-in bubble level provides easy visual guidance on determining if a surface is level
- Double molded housing (IP54)
- Tripod mount (tripod available)
- Complete with carrying case and 2 AA batteries; 1 year warranty

**SPECIFICATIONS**

Measurement Range	2" to 229' (0.05 to 70m) with a target plate
Accuracy (up to 32'/10m)	±0.06" (±1.5mm)
Resolution	0.0625" (0.001m)
Length Add calculation	99'11" (99.99m)
Area calculation	999.99 sq. ft. (999.99m <sup>2</sup> )
Volume calculation	999.99 cu. ft. (999.99m <sup>3</sup> )
Historical Storage	20 records (measured or calculated results)
Laser Power Off/ Auto Power Off	after 30 seconds/ after 3 minutes
Dimensions/ Weight	5.3x2.3x1.3" (135 x 58 x 33mm)/ 7.2oz (203g)

**ORDERING**

DT500	Laser Distance Meter (229ft/70m) with Bluetooth®
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Mac App Store logo, Apple, iPhone, and iPad are trademarks of Apple Inc.

**DT300 Laser Distance Meter**

CE

Laser distance measurement function and Historical Storage feature (measured or calculated results)

- Measures up to 164ft (50m) with 0.06" accuracy
- Automatically calculates Area and Volume
- Indirect measurement using Pythagorean theorem
- Continuous measurement function with Min/Max distance tracking updates every 0.5 seconds
- Addition/Subtraction, Front or rear edge reference, Low battery indicator, and Auto power off features
- Double molded housing (IP54)
- Complete with carrying case and 2 AAA batteries; 1 year warranty

**SPECIFICATIONS**

Measurement Range	2" to 164' (0.05 to 50m)
Accuracy (up to 32'/10m)	±0.06" (±1.5mm)
Resolution	0.001" (0.001m)
Length Add calculation	99'11" (99.99m)
Area calculation	999.99 sq. ft. (999.99m <sup>2</sup> )
Volume calculation	999.99 cu. ft. (999.99m <sup>3</sup> )
Historical Storage	Measured or calculated results - 20 records
Laser Power Off / Auto Power Off	After 30 seconds / after 3 minutes
Dimensions/ Weight	4.5 x 1.9 x 1.1" (115 x 48 x 28mm)/ 5.3oz (150g)

**ORDERING**

DT300	Laser Distance Meter (164ft/50m)
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**382357 Clamp-On Ground Resistance Tester**

Verify resistance of cellular and communication tower ground grids

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

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

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Ground Resistance	0.025 to 1500Ω	0.002Ω	±1.5%
AC Leakage Current (Trms)	1mA	0.001mA	±2.5%
AC Current (Trms)	0.3mA to 30.00A	0.01A	±2.0%
Resistance Test Frequency	3.333kHz		
Operating Temperature	32 to 122°F (0 to 50°C)		
Dimensions/Weight	10.2x4.4x1.9" (258x110x47mm) / 1.5lbs (700g) (meter only)		

**ORDERING**382357 **N** Clamp-On Ground Resistance Tester**382252 Earth Ground Resistance Tester Kit****Includes all hardware necessary to measure earth ground in 3 ranges from 20 to 2000Ω**

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

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Earth Ground Resistance ranges	20Ω/ 200Ω/ 2000Ω	0.01Ω/ 0.1Ω/ 1Ω	±(2%rdg)
Test Current (Freq.)	<2.5mA (820Hz)	0.001mA	±2.5%
AC Earth Voltage (Freq.)	0 to 200VAC (50 to 400Hz)		±(3%rdg)
DC Voltage	0 to 1000V	0.1V	±(0.8%rdg)
Resistance	0 to 200kΩ		±(1%rdg)
Continuity	40Ω		
Category rating	CAT III-1000V		
Dimensions/ Weight	7.9x3.6x2" (200x92x50mm)/ 1.5lbs (700g) (meter only)		

**ORDERING**382252 **N** Earth Ground Resistance Tester Kit  
382253 Replacement Earth Bars (2pk)  
382254 Replacement Set of Test Leads**GRT300/GT350 4-Wire Earth Ground Resistance/Resistivity Testers**

Complete with color coded test leads and alligator clips, 4 auxiliary earth bars, hard carrying case, and eight 1.5V AA batteries; 1 year warranty

**Includes all hardware necessary to measure earth ground in 4 ranges**

- 4-wire, 3-wire, and 2-wire testing
- Large dual line LCD
- Autoranging
- Automatic I (current) spike check and Automatic P (potential) spike check
- Test Hold function for easy operation
- AC Earth Voltage
- Data Hold and Auto Power Off features
- Over-range and low battery indication

**Model GRT300 Additional Feature**

- Earth Ground Resistance in 4 ranges
- Automatic Zero adjustment

**Model GRT350 Additional Features**

- Earth Ground Resistance in 3 ranges
- Earth resistivity (ρ) test
- Store/recall up to 200 test results

SPECIFICATIONS	GRT300	GRT350
Earth Ground Resistance	2Ω/20Ω/200Ω/2000Ω	20Ω/200Ω/2000Ω
Basic Accuracy	±(2%rdg+3d)	±(2%rdg+3d)
Resolution	0.01Ω/ 0.1Ω/ 1Ω/ 0.01kΩ	0.01Ω/ 0.1Ω/ 1Ω
Earth Resistivity (ρ)	—	0.06 to 6.28 kΩm, 0.62 to 62.8 kΩm, 6.28 to 628 kΩm
Test Current / Frequency	<2mA/820Hz	<2mA/820Hz
AC Earth Voltage / Frequency	0 to 300VAC/40 to 500Hz	0 to 300VAC/40 to 500Hz
Dimensions/ Weight	9.8 x 7.8 x 4.3" (250 x 190 x 110mm)/ 3.15lbs (1.4kg) - batteries included	

**ORDERING**GRT300 **N** 4-Wire Earth Ground Resistance Tester Kit  
GRT350 **N** 4-Wire Earth Ground Resistance/Resistivity Tester Kit**UM200 High Resolution Micro-Ohm Meter**

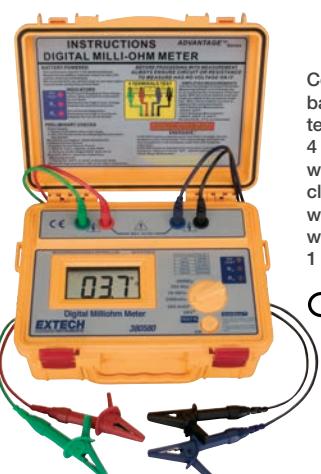
Complete with 4-wire cables with Kelvin clip connectors, rechargeable Li-Polymer battery, AC adapter/charger, software and USB cable, and carrying case

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

- 6 ranges with 3 sub-ranges in each current range
- Measurement of resistive and inductive materials
- Auto or Manual ranging
- High resolution to 1μΩ
- 5-Digit backlit LCD
- Built-in comparator for Hi/Lo/Go resistance testing with 20 sets of pre-stored values
- Store/Recall up to 3000 measurements
- 10A maximum test current
- Cable length measurement (feet or meters)
- RS-232 interface
- 1 year warranty
- Complete with 4-wire cables with Kelvin clip connectors, rechargeable Li-Polymer battery, AC adapter/charger, software and USB cable, and carrying case

SPECIFICATIONS	RANGE	RESOLUTION	CURRENT	BASIC ACCURACY
Resistance	60mΩ	1μΩ	10A	±(0.25%)
	600mΩ	10μΩ	1A	±(0.25%)
	6Ω	100μΩ	100mA	±(0.25%)
	60Ω	1mΩ	10mA	±(0.25%)
	600Ω	10mΩ	1mA	±(0.25%)
	6kΩ	100mΩ	100μA	±(0.75%)
Power	Rechargeable Li-Polymer Battery			
Dimensions/Weight	10.1 x 6.1 x 2.2" (257 x 155 x 57mm)/ 2.6lb (1160g)			

**ORDERING**UM200 **N** High Resolution Micro-Ohm Meter

**380580 Battery Powered Milliohm Meter**

Complete with 8 AA batteries, and 2 sets of test leads (4 wire with 4 alligator clips, 4 wire with 2 Kelvin alligator clips), and Built-in water resistant case with shoulder strap; 1 yr warranty

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

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

SPECIFICATIONS	RANGE	RESOLUTION	CURRENT	BASIC ACCURACY
Resistance	200.0mΩ	0.1mΩ	100mA	±0.5%
	2000mΩ	1mΩ	100mA	±0.5%
	20.0Ω	0.01Ω	10mA	±0.5%
	200.0Ω	0.1Ω	10mA	±0.5%
	2000Ω	1Ω	1mA	±0.5%

Dimensions/ Weight 9.8x7.5x4.3" (250x190x110mm)/ 3.3lbs (1.5kg)

**ORDERING**

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

**380560/380562 High Resolution Milliohm Meter****Benchtop meter provides resolution down to 0.01mΩ**

- Automatic zero; 5V test voltage
- Built-in comparator for Hi/Lo/Go resistance testing or selection
- Includes 4-wire cables with Kelvin clip connectors and power cord; 1 year warranty

SPECIFICATIONS	RANGE	RESOLUTION	CURRENT	BASIC ACCURACY
Resistance	20mΩ	0.01mΩ	1A	±0.2%
	200mΩ	0.1mΩ	1A	±0.2%
	2Ω	0.001Ω	100mA	±0.2%
	20Ω	0.01Ω	10mA	±0.2%
	200Ω	0.1Ω	1mA	±0.2%
	2kΩ	0.001kΩ	100µA	±0.2%
	20kΩ	0.1kΩ	10µA	±0.2%
Power	110VAC, 60Hz or 220VAC 50Hz			
Dims/Wt	11x8.3x3.5" (280x210x90mm)/ 4.85lb (2.2kg)			

**ORDERING**

380560 High Resolution Milliohm Meter, 110VAC  
380562 High Resolution Milliohm Meter, 220VAC  
380465 Spare Kelvin Clip Test Lead Set

**380460/380462 Precision Milliohm Meter****Portable Milliohm meter provides resolution to 0.1mΩ**

- Manual zero display adjust; Over-range indication
- Compact, durable field service housing with protective cover
- Includes 4-wire cables with Kelvin clip connectors and power cord; 1 year warranty

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

**ORDERING**

380460 Precision Milliohm Meter, 110VAC  
380462 Precision Milliohm Meter, 220VAC  
380465 Spare Kelvin Clip Test Lead Set

**380320 Analog High Voltage Megohmmeter****Three Insulation Test Ranges with Live Circuit Warning**

- Insulation Resistance ranges: 100MΩ, 200MΩ, and 400MΩ
- Basic accuracy ±5% of scale
- Three test voltages 250V, 500V, and 1000V
- Lock Power On feature for extended test times
- Fuse protected and automatic discharge circuit
- Measures continuity to 3Ω, Resistance to 500Ω, and AC Voltage to 600V
- 1.3mA short circuit current
- CAT III-1000V
- Dimensions: 7.9x3.6x2" (200x92x50mm); Weight: 1.2lbs (546g) includes batteries
- 1 year warranty
- Includes heavy duty test leads, alligator clip test lead, 6 x AA batteries, and hard case

**ORDERING**

380320 Analog High Voltage Megohmmeter

**380360 Digital Megohmmeter****1000V digital tester with automatic 3 minute test**

- Insulation Resistance ranges: 200MΩ and 2000MΩ with 0.1MΩ max resolution and ±3% of reading basic accuracy
- Three test voltages of 250V, 500V and 1000V
- Safety Power Lock enables "hands free" operation for 3 minute test
- Automatic discharge when "Press to Test" button is released
- Auto power off and Data Hold
- 0.65" (17mm) LCD display
- Automatic zero adjustment
- Continuity measurements to 200Ω and Voltage to 600VAC
- CAT II-600V
- Dimensions: 6.3x3.8x2.3" (160x97x58mm); Weight: 13oz (369g)
- 1 year warranty
- Complete with 6 x AA batteries, heavy duty 2.5ft (0.8m) test leads, alligator clip, large probe, and case with neckstrap

**ORDERING**

380360 Digital Megohmmeter

**380260 Handheld Megohmmeter****1000V digital tester with large dual backlit display**

- Double molded housing for added durability
- Dual display of Insulation Resistance and Test Voltage
- Backlit super large display
- Insulation Resistance ranges: 200MΩ and 2000MΩ with 0.1MΩ max resolution and ±3% of reading basic accuracy
- 250V, 500V, and 1000V test voltages
- Auto power off
- Lo Ω function for testing connections
- Lock Power On Function for hands-free operation
- Data Hold
- CAT III-1000V
- Dimensions: 7.8x3.6x1.9" (200x92x50mm); Weight: 24.6oz (700g)
- 1 year warranty
- Complete with heavy duty test leads, alligator clip test lead, hanging strap, carrying case, and 6 x AA batteries

**ORDERING**

380260 Handheld Megohmmeter



## Restore Safety, Eliminate Downtime

Plant and electrical professionals rely on Extech's line of digital and analog insulation testers and megohmmeters for motor-related diagnostics including motor insulation resistance as high as 200GΩ of MCCs as well as transformers. With available capabilities such as continuity test and voltage measurement, Dielectric Absorption Ratio, Polarization Index and CAT-IV ratings, Extech's insulation resistance testers and megohmmeters deliver accurate diagnostic results without compromising safety.



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



MG300 & MG302 Kits available. See p. 19 for details.



**NEW**

**CAT  
IV**



**CAT  
IV**

**WIRELESS  
Transmitter**



**CAT  
IV**

**WIRELESS  
Transmitter**

### MG325 CAT IV High Range Insulation Tester/TRMS MultiMeter

Autoranging insulation measurements to 200GΩ with 11 ranges

- Polarization Index (PI) and Dielectric Absorption
- Ratio measurements (DAR)
- Low Resistance function with Zero mode
- Comparison Mode allows user to set the Pass/Fail values for insulation measurements
- Step Voltage (10% steps at 50% to 120% of range)
- Auto-discharge of voltage test signal
- Lock Power On Function for hands-free operation
- Manually store/recall up to 99 readings
- Backlit display with analog bargraph
- High voltage and overload indication
- Data Hold and Auto Power Off
- Complete with test leads, alligator clip, 6 x AA batteries, and soft case

### MG300 CAT IV Insulation Tester/ TRMS MultiMeter with Wireless (915MHz) PC Interface

Autoranging insulation measurements to 4GΩ

- Wireless USB interface transmits measurement data to a PC
- Large backlit triple display
- Auto discharge
- Lock Power On Function for hands-free operation
- Data Hold, Min/Max and Relative mode
- Waterproof (IP67) rugged design
- Complete with remote receiver with USB cable, Windows® compatible software, heavy duty test leads, alligator clip test lead, Type K bead wire temperature probe, hard case, and 6 x AA batteries

See Special Value Kits on p. 19

**Note:** USA, Mexico, and Canada use 915MHz

### MG302 CAT IV Insulation Tester/ TRMS MultiMeter with Wireless (433MHz) PC Interface

Autoranging insulation measurements to 4GΩ

- Wireless USB interface transmits measurement data to a PC
- Large backlit triple display
- Auto discharge
- Lock Power On Function for hands-free operation
- Data Hold, Min/Max and Relative mode
- Waterproof (IP67) rugged design
- Complete with remote receiver with USB cable, Windows® compatible software, heavy duty test leads, alligator clip test lead, Type K bead wire temperature probe, hard case, and 6 x AA batteries

See Special Value Kits on p. 19

**Note:** Most countries use 433MHz (not for USA, Mexico, and Canada)

SPECIFICATIONS	MG325 <b>N</b>	MG300 (915MHz) <b>N</b>	MG302 (433MHz) <b>N</b>
Insulation Resistance - Ω (max resolution)	50MΩ, 100MΩ, 200MΩ, 500MΩ, 2000MΩ, 1GΩ, 10GΩ, 20GΩ, 50GΩ, 100GΩ, 200GΩ (0.001MΩ)	4MΩ, 40MΩ, 400MΩ, 4000MΩ (0.001MΩ)	4MΩ, 40MΩ, 400MΩ, 4000MΩ (0.001MΩ)
Basic Accuracy	±3%	±3%	±3%
Insulation Test Voltages	50V, 100V, 250V, 500V, 1000V	125V, 250V, 500V, 1000V	125V, 250V, 500V, 1000V
Low Resistance Test	0.01 to 100Ω	0 to 400Ω	0 to 400Ω
<b>MultiMeter Functions</b>			
AC/DC Voltage (max resolution)	600V (0.01V)	1000V (0.1mV AC/0.01mV DC)	1000V (0.1mV AC/0.01mV DC)
AC/DC Current (max resolution)	AC Leakage: 2000µA (10µA)	10A (0.1µA AC/0.01µA DC)	10A (0.1µA AC/0.01µA DC)
Resistance (max resolution)	10MΩ (0.01kΩ)	40MΩ (0.01Ω)	40MΩ (0.01Ω)
Frequency (max resolution)	—	100MHZ (0.001Hz)	100MHZ (0.001Hz)
Capacitance (max resolution)	500µF (0.1nF)	40mF (0.001nF)	40mF (0.001nF)
Duty Cycle (max resolution)	—	0.1 to 99.9% (0.01%)	0.1 to 99.9% (0.01%)
Temperature (max resolution)	—	-58 to 1832°F / -50 to 1000°C (0.1°)	-58 to 1832°F / -50 to 1000°C (0.1°)
4-20mA% (max resolution)	—	-25 to 125% (0.01%)	-25 to 125% (0.01%)
Continuity	Audible	Audible	Audible
CE, FCC	CE	CE, FCC	CE
Dimensions/Weight	8.9 x 4.1 x 2.3" (225 x 103 x 59mm)/ 1.5lbs (0.7kg)	7.8 x 3.6 x 1.9" (200 x 92 x 50mm)/ 20.5oz (582g)	7.8 x 3.6 x 1.9" (200 x 92 x 50mm)/ 20.5oz (582g)
Warranty	1 year	1 year	1 year



## Preventative Maintenance Works!

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



### MG310 Compact Digital Insulation Tester

Measurements up to 1000V with Insulation Resistance to 5.5GΩ

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



### 380363 Digital Insulation Tester

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

- 250V, 500V and 1000V test voltages
- Large LCD display with analog bargraph
- Low Resistance function for testing connections
- Automatic discharge
- 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



### 380395/380396 Digital High Voltage Insulation Tester

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

- Test Voltages of 500V, 1000V, 2500V, and 5000V
- Large 6000 count display with bargraph and backlight
- Polarization Index (PI) measurement
- Dielectric Absorption Ratio (DAR) measurement
- EnerSave™ limits test duration to 10 seconds to save energy
- Auto-discharge and voltage output warning function
- CAT III-300V category rating
- Complete with built-in heavy duty carrying case with cover, test leads, alligator clips, and 8 x C batteries



### MG500 Digital High Voltage Insulation Tester

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

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

SPECIFICATIONS	MG310 <a href="#">N</a>	380363 <a href="#">N</a>	■ 380395 <a href="#">N</a>   ▲ 380396 <a href="#">N</a>	MG500 <a href="#">N</a>
Insulation Resistance (max resolution)	0 to 99.9MΩ (0.01Ω), 100M to 5.5GΩ (1MΩ)	4MΩ, 40MΩ, 400MΩ, 4000MΩ, 10GΩ (1kΩ)	6MΩ, 60MΩ, 600MΩ, 6GΩ, 60GΩ (1kΩ)	800kΩ to 500GΩ (1kΩ) Autoranging
Basic Accuracy	±5% rdg	±3%	±2.5%	±5%
Insulation Test Voltages	250V, 500V, 1000V	250V, 500V, 1000V	500V, 1000V, 2500V, 5000V	500V to 10kV (adjustable in 500V steps)
AC Voltage Test	600V	999VAC	600VAC	—
Low Resistance Test	0 to 200Ω	0 to 40Ω	0 to 600Ω	—
CE, FCC	CE	CE	CE	CE
Dimensions/Weight	6 x 4 x 2.8" (150 x 100 x 71mm)/ 1.5lbs (0.7kg)	9.3x4.6x2.1" (235x116x54mm)/ 1.15lbs (520g)	7.8x5.8x3.4" (198x148x86mm)/ 3.2lbs (1438g)	13x10.2x6.3" (330x260x160mm)/ 7.9lbs (3.6kg)
Warranty	1 year	1 year	1 year	1 year

CALIBRATION TRACEABLE TO NIST

**382100/PQ3470 3-Phase Power Quality Analyzer/Dataloggers**Model 382100 includes  
1200A Clamp Probes

CE Patent Pending

**Choice of Numerical or Graphical display with Harmonics model**

- Large, dot-matrix, sun readable, numerical, backlit LCD
- Captured measurements can be imported directly into Excel via the SD memory card
- Adjustable Current Transformer CT (1 to 600) and Potential Transformer PT (1 to 1000) ratio for high power distribution systems
- Log up to 30,000 reading on a removable SD memory card in Microsoft Excel® format
- Wide sampling rate range (2 seconds to 2 hours)
- Built-in Clock and Calendar and easy-to-use on-screen menu
- Banana style input jacks and easy-to-hold rugged over molded housing
- **Model 382100 Kit** – includes three 1200A Clamp probes;
- **Model PQ3470** – clamp probes sold separately
- Complete with 4 voltage leads with alligator clips, 8 AA batteries, SD memory card, Universal AC adaptor (100 to 240V), and durable hard carrying case; 1 year warranty

**Model PQ3470 Additional Features**

- Optional 200A, 1200A Current Clamps or 3000A Flexible Current Probes
- On-screen Harmonics display (1 to 50th order)
- Simultaneous display of Harmonics and Waveform
- Simultaneous display of Voltage and Current waveforms
- Display of Waveform with peak values
- Analysis of Total Harmonic Distortion (THD)
- Graphic Phase diagram with 3-Phase system parameters
- 3-phase Voltage or Current Unbalanced Ratio (VUR, AUR) and unbalanced factor
- Capture Transient events (including dip, swell, outage) with programmable threshold (%)

**Kits Available**

Model PQ3470 with Harmonics; Clamp Probes not included unless ordered as a Kit.

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

SPECIFICATIONS	RANGE	BASIC ACCURACY
AC Voltage (True RMS)	600.0V	±(0.5%rdg)
AC Current	Model 382100: 1200A Model PQ3470: 6000A (dependent on Clamp Probe range used)	±(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	0.0 to 1.00	±0.04
Frequency Range	45Hz to 65Hz	±0.1Hz
Phase	-180° to +180.0°	±1°
Harmonics (PQ3470)	1 to 50th	±2% (1 to 20); ±4% (21 to 31)
Crest Factor (PQ3470)	1.00 to 99.99	±(5%)
Current Clamp input	200mV, 300mV, 500mV; 1V, 2V, 3V; user-adjustable	±(0.5%rdg)
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	30,000 data (2GB SD Card)	
Peak AC Voltage/Current Accuracy		±(5%) PQ3470 only
CE/CAT rating	CE/CAT III-600V	
Dimensions/ Weight	8.86 x 4.92 x 2.52" (225 x 125 x 64mm)/ 2.2lbs (1010g)	



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



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



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

**CALIBRATION** **NIST**

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N Indicates products that are available with optional calibration traceable to **NIST**. See page 160 for a complete listing.**PQ3350-1/PQ3350-3 3-Phase Power Quality & Harmonics Analyzers**

CE



Includes (3) flexible current clamps, (4) voltage leads with alligator clips and retractable plunger clips, 8 AA batteries, universal AC adaptor, software, USB interface cable, and case; 1 year warranty.

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

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

SPECIFICATIONS	RANGES	BASIC ACCURACY
AC Voltage (True RMS)	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= sqrt(VA²-W²)
Power Factor	0.0 to +1.00	±1.5%rdg
Frequency	45-65Hz	0.1Hz
Phase	-180.0° ~ 0° ~ +180.0°	±1°
Harmonics/ Crest Factor	1 to 99/ 1.00 to 99.99	±2% / ±5%
Active Power Energy (kWh)	0mWh to 999,999kWh	
Reactive Power Energy (kVARh)	0.0kVARh to 1000MW	
Datalogging	52428 records (1P2W/17476 records (3P4W)	
Dimensions/ Weight	Meter: 10.1 x 6.1 x 2.3" (257 x 155 x 57mm)/ 2.5 lbs (1160g) Clamp: 2.2" (55mm), 2.5" x 1.0" (64x24mm) busbar/ 1.3 lbs (600g)	

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

**ORDERING**

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

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

CE

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

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

SPECIFICATIONS	RANGES
Jaw size/Cable size	2.2" (55mm); 1000MCM
True Power (max res.)	750kW (10W)
Basic Accuracy (ACA)	±3%rdg
Apparent Power/ Reactive Power	750kVA (10kVA)/ 750kVAR (10VAR)
Power Factor	Yes
Phase Angle (°)	-180° to 180° (1°)
Active Power Energy	9999kWh (0.001kWh)
AC/DC Current (True RMS)	1000A AC (100mA)
AC/DC Voltage (True RMS)	750V AC (0.1V)
Frequency (max res.)	50Hz to 200Hz (1Hz)
Dimensions/Weight	11.5x3.75x1.5" (292x95x38mm)/ 18.4oz (522g)

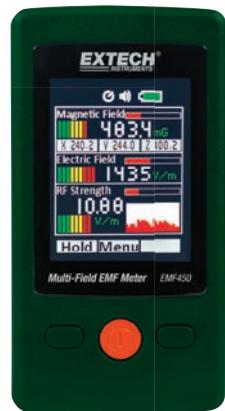
**ORDERING**

PQ2071	True RMS 1000A AC 1-/3-Phase Power Clamp Meter
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For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com)

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## EMF450 Multi-Field EMF Meter



NEW



Includes 3 AAA batteries and USB power supply cable; 1 year warranty

CE

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

- Multi-Field measurements: Magnetic Field, Electric Field, Radio Frequency Strength
- Magnetic Field Triple Axis Sensor (X, Y, Z)
- 2.4" (240 x 320 pixels) color TFT display with adjustable screen brightness
- Store up to 20 RF historical records
- Data Hold and Auto Power Off with disable feature
- Five languages: English, Traditional/Simplified Chinese, Japanese, Spanish

## SPECIFICATIONS

## RANGE

Magnetic Fields (50/60Hz)	20/200/2000mG 2/20/200µT	0.02/0.1/1mG 0.02/0.1/1µT	±(15%+100 digit) ±(7% + 50dgt)
Electric Fields (50/60Hz)	50V/m to 2000V/m		
RF Strength (50MHz to 3.5GHz)	0.02uW/m <sup>2</sup> to 554.6mW/m <sup>2</sup> 0.02uW/cm <sup>2</sup> to 55.4uW/cm <sup>2</sup> 36.1mV/m to 14.46V/m 0.02mA/m to 38.35mA/m	0.02µW/m <sup>2</sup> 0.002µW/cm <sup>2</sup> 0.2mV/m 0.2µA/m	
Dimensions/ Weight	4.5 x 2.4 x 0.8" (115 x 60 x 21mm)	4.2oz (120g)	±2dB at 2.45GHz

## ORDERING

EMF450 Multi-Field EMF Meter

## 480846 8GHz RF EMF Strength Meter



CE

Includes 9V battery and carrying case; 1 year warranty

## High frequency radiation measurement from 10MHz to 8GHz

- For electromagnetic field strength measurement including mobile phone base station antenna radiation, RF power measurement for transmitters, WAN detection/installation, wireless communication applications and microwave leakage
- Non-directional (isotropic) measurement with 3-channel (triaxial) measurement probe
- Max Hold and Average functions; Audible alarm with user selectable threshold

## SPECIFICATIONS

## RANGE

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 <sup>2</sup> to 30.93 W/m <sup>2</sup> ; 0µW/cm <sup>2</sup> to 3.093 mW/cm <sup>2</sup>
Memory	Manual save/recall of 99 sets
Dimensions/Weight	2.6x2.4x9.7" (67x60x247mm)/ 8.8oz (250g)

## ORDERING

480846 RF EMF Strength Meter (8.0GHz)

## 480836 3.5GHz RF EMF Strength Meter



CE

Includes 9V battery and carrying case; 1 year warranty

## 480836 3.5GHz RF EMF Strength Meter

## Radiation measurement in the 50MHz to 3.5GHz frequency range

- For electromagnetic field strength measurement of mobile phones, cell phone and base stations, microwave leakage
- Non-directional (isotropic) measurement with 3-channel (triaxial) measurement probe
- User selectable alarm threshold; Max Hold and Average functions

## SPECIFICATIONS

## RANGE

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 <sup>2</sup> to 30.93mW/m <sup>2</sup> ; 0µW/cm <sup>2</sup> to 3.093mW/cm <sup>2</sup>
Memory	Manual save/recall of 99 sets
Dimensions/Weight	2.4x2.4x9.3" (60x60x237mm)/ 7.1oz (200g)

## ORDERING

480836 RF EMF Strength Meter (3.5GHz)

CALIBRATION  
TRACEABLE TO  
NIST

## 480823 EMF/ELF Meter



CE

Includes 9V battery; 1 year warranty

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

- ELF frequency bandwidth of 30 to 300Hz  
Single axis - sampling 2.5 times per second
- Large 1/2" LCD (1999 count) display of Electromagnetic Field (EMF) level in milliGauss or microTesla
- Accurate measurements to 4% over a measuring range of 0.1 to 199.9mGauss (0.01 to 19.99µTesla)
- Dims: 5.2x2.8x1" (132x71x25mm); Weight: 6oz (170g)

## ORDERING

480823	Electromagnetic Field Meter
409992	Soft pouch carrying case

## MF100/SDL900 AC/DC Magnetic Field Meters



CE

NEW

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

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

## SDL900 Additional Features

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

## SPECIFICATIONS

## RANGE

DC milli Tesla	300.00mT, 3000.0mT	0.01mT, 0.1mT	±(5% + 10d)
DC Gauss	3000.0G, 30,000G	0.1G, 1G	±(5% + 10d)
AC milli Tesla	150.00mT, 1500.0mT	0.01mT, 0.1mT	±(5% + 20d)
AC Gauss	1500.0G, 15,000G	0.1G, 1G	±(5% + 20d)
AC Bandwidth	50Hz/60Hz		
Sampling Rate (SDL900)	1 to 3600 seconds (adjustable)		
Dimensions/ Weight	ML100: 7.8x2.7x1.2" (195x68x30mm)/ 9.5oz (270g) SDL900: 7.1x2.9x1.9" (182x73x48mm)/ 10.7oz (303g)		

## ORDERING

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

## EMF300 Microwave Leakage Detector



CE

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

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

## ORDERING

EMF300	Microwave Leakage Detector
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## Tough, Reliable and Accurate

Extech infrared thermometers provide non-contact, point-and-shoot temperature measurements ensuring safety and accuracy on the job.



### IR201A 518°F (270°C), 6:1, Pocket Laser IR Thermometer

Handy troubleshooting thermometer with laser pointer

- Measures non-contact surface temperature up to 518°F (270°C)
- Adjustable high alarm
- Economical small pocket size design for convenience
- Built-in laser pointer identifies target area
- Data Hold and Min/Max Hold
- Lock mode for continuous scanning
- Auto power off
- Adjustable emissivity for better accuracy on different surfaces
- Complete with two AAA batteries and pouch case



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

Compact thermometer with MIN/MAX readings

- MAX/MIN features display highest and lowest values
- Built-in laser pointer identifies target area
- 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



### IR260 752°F (400°C), 12:1, Compact Laser IR Thermometer

Compact thermometer with programmable high/low alarm set limits

- Programmable high/low alarm alerts user visually and audibly when temperature exceeds set limits (audible alarm can be muted)
- Adjustable emissivity for better accuracy on variety of surfaces
- Bright white backlighting
- MAX/MIN features display highest and lowest values
- Built-in laser pointer identifies target area
- Automatic Data Hold when trigger released
- Overrange and low battery indicators
- Auto power off
- Complete with 9V battery and pouch case



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

Compact thermometer with high accuracy

- Adjustable high/low visual and audible alarm
- Adjustable emissivity for better accuracy on different surfaces
- MAX/MIN features display highest and lowest values
- Built-in laser pointer identifies target area
- Backlighting
- Over-range indicator
- Automatic Data Hold when trigger released
- Auto power off
- Complete with 9V battery and pouch case



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

Displays Air Temperature and IR or Type K

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

For a variety of Type K Thermocouple temperature probes see pages 41 and 70

SPECIFICATIONS	IR201A	IR400	IR260	42510A	IR267	SPECIFICATIONS
IR Temperature (Non-contact)	-4 to 518°F (-20 to 270°C)	-4 to 630°F (-20 to 332°C)	-4 to 752°F (-20 to 400°C)	-58 to 1200°F (-50 to 650°C)	IR: -58 to 1112°F (-50 to 600°C); Type K: -58 to 2498°F (-50 to 1370°C)	IR Temperature (Non-contact)
Basic Accuracy	±(2.5%rdg±3.6°F/2°C)	±2% of reading +4°F/2°C	±2% of reading or ±3.6°F/2°C	±(1% of reading + 2°F/1°C)	IR: ±2%rdg or 4°F/2°C; Type K: ±1.5%rdg + 2°F/1°C	Basic Accuracy
Max. Resolution	0.1°F/°C	0.1°F/°C	0.1°F/°C	0.1°F/°C	0.1°F/°C	Max. Resolution
Emissivity	0.10 to 1.0 adjustable	0.95 fixed	0.1 to 1.00 Adjustable	0.1 to 1.00 Adjustable	0.1 to 1.00 Adjustable	Emissivity
Field of view (Distance to Target)	6:1	8:1	12:1	12:1	12:1	Field of view (Distance to Target)
CE approved	Yes	Yes	Yes	Yes	Yes	CE approved
Dimensions	3.7x2x1" (94x51x25mm)	3.2x1.6x6.3" (82x42x160mm)	3.8x1.8x6.8" (97x46x172mm)	3.2x1.6x6.3" (82x42x160mm)	4.7 x 1.7 x 6.0" (120x42x153mm)	Dimensions
Weight	2.7oz (76g)	6.3oz (180g)	8oz (226g)	6.4oz (180g)	4.9oz (138g)	Weight
Warranty	1 year	1 year	3 years	3 years	3 years	Warranty

CALIBRATION TRACEABLE TO NIST



## Fast responding, wide temperature ranges

Extech's Dual-laser IR temp gun accurately detects temperatures at far distances, and the 100-millisecond response time enables faster hot spot scanning.



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



**42509** Dual Laser, 950°F (510°C), 12:1, IR Thermometer with Color Alert

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

- Great for processes that require temperature control and monitoring
- Fast, accurate measurements at 12" where the two lasers converge with 12:1 field of view
- Blue backlit dual LCD display changes to Red when reading exceeds High or Low set points
- Fast 150 millisecond instantaneous response for capturing spikes in temperature
- Max mode captures and holds rapidly changing temperatures
- Lock function for continuous readings
- White backlit dual LCD display
- Adjustable emissivity increases measurement accuracy for different surfaces
- Double molded housing
- Adjustable High/Low set points with audible alarm alerts user when temperature exceeds the programmed set points
- Complete with carrying case and 9V battery



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

Fast response and accurate measurements

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



**42540** 1400°F (760°C), 16:1, with Alarm, IR Thermometer

16:1 distance to target ratio, rugged thermometer

- High Temperature range from -58° to 1400°F (-50 to 760°C)
- 16 to 1 distance to target ratio
- Adjustable high/low alarm alerts user visually and audibly when temperature exceeds programmed limits
- Adjustable emissivity for better accuracy on different surfaces
- MIN/MAX/AVG/DIF features display highest, lowest, average, and MAX minus MIN values
- Large backlit display
- Built-in laser pointer
- Automatic Data Hold
- Auto power off
- Complete with 9V battery and hard carrying case



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

50:1 distance to target ratio

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



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

Fast response (100mS) with highest accuracy plus Type K input and USB interface

- High 50:1 distance to target ratio measures smaller surface areas at greater distances
- Dual Laser Targeting indicates ideal measuring distance when two laser points converge to 1" target spot
- Fast 0.10 second response time
- Tripod mounting feature and 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
- Complete with general purpose Type K bead wire probe, USB cable and PC software, tripod, 9V battery and case

SPECIFICATIONS	42509	42512	42540	42545	42570	SPECIFICATIONS
Range	-4 to 950°F (-20 to 510°C)	-58 to 1832°F (-50 to 1000°C)	-58 to 1400°F (-50 to 760°C)	-58 to 1832°F (-50 to 1000°C)	IR: -58 to 3992°F (-50 to 2200°C) Type K: -58 to 2498°F (-50 to 1370°C)	Range
Basic Accuracy	±(1% of rdg + 2°F/1°C)	±(1% of rdg + 2°F/1°C)	±2%rdg or 4°F (2°C) whichever is greater <932°F (500°C); ±(2.5%rdg + 5°F) > 932°F (500°C)	2%rdg + 4°F/2°C < 932°F (500°C); 3% + 9°F/4°C > 932°F (500°C)	±(1%rdg + 2°F/1°C)	Basic Accuracy
Repeatability	±0.5% or 1.8°F/1°C	±0.5% or 1.8°F/1°C	±0.5% or ±1.8°F/1°C	±0.5% or ±1.8°F/1°C	±0.5% or ±1.8°F/1°C	Repeatability
Max. Resolution	0.1°F/C	0.1°F/C	0.1°F/C	0.1°F/C	0.1°F/C	Max. Resolution
Emissivity	0.10 to 1.00 Adjustable	0.10 to 1.00 Adjustable	0.1 to 1.00 Adjustable	0.1 to 1.00 Adjustable	0.1 to 1.00 Adjustable	Emissivity
Field of View (Distance to Target)	12:1	30:1	16:1	50:1	50:1	Field of View (Distance to Target)
CE approved	Yes	Yes	Yes	Yes	Yes	CE approved
Dimensions/ Weight	5.7x4x1.6" (146x104x43mm)/ 5.7oz (163g)	5.7x4x1.6" (146x104x43mm)/ 5.7oz (163g)	3.9x2.2x9" (100x56x230mm)/ 10.2oz (290g)	3.9x2.2x9" (100x56x230mm)/ 10.2oz (290g)	8x6.1x2" (204x155x52mm)/ 11.3oz (320g)	Dimensions/ Weight
Warranty	3 years	3 years	3 years	3 years	3 years	Warranty

**VIR50** Digital Laser Video IR Thermometer

Upload images and videos to a PC or laptop for further analysis or use for report documentation.

Includes microSD card, general purpose Type K bead wire probe, USB cable, rechargeable 3.7V battery, and carrying case; 3 year warranty; (See p. 41 and 70 for additional optional Type K Thermocouple probes)



**2.2" Color TFT LCD and Built-in Camera with a microSD card for capturing images (JPEG) and video for viewing on your PC**

- Dual laser indicates ideal measuring distance where the two laser points converge to a 1" target spot
- Fast 150 millisecond response time
- Color LED bargraph for viewing trends
- Type K Thermocouple input
- Air Temperature and Relative Humidity measurement
- 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
- MAX/MIN/AVG/DIF functions
- Trigger lock function for continuous readings
- USB interface
- Auto power off

**SPECIFICATIONS**

Laser Convergence Distance	50" (127cm)
IR Temperature Range	-58 to 3992°F (-50 to 2200°C)
Repeatability	±0.5% or 1.8°F/1°C
Basic Accuracy	±(1% of rdg + 2°F/1°C)
Max resolution	0.1°F/°C
Emissivity	0.10 to 1.00 Adjustable
Field of View (Distance to Target)	50:1
Temperature Range	Type K: -58 to 2498°F (-50 to 1370°C); Air: 32 to 122°F (0 to 50°C)
Relative Humidity	0 to 100%RH
Dimensions/ Weight	7.4x6.0x2.2" (189x152x57mm)/ 17.4oz (494g)

**ORDERING**

VIR50	N	Dual Laser Video IR Thermometer
BATT-37V		Rechargeable 3.7V battery

**IRT600** Dual Laser IR Thermal Condensation Scanner

Large, bright LED indicator changes color to show the mildew potential for the current environmental conditions: Green LED indicates a very low potential; Yellow LED indicates a moderate potential; Red LED indicates a high probability for mildew formation



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

- Great for processes that require surface temperature control and monitoring
- Green LED changes to Yellow and then to Red as the surface temperature reading gets closer to and then equals the calculated Dew Point reading
- Dual lasers indicate ideal measuring distance where the two lasers converge to a 1" target spot
- 12:1 Distance to Target ratio
- 150 millisecond IR Temperature response time
- Switchable backlight and laser
- Max hold
- Complete with case and 9V battery; 1 year warranty

**SPECIFICATIONS**

IR Temperature Range	-22 to 662°F (-30 to 350°C)
Basic Accuracy	±(1% of rdg + 2.7°F/1.5°C)
Air Temperature	32 to 122°F (0 to 50°C)
Max resolution	0.1°F/°C
Distance to Target	12:1
Emissivity	0.95 fixed
Humidity	20 to 80%RH
RH accuracy	±3.5%RH
Dew Point	-22 to 212°F (-30 to 100°C)
Dimensions/ Weight	6.6x3.2x2.3" (168x82x58mm)/ 5.7oz (163g)

**ORDERING**

IRT600	N	Dual Laser IR Thermal Condensation Scanner
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**IR300UV** IR Thermometer with UV Leak Detector

NEW

**4-in-1 Thermometer features a non-contact IR Thermometer, UV Leak Detector, bright Flashlight, and a unique coaxial Distance-to-Spot laser**

- Non-contact IR Thermometer measures temperature up to 932°F (500°C)
- UV Leak Detector with 5 UV/Blue LEDs (460-470nm)
- Coaxial laser displays a circular representation of the target area
- Programmable High/Low Temperature set points with audible and visual alarm
- Adjustable emissivity for better accuracy on different surfaces
- MAX/MIN/AVG/DIF displays highest, lowest, average, and Max minus MIN values
- Bright flashlight with 5 white LEDs
- Automatic data hold when trigger is released
- Auto power off
- Complete with three AA batteries

**SPECIFICATIONS**

IR Temperature	-22 to 932°F (-30 to 500°C)
Resolution	0.2°F, 0.1°C
Accuracy	±1.5% rdg or ±3°F/±1.5°C whichever is greater
Distance to Target ratio	12:1
Emissivity	0.10 to 1.00 (adjustable)
Repeatability	±0.8% rdg or ±2°F/±1°C whichever is greater
Dimensions/ Weight	4.1 x 2.1 x 7.3" (104 x 54 x 185mm)/ 10.6oz (300g)

**ORDERING**

IR300UV	IR Thermometer with Leak Detector
---------	-----------------------------------



Unique Distance-to-Spot coaxial guidance laser



Distance-to-Spot coaxial guidance laser and UV detection of refrigerant leak





## More Capabilities for Better Diagnostics

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

### ACCESSORIES

TP200	Type K Clamp Probe (-4 to 200°F)
TP870	Type K Bead wire Probe (-40 to 482°F)
TP882	Type K Penetration Probe (-50 to 1000°F)
871515	Type K, 4" (100mm) General Probe (-32 to 1292°F/-200 to 700°C)
881605	Type K, 8" (203mm) General Probe (-328 to 1292°F/-200 to 700°C)
881603	Type K, 6" (150mm) Immersion Probe (-58 to 1292°F/-50 to 700°C)
881602	Type K, 6" (150mm) Surface Probe (-58 to 1472°F/-50 to 800°C)
872502	Type J Bead Wire Probe (-328 to 392°F)
801515	Type J, 4" (100mm) General Probe (-328 to 842°F)



See desktop or Pocket style Temperature Indicators on p. 74-75

**CALIBRATION**  
TRACEABLE TO  
**NIST**



### TM100 Type J/K Single Input Thermometer

Side-mounted controls allow for convenient one-handed operation

- Large backlit LCD display
- Wide temperature range with 0.1°/1° resolution
- Readout in °F, °C, or K (Kelvin)
- Data Hold function freezes reading on display
- Max/Min/Avg readings with relative time stamp
- Offset key used for zero function to make relative measurements
- Auto Power off with disable feature
- Complete with general purpose Type K bead wire temperature probe and 9V battery.
- (Optional temperature probes available on left accessories chart and page 41)



### EA11A EasyView® Type K Single Input Thermometer

Large dual LCD display with 0.3% accuracy and memory

- Simultaneously displays current temperature and Max/Min/Avg or stored memory location
- Selectable units of °F and °C
- Manually store/recall up to 150 readings
- Data Hold and Auto power off
- Records MAX /MIN/AVG readings for later recall
- Complete with built-in stand, protective holster, general purpose Type K bead wire probe, and 6 AAA batteries. (Optional temperature probes available on pages 41 and 70)



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

Big backlit display with relative and elapsed time indication

- Displays [T1 and T2] or [T1-T2 and T1] or [T1-T2 and T2]
- Selectable units of °C/F or Kelvin
- Timer function displays elapsed time plus the time when MAX/MIN readings are taken
- OFFSET key used for zero function to make relative measurements
- Data hold and Auto power off
- Complete with built-in stand, protective holster, two general purpose Type K bead wire temperature probes, and 6 AAA batteries. (Optional temperature probes available on pages 41 and 70)



### EA15 EasyView® 7 Thermocouple Datalogger

Internal memory stores up to 8800 data sets

- Seven Thermocouple type selections: K, J, T, E, R, S, N
- Large backlit display
- Stores Time, T1 and T2
- Manual push-button datalogging or automatic with programmable sample rate of 3 to 355 seconds per reading
- Manual record/recall of data
- Data Hold and Auto power off
- MAX/MIN/AVG or MAX/MIN with elapsed time
- Complete with two general purpose Type K bead wire temperature probes, Windows® compatible software, USB cable, protective holster, case, and 6 AAA batteries. (Optional temperature probes available on pages 41 and 70)

SPECIFICATIONS	TM100 <small>N</small>	TM300 <small>N</small>	EA11A <small>N</small>	EA10 <small>N</small>	EA15 <small>N</small>	SPECIFICATIONS
Single or Dual Input	Single	Dual	Single	Dual	Dual	Single or Dual Input
Type K °F (°C)	-328 to 2501°F (-200 to 1372°C)	-328 to 2501°F (-200 to 1372°C)	-58 to 1999°F (-50 to 1300°C)	-200 to 1999°F (-200 to 1360°C)	-200 to 1994°F (-150 to 1090°C)	Type K °F (°C)
Type J °F (°C)	-346 to 2012°F (-210 to 1100°C)	-346 to 2012°F (-210 to 1100°C)	—	—	-200 to 1999.9°F (-150 to 1370°C)	Type J °F (°C)
Basic Accuracy	±0.15% rdg	±0.15% rdg	±0.3% rdg	±0.3% rdg	±0.05% rdg	Basic Accuracy
Resolution	0.1°/1°	0.1°/1°	0.1°/1°	0.1°/1°	0.1°	Resolution
Datalogging	—	—	—	—	8800 readings	Datalogging
CE approved	Yes	Yes	Yes	Yes	Yes	CE approved
Dimensions	8.7x2.5x1.1" (220x 63 x 28mm)	8.7x2.5x1.1" (220x 63 x 28mm)	5.9x2.8x1.3" (150x72x35mm)	6x2.8x1.5" (152x72x37mm)	5.91x2.83x1.38" (150x72x35mm)	Dimensions
Weight	7oz (200g)	7oz (200g)	8.3oz (235g)	8.3oz (235g)	8.3oz (235g)	Weight
Warranty	1 year	1 year	1 year	1 year	1 year	Warranty



## Track Temperature Trouble with Extech

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

### ACCESSORIES (See p. 41 and 70 for details and additional temperature probes)

TP200	Type K Clamp Probe (-4 to 200°F)
TP870	Type K Bead wire Probe (-40 to 482°F)
TP882	Type K Penetration Probe (-50 to 1000°F)
872502	Type J Bead Wire Probe (-328 to 392°F)
801515	Type J, 4" (100mm) General Purpose Temperature Probe (-328 to 842°F)
850185	RTD Temperature Probe for SDL200 (86 to 482°F)
409997	Soft Vinyl Carrying Case (for 421502)
UA100-240	100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)



See desktop or Pocket style  
Temperature Indicators on p. 74-75



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

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

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



### SD200 3-Channel Temperature Datalogger

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

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



### SDL200 4-Channel Datalogging Thermometer

4-Channel datalogging with 6 Thermocouple types (J, K, E, T, R,S) and 2-Channel datalogging with Pt100Ω probes

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



### TM500 12-Channel Datalogging Thermometer

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

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

SPECIFICATIONS	421502 N	SD200 N	SDL200 N	TM500 N
Number of Inputs	Dual	Triple	Quad	Twelve
Type K °F (°C)	-328 to 2498°F (-200 to 1370°C)	-58 to 2372°F (-100 to 1300°C)	-148 to 2372°F (-100 to 1300°C)	-148 to 2372°F (-100 to 1300°C)
Type J °F (°C)	-328 to 1922°F (-200 to 1050°C)	—	-148 to 2102°F (-100 to 1200°C)	-148 to 2102°F (-100 to 1150°C)
Basic Accuracy	±0.05% rdg	±(0.5% + 1°F/ 0.5°C)	±0.4% rdg	±0.4% rdg (+1.8°F/+1°C) Types J,K,E,T ±0.5% rdg (+2°F/+1°C) Types R,S
Max. Resolution	0.2°F/0.1°C	0.1°	0.1°/1°	0.1°/1°
Datalogging	—	4GB SD memory card included for datalogging	4GB SD memory card included for datalogging	4GB SD memory card included for datalogging
CE approved	Yes	Yes	Yes	Yes
Dimensions/Weight	7.63x3.6x2.1" (192x91x53mm)/13oz (365g)	5.2x3.1x1.3" (132x80x32mm)/10oz (285g)	7.2x2.9x1.9" (182X73X48mm)/ 17.6oz (500g)	8.9x4.9x2.5" (225x125x64mm)/ 2.1lbs (944g)
Warranty	1 year	1 year	3 years	1 year

**TM26 Waterproof Food Thermometer — NSF Certified**

NEW



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

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

- NSF certified for measuring food
- 4.1" (105mm) Stainless steel penetration probe with 5ft (1.5m) cable
- Measures Temperature from -40°F to 392°F (-40°C to 200°C)
- Audible and visual alarm alerts when temperature level is higher or lower than the user programmed High/Low set points
- LCD displays Temperature reading, alarm indicator and high or low alarm icons
- $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$  basic accuracy with 0.1° max resolution
- Displays Min/Max reading with reset function
- Data Hold freezes current reading on display
- Low battery indication
- Unit has magnetic back and can be mounted on a metal surface, used on a desktop with included foot stand, or wall mounted
- Waterproof housing and sensor designed to meet IP65
- Dimensions: 3.4Lx2.2Hx1.2"D (86Lx57Hx30D mm)  
Weight: 3.2oz (90g)
- Complete with magnetic back, foot stand, temperature sensor, and a CR2032 3V button battery; 1 year warranty

**ORDERING**

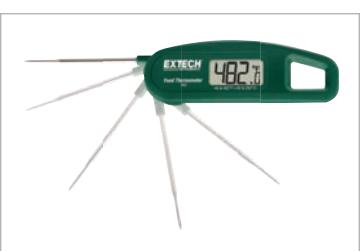
TM26

Waterproof Food Thermometer

**TM55 Waterproof Pocket Fold-Up Food Thermometer — NSF Certified**

CE

NSF



Adjustable folding probe (0° to 180°) angle

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

- Measures from -40 to 482°F (-40 to 250°C) with 2.4" (61mm) stainless steel probe
- Fast response time at < 5 seconds in moving liquid
- Large LCD display with 0.1° resolution
- Basic accuracy:  $\pm 1^{\circ}\text{F}/0.5^{\circ}\text{C}$
- Auto power off (with disable) after 1 hour or when probe is placed in stored position
- Probe can be positioned from 0° (storage) to 180° angle
- Ultrasonically welded housing (waterproof IP65 rated) with anti-microbial additive
- Built-in magnetized strip attaches to refrigerator
- Dishwasher safe (top rack)
- Dimensions: 4.6x1.5x0.8" (116 x 38 x 20mm); Weight: 1.5oz (41.2g)
- Complete with CR2032 battery; 1 year warranty

**ORDERING**

TM55

Waterproof Pocket Fold-Up Food Thermometer



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

CALIBRATION  
TRACEABLE TO  
NIST

**N** Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.

**401014 Indoor/Outdoor Thermometer**

CE

Built-in memory stores Minimum and Maximum Temperature readings

- Large LCD displays 1" (25mm) digits for indoor/outdoor temperature
- Indoor Range: 14 to 140°F (-10 to 60°C)  
Outdoor Range: -58 to 158°F (-50 to 70°C)  
Basic accuracy:  $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$   
Resolution: 0.1°F/°C
- Dimensions: 4.4x4x0.9" (112x102x22mm); Weight: 6.5oz (186g)
- 1 year warranty
- Complete with waterproof temperature sensor with 9.6ft (3m) thin cable, stand, AAA battery, and wall mounting bracket

**ORDERING**

401014

Big Digit Indoor/Outdoor Thermometer

**39240 Waterproof Thermometer**

CE

Pocket-size with MAX/MIN recording

- 2.75" (70mm) Stainless steel stem
- Data Hold and Auto power off
- Range: -40 to 392°F (-40 to 200°C)  
Basic accuracy:  $\pm 2^{\circ}\text{F}/1^{\circ}\text{C}$   
Resolution: 0.1°/1°
- Dimensions: 5.9x0.8x0.7" (150x20x18mm); Weight: 0.7oz (20g)
- 1 year warranty
- Complete with one LR44 button battery and protective cover

**ORDERING**

39240

Waterproof Thermometer

**392050 Penetration Dial Thermometer****TM20/TM25 Waterproof Temperature Indicators**

CE

Choice of model with stainless steel short probe or long penetration probe

- TM20: 0.78" (20mm) probe, 9.6ft (2.9m) cable; -40 to 158°F (-40 to 70°C)
- TM25: 4.1" (105mm) penetration probe, 5ft (1.5m) cable; -40 to 392°F (-40 to 200°C)
- Audible/visual alarm with High/Low set points
- $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$  basic accuracy; 0.1° resolution
- Min/Max and Data Hold
- Magnetic back; Waterproof (IP65) housing
- Dimensions: 3.4x2.2x1.2" (86x57x30mm)  
Weight: 3.2oz (90g)
- Complete with magnetic back, foot stand, probe, and one CR2032 3V button battery; 1 year warranty

**ORDERING**

TM20

Waterproof Temperature Indicator

TM25

Waterproof Temperature Indicator with Penetration Probe

**PD20 Thermo-Pedometer****3D Sensor design plus Temperature**

- 3D motion sensor design allows for the meter to be fully functional regardless of its orientation
- Uses an intelligent algorithm to filter out non-walking movements
- Functions:
  - Number of Steps: 0 to 99,999 (adjustable step length)
  - Temperature: 14 to 122°F (-10 to 50°C)
  - Calorie consumption: 0 to 99,999kcal
  - Fat burned: 0 to 35.9oz (0 to 999.9g)
  - Distance covered: 0 to 624.99mi (0 to 999.99 km)
  - Time: 12/24 hour format
  - Average speed: 0 to 6.25mph (0 to 10km/h)
- Continuous Step mode records the number of steps users walked continuously through the day (records up to 7 days)
- Total Step mode displays the total accumulated steps user walked after 7-day storage
- After midnight, readings are automatically stored
- Auto power saving mode when meter detects no movement for 10 minutes (will then only display time)
- Includes case with built-in clip to wear on your clothes and designed with lanyard insert hole (lanyard not included) to wear around your neck
- Complete with CR2032 battery and nylon case with window opening for display viewing and belt-clip; 1 year warranty

**ORDERING**

PD20

Thermo-Pedometer

## THD5 USB Single Use Temperature Datalogger



NEW

CE



Includes 10 dataloggers



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

## TH10 Temperature USB Datalogger



CE



USB plugs into a PC for data analysis with software



42299 — Replacement long lasting Lithium batteries

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

- Selectable data sampling rate: 2 seconds to 24 hours
- User-programmable alarm thresholds
- Measures from -40 to 158°F (-40 to 70°C); Accuracy:  $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$
- 1yr battery life; Dimensions: 5.1x1.1x0.9" (130x30x25mm)/Wt: 1oz (20g)
- Complete with 3.6V Lithium battery, protective USB cap, mounting bracket, and Windows® compatible software for analysis; 1year warranty

## ORDERING

TH10 Temperature USB Datalogger  
42299 3.6V Lithium Battery (pk of 2)

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

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

*NOTE: Each datalogger is good for one-time use*

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Temperature	-22 to 158°F (-30 to 70°C)	0.1°	$\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$
Datalogging interval	30s, 5min, 10min, 30min, 60min, 90min, 120min		
Start/Alarm Delay Time	0, 5min, 30min, 45min, 60min, 90min, 120min		
Alarm Mode	Single Event, Cumulative, Disable		
Languages	English, German, French, Italian, and Spanish		
Memory Storage	8,192 readings		
Dimensions/Weight	3.2 x 1.7 x 0.1 (80 x 43 x 2.5mm)/ 0.4oz (10g)		

## ORDERING

THD5 USB Temperature Datalogger (10 units/pack)



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

## TH10 Temperature USB Datalogger



CE



USB plugs into a PC for data analysis with software



42299 — Replacement long lasting Lithium batteries

## 445702 Hygro-Thermometer Clock



CE

## Combines three displays for Time, Temperature, and Humidity

- Clock display 12/24 hour time
- MAX/MIN with "reset" function
- Simultaneous display of Time, Temperature (14 to 140°F/-10 to 60°C) and Humidity (10 to 85% RH)
- Max resolution: 0.1°, 1%
- Basic Accuracy:  $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$  and  $\pm 6\%$  RH
- Temperature is °C/°F switchable
- Programmable clock alarm
- Dimensions: 4.3x2.8x0.8" (109x71x20mm); Weight: 4oz (113g)
- 1 year warranty
- Complete with stand, wall mounting bracket, and one AAA battery

## ORDERING

445702 Hygro-Thermometer Clock

## 445706 Wall Mount Radio Controlled Clock + Hygro-Thermometer



CE

## Large digital calendar clock is perfect for desk top or wall mount orientation

- Simultaneous display of Time, Date, Temperature (23 to 113°F/-5 to 45°C) and Humidity (20% to 90%RH)
- Max resolution: 1°, 1%
- Basic Accuracy:  $\pm 2^{\circ}\text{F}/1^{\circ}\text{C}$  and  $\pm 5\%$  RH
- Calendar displays day, date and month
- Audible alarm clock with snooze function (recommended use only for desk top mount)
- MIN/MAX function
- Five languages to choose from: English, French, German, Spanish and Italian
- Dimensions: 11.8x8.7x1" (300x221x24mm); Weight: 21.4oz (608g)
- Complete with desktop stand and two AA batteries; 1 year warranty

## ORDERING

445706 Radio controlled Wall Clock/Hygro-Thermometer

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



CE

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

- Receives Time Code from NIST Radio Station WWVB (North American region) to maintain accuracy within 1 second (North America region)
- Signal indicator displays signal strength in 3 levels to indicate successful synchronization
- LCD displays Time, Relative Humidity (20 to 99%RH), Temperature (32 to 122°F/0 to 50°C), Year, Month, Date, and Day
- Max resolution: 0.1°, 1%
- Basic Accuracy:  $\pm 2^{\circ}\text{F}/1^{\circ}\text{C}$  and  $\pm 6\%$  RH
- Time can be displayed as 12 or 24 hour format
- Large 4.3" (109mm) digit clock display can be easily viewed from a distance
- Automatically adjusts for daylight savings time (DST)
- Programmable Alarm Clock with Snooze feature
- Built-in stand for desktop or wall-mount
- Dimensions: 16.8x11.5x1.3" (426x292x32mm); Weight: 21.4oz (608g)
- Complete with built-in stand and three C size batteries; 1 year warranty

## ORDERING

CTH10A Radio Controlled Wall Clock + Hygro-Thermometer

## 445703/445715 Big Digit Hygro-Thermometers



445703



445715 with remote probe

CE

Optional 445715-NISTL includes certificate of Traceability to NIST at 75%. For Certificate of Traceability to NIST at 2 points (33% and 75%), order 445715-NIST (see p. 160 for ordering information)

## 445814/445815 Humidity Alerts



445814



445815 with remote probe

CE

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

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



445713

Ideal for below freezing temperature

**NIST**

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**N** Indicates products that are available with optional calibration traceable to **NIST**. See page 160 for a complete listing.

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

- Large dual LCD simultaneously displays Temperature (14 to 140°F/-10 to 60°C) and Humidity (10 to 99% RH), plus MAX/MIN with reset function with Max resolution of 0.1° and 1%
- Model 445703** is designed with built-in Humidity and Temperature sensor with  $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$  and  $\pm 5\%$  RH basic accuracy
- Model 445715** includes remote probe with 18" (457mm) cable and probe with  $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$  and  $\pm 4\%$  RH basic accuracy; probe clips on side of meter; certificate of calibration traceable to NIST available; Rear calibration adjustment pot
- Dims: 4.3x3.9x0.78" (109x99x20mm); Wt: 6oz (169g); 1 year warranty
- Complete with built-in stand, wall mount bracket, and AAA battery; Model 445715 also includes remote sensor. Optional calibration salt bottles (RH300-CAL)

## ORDERING

445703	Big Digit Hygro-Thermometer
445715	Big Digit Remote Probe Hygro-Thermometer
RH300-CAL	33% & 75% RH Calibration Kit (for 445715)

## RHT3 EzSmart™ Hygro-Thermometer



Make your iOS® & Android™ Smart Devices\* even smarter with this EzSmart Hygro-Thermometer and free app from iTunes® and Google Play™ store

- Measures Humidity and Temperature simultaneously
- Calculates Wet Bulb and Dew Point Temperature
- Continuous graph plots Humidity and Temperature changes over time
- 5 user-settable high/low alarms for both Temperature and Humidity
- 4 records — each contains 100 data points with Humidity, Temperature, Wet Bulb, and Dew Point, plus Time, Date and GPS coordinates
- Post images directly to social media (Facebook® and Twitter™)
- Complete with built-in sensor and protective connector cap with strap; 1yr warranty

\*iOS/Android device not included (see compatible device on [www.extech.com/RHT3](http://www.extech.com/RHT3))

## SPECIFICATIONS

RANGE	RESOLUTION	BASIC ACCURACY
Relative Humidity	0.1%RH	$\pm 5\%$ RH
Temperature	0.1°	$\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$
Wet Bulb (calculated)	0.1°	
Dew Point (calculated)	0.1°	
Dimensions / Weight	0.7 x 0.35 x 2.1" (18 x 9 x 54mm) / 0.25oz (7g)	

## ORDERING

RHT3	EzSmart™ Hygro-Thermometer
------	----------------------------

## RH30/RH35 Humidity Alerts



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

- Measure Temperature/Dew Point & Humidity; basic accuracy of  $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$ ,  $\pm 5\%$  RH
- MAX/MIN with reset function
- Complete with stand and batteries; 1 year warranty

## Model RH30 Additional Features

- Measures Temperature/DP (4 to 122°F/-10 to 50°C) and Humidity (10 to 99% RH)
- Beeper sounds and bright facial LED flashes when humidity level exceeds user preset (50, 60, or 65%RH)
- Dimensions/Weight: 3.7x3.7x0.9" (94x94x23mm) / 4.8oz (136g)

## Model RH35 Additional Features

- Measures Temperature/DP (14 to 140°F/-10 to 60°C) and Humidity (10 to 99% RH)
- Innovative graphical display shows the measured humidity values of the last 24 hours like a radar screen
- Beeper sounds and bright LED flashes when humidity level exceeds 65%RH
- Facial icons indicate comfort zone (between 40 to 60%RH) and uncomfortable zone (too dry < 40%RH or too humid > 60%RH)
- Dimensions/Weight: 3.9x4.3x 2" (98x109x55mm) / 3.1oz (87g)

## ORDERING

RH30	Humidity Alert
RH35	Desktop Radar Hygro-Thermometer Alert

## RHM15 Mini Hygro-Thermometer Monitor



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

- Simultaneous display of Temperature (14 to 140°F) and Humidity (10 to 99% RH)
- Basic Accuracy:  $\pm 1.8^{\circ}\text{F}/1^{\circ}\text{C}$  and  $\pm 5\%$  RH
- MAX/MIN with reset function
- Dims: 2x1.5x0.63" (51x38x16mm); Wt: 0.8oz (24g)
- Complete with stand and LR44 battery; 1 year warranty

## ORDERING

RHM15	Mini Hygro-Thermometer Monitor (%RH and °F only)
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For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com)

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**RHT50 Humidity/Temperature/Pressure Datalogger**

CE



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

**Records up to 10,000 readings of Humidity, Temperature and Pressure**

- USB interface for easy set-up and data download
- Selectable data sampling rate from 1 minute to 18 hours
- User-programmable Min/Max alarm thresholds
- Manual and Programmable start modes
- Status Indication via Red/Yellow LED and Green LED
- Includes 3.6V Lithium battery, mounting bracket, and Windows® compatible analysis software; 1 year warranty

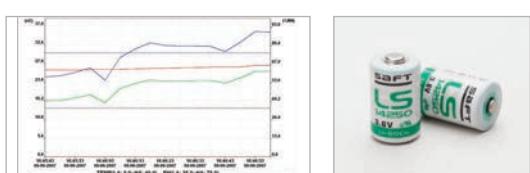
SPECIFICATIONS	RANGE	MAX RESOLUTION	BASIC ACCURACY
Temperature	-40 to 158°F (-40 to 70°C)	0.1°F/°C	±1.8°F/±1.0°C
Humidity	0 to 100%RH	0.1%RH	±3.5%RH
Air Pressure	13.7 to 15.2psi, 950 to 1050hPa, 95 to 105kPa, 0.9 to 1.0bar	0.1	±0.25% FS
Datalogging interval	1 second to 18 hours		
Memory	10,000 points		
Dimensions/Weight	5.1x1.1x0.98" (130x30x25mm)/ 1oz (20g)		

**ORDERING**

RHT50	Humidity/Temperature/Pressure Datalogger
42299	3.6V Lithium Battery (pk of 2)

**RHT10/TH10 Humidity and Temperature USB Dataloggers**

CE



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

42299 — Replacement long lasting Lithium batteries

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

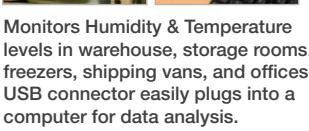
- Model **RHT10** datlogs 16,000 Temperature/ 16,000 RH readings; Dew point indication via Windows® compatible software; Optional RHT10-SW software for RHT10 to calculate Grains Per Pound (grams per kilogram) to 1120GPP (160g/kg)
- **Model TH10** datlogs 32,000 Temperature readings
- Selectable data sampling rate: 2 seconds to 24 hours
- User-programmable alarm thresholds for RH and Temperature
- Humidity: 0 to 100%RH (Model RHT10 only), Accuracy: ±3%RH; Temperature: -40 to 158°F (-40 to 70°C), Accuracy: ±1.8°F/1°C
- 1yr battery life; Dimensions: 5.1x1.1x0.9" (130x30x25mm)/Wt: 1oz (20g)
- Includes 3.6V Lithium battery, protective USB cap, mounting bracket, and Windows® compatible software for analysis; 1 year warranty

**ORDERING**

RHT10	Humidity and Temperature USB Datalogger
RHT10-SW	GPP (g/kg) Software for RHT10
TH10	Temperature USB Datalogger
42299	3.6V Lithium Battery (pk of 2)

**RHT20 Humidity and Temperature Datalogger**

CE



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

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

- USB interface for easy setup and data download to a PC
- Dew point indication via Windows® compatible software (included)
- Selectable data sampling rate: 1 second to 24 hours
- User-programmable alarm thresholds for RH and Temperature
- LCD displays current readings, Min/Max, and alarm status
- Humidity: 0 to 100%RH, 0.1%RH resolution, Accuracy: ±3%RH; Temperature: -40 to 158°F (-40 to 70°C), 0.1°F/°C resolution, Accuracy: ±1.8°F/1°C
- 3 month battery life; Dimensions: 3.7x1.9x1.2" (94.4x48.9x31.2mm)/Wt: 3.2oz (90.7g)
- Complete with 3.6V Lithium battery, mounting bracket with combination lock, and Windows® compatible analysis software; 1 year warranty

**ORDERING**

RHT20	Humidity and Temperature Datalogger
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CALIBRATION NIST

80

N Indicates products that are available with optional calibration traceable to **NIST**. See page 160 for a complete listing.

**RH520A Humidity and Temperature Chart Recorder**

CE



www.extech.com/video

PC software included

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

- Simultaneous numerical & graphical display of Humidity (10.0 to 95.0%) and Temperature (-20.0 to 140.0°F / -28.0 to 60.0°C) readings, plus Time and Date
- Basic Accuracy: ±3% Relative Humidity; ±1.8°F (±1°C)
- Includes LabView™-based software calculates and graphs Dew Point, Wet Bulb, and GPP (grains per pound)
- Large dual graphical LCD displays with adjustable vertical and horizontal resolution
- Internal memory records up to 49,000 data points and can be transferred to a PC
- Audible and visual alarm with Hi/Low setpoints
- Output socket used with optional external alarm module
- Dimensions: 5x7.7x0.9" (129x195x22mm); Weight: 12.6oz (357g)
- Complete with built-in stand, detachable probe with 3ft (1m) cable, RS-232 cable, RS-232 to USB adaptor, PC software, 100-240VAC 50/60Hz adaptor, and 3 AA batteries; 1 year warranty

**ORDERING**

RH520A	N	Humidity+Temperature Chart Recorder (110V adaptor)
RH520A-220	N	Humidity+Temperature Chart Recorder (220V adaptor)
RH520A-240	N	Humidity+Temperature Chart Recorder (240V adaptor)
RH522		Replaceable Humidity/Temperature Probe
SL123		AC Alarm Relay Module 9ft (3m) cable
SL124		DC Alarm Relay Module 9ft (3m) cable

**42280 Humidity and Temperature Datalogger**

CE

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

- Programmable from keypad or PC, Selectable data sampling rate, and User programmable audible and visual alarms
- Measurement ranges: 0 to 100% RH and -4 to 144°F (-20 to 70°C); Resolution: 0.1%RH, 0.1°F/°C; Basic accuracy: ±3% RH, ±1°F / 0.6°C
- Dimensions/Weight: 4.75x3.5x1.5" (120.7x88.9x38.1mm)/ 5.7oz (163g)
- Complete with Windows® compatible software, USB cable, 110V AC adaptor, and four AA batteries; 1 year warranty

**ORDERING**

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

**42275 Humidity and Temperature Datalogger Kit**

CE



42299 — Replacement long lasting Lithium batteries

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

- Water resistant Humidity (0 to 100% RH) and Temperature (-40 to 185°F / -40 to 85°C) Datalogger Kit records up to 16,000 readings (8,000 readings/parameter)
- Resolutions: 0.1%RH, 0.1°F/°C; Basic accuracy: ±3%RH, ±1°F (±0.6°C)
- Real time clock with date and time and Logs data for days, weeks or months
- Three start methods: Scheduled, immediate or magnetic
- Multiple Dataloggers (42270) can be programmed and data downloaded from one single docking station
- Programmable sampling rate from 1sec to 12hrs plus Hi/Lo limits with alarm indication
- 42275 — 4.9x3.8x2" (123.8x95.3x51mm); 9oz (254g)
- 1 year warranty

**ORDERING**

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

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com)

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**SD500 Humidity/Temperature Datalogger**

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

CE

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

- 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
- Complete with 6 AAA batteries, SD memory card, Universal AC Adaptor, and mounting bracket; 1 year warranty

SPECIFICATIONS	RANGE	MAX RESOLUTION	BASIC ACCURACY
Temperature	32 to 122°F 0 to 50°C	0.1°F/°C	±1.5°F ±0.8°C
Humidity	10 to 90%RH	0.1%RH	±4%RH
Datalogging interval	5, 10, 30, 60, 120, 300, 600 seconds or Auto		
Memory	Datalogs using a 4GB SD card		
Dimensions	5.2 x 3.1 x 1.3" (132 x 80 x 32mm)		
Weight	9.9oz (282g)		

**ORDERING**

SD500 Humidity/Temperature Datalogger

**SD700 Barometric Pressure/Humidity/Temperature Datalogger**

CE

Monitors Barometric Pressure, Humidity, and Temperature levels

- Displays Barometric Pressure in 3 units of measure: hPa, mmHg, and inHg
- Triple LCD simultaneously displays Barometric Pressure, Temperature, and Relative Humidity
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds
- Complete with (6) AAA batteries, SD card, Universal AC adaptor, and mounting bracket; 1 year warranty

SPECIFICATIONS	RANGE	MAX RESOLUTION	BASIC ACCURACY
Barometric Pressure	10 to 1100hPa; 7.5 to 825.0mmHg; 0.29 to 3248inHg	0.1hPa, 0.1mmHg, 0.01inHg	±2hPa ±1.5mmHg ±0.1inHg
Temperature	32 to 122°F 0 to 50°C	0.1°F/°C	±1.5°F ±0.8°C
Humidity	10 to 90%RH	0.1%RH	±4%RH
Datalogging interval	5, 10, 30, 60, 120, 300, 600 seconds or Auto		
Memory	Datalogs using a 4GB SD card		
Dimensions	5.2 x 3.1 x 1.3" (132 x 80 x 32mm)		
Weight	9.9oz (282g)		

**ORDERING**

SD700 Barometric Pressure/Humidity/Temperature Datalogger

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

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

**ORDERING**

RH300-CAL 33% and 75%RH Calibration Reference Bottles

**PWR5 Power Bank with Built-in Flashlight****42299 3.6V Lithium Batteries****External backup battery/charger for your portable USB-charging devices\***

- Long-lasting high-capacity (2800mAh) internal battery
- Power capacity level indicator with 3 blue LED lights
- Simple one-button operation
- Built-in LED flashlight (two button presses to turn on preventing accidental power-on)
- Simply plug any portable USB-charging device\* into this compact charger
- Complete with micro USB cable
- Dimensions: 2.9x1.4x0.9" (73x35.5x22.7mm); Weight: 2.3oz (65g)

\*Compatible Devices: Smart Phones, Tablets, MP3/MP4 Players, Digital Cameras, GPS, and other portable USB-charging devices

**ORDERING**

PWR5 Power Bank

**BATT-36V-C 3.6V Lithium Battery (C-Size)****Primary, C-size bobbin cell, non-rechargeable, UL recognized**

- High and stable operating voltage
- Higher power and higher energy for the whole battery life
- Superior drain capability
- Higher power applications
- Low self-discharge rate (less than 1% after 1 year of storage at +20°C)
- Battery life higher than 10 years, depending on the application
- Hermetic glass-to-metal sealing
- Avoid leakage, key for a higher than 10 year battery life
- Non-flammable electrolyte
- Safer operation in case of abuse
- Complete with one 3.6V Lithium C-size battery

**ORDERING (AVAILABLE TO SHIP IN USA ONLY)**

BATT-36V-C 3.6V Lithium Battery, C-Size



## Must-Have Tools for IAQ

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

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

### ACCESSORIES

RH300-CAL	33% and 75%RH Calibration Kit for RH300
RH350-CAL	33% and 75%RH Calibration Kit for RH350
TP890	Thermistor Temperature Probe for RH300
589250	RS-232 PC cable for RH350
USB100	RS-232 to USB Adaptor
UA100-240	100-240V AC Adaptor w/4 plugs (US, EU, UK, AU)

**CALIBRATION TRACEABLE TO NIST**



### RH300/RH305 Hygro-Thermometer Psychrometer

Temperature Probe for differential measurements

- Simultaneous display of %RH, Temperature and Dew Point or Wet Bulb or Probe Temperature
- Calculates T1-T2 differential (Air Temperature minus External Probe Temperature) using optional probe (TP890) and T2-Dew Point
- Data Hold and Auto power off
- MAX/MIN readings
- Optional TP890 probe for Differential Temperature
- Model RH300** includes 2 AAA batteries
- Model RH305** kit includes RH300, TP890 external temperature probe, RH300-CAL calibration bottles and carrying case



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



### RH350 Dual Input Hygro-Thermometer Psychrometer

Two Type K External Probe inputs for Superheat plus memory

- Superheat differential measurements: T1-T2, Air-T1, and T1-Dew Point
- Backlit LCD displays 3 parameters: %RH and Temperature with either Dew Point, Wet Bulb or Type K
- RS232 interface – 407752 software available for download at [www.extech.com](http://www.extech.com) and optional cable 589250 sold separately
- Stores up to 99 data points
- MAX/MIN with time stamp+AVG
- Data Hold, Auto power off
- Complete with 2 general purpose Type K bead wire probes



### RH390/RH490 Precision Hygro-Thermometer Psychrometers

Highest 2% RH accuracy with Fast 30 second Response Time

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



### HD500 Precision Hygro-Thermometer + 30:1 InfraRed Thermometer

Combination Humidity meter, Type K thermometer, and InfraRed Thermometer

- 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
- Complete with general purpose Type K bead wire probe, PC software, USB cable, built-in stand, case, and 9V battery

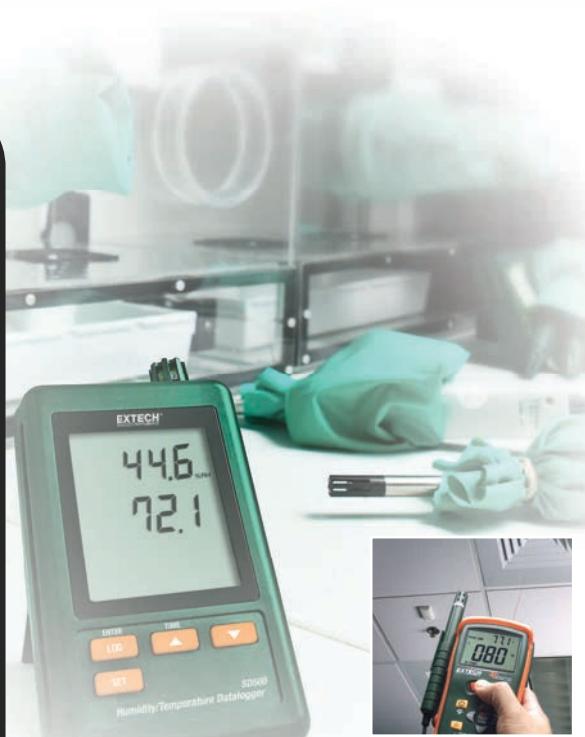


### SDL500 Hygro-Thermometer/Datalogger

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

- Humidity, Temperature, Dew Point & Wet Bulb functions
- Selectable data sampling rate: 1 to 3600 seconds
- Manually store/recall up to 99 readings
- Large backlit dual LCD
- Record/Recall MIN, MAX readings
- Data Hold plus Auto power off with disable function
- Includes 6 x AA batteries, SD card, case and Humidity probe; Optional Universal AC Adaptor UA100-240, also see p. 41 and 70 for optional Type K and J Thermocouple probes

SPECIFICATIONS	RH300 <b>N</b>   ▲ RH305 <b>N</b>	RH350 <b>N</b>	RH390 <b>N</b>   ▲ RH490 <b>N</b>	HD500 <b>N</b>	SDL500 <b>N</b>	SPECIFICATIONS
Sensor Type	Capacitance	Capacitance	Capacitance	Capacitance	Capacitance	Sensor Type
Dew Point	-90.4 to 122°F (-68.0 to 49.9°C)	-90.4 to 122°F (-68.0 to 49.9°C)	-22 to 199°F (-30 to 100°C)	-90.4 to 140°F (-68 to 60°C)	-13.5 to 120.1°F (-25.3 to 48.9°C)	Dew Point
Wet Bulb	-6.9 to 122°F (-21.6 to 49.9°C)	-6.9 to 122°F (-21.6 to 49.9°C)	32 to 176°F (0 to 80°C)	-6.88 to 140°F (-21.6 to 60°C)	-6.9 to 122°F (-21.6 to 50°C)	Wet Bulb
Humidity (Basic Accuracy)	0 to 100%RH (±3%RH)	0 to 100%RH (±3%RH)	0 to 100%RH (±2%RH)	0 to 100% (±2%RH)	5% to 95% (±3%RH)	Humidity (Basic Accuracy)
Mixing Ratio	—	—	■ No   ▲ 0 to 1120 GPP (grains per pound); 0 to 160 g/kg (grams per kilogram)	—	—	Mixing Ratio
Internal Temperature (Basic Accuracy)	-4 to 122°F /-20 to 50°C (±1.8°F/±1°C)	-4 to 122°F/-20 to 50°C (±1.8°F/±1°C)	-22 to 199°F/-30 to 100°C (±1.8°F/1°C)	-14 to 140°F/-10 to 60°C (±4°F/±2°C)	32 to 122°F/0 to 50°C (±1.8°F/±1°C)	Internal Temperature (Basic Accuracy)
External Temperature (Basic Accuracy)	Thermistor: -4 to 158°F/-20 to 70°C (±1.8°F or ±1°C)	Type K: -328 to 2498°F/-200 to 1370°C (±0.3% or 1.8°F or ±1°C)	—	Type K: -148 to 2501°F/-100 to 1372°C (±3%)	Type K: -148 to 2372°F/-100 to 1300°C	External Temperature (Basic Accuracy)
IR Temperature (Basic Accuracy)	—	—	—	-58 to 932°F/-50 to 500°C (±2% or ±4°F/±2°C)	Type J: -148 to 2192°F/-100 to 1200°C (±0.4% + 1.8°F/1°C)	IR Temperature (Basic Accuracy)
Emissivity	—	—	—	0.95 fixed	—	Emissivity
Field of View	—	—	—	30:1	—	Field of View
PC Interface	—	Optional software & cable (589250)	—	Yes	—	PC Interface
Memory/Datalogging	—	99 readings	—	—	Datalogs using 4GB SD memory card	Memory/Datalogging
CE Approved	Yes	Yes	Yes	Yes	Yes	CE approved
Dimensions/Weight	7x1.9x1" (178.5x48.4x24.7mm)/ 3.3oz (95g)	9x2.2x1.7" (230x57x44)/ 5.3oz (153g)	7.8x1.7x1.3" (200x45x33mm)/7oz (200g)	10x2.9x2" (255x75x50mm)/12.2oz (350g)	7.2x2.9x1.9" (182x73x48mm)/23oz (655g)	Dimensions/Weight
Warranty	1 year	1 year	1 year	3 years	3 years	Warranty



## Improve Indoor Air Quality with Extech

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



### 445580 Humidity/ Temperature Pen

Compact, Digital Hygro-Thermometer, ideal for field use

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



### RH210 Compact Hygro-Thermometer

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

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



### RH101 Hygro-Thermometer + IR

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

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



### EA20/EA25 EasyView® Hygro-Thermometer and Datalogger

Stores up to 99 or 15,000 readings

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



### SD500/SD700 Humidity/ Temperature Dataloggers plus Barometric Pressure

Records data on an SD card in Excel® format

- **Model SD500** - Dual LCD displays Relative Humidity and Temperature readings
- **Model SD700** - Triple LCD displays Barometric Pressure, Temperature, and Relative Humidity
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 5 to 600 seconds or Auto
- Complete with 6 AAA batteries, SD card, Universal AC Adaptor, and mounting bracket

SPECIFICATIONS	445580	RH210	RH101	■ EA20  ▲ EA25	■ SD500  ▲ SD700	SPECIFICATIONS
Sensor Type	Capacitance	Capacitance	Capacitance	Capacitance	Capacitance	Sensor Type
Humidity	10 to 90%	10 to 95%	10 to 95%	10 to 90%RH	10 to 90%RH	Humidity
Dew Point	—	-13.5 to 120.0°F (-25.3 to 48.9°C)	—	—	—	Dew Point
Temperature (Air)	14 to 122°F (-10 to 50°C)	32 to 122°F (0 to 50°C)	-4 to 140°F (-20 to 60°C)	32 to 122°F (0 to 50°C)	-4 to 140°F (-20 to 60°C)	Temperature (Air)
Temperature (IR)	—	—	-58 to 932°F (-50 to 500°C)	—	—	Temperature (IR)
Barometric Pressure	—	—	—	—	—	■ No   ▲ 10 to 1100hPa; 7.5 to 825mmHg; 0.29 to 32.48 inHg
Basic Accuracy	±5%, ±1.5°	±3%RH; ±1.5°F/±0.8°C (Air); ±2.2°F/±1.2°C (Dew Point)	±3.5%RH; ±2% or ±4°F/2°C (IR); ±3°F/2°C (Air)	±3%RH, ±1.8°F (±1°C)	±4%RH, ±1.8°F (±0.8°C)	Basic Accuracy
Max. Resolution	0.1%, 0.8°	0.1%, 0.1°	0.1%, 0.1°	0.1%, 0.1°	▲ 0.1%, 0.1°, 0.1 hPa, 0.1mmHg, 0.01inHg	Max. Resolution
PC Interface	—	—	—	■ No   ▲ Yes	—	PC Interface
Datalogging	—	—	—	99 readings / 15,000 readings	Datalogs using 4GB SD memory card	Datalogging
CE approved	Yes	Yes	Yes	Yes	Yes	CE approved
Dimensions	5.7x1.2x1" (145x30x25mm)/ 2.3oz (65g)	5.3x2.4x1.3" (135x60x33mm)/ 9.3oz. (264g)	5.9x2.95x1.57" (150x75x40mm)/ 7oz (200g)	6x2.8x1.4" (152x72x35mm)/ 8.3oz (235g)	5.2x3.1x1.3" (132x80x32mm)/ 9.9oz (282g)	Dimensions / Weight
Warranty	1 year	1 year	1 year	1 year	1 year	Warranty

CALIBRATION TRACEABLE TO NIST



## Redefining Heat Index Meters

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



### HW30 Heat Index Stopwatch

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

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



### RH25 Heat Index Psychrometer

Convenient pen style psychrometer monitors Heat Index during hot humid days

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



### AN25 Heat Index Anemometer

Convenient pen style Anemometer monitors Airflow and Heat Index

- Built-in multiparameter sensors measure Air Velocity, Heat Index, WBGT, Humidity, Ambient Temperature, Dew Point, Wet Bulb, Temperature, and Windchill
- Mini low friction vane measures air velocity
- Heat Index function measures how hot it feels when Humidity is combined with temperature, air movement, and radiant heat
- Wet Bulb Globe Temperature (WBGT) function considers the effects of temperature, humidity, and direct or radiant sunlight
- Min/Max/Average
- Data Hold APO with disable
- Complete with CR2032 battery



### HT30 Heat Stress WBGT Meter

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

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



### HT200 Heat Stress WBGT Meter

Accurately determine the Heat Stress level

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

SPECIFICATIONS	HW30	RH25	AN25	HT30	HT200	SPECIFICATIONS
Heat Index	70 to 122°F (22 to 50°C)	-50.8 to 401°F (-46 to 205°C)	-31 to 401°F (-35 to 205°C)	—	Black Globe : 32 to 176°F (0 to 80°C)	Heat Index
Temperature	14 to 122°F (-10 to 50°C)	-4 to 122°F (-20 to 50°C)	5 to 122°F (-15 to 50°C)	TG-Black Globe: 32 to 176°F (0 to 80°C); TA-Air : 32 to 122°F (0 to 50°C)	TG-Black Globe: 32 to 176°F (0 to 80°C); TA-Air : 32 to 122°F (0 to 50°C)	Temperature
Humidity	1 to 99%	0 to 99.9%RH	5.0 to 95.0%RH	0 to 100% RH	1 to 99%RH	Humidity
Dew Point	—	-108.4 to 122°F (-78 to 50°C)	-103 to 122°F (-75 to 50°C)	—	-31.5 to 120.1°F (-35.3 to 48.9°C)	Dew Point
Wet Bulb	—	-4 to 122°F (-15 to 50°C)	5 to 122°F (-15 to 50°C)	—	-6.9 to 122°F (-21.6 to 50°C)	Wet Bulb
Wet Bulb Globe Temperature - WBGT	—	-20.2 to 130°F (-29 to 54.5°C)	-20.2 to 130°F (-29 to 54.5°C)	32 to 122°F (0 to 50°C)	w/o sunlight: 32 to 138°F (0 to 59°C); w/ sunlight: 32 to 132°F (0 to 56°C)	Wet Bulb Globe Temperature - WBGT
Air Velocity	—	—	80 to 4920ft/min (0.4 to 25m/s)	—	—	Air Velocity
ft/min (m/s)	—	—	0.9 to 55.9mph (1.4 to 90.0km/h)	—	—	ft/min (m/s)
mph (km/h)	—	—	0.8 to 48.6 knots	—	—	mph (km/h)
knots	—	—	5 to 122°F (-15 to 50°C)	—	—	knots
Windchill	—	—	—	—	—	Windchill
Timing capacity	9hrs, 59mins, and 59secs	—	—	—	—	Timing capacity
Basic Accuracy	±5 seconds/day, ±5% RH, ±3°F (1.5°C)	±3%RH, ±1°F/0.6°C	±3%RH, ±2°F/1°C, ±3%FS	±3%RH, ±1.8°F/1.0°C (TA), ±4°F/2°C (TG)	±3%RH, ±1.8°F/1°C (WBGT w/o sun); ±2.7°F/1.5°C (w/sun) ±1.5°F/0.8°C (TA), ±1.1°F/0.6°C (TG)	Basic Accuracy
CE approved	Yes	Yes	Yes	Yes	Yes	CE approved
Dimensions/Weight	7.6x0.8x1.8" (192x30x45mm)/ 3.8oz (108g)	5.5x1.4x0.7" (140x35x18mm)/ 1.8oz (50g)	6x1.6x0.7" (152x40x18mm) / 2.1oz (60g)	10x1.9x1.1" (254x49x30mm)/4.8oz (136g)	Meter: 11.8x2.8x2" (300x70x50mm); Ball: 1.6" (40mm) dia, 1.4" (35mm) high	Dimensions/Weight
Warranty	1 year	1 year	1 year	1 year	1 year	Warranty

CALIBRATION TRACEABLE TO NIST



## Find Moisture Problems Fast

Extech offers moisture meters for a variety of industries. For wood and building trades, professionals use Extech pin and pin-less meters. For accurate soil testing as well as agricultural crop testing, trust Extech for specialized moisture meters.

### ACCESSORIES

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



### MO25 Moisture Pen

Easy-to-read dual color LED indication with 10 ranges of %WME moisture level

- Five dual color LEDs indicate 10 moisture levels:
- Easy-to-use one button operation
- Data Hold freezes LED range
- Battery level check on power-up
- Auto power off conserves battery life
- Use on wall board, sheet rock, cardboard, plaster, concrete, and mortar
- Audible Alert — Tone rate beeps faster as the moisture level increases
- Icons display low, medium and high levels of moisture content
- Replaceable threaded measurement electrode pins
- Easy-to-use, compact-sized design
- Data Hold freezes reading on display
- Built-in battery level check and measurement verification test
- Auto Power Off conserves battery power
- Complete with replacement pins, protective cap, and one AAA battery



### MO50 Compact Moisture Meter

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

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



### MO210 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



### MO220 Wood Moisture Detector

Specifically designed for monitoring moisture in wood

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



### MO257 Pinless Moisture Meter

Fast response pinless moisture readings on tiles, building materials and wood from depth of 0.78" to 1.6"

- Relative pinless moisture reading for non-invasive measurement
- Multifunction backlit triple LCD display
- Pinless measurement depth from 0.78" (20mm) to 1.6" (40mm) below the surface
- High frequency sensing technology
- Automatic Data Hold
- Two adjustable alarm levels with audible beeper and visual (flashing "RISK" or "WET") indicators
- Automatic calibration (in dry air) when meter is powered on
- Low battery indication
- Auto Power off
- Complete with 3 AA batteries and pouch case

SPECIFICATIONS	MO25	MO50	MO210	MO220	MO257	SPECIFICATIONS
Sensor Type	Contact Pins	Contact Pins	Contact Pins	Contact Pins	Pinless	Sensor Type
Moisture Content	Green LEDs: 5%, 7%, 9%, 11%, 12% Red LEDs: 14%, 16%, 20%, 30%, 40%	5 to 50% (Wood); 1.5 to 33% (Materials)	6 to 44% (Wood); 0.2 to 2.0% (Materials)	6 to 44% (Wood)	0.0 to 100.0	Moisture Content
Max. Resolution	—	0.1%	1% (Wood) / 0.1% (Materials)	±1% (Wood)	0.1	Max. Resolution
Temperature (Air)	—	—	—	-31 to 176°F (-35 to 80°C)	—	Temperature (Air)
CE approved	Yes	Yes	Yes	Yes	Yes	CE approved
Dimensions	5.4x1.0x0.8" (136x25x21mm);	6.7x2.6x1.2" (170x65x30mm)	5.1x1.6x1.0" (130x40x25mm)	7x1.9x1.2" (180x50x31mm)	9.25x2.5x1.1" (235x63x28mm)	Dimensions
Weight	1.2 oz (33g) without battery	4.2oz (120g) without battery	3.5oz (100g)	6.1oz (175g)	7.7oz (218g)	Weight
Warranty	1 year	1 year	1 year	1 year	1 year	Warranty





## Measure Moisture And Much More



Extech's advanced moisture meters offer much more than moisture readings: Non-invasive, pin-less technology protects work surfaces. Environmental readings (RH, air and surface temperatures, dew point, GPP, vapor pressure, condensation levels) add extensive insight without extra meters. Remote specialty probes expand versatility. See a wide selection of moisture meters on p. 90-95.

### ACCESSORIES

MO50-PINS	Replacement pins for MO55 (10 pins)
MO200-PINS	50 Replacement pins
MO-P1	Replacement Moisture pin probe with 30" (76.2cm) cable & RJ45 Connector (for MO265)

SPECIFICATIONS	MO280	MO55	MO260	MO265
Pinless Moisture	0 to 99% (limited by wood type) - relative	0 to 99%	0 to 99 (relative)	0 to 99 (relative)
Pin-type Moisture (remote probe)	—	5 to 50% (Wood); 1.5 to 33% (Materials)	6.0 to 94.8% WME	6.0 to 94.8% WME
Max Resolution	0.1%	0.1%	0.1/0.1%	0.1/0.1%
Memory	—	—	—	—
CE approved	Yes	Yes	Yes	Yes
Dimensions/Weight	7.6x0.8x1.8" (192x30x45mm)/ 3.8oz (108g)	6.7x2.6x1.2" (170x65x30mm) / 4.2oz (120g) w/o battery	8x2.3x1.7" (203x58.4x43.2mm)/ 7.2oz (204g)	8x2.3x1.7" (203x58.4x43.2mm)/ 7.2oz (204g)
Warranty	1 year	1 year	1 year	1 year



## M0290/M0295 Pinless Moisture Psychrometer + IR Thermometer



Includes MO290-P pin moisture probe (3ft/0.9m cable length), 9V battery and case; 1 year warranty

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

- Measure moisture content of materials/wood types with Pinless technology without damaging the surface; Use remote Pin-type probe for contact moisture readings
- Simultaneously displays Moisture and Air Temperature, IR Temperature, or Humidity
- Pinless measurement depth to 0.75" (19mm) below the surface
- Non-contact IR Thermometer with 8:1 field of view and 0.95 fixed emissivity
- Programmable high/low Moisture and Humidity alarms
- Automatic calculation of differential Temperature (IR - DP) for condensation point
- Min/Max, Data Hold, Auto power off and low battery indication

## Model MO295 Additional Features

- Manually store/recall up to 20 labeled readings
- Fast Analog Bargraph

## SPECIFICATIONS

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

## ORDERING (SEE P. 95 FOR OPTIONAL SPECIALTY MOISTURE PROBES)

MO290	Pinless Moisture Psychrometer + IR Thermometer
MO295	Pinless Moisture Psychrometer + IR Thermometer with Memory

## MO300 Moisture Hygro-Thermometer for Android™



Transmit readings to user's Android smartphones & tablets. Download the Extech MO300 ExView™ App at play.google.com.

Includes MO290-P pin moisture probe (3ft/0.9m cable length), 9V battery and case; 1 year warranty



## Moisture Probes and Pins



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

- Specialty Moisture probes with RJ45 connector compatible with Extech Moisture Meters MO290, MO295, and MO300

## ORDERING (Below Probes for MO290, MO295, and MO300)

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

## M0750 Soil Moisture Meter



Includes 8" (20cm) stainless steel moisture probe

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

- Soil moisture content measurement from 0 to 50%
- Min/Max records minimum and maximum moisture readings
- Data hold to freeze reading on display
- Water resistant housing
- Replaceable Heavy Duty Moisture Probe (MO750-P)
- Dimensions: 14.7x1.6x1.6" (374x40x40mm)
- Weight: 9.4oz (267g)
- Complete with moisture probe, 4 x AAA batteries, and sensor cap

## ORDERING

MO750	Soil Moisture Meter
MO750-P	Replacement Moisture Probe

## SDL550 Humidity Content Meter/Datalogger



Includes Humidity Content Probe with 4.9ft (1.5m) cable, sensor cap, SD card, and 6 AA batteries; Optional Type K and J Thermocouple Probes (see p. 41 and 70)

## 23.7" (600mm) heavy duty stainless steel probe measures humidity content in grain, corn, rice, hay, and other materials

- Measures Humidity Content, Air Temperature, Dew Point and Temperature
- Replaceable Probe Tip with inner filter
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Adjustable data sampling rate: 1 to 3600 seconds
- Stores 99 readings manually and automatic continuous datalogging via SD card
- Type K/J Thermocouple input for high temperature measurements
- Record/Recall MIN, MAX readings
- Data Hold plus Auto Power Off with disable function

SPECIFICATIONS	RANGE	MAX RESOLUTION	BASIC ACCURACY
Humidity Content	10 to 95%RH	0.1%RH	3% of reading
Air Temperature	32 to 122°F (0 to 50°C)	0.1°	1.8°F/1°C
Dew Point	-13 to 120°F (-25 to 50°C)	0.1°	calculated
Type K Temperature	-148 to 2372°F (-100 to 1300°C)	0.1°	(0.2% + 1.8°F/1°C)
Type J Temperature	-148 to 2192°F (-100 to 1200°C)	0.1°	(0.2% + 1.8°F/1°C)
Dimensions	Meter: 7.2x2.9x1.9" (182x73x47.5mm); Probe: 23.8" (605mm) x 0.9" (22mm) dia		
Weight	Meter: 8.6oz (245g); Probe: 19.8oz (560g)		

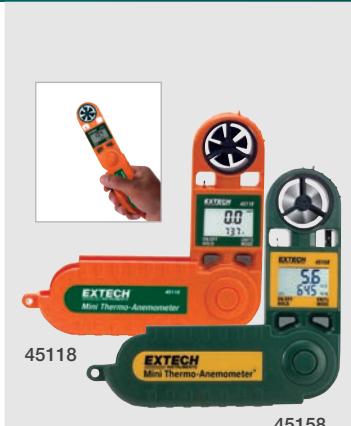
## ORDERING

SDL550	Humidity Content Meter/Datalogger
UA100-240	100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)



## Go Beyond Airflow Measurements

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



### 45118/45158 Mini Thermo-Anemometers

3-in-1 or 5-in 1 meter

- Measure air velocity, temperature, and windchill
- Adjustable averaging function of 5, 10, or 13 second intervals
- Housing extends to 9" (229mm)
- Tripod mount (optional TR100 Tripod – sold separately)
- Data Hold with Auto power off
- Replaceable low friction vane
- Water resistant housing floats and drop-tested to 6 feet
- Replaceable vane (45156)
- Tripod mount
- Complete with CR2032 lithium battery and 43" (1.09m) lanyard

#### 45158 Additional Features

- Measures %RH and Dew Point



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

7-in-1 meter

- Built-in Compass provides wind direction and 360° readings
- Delta T (Air Temperature - DP)
- Max function
- Housing extends to 9" (229mm)
- Auto Power Off with disable
- Water resistant housing floats and drop-tested to 6 feet
- Replaceable vane (45156)
- Tripod mount
- Complete with CR2032 lithium battery and lanyard



### EN100/EN150 Environmental Meters with UV\*

11-in-1 meters

- Replaceable low friction vane
- Barometric Pressure and Altitude functions
- Data Hold and Auto power off
- Complete with built-in sensors, wrist strap, and CR2032 battery. (Optional EN100-TP probe measures to 158°F/70°C)

#### EN100 Additional Features

- Measures light level with Auto-rotating display

#### \*EN150 Additional Features

- Measures UV light level



### 45170/45170CM Environmental Meters

4-in-1 or 5-in-1 meter

- Auto-rotating display
- Low friction vane wheel
- Capacitance humidity sensor
- Type K input (Probe sold separately - see p. 41 and 70)
- Utilizes precision photo diode and correction filter
- MAX/MIN and Data hold
- Complete with wrist strap and 9V battery
- **Model 45170CM** also measures Air Flow (CFM/CMM)



### EN300 Environmental Meter

5-in-1 Meter & PC interface

- Auto-rotating display
- Low friction vane wheel
- Capacitance humidity sensor
- Thermistor for ambient temperature and Type K input (Probe sold separately - see p. 41 and 70)
- Utilizes precision photo diode and correction filter
- Sound Level measurement meets IEC 61672 class 2
- MAX/MIN and Data hold
- Complete with 6 AAA batteries; Optional AC adaptor UA100-240 & software 407001

ACCESSORIES	
45116	Mini Impeller (2pk) for 45118
45156	Mini Impeller (2pk) for 45158 and 45168CP
EN100-TP	RTD Temperature probe 14 to 158°F/-10 to 70°C
EN100-V	Mini impeller (2 pk) for EN100 and EN150
TR100	Tripod
CA895	Small Vinyl Pouch Case for 45118, 45158, 45168
UA100-240	100-240V AC Adaptor w/ 4 plugs (US, EU, UK, AU)



Using optional  
tripod TR100

SPECIFICATIONS	■ 45118   ▲ 45158	45168CP	■ EN100   ▲ EN150	■ 45170   ▲ 45170CM	EN300	SPECIFICATIONS
ft/min (res.)	100 to 5500 (20)	60 to 3937 (2)	80 to 3940 (1)	80 to 5910 (1)	80 to 5910 (1)	ft/min (res.)
m/s (res.)	0.5 to 28 (0.1)	1.1 to 20 (0.1)	0.4 to 20 (0.1)	0.4 to 30 (0.1)	0.4 to 30 (0.1)	m/s (res.)
km/h (res.)	1.8 to 100.6 (0.7)	0.8 to 72.0 (0.1)	1.4 to 72 (0.1)	1.4 to 108.0 (0.1)	1.4 to 108.0 (0.1)	km/h (res.)
MPH (res.)	1.1 to 62.5 (0.2)	0.5 to 44.7 (0.1)	0.9 to 45 (0.1)	0.9 to 67.0 (0.1)	0.9 to 67.0 (0.1)	MPH (res.)
knots (res.)	1.0 to 54.3 (0.3)	0.4 to 38.8 (0.1)	0.8 to 38.8 (0.1)	0.8 to 58.3 (0.1)	0.8 to 58.3 (0.1)	knots (res.)
Beaufort Force (res.)	1 to 17 (1)	1 to 8 (1)	—	—	—	Beaufort Force (res.)
Air Volume CFM/CMM	—	—	0.847 to 1,271,300CFM/0.024 to 36,000CMM	0.01 to 1,908,400CFM/0.001 to 54,000CMM	—	Air Volume (CFM/CMM)
Temperature	0 to 122°F/-18 to 50°C (0.1°)	5 to 122°F/-15 to 50°C (0.1°)	32 to 122°F (0 to 50°C)/15 to 111°F (-9 to 44°C)	32 to 122°F (0 to 50°C)/15 to 111°F (-9 to 44°C)	32 to 122°F (0 to 50°C)	Temperature
Relative Humidity (res.)	■ No   ▲ 10% to 95% (1%)	0.1% to 99.9% (0.1%)	10 to 95% (0.1%)	10 to 95% (0.1%)	10 to 95% (0.1%)	Relative Humidity (res.)
Heat Index	—	—	32 to 212°F (0 to 100°C)	—	—	Heat Index
Wet Bulb	—	23°F to 122°F (-5 to 50°C)	22.3 to 120.2°F (-5.4 to 49.0°C)	—	—	Wet Bulb
Dew Point	■ No   ▲ 32 to 122°F (0 to 50°C)	-4°F to 122°F (-20 to 50°C)	-13.5 to 120.2°F (-25.3 to 49.0°C)	—	—	Dew Point
Light Level	—	—	■ 0 to 1860Fc (0 to 20,000Lux)   ▲ No	0 to 1860 (0.1Fc)/0 to 20,000 (1Lux)	0 to 1860 (0.1Fc)/0 to 20,000 (1Lux)	Light Level
UV Level	—	—	■ No   ▲ 0 to 1999µW/cm² (2 to 20mW/cm²)	—	—	UV Level
Sound Level (res.) - A weighting	—	—	—	—	35 to 130dB (0.1dB)	Sound Level (res.) - A weighting
Basic Accuracy						Basic Accuracy
Airflow	±3% of reading	±3% FS	±3% FS	±3% FS	±3% FS	Airflow
Temperature/Relative Humidity	■ ±1.8°F, ±1°C   ▲ ±1.8°F, ±1°C/±5%RH	±1.8°F, ±1°C/±3%RH	±2.5°F, ±1.2°C/±4%RH	±2.5°F, ±1.2°C/±4%RH	±2.5°F, ±1.2°C/±4%RH	Temperature/Relative Humidity
Light/Sound	—	—	■ No   ▲ Light: ±5% of reading	Light: ±5% of reading	Light: ±5% of reading	Light/Sound
CE approved	Yes	Yes	Yes	Yes	Yes	CE approved
Dimensions/Weight	5.25x2.75x0.75" (133x70x19mm)/ 3oz (95g)	5.51x1.77x0.98" (140x45x25mm) / 3oz (95g)	6.1x2.4x1.3" (156x60x33mm)/ 5oz (160g)	6.1x2.4x1.3" (156x60x33mm)/ 5oz (160g)	6.1x2.4x1.3" (156x60x33mm)/ 5oz (160g)	Dimensions/Weight
Vane:	1" (26mm)D	1" (25.4mm)D	1" (26mm)D	1" (30.5mm)D	1" (30.5mm)D	Vane:
Warranty	1 year	1 year	1 year	1 year	1 year	Warranty

CALIBRATION  
TRACEABLE TO NIST



## Versatile and Durable Tools For HVAC/R

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



AN200 only.

SPECIFICATIONS	■ AN100    ▲ AN200	HD300	407113	407119
Air Velocity (Max Res.)				
ft/min	80 to 5900 (1)	80 to 5900 (1)	100 to 6890 (1)	40 to 3346 (1)
m/sec	0.4 to 30.00 (0.01)	0.4 to 30.00 (0.01)	0.5 to 35 (0.1)	0.2 to 17 (0.1)
km/h	1.4 to 108.0 (0.1)	1.4 to 108.0 (0.1)	1.8 to 126.0 (0.1)	0.7 to 61.2 (0.1)
MPH	0.9 to 67.0 (0.1)	0.9 to 67 (0.1)	1.1 to 78.3 (0.1)	0.9 to 38.0 (0.1)
knots	0.8 to 58.0 (0.1)	0.8 to 58.0 (0.1)	1.0 to 68.0 (0.1)	0.4 to 33.0 (0.1)
Temperature (Max Res.)	14 to 140°F/-10 to 60°C (0.1°)	14 to 140°F/-10 to 60°C (0.1°)	32 to 175°F (0.1°)/0 to 80°C (0.1°)	32 to 122°F (0.1°)/0 to 50°C (0.1°)
Temperature (IR)	■ No   ▲ -58 to 500°F/-50 to 260°C (0.1°/1°)	-58 to 932°F/-50 to 500°C (0.1°/1°)	—	—
Air Flow (CFM = ft <sup>3</sup> /min)	■ 0 to 9999CFM (1)   ▲ 0 to 999,999CFM (0.1)	0 to 999,900CFM (0.001)	0 to 999,900CFM (0.001)	0 to 1,271,200CFM (0.001)
Air Flow (CMM = m <sup>3</sup> /min)	■ 0 to 9999CMM (1)   ▲ 0 to 999,999CMM (0.1)	0 to 999,900CMM (0.001)	0 to 999,900CMM (0.001)	0 to 36,000CFM (0.001)
Basic Accuracy	±3%rdg; ±2°F (±1°C)	±3%rdg; ±4°F (2°C)	±2%rdg; ±1.5°F (±0.8°C)	±2%rdg; ±1.5°F (±0.8°C)
PC Interface	—	Yes	Optional 407001 Software (see p. 114)	Optional 407001 Software (see p. 114)
Datalogger	—	Directly to PC using software	—	—
CE approved	Yes	Yes	Yes	Yes
Dimensions/Weight	7x2.9x1.3" (178x74x33mm)/1.6lbs (700g)	8x3x1.9" (203x75x50mm)/12.2oz (350g)	7x2.9x1.3" (178x74x33mm)/1.35lbs (612g)	7x2.9x1.3" (178x74x32mm)/1.1lbs (482g)
Warranty	1 year	3 years	3 years	3 years



### AN100/AN200 CFM/CMM Thermo- Anemometers

- Large backlit display of Airflow or Air Velocity plus model with built-in InfraRed Thermometer
- Simultaneous display of Ambient Temperature and Air Flow or Air Velocity
- Up to 8 easy to set Area dimensions stored in internal memory (ft<sup>2</sup> or m<sup>2</sup>)
- 20 point AVG for Air Flow
- Low friction 2.83"D (72mm) ball bearing vane wheel
- Data Hold, MIN/MAX, Auto off
- Complete with vane sensor on 3.9ft (120cm) cable, 9V battery, protective rubber holster, and case
- Model AN200** incorporates a built-in IR Thermometer for quick non-contact temperature measurements



### HD300 CFM/CMM Thermo-Anemometer + IR Thermometer

- Built-in IR Thermometer for quick troubleshooting of ceiling vents, duct work, and other remote surfaces
- IR Thermometer has 30:1 distance to target ratio and Laser pointer
- Simultaneous display of Air Flow in CFM/CMM or Air Velocity Plus Ambient Temperature
- Up to 8 easy to set Area dimensions stored in memory
- Large backlit LCD
- Air Flow displayed in 2 modes as an instantaneous value or up to 20 point average
- USB port includes PC software
- Includes PC software, cable, vane sensor on 3.9ft (120cm) cable, built-in stand, case, and 9V battery



### 407113 High Temperature CFM Metal Vane Anemometer

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

- Display Air Flow (CFM) or Air Velocity plus Temperature
- Air Flow displayed in 3 modes: Instantaneous value, Up to 20 point average, or 2/3 flow value
- Record and Recall MIN/MAX
- Data Hold plus Auto power off
- Built-in PC Interface
- Optional Data Acquisition software 407001 - see details on p. 114
- Includes metal vane sensor with 3.9ft (120cm) cable, 9V battery, holster with stand, and hard case; Optional 117V (156119) or 220V (156221) AC adaptors (see p. 136 for ordering).



### 407119 Hot Wire CFM/ CMM Anemometer

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

- Air velocity measurements as low as 40ft/min
- Telescoping probe extends up to 3ft (940mm) long
- Measures air volume in CFM (ft<sup>3</sup>/min) and CMM (m<sup>3</sup>/min) plus Temperature simultaneously
- Air Flow displayed in 2 modes as an instantaneous value or up to 20 point average
- Record and Recall MIN/MAX
- Data Hold plus Auto power off
- Optional Data Acquisition software 407001 - see details on p. 114
- Complete with telescoping probe with 5.5ft (167.6cm) cable, and four AA batteries

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



All SDL models  
have built-in SD slot  
and includes SD  
memory card

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

- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 1 to 3600 seconds (1 hour)
- Manually store/recall up to 99 readings
- Type K/J Thermocouple input for high temperature measurements
- Large (9999 count) LCD displays Air Velocity and Temperature simultaneously
- Record/Recall MIN, MAX readings
- Data Hold plus Auto power off with disable function
- Complete with 6 x AA batteries, SD card, sensor with 3.9ft (120cm) cable, and hard carrying case; (See p. 41 and 70 for optional Type K and J Thermocouple probes); 3 year warranty

#### SDL300 Metal Vane Additional Functions

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

#### SDL310 Vane Additional Functions

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

#### SDL350 Hot Wire Additional Functions

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

SPECIFICATIONS	SDL300	SDL310	SDL350
ft/min	60 to 6900ft/min	80 to 4930ft/min	40 to 3940ft/min
m/sec	0.3 to 35m/s	0.4 to 25m/s	0.2 to 25m/s
km/h	1.0 to 126.0km/h	1.4 to 90.0km/h	0.7 to 72km/h
MPH	0.7 to 78.2MPH	0.9 to 55.9MPH	0.5 to 45MPH
knots	0.6 to 68knots	0.8 to 48.6knots	1 to 31knots
Air Flow (CFM = ft³/min)	—	—	0 to 1,907,000CFM
Air Flow (CMM = m³/min)	—	—	0 to 54,000CMM
Basic Accuracy	2%rdg	2%rdg	5%rdg
Temperature (air)	32 to 158°F (0 to 70°C)	32 to 122°F (0 to 50°C)	32 to 122°F (0 to 50°C)
<b>Common Features</b>			
Temperature (Type J/K)	J: -148 to 2192°F (-100 to 1200°C)/K: -148 to 2372°F (-100 to 1300°C)		
Datalogging	Store readings on SD memory card (included)		
Dimensions/Weight	7.2x2.9x1.9" (182X73X48mm)/17.2oz (487g)		

#### ORDERING

- SDL300 **N** Metal Vane Thermo-Anemometer/Datalogger
- SDL310 **N** Vane Thermo-Anemometer/Datalogger
- SDL350 **N** Hot Wire CFM/CMM Thermo-Anemometer/Datalogger
- UA100-240 100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)

## Vane Versus Hot Wire

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

AN300/AN310/AN320 Large Vane CFM/CMM Thermo-Anemometers + CO<sub>2</sub>\*

## AN340 CMM/CFM Anemometer/ Psychrometer Datalogger



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

- Fast responding sensors measure Air Velocity and Air Flow
- Built-in thermistor for air temperature
- Multipoint and timed average calculations
- Min/Max, Data Hold, and Auto power off
- Optional Air Flow Cone Kit (AN300-C) allows HVAC technicians to be freed from the hassle of calculating dimensions and allow for quick and easy airflow measurements for these common duct sizes; Adaptor size: Round 8.26" (210mm) and Square 13.6" (346mm)
- Complete with four AAA batteries and hard case; 1 year warranty

#### AN310 Additional Functions:

- Measures Relative Humidity, Wet Bulb and Dew Point

#### \*AN320 Additional Functions:

- Measures Relative Humidity, Wet Bulb and Dew Point
- Carbon Dioxide (CO<sub>2</sub>) measurement

SPECIFICATIONS	AN300	AN310	AN320
m/s	0.2 to 30m/s	0.2 to 30m/s	0.2 to 30m/s
ft/min	40 to 5900ft/min	40 to 5900ft/min	40 to 5900ft/min
Basic Accuracy	±1.5%	±1.5%	±1.5%
CFM/CMM	0 to 99999	0 to 99999	0 to 99999
Temperature	-4 to 140°F (-20 to 60°C)	-4 to 140°F (-20 to 60°C)	-4 to 140°F (-20 to 60°C)
Basic Accuracy	± (0.6°C)	± (0.6°C)	± (0.6°C)
Humidity	—	0.1 to 99.9%RH	0.1 to 99.9%RH
Basic Accuracy	—	±3%RH	±3%RH
Wet Bulb	—	-4 to 140°F (-20 to 60°C)	-4 to 140°F (-20 to 60°C)
Dew Point	—	23 to 140°F (-5 to 60°C)	23 to 140°F (-5 to 60°C)
Carbon Dioxide (CO <sub>2</sub> )	—	—	0 to 9999ppm
Dimensions/ Weight	10.6x4.2x2" (269x106x51mm) / 7oz (200g)		

#### ORDERING

- AN300 **N** Large Vane CFM/CMM Thermo-Anemometer
- AN310 **N** Large Vane CFM/CMM Anemometer/Psychrometer
- AN320 **N** Large Vane CFM/CMM Anemometer/Psychrometer + CO<sub>2</sub>
- AN300-C Airflow Cone and Funnel Adapters

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

- Measures Air Velocity, Air Flow, Air Temperature, Humidity, Dew Point and Wet Bulb with built-in Automatic Temperature Compensation (ATC)
- Manually store/recall up to 99 readings and automatically datalog up to 12000 readings (2000 readings for each parameter) with 12/24 hour time and date stamp
- Select data sampling rate from 1s to 4hr: 59 min: 59s
- Min/Max/Avg, Data hold, and Auto power off with disable
- Built-in PC interface
- Complete with external mini vane probe, Windows® compatible software, USB cable, 6 AAA batteries, and hard carrying case; 1 year warranty

#### SPECIFICATIONS

m/s	0.5 to 20m/s	±3%
ft/min	100 to 3940ft/min	±3%
Temperature	-4 to 140°F (-20 to 60°C)	±1.1°F (0.6°C)
Humidity	0.1 to 99.9%RH	±3%RH
Wet Bulb	-4 to 158°F (-20 to 70°C)	
Dew Point	-4 to 140°F (-20 to 60°C)	
CFM/CMM	0 to 99999	

#### ORDERING

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

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



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

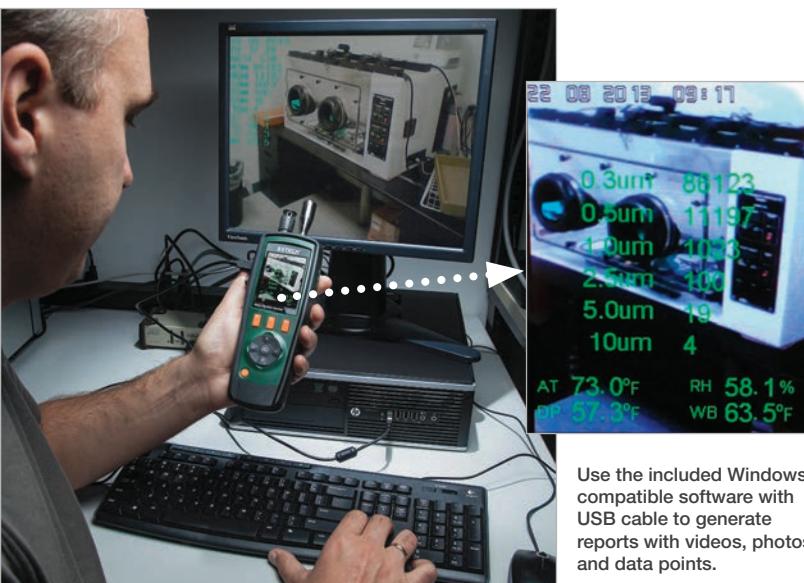
- Simultaneously measure and display 6 channels of particle sizes (down to 0.3  $\mu$ m), Air Temperature, Humidity, Dew Point and Wet Bulb
- 2.8" TFT Color LCD display
- Built-in 320x240-pixel camera takes videos (3GP) and photo images (JPEG) and records them in internal 74MB memory
- Internal memory stores 5000 records (date, time, counts, humidity, temperature, sample volumes, and location label) and 20 minutes of video
- Selectable sample time, count data, and programmable delay
- Max, Min, DIF, AVG record, Date/time setup controls
- Auto Power Off
- Language selection: English, French, German, Spanish
- Meter is NIST calibrated
- Tripod mount for continuous recording
- Mini-USB port connection
- microSD card slot in battery compartment (memory card not included; max size 8GB)
- Complete with NIST-traceable calibration certificate, Universal AC Adapter/Charger with multiple plugs, USB cable, PC software, tripod, filter, 7.4V NiMH battery and hard case; 1 year warranty

## SPECIFICATIONS

Particle Size Channels	0.3, 0.5, 1.0, 2.5, 5.0, 10 $\mu$ m
Flow Rate	0.1ft <sup>3</sup> (2.83L/min) controlled by internal pump
Count Modes	Cumulative, Differential, Concentration
Counting Efficiency	50% @ 0.3 $\mu$ m; 100% for particles >0.45 $\mu$ m
Coincidence Loss	5% @ 2,000,000 particles per ft <sup>3</sup>
Air Temperature	-14 to 140°F (-25 to 60°C); Accuracy: $\pm 2^{\circ}$ F/1°C
Relative Humidity	0 to 100%RH; Accuracy: $\pm 3\%$ RH (40% to 60%RH)
Dew Point/ Wet Bulb	32 to 122°F (0 to 50°C)
Dimensions/Weight	9.4 x 3 x 2.2" (240 x 75 x 57mm)/1.26lbs (570g)

## ORDERING

VPC300 Video Particle Counter



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



102 **N** Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.

## RD300 Refrigerant Leakage Detector



Ideal for detecting leakages from air-conditioning units and cooling systems that use all standard refrigerants

- Detects all standard refrigerants using a heated diode sensor
- LED light at probe tip (with on/off switch) for working in dimly lit areas
- LEDs display user-selectable High/Medium/Low levels with sensitivity of 0.25/0.50/0.99 oz per year
- Audible and Visual alert with mute button; Low battery indicator
- Field replaceable sensor (SD300-S) and LED light tip (RD300-L)
- Dimensions: 7.2x2.8x1.6" (184x70x40mm); Weight: 10oz (280g)
- Complete with sensor tip and LED light, leak test bottle, 9V battery, and hard case; 1yr warranty

## ORDERING

RD300	Refrigerant Leakage Detector
RD300-S	Replacement Heated Diode Sensor Tip
RD300-L	Replacement LED Light Tip



## EZ40 EzFlex™ Combustible Gas Detector



## Quickly Identifies and Pinpoints gas leaks

- 16" (406mm) gooseneck for easy access into hard to reach locations
- High Sensitivity
- One hand operation with thumb controlled sensitivity adjustment, to eliminate background gas levels
- Visible and audible alarm at 10% (LEL) Lower Explosive Limit for methane
- Locate the smallest leaks
- Complete with 3 "C" batteries; 1 year warranty

## SPECIFICATIONS

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/ Weight	8.7 x 2.83 x 1.8" (221 x 72 x 46mm)/ 18.4oz (520g)

## ORDERING

EZ40	EzFlex™ Combustible Gas Detector
------	----------------------------------

## FG100 Combustible Gas Leak Detector



## Fast response detection of flammable gas leakage

- Detects flammable gases: LNG - Liquefied Natural Gas (1000 to 6500ppm) and LPG - Liquefied Propane Gas (500 to 6500ppm)
- Highly sensitive detection circuitry with audible and visual alarm
- LED indicators for gas leakage and static discharge
- Continuous operation up to 4 hours
- Dimensions/ Weight: 6.5 x 0.8" (164mm x 21mm)/ 0.9oz (25g)
- Complete with pocket clip and two AAA batteries; 1 year warranty

## ORDERING

FG100	Combustible Gas Leak Detector
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For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 103



**CO230 Indoor Air Quality CO<sub>2</sub> Monitor**

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

- Maintenance free NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- Desktop or wall mount with triple LCD displays CO<sub>2</sub>, Temperature, and Humidity; Calculates Dew Point and Wet Bulb values
- Visible/Audible CO<sub>2</sub> warning alarm when level exceeds high or low user set point
- Min/Max CO<sub>2</sub> value recall function
- Calculates statistical weighted averages of TWA (8 hour Time Weighted Average) and STEL (15 minute Short Term Exposure Limit)
- Alarm relay output for ventilation control
- Complete with Universal AC adaptor and multiple plug types (US, EU, UK, AUS); 1 year warranty

SPECIFICATIONS	RANGE	RESOLUTION
Carbon Dioxide (CO <sub>2</sub> )	0 to 9,999ppm	1ppm
Temperature (Air)	14 to 140°F (-10 to 60°C)	0.1°F/°C
Relative Humidity	0.1 to 99.9%RH	0.1%RH
Wet Bulb	Calculated	
Dew Point	Calculated	
Dimensions	5.1x3.4x2.4" (130x85x60mm)	
Weight	7.2oz (204g)	

**ORDERING**

CO230 Indoor Air Quality CO<sub>2</sub> Monitor

**CO240 Handheld Indoor Air Quality CO<sub>2</sub> Meter****Dual display of CO<sub>2</sub> level and Humidity, Temperature, Dew Point, or Wet Bulb**

- Maintenance free NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- Audible CO<sub>2</sub> warning alarm when concentration level exceeds high user set point
- Min/Max CO<sub>2</sub> value recall function
- Software for on-line (real-time) data streaming to a PC
- Automatic Baseline Calibration function
- Data hold, Low battery indicator, and Auto Power Off (with disable) function
- Tripod mount (tripod sold separately)
- Complete with six AAA batteries, USB cable, PC software, Universal AC adaptor (with 4 plugs US, EU, UK, AUS), and soft case; 1 year warranty

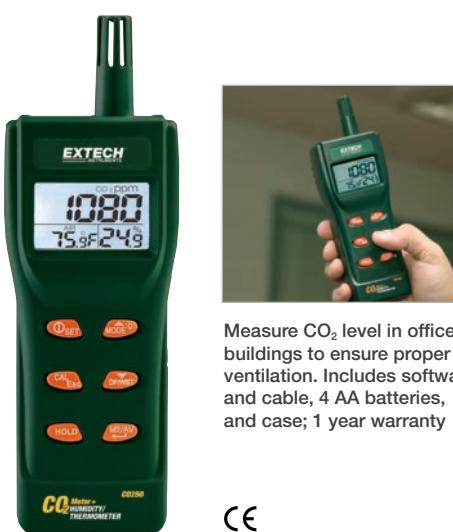
SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Carbon Dioxide (CO <sub>2</sub> )	0 to 9,999ppm	1ppm	±(5%rdg + 75ppm)
Temperature (Air)	14 to 122°F (-10 to 50°C)	0.1°F/°C	±2.0°F (1.0°C)
Relative Humidity	10 to 90%RH	0.1%RH	±5%RH @ 25°C
Dew Point	-99.2 to 118°F (-72.9 to 47°C)	0.1°F/°C	
Wet Bulb	12.2 to 118.8°F (-11 to 48.2°C)	0.1°F/°C	
Dimensions	8.3x2.4x1.6" (211x60x40mm)		
Weight	6.4oz (181.4g)		

**ORDERING**

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



106 **N** Indicates products that are available with optional calibration traceable to **NIST**. See page 160 for a complete listing.

**CO250 Portable Indoor Air Quality CO<sub>2</sub> Meter**

Measure CO<sub>2</sub> level in office buildings to ensure proper ventilation. Includes software and cable, 4 AA batteries, and case; 1 year warranty

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

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

SPECIFICATIONS	RANGE	RESOLUTION
Carbon Dioxide (CO <sub>2</sub> )	0 to 5,000ppm	1ppm
Temperature	14 to 140°F (-10 to 60°C)	0.1°F/°C
Humidity	0.0 to 99.9%	0.1%
Dimensions/ Weight	7.9x2.7x2.3" (200x70x57mm)/ 6.7 oz. (190g)	

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

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

Includes 6 AAA batteries, RS-232 cable, and Windows® compatible software; 1 year warranty

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

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

SPECIFICATIONS	RANGE	RESOLUTION
Carbon Dioxide (CO <sub>2</sub> )	0 to 6,000ppm	1ppm
Temperature	-4 to 140°F (-20 to 60°C)	0.1°F/°C
Humidity	10 to 95%	0.1%
Dimensions/ Weight	5.3 x 2.8 x 1.2" (135 x 72 x 31mm)/ 8.2oz (235g)	

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

**SD800 CO<sub>2</sub>/Humidity/Temperature Datalogger**

Includes 6 AAA batteries, SD memory card, Universal AC adaptor, and mounting bracket; 1 year warranty



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

- Checks for Carbon Dioxide (CO<sub>2</sub>) concentrations
- Maintenance free dual wavelength NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- Triple LCD simultaneously displays CO<sub>2</sub>, Temperature and Relative Humidity
- Selectable data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto

SPECIFICATIONS	RANGE	MAX. RESOLUTION	BASIC ACCURACY
Carbon Dioxide (CO <sub>2</sub> )	0 to 4,000ppm	1ppm	±40ppm (<1000ppm); ±5% rdg (>1000ppm)
Temperature	32 to 122°F (0 to 50°C)	0.1°F/°C	±1.8°F/0.8°C
Humidity	10 to 90%	0.1%	±4%RH
Datalogging	Datalogs using 4GB SD memory card (included)		
Dimensions/ Weight	5.2 x 3.1 x 1.3" (132 x 80 x 32mm)/ 9.9oz (282g)		

ORDERING	
SD800	CO <sub>2</sub> /Humidity/Temperature Datalogger

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com)

**FM100 Formaldehyde (CH<sub>2</sub>O or HCHO) Monitor****NEW**

Includes built-in stand, side cover, Universal AC Adaptor (multi-plugs US, EU, UK, and AU), and 4 AAA batteries; 1 year warranty

**Alternately displays Formaldehyde level, Temperature, and Humidity**

- Bright tri-colored LED indicator: Green <0.08ppm, Yellow = 0.08 to 0.79ppm, and Red = 0.80ppm and above
- LCD displays alarm icon, LED light turns red, and loud audible beeper sounds when indoor CH<sub>2</sub>O level exceeds set point
- “ZERO” Re-Calibration function
- Manual Temperature and Relative Humidity Compensation (adjustable)
- Designed with Electrochemical CH<sub>2</sub>O sensor; CH<sub>2</sub>O Calibration function in fresh air
- Four display error codes for troubleshooting; Recover to factory setting function

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Formaldehyde (HCHO & CH <sub>2</sub> O)	0.00 to 5.00ppm (mg/m <sup>3</sup> )	0.01ppm (mg/m <sup>3</sup> )	±5% of rdg + 0.03ppm
Temperature	32 to 122°F (0 to 50°C)	0.1°F/°C	±2°F/1°C
Humidity	20 to 90%RH	1%RH	±5%RH
Dimensions/Wt	4.4x4.3x2.1" (113x108x53mm)/ 5.6oz (159g)		

**ORDERING**

FM100 Formaldehyde Monitor

**FM200 Handheld Formaldehyde (CH<sub>2</sub>O or HCHO) Meter****NEW**

Includes built-in stand, side cover, Universal AC Adaptor (multi-plugs US, EU, UK, and AU), and 4 AAA batteries; 1 year warranty

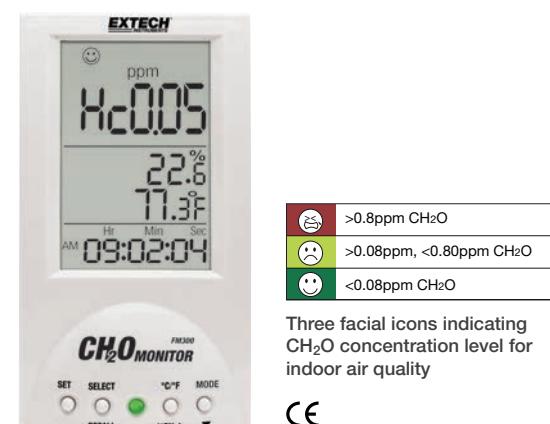
**Displays Formaldehyde level, Air Temperature, and Relative Humidity**

- Audible alarm default at 0.08ppm (adjustable)
- Designed with Electrochemical CH<sub>2</sub>O sensor
- Sensor LED indicator shows where sensor is connected properly, power is on, and fan is in working condition
- Built-in bumper that allows the fan inside the sensor to draw in gas quickly
- CH<sub>2</sub>O Calibration function in fresh air
- Min/Max, Data Hold, Auto power off with disable, and Low battery indicator

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Formaldehyde (HCHO & CH <sub>2</sub> O)	0.00 to 5.00ppm	0.01ppm	±5%
Temperature	32 to 122°F (0 to 50°C)	0.1°F/°C	±2°F/1°C
Humidity	10 to 90%RH	0.1%RH	±5%RH
Dimensions/Wt	6.1x3.4x3.2" (15x87x81mm)/ 5.8oz (165g)		

**ORDERING**

FM200 Handheld Formaldehyde Meter

**FM300 Desktop Formaldehyde (CH<sub>2</sub>O or HCHO) Monitor**

>0.8ppm CH <sub>2</sub> O
>0.08ppm, <0.80ppm CH <sub>2</sub> O
<0.08ppm CH <sub>2</sub> O

Three facial icons indicating CH<sub>2</sub>O concentration level for indoor air quality



**Measures Formaldehyde (CH<sub>2</sub>O or HCHO) concentration, Air Temperature & Humidity with date (Year, Month, Day) and time; User settable audible alarm**

- Visibly bright LED (green & red) and three facial icons indicate CH<sub>2</sub>O warning levels
- Audible beeping alarm default at 0.08ppm (adjustable)
- Min/Max CH<sub>2</sub>O value recall function
- Calculates statistical weighted averages of TWA (8-hour Time Weighted Average) and STEL (15-minute Short Term Exposure Limit)
- Internal memory for manually storing up to 99 readings with recall function
- 1 year warranty
- Complete with Universal AC adapter (UA100-240) and multiple plug types

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Formaldehyde (HCHO & CH <sub>2</sub> O)	0.00 to 5.00ppm	0.01ppm	±5%
Temperature	32 to 122°F (0 to 50°C)	0.1°F/°C	±2°F/1°C
Humidity	10 to 90%RH	0.1%RH	±5%RH
Dimensions/Wt	6.1 x 3.4 x 3.2" (155 x 87 x 81mm)/ 5.8oz (165g)		

**ORDERING**

FM300 Desktop Formaldehyde Monitor



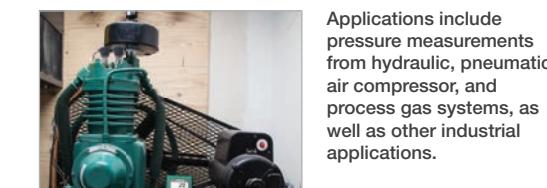
108 **N** Indicates products that are available with optional calibration traceable to **NIST**. See page 160 for a complete listing.

**VFM200 VOC/Formaldehyde (CH<sub>2</sub>O or HCHO) Meter****NEW****Measures VOC (Volatile Organic Compound) and Formaldehyde concentrations in real-time**

- Backlit LCD displays TVOC (Total Volatile Organic Compound) and HCHO (Formaldehyde) concentrations simultaneously in real-time
- Built-in fast response, high accuracy fuel cell Formaldehyde sensor
- Adjustable audible and visible high/low alarms
- Auto Power Off
- 1 year warranty
- Complete with rechargeable battery and Universal AC Adaptor/ Charger (multi-plugs US, EU, UK, and AU)

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
TVOC	0.00 to 9.99ppm (mg/m <sup>3</sup> )	0.01ppm (mg/m <sup>3</sup> )	±5%FS
Formaldehyde (CH <sub>2</sub> O or HCHO)	0.00 to 5.00ppm (mg/m <sup>3</sup> )	0.01ppm (mg/m <sup>3</sup> )	±5%FS
Response Time	<2s		
Power Supply	Rechargeable battery and AC adaptor		
Charge Time	approx. 3 hours		
Dimensions	6.5x2.4x1" (165 x 60 x 25mm)/ 1.3lbs (584g)		

ORDERING	VFM200	VOC/Formaldehyde Meter

**SD750 3-Channel Pressure Meter/Datalogger**

Applications include pressure measurements from hydraulic, pneumatic, air compressor, and process gas systems, as well as other industrial applications.

Optional Universal Pressure Transducers available in three ranges (30psi, 150psi, and 300psi). Purchase the transducer with the range that best fits your application needs or call our tech support hotline if you need guidance.

Records data on an SD card in Excel® format for easy transfer to a PC for analysis plus the 3-Channel feature allows technicians to easily monitor and record pressure levels from three sources using one meter instead of three

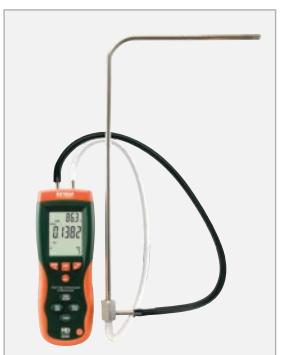
- Triple LCD simultaneously displays 3 pressure channels
- Connect to installed transducers (up to 5000psi with 4-20mA output) or optional 30psi, 150psi or 300psi transducers listed below
- 4-20mA input with readout in 9 units of measure
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- User can select the data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto
- 1 year warranty
- Complete with six AAA batteries, SD card, Universal AC Adaptor, three connectors, and mounting bracket
- Optional transducers sold separately (choose 30psi, 150psi or 300psi range)

SPECIFICATIONS	30 PSI	150 PSI	300 PSI
bar	0.002 to 2 bar	0.01 to 10 bar	0.02 to 20 bar
psi	0.02 to 30 psi	0.2 to 150 psi	0.2 to 300 psi
kg/cm <sup>2</sup>	0.002 to 2.040 kg/cm <sup>2</sup>	0.01 to 10.19 kg/cm <sup>2</sup>	0.02 to 20.40 kg/cm <sup>2</sup>
mmHg	2 to 1500 mmHg	10 to 7500 mmHg	20 to 15000 mmHg
inHg	0.05 to 59.05 inHg	0.2 to 295.2 inHg	0.5 to 590.5 inHg
mH <sub>2</sub> O	0.02 to 20.40 mH <sub>2</sub> O	0.1 to 101.9 mH <sub>2</sub> O	0.2 to 204.0 mH <sub>2</sub> O
inH <sub>2</sub> O	1 to 802 inH <sub>2</sub> O	5 to 4010 inH <sub>2</sub> O	10 to 8020 inH <sub>2</sub> O
atm	0.002 to 1.974 atm	0.01 to 9.87 atm	0.02 to 19.74 atm
kPa	0.2 to 200.0 kPa	1 to 1000 kPa	2 to 2000 kPa
Datalogging	Datalogs using 4GB SD memory card		
Dimensions/ Weight	5.2x3.1x1.3" (132x80x32mm)/ 7oz (199g)		

ORDERING	SD750	3-Channel Pressure Datalogger
		Accessories (Meter not included)
	PT30-SD	Pressure Transducer for SD750 (30psi)
	PT150-SD	Pressure Transducer for SD750 (150psi)
	PT300-SD	Pressure Transducer for SD750 (300psi)

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 109

## HD350 Pitot Tube Anemometer + Differential Manometer



Includes pitot tube with two 33.5" (85cm) connection hoses

CE

**Pitot Tube measures Air Velocity/Airflow in difficult-to-reach or tight locations where a vane anemometer won't fit**

- Simultaneous display of Pressure, Air Velocity or Air Flow plus Temperature
- $\pm 0.7252\text{psi}$  range
- 5 selectable units of pressure measurement
- Max/Min/Avg recording and Relative time stamp
- Data Hold and Auto power off functions
- Large LCD display with backlighting
- Zero function for offset correction or measurement
- Store/Recall up to 99 readings in each mode
- USB port includes software
- 3 year warranty
- Complete with Windows® compatible software with cable, 9V battery, pitot tube with two 33.5" (85cm) connection hoses, 100V-240V universal AC Adaptor with multiple plugs, and hard carrying case

SPECIFICATIONS	RANGE	MAX RESOLUTION	BASIC ACCURACY
<b>Pressure</b>			
psi	0.7252psi	0.0001psi	$\pm 0.3\%$ FS
mbar	50.00mbar	0.01mbar	$\pm 0.3\%$ FS
inH <sub>2</sub> O	20.07inH <sub>2</sub> O	0.01inH <sub>2</sub> O	$\pm 0.3\%$ FS
mmH <sub>2</sub> O	509.8mmH <sub>2</sub> O	0.01mmH <sub>2</sub> O	$\pm 0.3\%$ FS
Pa	5000Pa	1Pa	$\pm 0.3\%$ FS
<b>Linearity/Hysteresis</b>			
Maximum Pressure	10psi		
<b>Air Velocity/Flow</b>			
ft/min	200 to 15733	1	$\pm 1\%$ FS
m/s	1 to 80.00	0.01	$\pm 1\%$ FS
km/h	3.5 to 288.0	0.1	$\pm 1\%$ FS
MPH	2.25 to 178.66	0.01	$\pm 1\%$ FS
knots	2.0 to 154.6	0.1	$\pm 1\%$ FS
CFM/CMM	0 to 99,999	0.001	$\pm 1\%$ FS
Temperature	32.0 to 122.0°F (0 to 50°C)	0.1°	$\pm 3\text{°F}/1.5\text{°C}$
Dimensions/Weight	Meter: 8.2 x 2.9 x 1.9" (210 x 75 x 50mm) / 12oz (340g); Pitot Tube: 15.4 x 7.7" (390 x 195mm); Diameter 0.32" (8mm) / 7.2oz (204g)		

## ORDERING

HD350 Pitot Tube Anemometer + Differential Manometer



**CALIBRATION TRACEABLE TO NIST**

110 **N** Indicates products that are available with optional calibration traceable to **NIST**. See page 160 for a complete listing.

Downloaded from [Arrow.com](http://Arrow.com).

## HD700 Series Differential Pressure Manometers



CE

## Low Range/High Resolution Gauge or Differential Pressure

- Three models to choose from: Model HD700 ( $\pm 2\text{psi}$  range), Model HD750 ( $\pm 5\text{psi}$  range), and Model HD755 ( $\pm 0.5\text{psi}$  range)
- 11 selectable units of measure
- MAX/MIN recording and Relative time stamp
- Data Hold and Auto power off
- Zero function for offset correction or measurement
- Large LCD display with backlighting
- USB port includes PC software
- 3 year warranty
- Complete with 9V battery, Windows® compatible software with USB cable, 100-240V Universal AC adaptor, connection hose, built-in stand, and hard carrying case

SPECIFICATIONS	HD700	HD750	HD755
psi	2psi (0.001psi)	5psi (0.001psi)	0.5psi (0.001psi)
inH <sub>2</sub> O	55.40inH <sub>2</sub> O (0.01inH <sub>2</sub> O)	138.3inH <sub>2</sub> O (0.1inH <sub>2</sub> O)	13.85inH <sub>2</sub> O (0.01inH <sub>2</sub> O)
mbar	137.8mbar (0.1mbar)	344.7mbar (0.1mbar)	34.47mbar (0.01mbar)
kPa	13.78kPa (0.01kPa)	34.47kPa (0.01kPa)	3.447kPa (0.001kPa)
inHg	4.072inHg (0.001inHg)	10.18inHg (0.01inHg)	1.018inHg (0.001inHg)
mmHg	103.4mmHg (0.1mmHg)	258.5mmHg (0.1mmHg)	25.85mmHg (0.01mmHg)
ozin <sup>2</sup>	32ozin <sup>2</sup> (0.01ozin <sup>2</sup> )	80ozin <sup>2</sup> (0.01ozin <sup>2</sup> )	8.00ozin <sup>2</sup> (0.01ozin <sup>2</sup> )
ftH <sub>2</sub> O	4.616ftH <sub>2</sub> O (0.001ftH <sub>2</sub> O)	11.53ftH <sub>2</sub> O (0.01ftH <sub>2</sub> O)	1.154ftH <sub>2</sub> O (0.001ftH <sub>2</sub> O)
cmH <sub>2</sub> O	140cmH <sub>2</sub> O (0.1cmH <sub>2</sub> O)	350.1cmH <sub>2</sub> O (0.1cmH <sub>2</sub> O)	2.59cmH <sub>2</sub> O (0.01cmH <sub>2</sub> O)
kgcm <sup>2</sup>	0.140kgcm <sup>2</sup> (0.001kgcm <sup>2</sup> )	0.351kgcm <sup>2</sup> (0.001kgcm <sup>2</sup> )	0.035kgcm <sup>2</sup> (0.001kgcm <sup>2</sup> )
bar	0.137bar (0.001bar)	0.344bar (0.001bar)	0.034bar (0.001bar)
Basic Accuracy	$\pm 0.3\%$ FS	$\pm 0.3\%$ FS	$\pm 0.3\%$ FS
Dimensions/Weight	Meter: 8.2x2.9x1.9" (210x75x50mm) / 9.8oz (280g)		

## ORDERING

HD700 **N** Differential Pressure Manometer (2psi)  
HD750 **N** Differential Pressure Manometer (5psi)  
HD755 **N** Differential Pressure Manometer (0.5psi)

## 407910 Heavy Duty Differential Pressure Manometer



CE

## Wide range dual input with multiple units and RS-232 interface

- Dual differential inputs with internal sensors
- Wide ( $\pm 802$  inches of water) measurement range with high resolution to 0.5 inch
- Displays 8 types of pressure units
- Zero function for offset measurements
- Data Hold, Auto power off, and MAX/MIN
- Built-in RS-232 PC interface — optional 407001 Data Acquisition software (see p. 114 for details)
- 3 year warranty
- Complete with 2 quick-disconnect fittings, 9V battery, protective holster with stand, and case

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
psi	$\pm 29\text{psi}$	0.02psi	$\pm 1\%$ FS
mbar	$\pm 2000\text{mbar}$	1mbar	$\pm 2\%$ FS
kg/cm <sup>2</sup>	$\pm 2.040\text{kg/cm}^2$	0.001kg/cm <sup>2</sup>	$\pm 1\%$ FS
mmHg	$\pm 1500\text{mmHg}$	1mmHg	$\pm 1\%$ FS
inHg	$\pm 59.05\text{inHg}$	0.05inHg	$\pm 1\%$ FS
mH <sub>2</sub> O	$\pm 20.40\text{mH}_2\text{O}$	0.01mH <sub>2</sub> O	$\pm 1\%$ FS
inH <sub>2</sub> O	$\pm 802.0\text{inH}_2\text{O}$	0.5inH <sub>2</sub> O	$\pm 1\%$ FS
Atmosphere	$\pm 1.974\text{atm}$	0.001atm	$\pm 1\%$ FS
Dimensions/Weight	Meter: 7x2.9x1.3" (178x74x33mm)/12oz (350g)		

## ORDERING

407910 **N** Heavy Duty Differential Pressure Manometer  
156119 117VAC Adaptor  
409997 Soft Vinyl Carrying Case

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com)

**SDL700 Pressure Meter/Datalogger**

Optional Pressure Transducers available in:  
30psi (PT30)  
150psi (PT150)  
300psi (PT300)



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

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

- Accepts interchangeable transducers with ranges of 30, 150, 300psi (Transducers sold separately)
- Meter automatically senses plug-in transducer's range and calibration
- Selectable data sampling rate: 1 to 3600 seconds
- Internal memory stores 99 readings manually; External data storage in Excel format on an SD card (included) for easy transfer to a PC
- Large backlit dual LCD
- MIN/MAX, Data Hold, and Auto power functions
- Complete with 6 x AA batteries, SD memory card, and hard carrying case; 3 year warranty. Optional AC adaptor.

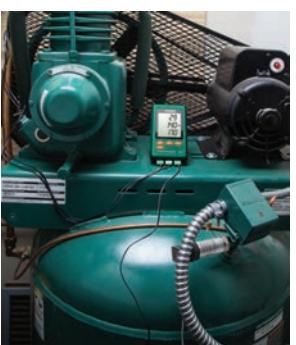
SPECIFICATIONS	30psi	150psi	300psi
bar	0.002 to 2	0.01 to 10	0.02 to 20
psi	0.02 to 29	0.2 to 145	0.2 to 290
kg/cm <sup>2</sup>	0.002 to 2.040	0.01 to 10.19	0.02 to 20.40
mmHg	2 to 1500	10 to 7500	20 to 15000
inHg	0.05 to 59.05	0.2 to 295.2	0.5 to 590.5
mmH <sub>2</sub> O	0.02 to 20.40	0.1 to 101.9	0.2 to 204.0
inH <sub>2</sub> O	1 to 802	5 to 4010	10 to 8020
atm	0.002 to 1.974	0.01 to 9.87	0.02 to 19.74
hPa	2 to 2000	10 to 10000	20 to 20000
kPa	0.2 to 200.0	1 to 1000	2 to 2000
Dimensions/Weight	Meter: 7.2x2.9x1.9" (182X73X48mm)/ 17.3oz (490g)		

**ORDERING**

SDL700	N	Pressure Meter/Datalogger
PT30		30psi Pressure Transducer
PT150		150psi Pressure Transducer
PT300		300psi Pressure Transducer
UA100-240		100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)

**Extech's SD series Dataloggers**

Extech's SD series Dataloggers measure, display and record various industrial parameters, such as Pressure level for hydraulics, pneumatics, air compressors, and process gas systems to Environmental conditions such as Humidity, Temperature, Carbon Dioxide, and Barometric Pressure. Featuring date/time stamps and selectable data sampling rates, all SD series models record in Excel® format on included SD cards so users can transfer files to a PC for further analysis and reporting.

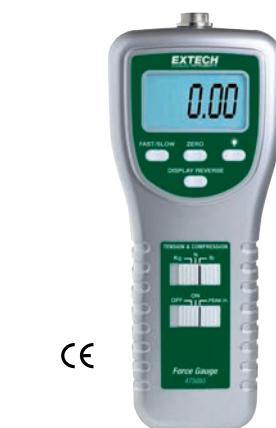


**SD750** 3-Channel Pressure Meter/Datalogger (p. 109)

**SD700** Barometric Pressure/Humidity/Temperature Datalogger (p. 87)

**SD200** 3-Channel Temperature Datalogger (p. 73)

**SD800** CO<sub>2</sub>/Humidity/Temperature Datalogger (p. 107)  
**SD500** Humidity/Temperature Datalogger (p. 87)



Complete with tension and compression adaptors, six AA 1.5V batteries, and case; Optional AC Adaptors available 153117 or UA100-240, see below for ordering; 1 year warranty

**475055 High Capacity Force Gauge with PC Interface**

- 220lbs (100kg), Tension, and Compression
- Tension or Compression, Peak hold and Zero functions
- Large LCD with back light feature and Positive/Reverse display for easy readability
- PC interface and optional software

**SPECIFICATIONS**

Range	220 lbs, 100kg, 980 Newtons
Basic Accuracy (23°C)	±(0.5%rdg)
Resolution	0.05lbs, 0.05kg, 0.2 Newtons
Overload capacity	150kg
Update Rate	Fast mode 0.2 seconds; Slow mode 0.6 seconds
Full scale deflection	<1mm
Transducer type	Load cell
Dimensions/ Weight	Meter: 8.5 x 3.5 x 1.8" (215 x 90 x 45 mm)/ 1 lb (450g)

**ORDERING**

475055	N	High Capacity Force Gauge with PC Interface
407001		Data Acquisition Software and Serial Cable
407001-USB		USB adaptor for 407001

**475040/475044-SD Digital Force Gauges**

475040  
475040-SD

475044  
475044-SD



475040-SD & 475044-SD include SD memory card to conveniently datalog readings

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

- 5 digit 0.4" (10mm) LCD with reversible display feature to match viewing angle
- Zero Adjust, Peak Hold, and Selectable fast/slow response feature
- Over-range, low battery, and advanced function indication
- 1 year warranty
- Complete with hook adaptor for tension, compression adaptors (flat, cone and chisel head), 5" (127mm) extension rod, 6 AA batteries, and case; 475040-SD and 475044-SD also include SD memory card

**SPECIFICATIONS**

475040/475040-SD	475044/475044-SD (HIGH CAPACITY)
Datalogging	– / SD memory card for 475040-SD
Range	176oz, 5000g, 49 Newtons
Basic Accuracy (23°C)	±(0.4%)
Resolution	0.05oz, 1g, 0.01 Newtons
Overload capacity	10kg
Update Rate	Fast mode 0.2secs; Slow mode 0.6secs
Full scale deflection	2.00mm
Transducer type	Load cell
Dimensions/ Weight	8.5x3.5x1.8" (215x90x45mm)/ 1.4 lbs (650g)

**ORDERING**

475040	N	Digital Force Gauge
475040-SD	N	Digital Force Gauge/Datalogger
475044	N	High Capacity Force Gauge
475044-SD	N	High Capacity Force Gauge/Datalogger
479097		Accessory Kit (2ea.- hook, flat, cone, & chisel head adaptors)
UA100-240		100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)



## Reliable, Easy to Use, and Accurate

Check for proper indoor and outdoor light levels to comply with OSHA regulations

### ACCESSORIES

407001	Data Acquisition Software
407001-USB	USB Adaptor
UA100-240	100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)



### 401027 Pocket Foot Candle/Lux Meter

Measures up to 2,000Fc for basic lighting applications

- Easy to operate Foot candle light meter with 2 ranges
- Convenient pocket size design
- Over-range indication
- Complete with 9V battery, light sensor with protective cover and 45" (1.1m) cable, and built-in stand



### 401025 Foot Candle/Lux Meter

Includes analog output and fast/slow response feature

- Accurately displays light level in terms of Fc or Lux over three ranges
- Select fast (1 second) or slow (2 seconds) response time
- Analog output of 1mV per count for capturing readings to a recorder
- Complete with 9V battery, light sensor with protective cover and 47" (1.2m) cable, and built-in stand



### LT300 Light Meter

Digital and Analog display of light in Fc or Lux

- Wide range to 40,000 Foot-Candles or 400,000 Lux with high resolution to 0.01 Fc/Lux
- Relative mode indicates change in light levels
- Peak mode captures highest reading
- Remote light sensor on 12" (305mm) coiled cable — expandable to 24" (609mm)
- Utilizes precision photo diode and color correction filter
- MAX/MIN/AVG, Data Hold, and Auto power off
- Built-in PC serial interface with optional 407001 Data Acquisition software (see p. 114 for details)
- Large LCD display with analog bargraph
- Backlight for readings in low light levels
- Complete with 9V battery, light sensor, and protective cover with 45" (1.1m) cable, and protective holster with stand. Optional 117V (156119) or 220V (156221) AC adaptors.



### 407026 Heavy Duty Light Meter with PC Interface

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

- % displays differential from reference point
- "ZERO" Re-Calibration
- Enhance accuracy by selecting lighting type Tungsten/Daylight, Fluorescent, Sodium, Mercury
- MAX/MIN/AVG, Data Hold, and Auto power off
- Built-in PC serial interface with optional 407001 Data Acquisition software (see p. 114 for details)
- Large LCD display with analog bargraph
- Backlight for readings in low light levels
- Complete with 9V battery, light sensor, and protective cover with 45" (1.1m) cable, and protective holster with stand. Optional 117V (156119) or 220V (156221) AC adaptors.



### SDL400 Light Meter/Datalogger

Datalogger date/time stamps and stores readings on an SD card in Excel® format

- Wide range: 10,000Fc/100kLux
- Cosine and color-corrected measurements
- Utilizes precision photo diode and spectral response filter
- Selectable data sampling rate: 1 to 3600 seconds (1 hour)
- Internal memory stores 99 readings manually
- Large backlit LCD
- Type K/J Thermocouple input
- MIN/MAX and Data Hold
- "ZERO" Re-Calibration
- Auto power off with disable function
- Complete with 6 x AA batteries, SD card, hard case & light sensor with protective cover; Optional Universal AC Adaptor UA100-240 also see p. 41 and 70 for optional Type K and J Thermocouple probes

SPECIFICATIONS	401027 <sup>N</sup>	401025 <sup>N</sup>	LT300 <sup>N</sup>	407026 <sup>N</sup>	SDL400 <sup>N</sup>	SPECIFICATIONS
Fc Range	200, 2000Fc	200, 2000, 5000Fc	40,000Fc	200, 2000, 5000Fc	200, 2000, 10kFc	Fc Range
Lux Range	—	2000, 20000, 50000Lux	400,000Lux	2000, 20000, 50000Lux	2000, 20k, 100kLux	Lux Range
Max. Resolution	0.1Fc	0.1Fc/1Lux	0.01Fc/Lux	0.1Fc/1Lux	0.1Fc/1Lux	Max. Resolution
Basic Accuracy	±5% FS	±5% FS	±5% rdg	±4%FS	±4%rdg	Basic Accuracy
Temperature (Type J/K)	—	—	—	—	J: -148 to 2192°F (-100 to 1200°C) K: -148 to 2372°F (-100 to 1300°C)	Temperature (Type J/K)
Cosine & Color Corrected	Yes	Yes	Yes	Yes	Yes	Cosine & Color Corrected
Analog output	—	Yes	—	—	—	Analog output
PC Interface	—	—	—	Optional 407001 Software (see p. 114)	SD Card	PC Interface
Datalogging	—	—	—	—	Manual: 99 readings Continuous: Datalogs with 4GB SD card	Datalogging
CE approved	Yes	Yes	Yes	Yes	Yes	CE approved
Dimensions/ Weight	5.2x2.8x1" (131x70x25mm)/ 6.9oz (195g)	6.4x2.8x1.2" (163x70x30mm)/ 8.3oz (220g)	5.9x2.95x1.57" (150x75x40mm)/ 7oz (200g)	7x2.9x1.3" (178x74x33mm)/ 1.6lbs (726g)	7.2x2.9x1.9" (182x73x48mm)/ 16.8oz (475g)	Dimensions/ Weight
Warranty	1 year	1 year	1 year	3 years	3 years	Warranty



114 <sup>N</sup> Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 115



## Bright Solutions from Extech

Extech light meters deliver accurate, repeatable readings and feature big-digit displays, wide-range models, ruggedized designs, as well as memory and datalogging capabilities.



### 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 39" (1m) coiled cable, protective holster, 6 AAA batteries, and carrying case



### EA30 EasyView® Big Digit, Wide range Light Meter

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

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



### EA33 EasyView® Light Meter with Memory

Advanced illuminance functions for taking measurements in direct sunlight

- 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 36" (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 (10ms) 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 39" (1m) cable, Windows® compatible software with USB cable, built-in stand, hard carrying case, and 9V battery



### 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 (10ms) 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 39" (1m) cable, Windows® compatible software, USB cable, built-in stand, case, and 9V battery

SPECIFICATIONS	EA31 <a href="#">N</a>	EA30 <a href="#">N</a>	EA33 <a href="#">N</a>	HD400 <a href="#">N</a>	HD450 <a href="#">N</a>	SPECIFICATIONS
Display counts	2000 count LCD	4000 count LCD	999,999 count LCD	4000 count backlit LCD	4000 count backlit LCD	Display counts
Fc Range	20, 200, 2000, 20,000Fc	40, 400, 4000, 40,000Fc	9,999, 99,99, 999,9, 9999, 99,999Fc	40, 400, 4000, 40kFc	40, 400, 4000, 40kFc	Fc Range
Lux Range	20, 200, 2000, 20,000Lux	40, 400, 4000, 40,000, 400,000Lux	99,99, 999,9, 9999, 99,990, 999,900Lux	400, 4000, 40k, 400kLux	400, 4000, 40k, 400kLux	Lux Range
Max. Resolution	0.01Fc/Lux	0.01Fc/Lux	0.001Fc/0.01Lux	0.01Fc/0.1Lux	0.01Fc/0.1Lux	Max. Resolution
Basic Accuracy	±3%rdg + 0.5%FS	±3%rdg + 0.5%FS	±3%	±5%	±5%	Basic Accuracy
Cosine & Color Corrected	Yes	Yes	Yes	Yes	Yes	Cosine & Color Corrected
PC Interface	—	—	—	USB with software included	USB with software included	PC Interface
Datalogging	—	—	—	Directly to PC using software	16,000 data (continuous)/ 99 data (manual)	Datalogging
CE approved	Yes	Yes	Yes	Yes	Yes	CE approved
Dimensions	5.9x2.8x1.4" (150x72x33mm)	5.9x2.8x1.4" (150x72x33mm)	5.9x2.8x1.4" (150x72x33mm)	6.7x 3.1x1.6" (170x80x40mm)	6.7x 3.1x1.6" (170x80x40mm)	Dimensions
Weight	8.3oz (235g)	8.3oz (235g)	11.29oz (320g)	13.7oz (390g)	13.7oz (390g)	Weight
Warranty	1 year	1 year	1 year	3 years	3 years	Warranty

**CALIBRATION TRACEABLE TO NIST**

116 [N](#) Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 117

## LRK10/LRK15 Lighting Retrofit Kits



Applications:

- Lighting System Audits
- Post-retrofit Verification Testing
- Construction Audits
- Project Installation

## SDL470 UVA/UVC Light Meter/Datalogger



Complete with built-in tilt stand, SD memory card, UVA light sensor with protective cover, UVC light sensor, hard case, Universal AC adaptor, and 6 x AA batteries; 1 year warranty



118 **N** Indicates products that are available with optional calibration traceable to **NIST**. See page 160 for a complete listing.

Designed for professionals who routinely audit existing and replacement lighting systems for energy efficiency and lighting performance

- Successful lighting retrofit contractors need tools to comprehensively assess lighting infrastructure: from light levels for a given space to energy usage. Older technology such as incandescent lights or aging ballasts can impact the bottom line with added energy costs. Insufficient or excessive lighting can impact productivity or worker health with eyestrain from dim lighting or glare. As you work with clients to evaluate newer, high efficiency fluorescent and LED lighting retrofits, get the tools that deliver accurate, actionable information.
- Both LRK10 and LRK15 kits include:
  - Model LT300 Light Meter: Quickly measure lighting levels with this ergonomic, easy to use light meter (see p. 115)
  - Model DT200 Compact Laser Distance Meter - Quickly calculate area even in hard-to-measure spots
- LRK15 kit also includes:
  - Model 380940 400A AC/DC Power Clamp Meter: Versatile electrical test tool with built-in wattage measurement

## ORDERING (VISIT WWW.EXTECH.COM FOR INDIVIDUAL PRODUCT INFORMATION)

LRK10	Lighting Retrofit Kit
LRK15	Lighting Retrofit Kit with Power Clamp Meter



## LT40 LED Light Meter



LED Light meters are used for monitoring and optimizing environmental light levels in buildings, schools, and offices.

Measures the light intensity of white LED lights

- Measure white LED and Standard Lighting in Lux or Foot-Candle (Fc) units
- 4000 count display
- Min/Max Average
- Cosine and color corrected measurements
- Auto Power off
- 1 year warranty
- Complete with built-in sensor with protective cover, 2 AAA batteries, and pouch

## SPECIFICATIONS

Foot-candle (Fc) Range	40, 400 4000, 40000
Lux Range	400, 4000, 40000, 400000
LED Type	white
Basic Accuracy	±3%
Dimensions	5.2x1.9x1" (133x48x23mm)
Weight	8.8oz (250g)

## ORDERING

LT40	<b>N</b>	LED Light Meter
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## LT45 Color LED Light Meter



LED Light meters are used for monitoring and optimizing environmental light levels in buildings, schools, and offices

- Measure white, red, yellow, green, blue, and purple LED lights and Standard Lighting in Lux or Foot-Candle (Fc) units
- Manually store/recall up to 99 readings
- 4000 count display
- Min/Max Average
- Cosine and color corrected measurements
- Auto Power off
- 1 year warranty
- Complete with light sensor with protective cover and coiled cable expandable to 59" (1.5m), 9V battery, and hard case

## SPECIFICATIONS

Foot-candle (Fc) Range	40, 400 4000, 40000
Lux Range	400, 4000, 40000, 400000
LED Type	white, red, yellow, green, blue, purple
Basic Accuracy	±3%
Dimensions	5.1x2.2x1.5" (130x55x38mm)
Weight	8.8oz (250g)

## ORDERING

LT45	<b>N</b>	Color LED Light Meter
------	----------	-----------------------



## Unrivaled Selection

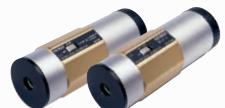
No one offers a better selection of sound level meters than Extech. With models for every application, capabilities include Type 2 compliance, calibration traceable to N.I.S.T., PC connectivity, datalogging, octave band analyzer, ultra compact and wall-mounted designs, and personal dosimeters (See pages 120-125).

### ACCESSORIES

TR100	Tripod (for meters with Tripod mount feature)
40705X	AC/DC Recorder Output Cable
407744	94dB Sound Calibrator (0.5", 1" microphones)
407766	94/114dB Sound Calibrator (0.5", 1" microphones)

### Sound Level Calibrators

- Calibrate and verify Sound Meter operation
- 1kHz sine wave at 94dB/114dB (407766) or 94dB (407744) is generated to an accuracy of  $\pm 5\%$  (frequency) and  $\pm 0.5\%$  dB (94dB);  $\pm 0.8\%$  dB (114dB)
- For use with both 0.5" to 1.0" microphones
- For use with all Extech Sound Level Meters
- Includes screwdriver, batteries, and case



CALIBRATION  
TRACEABLE TO  
NIST

120 Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.



### 407730 Digital Sound Level Meter

Analog bargraph with 30dB range updates every 40ms

- $\pm 2\text{dB}$  accuracy with 0.1dB resolution
- Analog AC output for connection to chart recorders and dataloggers
- Record MAX/MIN values over time
- Auto power off and MAX Hold functions
- Utilizes 0.5" (12.7mm) condenser microphone
- Tripod mount for field use (optional TR100 Tripod — sold separately)
- Complete with microphone wind screen and four AAA batteries



### 407732 Type 2 Sound Meter

Two range meter with backlit LCD display

- High accuracy meets Type 2 standards (ANSI S1.4-1983, IEC 60651, EN 60651)
- High & Low measuring ranges
- Data Hold and MAX Hold functions
- Backlit display to view in dimly lit area
- Complete with microphone wind screen and 9V battery
- Optional 407732-NIST includes Certificate of Calibration Traceable to NIST at single point calibration to 94dB



### 407732-KIT Type 2 Sound Meter Kit

Digital sound level meter with 94dB sound calibrator and carrying case

KIT includes:

- Model 407732 with high accuracy meets ANSI, and IEC Type 2 standards (see product features on the left)
- High and Low measuring ranges
- MAX Hold with reset button
- Built-in calibration check (94dB)
- Analog AC/DC outputs for connection to an analyzer or recorder
- Tripod mount for field use (optional TR100 Tripod — sold separately)
- Complete with microphone wind screen, 9V battery, and carrying case



### 407736 Type 2 Sound Meter with Calibration Check

Two range meter with analog outputs

- High accuracy meets Type 2 standards (ANSI S1.4-1983, IEC 60651, EN 60651)
- High and Low measuring ranges
- MAX Hold with reset button
- Built-in calibration check (94dB)
- Analog AC/DC outputs for connection to an analyzer or recorder
- Tripod mount for field use (optional TR100 Tripod — sold separately)
- Complete with microphone wind screen, 9V battery, and carrying case

SPECIFICATIONS	407730	407732	407732-KIT	407736
Range	40 to 130dB	Low: 35 to 100dB, High: 65 to 130dB	Low: 35 to 100dB, High: 65 to 130dB	Low: 35 to 90dB; High: 75 to 130dB
Basic Accuracy	$\pm 2\text{dB}$	$\pm 1.5\text{dB}$ (Type 2)	$\pm 1.5\text{dB}$ (Type 2)	$\pm 1.5\text{dB}$ (Type 2)
Weighting (A&C)	Yes	Yes	Yes	Yes
Response Time (Fast/Slow)	Yes	Yes	Yes	Yes
Condenser Microphone	0.5" (12.7mm)	0.5" (12.7mm)	0.5" (12.7mm)	0.5" (12.7mm)
Analog Output	AC	—	—	AC/DC
CE approved	Yes	Yes	Yes	Yes
Dimensions	9x2.2x1.7" (230x57x44mm)	8.2x2.1x1.25" (210x55x32mm)	Meter: 8.2x2.1x1.25" (210x55x32mm)	9.5x2.7x1" (241x69x25mm)
Weight	5.6oz (160g)	8.1oz (230g)	Meter: 8.1oz (230g)	7.6oz (215g)
Warranty	1 year	1 year	1 year	1 year

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 121



## Sound Investment

Monitor and analyze workplace and equipment sound levels to ensure OSHA compliance.

### ACCESSORIES

407744	N	94dB Sound Calibrator (0.5", 1" microphones)
407766	N	94/114dB Sound Calibrator (0.5", 1" microphones)
TR100		Tripod (for meters with Tripod mount feature)
40705X		AC/DC Recorder Output Cable (3ft/0.9m)
407764-EXT		15ft (4.7m) Microphone Extension Cable (for 407780A)
USB100		RS-232 to USB adaptor
42299		3.6V Lithium Battery 9pk of 2)
AC Adaptors for 407780A and 407790A		
144118		110V AC Adaptor
144220		220V AC adaptor
144240		240V AC adaptor
UA100-240		100-240V AC Adaptor w/4 plugs (US, EU, UK, AU)

### 407750 Sound Level Meter with PC Interface

Big backlit display, PC interface & background sound absorber

- High accuracy meets Type 2 standards (ANSI S1.4-1983, IEC 60651, EN 60651)
- Background noise absorber for noise measurements with high ambient noise levels
- PC interface for capturing data to PC, optional Windows® compatible software (407752)
- Large backlit display with analog bargraph
- Auto/Manual ranging and MIN/MAX readings
- Analog AC/DC outputs for connection to a recorder
- Tripod mount (optional TR100 Tripod — sold separately)
- Complete with microphone wind screen, 9V battery and case



### 407760 USB Sound Level Datalogger

High accuracy datalogging of up to 129,920 records

- 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
- Tripod mount feature
- Complete with 3.6V Lithium battery (42299), Windows® compatible software, USB cover, tripod, and windscreens



### HD600 20,000 Point Datalogging Sound Level Meter

### SDL600 Data Logging Sound Level Meter with SD Card

Double Molded housing with USB port

- $\pm 1.4$ dB accuracy
- Meets ANSI and IEC 61672-1 Type 2 standards
- Capture up to 10 readings/sec when connected to a PC
- Datalogging capability up to 20,000 records at speeds from 1/sec to 1/59sec
- Records readings with real date and time stamp
- MIN/MAX and Data Hold
- USB port includes PC software
- Tripod included for convenient field use
- Auto power off with disable capability
- Complete with AC Adaptor, Windows® compatible software with USB cable, wind screen, tripod, built-in stand, hard carrying case, and 9V battery



### SDL600 Data Logging Sound Level Meter with SD Card

Datalogging capability using SD memory card

- $\pm 1.4$ dB accuracy
- Meets ANSI and IEC 61672-1 Type 2 standards
- Auto or Manual ranging
- External data storage in Excel® format on an SD card (included) for easy transfer to a PC
- User programmable sampling rate from 1 to 3600 seconds
- Records readings with date and time stamp
- Internal memory stores 99 readings manually
- Min/Max, Peak Hold, and Data Hold functions
- Auto power off with disable capability
- Complete with SD Card, wind screen, 6 AA batteries, and hard carrying case; Optional AC Adaptor UA100-240



### 407780A Integrating Sound Level Datalogger with USB Interface

Leq and SEL measurements with built-in datalogger and PC interface

- Meets Type 2 standards (ANSI S1.4-1983, IEC 60651, EN 60651)
- Datalogs up to 32,000 records
- Programmable integrating time; Real time calendar/clock
- Linearity over wide range (100dB)
- Display modes: SPL, SPL MIN/MAX, SEL, and Leq
- Impulse/Fast/Slow response time
- Analog and alarm output can be used to connect with Frequency analyzers and chart recorders
- Tripod mount (optional TR100 Tripod — sold separately)
- Includes windscreens, adjustment screwdriver, USB cable, Windows® compatible software, battery, and case; (Optional AC Adaptor - see p. 122)

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



**407355/SL355 Personal Noise Dosimeter Dataloggers and Kits**

CE



Special Value Kit

Each meter includes a belt clip, clip-on 0.5" microphone with 2.6ft (0.8m) cable, software, mini screwdriver, batteries, and case; 1 year warranty. **407355** also includes 9 pin to 25 pin adaptor, and RS-232 cable; **SL355** also includes USB cable. **407355-KIT-5** Dosimeter Kit includes five 407355 Dosimeters, 407766 Sound level calibrator (see p. 120), and case

CE

**Measure total sound exposure over an 8-hour period**

- Perform OSHA and IEC Noise accumulation surveys (meet ANSI and IEC \*standards)
- Adjustable Criterion Level, Exchange Rate, and Threshold
- Includes Windows® compatible software to control setup and retrieve stored events or analyze real time measurements
- Dosimeter mode: data includes Start/Stop Time, %Dose, TWA, and Peak flags

**Model 407355 Additional Features**

- RS-232 interface (compatible with USB100 adaptor)
- Datalogs up to 4500 readings when used as a sound level meter
- 407355-KIT-5 available (see left caption for details)

**Model SL355 Additional Features**

- USB interface
- SL355-KIT-3 available - includes three SL355, 407766 calibrator, and case

**SPECIFICATIONS**

Sound Level Range/Resolution	407355: 70 to 140dB / 0.1dB SL355: 60 - 130 dB / 70 to 140dB (A/C Weighting); 60 to 130dB / 93 to 133dB (C or Z (Linear) Peak); 70 to 140dB / 103 to 143dB (C or Z (Linear) Peak)
Digital Display	LCD 0.01-9999%
Criterion/Threshold Level	80, 84, 85 or 90dB/ 70-90 (1dB steps)
Response Rate/Exchange Rate	Fast or Slow/ 3, 4, 5 or 6 dB
High Level Detector/Peak Flag	115dB / 140dB (also 130db for SL355)
Battery Life	approx 34 hrs
Event Storage	407355: 5 surveys; SL355: 20 surveys
Dimensions/Weight	407355: 4.2x2.5x1.3" (106x64x34mm)/ 8oz (227g) incl. batteries SL355: 3.8x2x1.4" (97x51x35mm) 4.2oz. (120g) incl.batteries

\* Visit the product page at [www.extech.com](http://www.extech.com) for a list of ANSI and IEC standards

**ORDERING**

407355 <b>N</b>	Noise Dosimeter/Datalogger
407355-KIT-5	Noise Dosimeter/Datalogger Kit
SL355 <b>N</b>	Noise Dosimeter/Datalogger
SL355-KIT-3	Noise Dosimeter/Datalogger
USB100	RS-232 to USB Adaptor

**SL400 Personal Noise Dosimeter/Datalogger**

Includes belt clip, clip-on 0.5" (12.7mm) microphone with 32" (81.3cm) cable and windscreen, 9V battery, software, USB cable, and carrying case; 1 year warranty

NEW

**Measure total sound exposure over an 8-hour period**

- Measures frequency weighted noise exposure and peak (C, Z) sound level
- Datalogs up to 999,999 readings when used as a sound level meter with sampling times between 1 second and 24 hours
- Sound level mode: displays sound level, min/max, time-averaged sound level (Leq), peak, and sound exposure level (SEL)
- Adjustable Criterion Level, Exchange Rate, & Threshold
- One user-defined measurement setup
- Optional 94dB calibrator to perform "before" and "after" calibration checks per ANSI standards
- USB interface with Windows® compatible software to control setup and retrieve stored events or analyze real-time measurements

**SPECIFICATIONS**

Ranges (A, C, Z)	30 to 90 dB, 50 to 110dB; C, Z Peak: 70 to 140dB / C and Z Peak: 90 to 143dB
Response Rate/Exchange Rate	Fast, Slow, Impulse/ 3, 4, 5 or 6 dB
Bandwidth	20Hz to 8kHz
Memory	Dose: 10,000 points/SLM: 999,999 points
Criterion Level / Threshold Level	30 to 140dB in 0.1dB steps / 30 to 140dB in 0.1dB steps
Measurement Modes	%Dose, Lxmax, Lxyp, Lxmin, Lxeq, SEL (LAE), PeakMAX, LAVG, TWA, LEP, LN% SPL, Lxmax, Lxyp, Lxmin, Lxeq, SEL (LAE) PeakMAX
Dimensions/Weight	4.2 x 2.6 x 1.3" (107 x 65 x 33mm) - exclude connector on top/ 7oz. (198g) include batteries and microphone cable

**ORDERING**

SL400 <b>N</b>	Noise Dosimeter/Datalogger
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CALIBRATION NIST

124

**N** Indicates products that are available with optional calibration traceable to **NIST**. See page 160 for a complete listing.

**SL130G Sound Level Alert with Alarm**

CE

**Continuous monitoring of Sound Level – Built-in LEDs alert user when sound level is too high or too low**

- Bright LEDs (red flashing or green) alert user when sound level is too high or too low – LEDs can be read from 30m (100ft)
- Ideal for hospital, auditoriums, schools and other areas where there is a need for being alerted when sound level reaches set point
- Meets ANSI Type 2 and EN IEC 60651 standards – compliant with OSHA
- Wall, desk or tripod mount (optional TR100 tripod – sold separately)
- Adjustable high/low limit indication with output to drive user's external relay module
- Microphone rotates 180° for desired placement. Optional 15ft (5m) microphone extension cable (SL125) for remote monitoring
- 1 year warranty
- Complete with universal AC adaptor and microphone wind screen

**SPECIFICATIONS**

Display	4.6 x 3.125" (117x79mm) multifunction LCD
Frequency bandwidth	31.5 Hz to 8 kHz
Microphone	0.5" Electret Condenser Microphone (detachable)
Measurement ranges	30 to 80dB, 60 to 110dB, 80 to 130dB
Frequency weighting	'A' and 'C'
Response time	Fast: 125ms/ Slow: 1s
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
Dimensions/Weight	8.75x7.1x1.25" / 0.63 lbs. (22x18x3.2cm / 285g)

**ORDERING**

SL130G <b>N</b>	Sound Level Alert
SL125	Remote Microphone cable 15' (5m)
TR100	Tripod
407766 <b>N</b>	Sound Level Calibrator, 94/114dB

**407790A Real Time 1/3 Octave Band Analyzer**

CE

**Type 2 integrating sound level meter with Octave and 1/3 Octave Band Real Time display on 160x160 dot matrix backlit LCD**

- Stores 12,280 records in SLM mode and 1024 points in 1/1 or 1/3 octave mode
- Transferred data to a PC to be analyzed using software and cable provided
- A, C, Flat weighting; Fast/Slow response time
- Detachable 0.52" (13.2mm) diameter condenser microphone and Tripod mount
- Real time clock with Year, Month, Day, Hour, Minute, and Second display
- Maintain noise level statistics for internal and external audits

**SPECIFICATIONS**

Applicable standards	ANSI S1.4 Type 2, EN IEC 60651, EN IEC 60804, and EN IEC 1260-1995
Accuracy	±1.5dB (ref 94dB @ 1kHz)
Measurement range/function	30dB to 130dB / La, Lc, Lp, Leq, L, Lmax, Lmin
Frequency range	25Hz to 20kHz
Sound level meter display	Integrating SLM: Digital, 4 Digits with Bargraph
Real Time Analyzer display	Graphical, Bargraph with cursor
1/1- 1/3 Analyzer level range	30 to 130dB
1/1 Octave & 1/3 Octave	1/1 Octave band center frequencies: (9 bands); 1/3 Octave band center frequencies: (27 bands)
Signal output	AC output: 2 Vrms (at full scale); DC output: 10mVDC/dB
Dimensions/Weight	13.6x3.9x2.4" (345x100x60mm)/ 33.5oz (950g)

**ORDERING**

407790A <b>N</b>	Octave Band Sound Analyzer
407764-EXT	15ft (4.7m) Microphone Extension Cable

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 125



## Rev Up Your Diagnostics

Measure RPM, surface speed, and revolution counts with Extech tachometers (see pages 126-129). Models include contact, non-contact and combination, as well as compact, stroboscopes and panel-mount versions.



### ACCESSORIES

461937	Reflective Tape -Ten reflective tape strips: 23x0.25" (584x6mm) ea. strip
461990	Contact Wheels - 2 sets of cone tip, flat tip, and spare wheel

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



126 **N** Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.



### 461891 Contact Tachometer

Fast and accurate RPM and surface speed measurements

- Make contact measurements of rotating objects
- Measure linear surface speeds in ft/min or m/min using three accessory wheels provided
- Recalls Last/MAX/MIN values
- Complete with cone tip, flat tip and spare wheel for surface speed measurements, four 1.5V AA batteries, and carrying case



### 461893 Non-contact Photo Tachometer

Non-contact RPM measurements using visible light

- Make non-contact rpm measurements of rotating objects
- Use reflective tape on object to be measured and point the integral light beam
- Integral light beam has an ideal measurement range up to 6" (152mm) distance
- Readings updated every second
- Recalls Last/MAX/MIN values
- Complete with 23" (0.6m) reflective tape, four 1.5V AA batteries, and carrying case



### 461895 Combination Contact/Photo Tachometer

Combines both contact and non-contact models for use in all applications

- Characters on display reverse direction depending on contact or photo mode
- Uses visible light to read up to 6" (150mm) from target
- Memory/readings button holds last reading for 5 min and recalls min/max readings
- Complete with wheels for linear surface speed or rpm measurements, four 1.5V AA batteries, 23" (0.6m) reflective tape, and carrying case



### 461995 Combination Contact/Laser Photo Tachometer

Combines both contact and non-contact models for use in all applications

- Characters on display reverse direction depending on contact or photo mode
- Laser guided for greater distance non-contact measurements up to 6.5ft (2m)
- Memory/readings button holds last reading for 5 min and recalls MAX/MIN readings
- Complete with wheels for linear surface speed or rpm measurements, four 1.5V AA batteries, 23" (0.6m) reflective tape, and carrying case
- 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



### RPM10 Combination Laser Tachometer + IR Thermometer

Photo/Contact Tachometer includes a non-contact IR Thermometer for surface temperature measurements

- Built-in IR thermometer with laser measures remote surface temperature on motors and rotating parts
- Fixed 0.95 emissivity, 6:1 distance to target ratio
- Non-contact Photo tachometer uses a Laser for greater measuring distance up to 6.5ft (2m)
- Contact tachometer for RPM and surface speed measurements
- Recalls Last/MAX/MIN values
- Characters on display reverse direction depending on mode
- Complete with tips/wheel, four 1.5V AA batteries, reflective tape, and carrying case

SPECIFICATIONS	461891 <b>N</b>	461893 <b>N</b>	461895 <b>N</b>	461995 <b>N</b>	RPM10 <b>N</b>	SPECIFICATIONS
rpm	0.5 to 20,000	5 to 99,999	Photo: 5 to 99,999 / Contact: 0.5 to 19,999	Photo: 10 to 99,999 / Contact: 0.5 to 19,999	Photo: 10 to 99,999 / Contact: 0.5 to 20,000	rpm
ft/min	0.2 to 6560	—	0.2 to 6560	0.2 to 6560	0.2 to 6560	ft/min
m/min	0.05 to 1999.9	—	0.05 to 1999.9	0.05 to 1999.9	0.05 to 1999.9	m/min
Basic Accuracy	±0.05%rdg	±0.05%rdg	±0.05%rdg	±0.05%rdg	±0.05%rdg	Basic Accuracy
Max rpm Resolution	0.1rpm	0.1rpm	0.1rpm	0.1rpm	0.1rpm	Max. rpm Resolution
Laser	—	—	—	Yes	Yes	Laser
Temperature (IR)	—	—	—	—	-4 to 600°F (-20 to 315°C)	Temperature (IR)
CE approved	Yes	Yes	Yes	Yes	Yes	CE approved
Dimensions	6.7x2.8x1.5" (170x72x37mm)	6.7x2.8x1.5" (170x72x37mm)	8.5x2.6x1.5" (216x66x38mm)	8.5x2.6x1.5" (216x66x38mm)	8.5x2.6x1.5" (216x66x38mm)	Dimensions
Weight	9.2oz (260g)	8.8oz (250g)	10.6oz (300g)	10.6oz (300g)	10.6oz (300g)	Weight
Warranty	1 year	1 year	1 year	1 year	1 year	Warranty

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 127

## 461920 Mini Laser Photo Tachometer Counter



Measures the speed (RPM) of rotating objects and counts (revolution) of moving objects.

## Non-contact RPM and Revolution count measurements to 99,999 rev

- Measure non-contact RPM readings of rotating objects by pointing the integral laser at the reflective tape placed on the object to be measured
- Large 5 digit LCD display with backlighting
- Rugged double molded housing with memory button for Last/MAX/MIN readings
- 1 year warranty
- Complete with 9V battery and reflective tape

## SPECIFICATIONS

RPM range	2 to 99,999 rpm
Count range	1 to 99,999 rev (revolution)
Target Distance	1.6ft (500mm)
Basic Accuracy	±0.05%
Resolution	0.1rpm, 1 count
Dimensions/Weight	6.2x2.3x1.6" (160x60x42mm)/5.3oz (151g)

## ORDERING

461920	Mini Laser Photo Tachometer Counter
461937	Spare reflective tape (23" each strip), 10pk



## RPM33/RPM40 Mini Combination Contact/Laser Photo Tachometers

**NEW**

RPM33

RPM40



NIST

CALIBRATION  
TRACEABLE TO

Quickly measure RPM, surface speed and length with one tool. Use the contact wheel for up-close readings or laser mode for non-contact readings.

- Large 5 digit backlit LCD display
- Microprocessor based with quartz crystal oscillator to maintain high accuracy
- Provides wide RPM (photo and contact) and Linear Surface Speed/Length (contact) measurements
- Includes contact wheel, batteries, and reflective tape; 1 year warranty; RPM33 also includes case; RPM40 also includes cone tip

## Model RPM33 Additional Features

- Store/recall 10 data sets in memory with 4 parameters (measurement/max/min/avg)
- Laser guided for greater distance non-contact measurements up to 1.6ft (500mm)

## Model RPM40 Additional Features

- Long distance Laser guided measurements up to 4.9ft (1.5m)

## SPECIFICATIONS

	RPM33	RPM40
Range (rpm)	Photo: 2 to 99,999 rpm Contact: 2 to 20,000 rpm	Photo: 5 to 99,999 rpm Contact: 0.5 to 19,999 rpm
Surface Speed	0 to 78,720 inches/min 0 to 6560 ft/min	2.0 to 78,740 inches/min 0.2 to 6560 ft/min
Length	0 to 2186 yards/min 0 to 2000 m/min	— 0.05 to 1999.9 m/min
Frequency (Hz)	333 Hz	—
Accuracy	0.05% rdg +1 digit	±(0.1% rdg +1 digit)
Sampling Time	0.5 Sec > 120rpm	1 Sec > 6rpm
Resolution	0.1rpm (<10,000 rpm); 1rpm (>10,000 rpm)	0.1rpm (<1000 rpm); 1rpm (>1000 rpm)
Dimensions / Weight	6.2x2.3x.6" (160x60x42mm) / 5.3oz (151g)	6.2x2.0x1.3" (160x50x33mm) / 6.4oz (182g)

## ORDERING

461933	Combination Contact/Laser Photo Tachometer
461934	Combination Contact/Laser Photo Tachometer
461937	Spare reflective tape (23" each strip), 10pk

## 461825 Combination Photo Tachometer/Stroboscope



## Stroboscope to analyze rotating objects and Tachometer to measure rpms

- Course and fine flash rate adjustments to freeze and analyze rotating objects
- Unique display characters that reverse direction depending on function mode
- Large 0.4" (10mm) 5 digit LCD display and memory stores Last/MAX/MIN readings
- Complete with four 1.5V AA batteries, reflective tape, and case; 1 year warranty

SPECIFICATIONS	PHOTO TACHOMETER (RPM)	STROBOSCOPE (FPM/RPM)
Range	5 to 99,999	100 to 100,000
Accuracy	±0.1%rdg	±0.1%rdg
Sampling Time	1 Sec ≥ 60rpm;	1 Sec ≥ 60rpm;
Resolution	0.1rpm (<1,000rpm), 1rpm (≥1,000rpm)	0.1fpm (<1,000fpm), 1fpm (≥1,000fpm)
Dimensions/Weight	8.5x2.6x1.5" (215x65x38mm) / 10.6oz (300g)	±0.1%rdg

Ordering	461825	Combination Photo Tachometer/Stroboscope
	461937	Spare reflective tape (23" each strip), 10pk

## 461830/461831 Digital StroboTach



461834

## Freeze motion and analyze rotating objects without contact

- Checks and analyzes motion and speed by simply aiming and synchronizing its flash rate (fpm) with a rotating object
- rpms on 4 digit LED display
- Flash/Speed Rate of 100 to 10,000fpm/rpm; Basic accuracy of ±0.05% rdg
- Duty Cycle of 5 to 30mins
- Tripod mount for stationary use
- Dimensions/Weight: 8.3x4.8x4.8" (211x122x122mm)/2.2lbs (1kg)
- Complete with 6ft (1.9m) power cord and handle; 1 year warranty

Ordering	461830	Digital StroboTach 115VAC, 60Hz
	461831	Digital StroboTach 220VAC, 50Hz
	461834	Spare Xenon Lamp (est life 300hrs), 2pk

## 461950 1/8 DIN Panel Tachometer



461957 Photoelectric 461955 Proximity



## Continuous &amp; accurate readings from 5 to 99,990rpm

- Large LED display updates 1/sec (rpm<60)
- Unique design permits rpm measurements of a one hole gear or disk eliminating the need for special gears
- A pulse is measured when a ferrous object (stud) passes by a proximity sensor
- Choice of two sensor pickup types (both include 6ft/1.8m cable): Proximity sensor: 0.1" (3mm) target distance, range up to 36,000rpm (600Hz); Photoelectric sensor: 0.4" (10mm) target distance, range up to 6000rpm (100Hz)
- 1 year warranty

SPECIFICATIONS	
rpm	5 to 99,990rpm
Basic accuracy	±0.05%
Resolution	0.1rpm (5 to 1000rpm), 1rpm (1000 to 9999rpm), 10rpm (10,000rpm to 99,990rpm)
Power	115V or 230V AC; 50/60Hz
Dimensions/Weight	Bezel 3.8x1.9x2.4" (96x48x60mm); Panel cutout 3.6x1.8" (92x45mm) Meter 3.6x3.5x1.7" (92x90x42mm)/ 14oz (397g)
Sampling Time	1sec>60rpm, >1sec>10 to 60rpm
Dimensions/ Weight	4.9x2x1.3" (124x50x33mm)/ 4oz (114g)

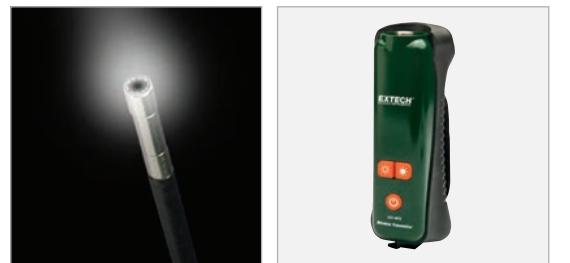
Ordering	
	461950
	1/8 DIN Panel Mount Tachometer
	461955
	Proximity Sensor, max. 36,000rpm
	461957
	Photoelectric Sensor, max. 6000rpm

## HDV600 Series High Definition VideoScope Inspection Cameras



Narrow diameter cameras with 5.7" High Definition Color LCD Monitor deliver high image and video resolution on large color display

- The HDV600 Series VideoScope has various camera probes to fit your application needs. Choose from a range of sizes with articulating or wireless features.
- 5.7" color LCD TFT — high definition 640x480 pixels resolution
- Waterproof (IP67) meter and camera head (IP57) with cable
- Bright white LED lamps with dimmer to illuminate viewed object
- Glare-free close-up field of view and 6" (15.2cm) minimum focus distance
- 2G SD memory card included to store >14,600 images
- Video recording (up to 4 hours) with Voice annotation
- Video and images can be transferred via the SD card, USB output or AV out
- An optional wireless transmitter (HDV-WTX) connects to your camera cable and allows you to transmit video up to 100ft (30m)
- 1 year warranty
- Complete with SD memory card, 3.7V rechargeable Li-Polymer battery, AC adaptor, USB and AV cables, camera with cable, and case



Camera Tip features built-in LED lights

HDV-WTX Wireless Transmitter allows measurements up to 100ft (30m) away



Articulating (6mm diameter) camera tip adjusts up to 240° viewing angle.



**Macro (Short Focal Length) Lenses** permit you to examine features and attributes that are up-close to the optical camera tip as illustrated above.  
**Long Focus Lenses** permit you to see further in confined areas.



### Unlimited Inspection Uses:

**Home:** Mold, insect infestation, electrical wire or plumbing

**HVAC:** Ducts, motors, compressors, air movers, and chillers

**Automotive:** Engines, transmissions, motors, electronics

**Government:** Safety and security

**Industrial:** Welding, process equipment, gears, molding machines

**Aerospace:** Aircraft, debris, cracks or other damages

And more...



Drop-proof and Waterproof housing meets IP67 standards.



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

## HDV650 Series — High Definition Plumbing VideoScope Inspection Cameras

Plumbing VideoScope Kits utilized the HDV600 color LCD monitor. From drains to pipe runs, these kits reveal problems with its large, waterproof, rugged, high definition color display and a 10m or 30m snake with 25mm diameter camera head. Built-in bright lights help illuminate the problem area deep within the pipe runs. The camera probe is rugged enough to dislodge small clogs. Ideal for inspecting P-traps, 90s, drains, pipe runs, sewers, vent stacks and more. Available in a wireless kit that allows you to transmit video up to 100ft (30m) from the measurement point to your monitor.

### HDV650 Kits:

- HDV650-10G** includes HDV600 and 10m fiberglass cable spool assembly
- HDV650W-10G** includes HDV600, 10m fiberglass cable spool assembly and wireless transmitter
- HDV650-30G** includes HDV600 and 30m fiberglass cable spool assembly
- HDV650W-30G** includes HDV600, 30m fiberglass cable spool assembly and wireless transmitter



### ORDERING

#### Video Inspection Camera Kits

HDV610	High Definition VideoScope (5.5mm diameter camera/1m flexible cable)
HDV620	High Definition VideoScope (5.8mm diameter camera/1m semi-rigid cable)
HDV640	High Definition Articulating VideoScope (6mm diameter camera/1m semi-rigid cable)
HDV640W	High Definition Wireless Articulating VideoScope (6mm diameter camera /1m semi-rigid cable)

#### Plumbing Inspection Camera Kits

HDV650-10G	Plumbing VideoScope Kit (25mm camera head w/10m Fiberglass Cable)
HDV650W-10G	Wireless Plumbing VideoScope Kit (25mm camera head w/10m Fiberglass Cable)
HDV650-30G	Plumbing VideoScope Kit (25mm camera head w/30m Fiberglass Cable)
HDV650W-30G	Wireless Plumbing VideoScope Kit (25mm camera head w/30m Fiberglass Cable)

#### Video Inspection Monitor (order camera head separately from accessories list below)

HDV600	High Definition VideoScope (meter only)
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#### Optional Camera Heads

HDV-TX1	6mm Articulating VideoScope Camera Head with Macro lens and 1m Semi-Rigid Cable
HDV-TX1L	6mm Articulating VideoScope Camera Head with Long Focus lens and 1m Semi-Rigid Cable
HDV-WTX1	6mm Wireless Articulating VideoScope Camera Head w/Macro lens and 1m Semi-Rigid Cable
HDV-WTX1L	6mm Wireless Articulating VideoScope Camera Head w/Long Focus lens and 1m Semi-Rigid Cable
HDV-TX2	6mm Articulating VideoScope Camera Head w/Macro lens and 2m Semi-Rigid Cable
HDV-TX2L	6mm Articulating VideoScope Camera Head w/Long Focus lens and 2m Semi-Rigid Cable
HDV-WTX2	6mm Wireless Articulating VideoScope Camera Head w/Macro lens and 2m Semi-Rigid Cable
HDV-WTX2L	6mm Wireless Articulating VideoScope Camera Head w/Long Focus lens and 2m Semi-Rigid Cable
HDV-4CAM-5FM	4mm VideoScope Camera Head with Macro lens and 5m Flexible Cable
HDV-5CAM-1FM	5.5mm VideoScope Camera Head with Macro lens and 1m Flexible Cable
HDV-5CAM-3F	5.5mm VideoScope Camera Head with long depth of field and 3m Flexible Cable
HDV-5CAM-3FM	5.5mm VideoScope Camera Head with Macro lens and 3m Flexible Cable
HDV-5CAM-30M	5.5mm VideoScope Camera Head with Macro lens and 30m Flexible Cable
HDV-5CAM-10F	5.5mm VideoScope Camera Head with long depth of field and 10m Flexible Cable
HDV-25CAM-10G	25mm VideoScope Camera Head with long depth of field and 10m Fiberglass Cable
HDV-25CAM-30G	25mm VideoScope Camera Head with long depth of field and 30m Fiberglass Cable
HDV-WTX	Wireless Transmitter
HDV-PC	Spare Patch Cable for HDV Series
ADPTR-HDV	Replacement AC Adaptor
BRD10	Wireless USB Video Receiver

**HDV540 High Definition Articulating VideoScope Kit**

Articulating (240°) camera tip facilitates viewing in obstructed areas where standard camera tips cannot access

- Includes wired handset with non-detachable 6mm flexible probe (1m) with macro lens
- Articulating probe tip adjusts up to 240° viewing angle
- 3.5" (89mm) color LCD TFT with high definition 320 x 240 pixel resolution
- Compact, high-resolution water-proof (IP67) camera probe
- Camera head with four built-in bright LED lamps and dimmer to illuminate viewed object
- Glare-free close-up field of view
- Store more than 20,000 images on 4GB SD card
- AV output for viewing images/video on a monitor
- Video and images can be transferred to a PC via the SD card or USB output
- Record voice-over audio in video recording mode
- Includes HDV500 videoscope, handset with 6mm Articulating VideoScope Camera Head, SD card, 3.7V rechargeable Li-Polymer battery, 100/240V Universal AC adaptor and multiple plug types (US, EU, UK, AUS), USB and AV cables, and hard carrying case

**SPECIFICATIONS****Camera**

Focus distance	0.8 to 2.36" (2 to 6cm)
Field of View	57°
Shaft diameter	0.24" (6mm)
Working length	39" (1m)
Camera Tip bend radius	240° (120° left, 120° right)
<b>Borescope</b>	
LCD Color TFT Display/ Pixels	3.5" (8.9cm) size/ 320 x 240 pixel resolution
Frame Rate	30 fps frame rate (NTSC & PAL)
SD Card	4GB SD memory card included (supports up to 32GB SD storage)
Operating	up to 6 hours AVI video
Dimensions/Weight	Meter w/battery: 8.3x4.3x1.6" (21cmx11cmx4cm)/ 14.1oz (400g)

**ORDERING**

HDV540	High Definition Articulating VideoScope Kit
HDV5-6CAM-1AFM	6mm Articulating VideoScope Camera Head with Macro lens and 1m Flexible Cable

**CALIBRATION**  
TRACEABLE TO **NIST**

132 **N** Indicates products that are available with optional calibration traceable to **NIST**. See page 160 for a complete listing.

**BR200/BR250 Video Borescope/Wireless Inspection Cameras**

3.5" Color Detachable Wireless LCD Monitor can be viewed from a remote location up to 32ft (10m) from measurement point

- Captured video with date/time stamp can be played back on the wireless monitor or on any monitor with a video input jack
- Video and images can be transferred to a PC via microSD card or USB cable and viewed using Windows® Multimedia Player
- Waterproof (IP67) flexible gooseneck retains configured shape
- NTSC operation with menus in 10 languages
- Close-up field of view; 1 year warranty
- Includes 4 AA batteries, rechargeable display battery, memory card with adaptor, USB cable, extension tools (mirror, hook, magnet) video interconnect cable, AC adaptor, magnetic base stand, and hard case
- Model BR200** — 17mm diameter camera head with built-in two bright LED lamps with dimmer and 39" (1m) flexible gooseneck cable
- Model BR250** — 9mm diameter camera head with built-in four bright LED lamps with dimmer and 36" (0.9m) flexible gooseneck cable



Detachable wireless 3.5" color display can be viewed remotely from up to 32ft (10m). Camera features built-in LED lights.

**SPECIFICATIONS**

Camera Pixels	BR200: 712x486 (NTSC) / BR250: 640 x 480 (NTSC)
Transmission Frequency/ Range	2468MHz/ 32ft (10m) unobstructed view
Camera Viewing direction	BR200: Viewing Angle 50° / BR250: Viewing Angle 45°
Camera Viewing distance	5.9 to 9.8" (15 to 25cm)
LCD Screen Type/ Pixels	3.5" TFT/ 320 x 240
Monitor Video Output Level	0.9 to 1.3V@75Ω
Monitor Video/Image Resolution	960 x 240 (AVI format)/640 x 480 (JPEG format)
Operating/Charge Time	1.5hrs/3hrs
Dimensions/Weight	Camera: 7.3x5.7x1.6" (186x145x41mm)/18.7oz (530g) Monitor: 3.9x2.7x1" (100x70x25mm)/4.9oz (140g)

**ORDERING**

BR200	Flexible Video Borescope (17mm diameter/1m cable)
BR250	Flexible Video Borescope (9mm diameter/1m cable)
BRD10	Wireless USB Video Receiver
BR200-EXT	Borescope Extension Cable (19mm diameter/0.9m cable)
BR-4CAM	4.5mm Borescope Camera Head with 1m Cable
BR-5CAM	5.8mm Borescope Camera Head with 1m Cable
BR-9CAM	9mm Borescope Camera Head with 1m Cable
BR-9CAM-2M	9mm Borescope Camera Head with 2m Cable
BR-9CAM-5M	9mm Borescope Camera Head with 5m Cable
BR-17CAM	17mm Borescope Camera Head with 1m Cable
BR-17CAM-2M	17mm Borescope Camera Head with 2m Cable
BR-17CAM-5M	17mm Borescope Camera Head with 5m Cable
UA100-BR	Universal AC Adaptor

Note: Recommended up to two BR200-EXT connected to a Borescope to maintain resolution

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 133

## BR100/BR150 Video Borescope Inspection Cameras



CE

9mm or 17mm camera diameter and 2.4" Color TFT LCD Monitor with video output for viewing on any monitor with a video input jack

- 39" (1m) flexible gooseneck cable retains configured shape
- Mini water-proof (IP67) camera head for high resolution viewing
- Display detaches for easy storage
- 1 year warranty
- Complete with camera head with cable, 4 AA batteries, extension tools (mirror, hook, magnet), video output jack, and hard case
- Optional BR200-EXT extension cable & accessories available

## Model BR100 Additional Features

- 17mm camera diameter with 2 bright LED lamps and dimmer feature

## Model BR150 Additional Features

- 9mm camera diameter with 4 bright LED lamps with and dimmer feature

## SPECIFICATIONS

## Camera

Viewing direction	BR100: Viewing Angle 50°; BR150: Viewing Angle 45°
Focus distance from object	5.9" to 9.8" (15 to 25cm)
Minimum bend radius	2.36" (60mm)
Dimensions/Weight	7.3 x 5.7 x 1.6" (186 x 145 x 41mm)/18.7oz (530g)
Monitor	
LCD Screen Type	2.4" TFT
Pixels	480 x 234
Operating	1.5 hours
Dimensions/ Weight	3.9 x 2.7 x 1.8" (100 x 70 x 30mm)/ 4.9oz (140g)

## ORDERING (SEE P. 133 FOR CAMERA HEADS WITH LONGER CABLE LENGTHS)

BR100	Flexible Video Borescope (17mm diameter/1m cable)
BR150	Flexible Video Borescope (9mm diameter/1m cable)
BR-5CAM	5.8mm Borescope Camera Head with Cable
BR-9CAM	9mm Borescope Camera Head with Cable
BR-17CAM	17mm Borescope Camera Head with Cable
BR200-EXT	Borescope Extension Cable (19mm diameter/0.9m cable)

(Note: Recommended up to two BR200-EXT connected to a Borescope to maintain resolution)

## BR80 Video Borescope Inspection Camera



CE

17mm camera diameter with 39" (1m) flexible gooseneck cable retains configured shape and 2.4" Color TFT LCD Monitor

- Water-proof (IP67) camera head and cable with lightweight, handheld design housing to easily find, diagnose, and solve problems
- Four bright LED lamps with dimmer to illuminate viewed object
- Glare-free close-up field of view
- Vivid 2.4" color LCD monitor for detailed images plus 180° image rotation feature
- Optional BRC-EXT extension cable available for increasing viewing depth; 19mm diameter connector and 37.5" (0.95m) cable length (including connectors); maximum 2 extension cables can be connected to the borescope
- Complete with 17mm camera probe with cable, 4 AA batteries, and extension tools (mirror, hook, and magnet); 1 year warranty

## ORDERING

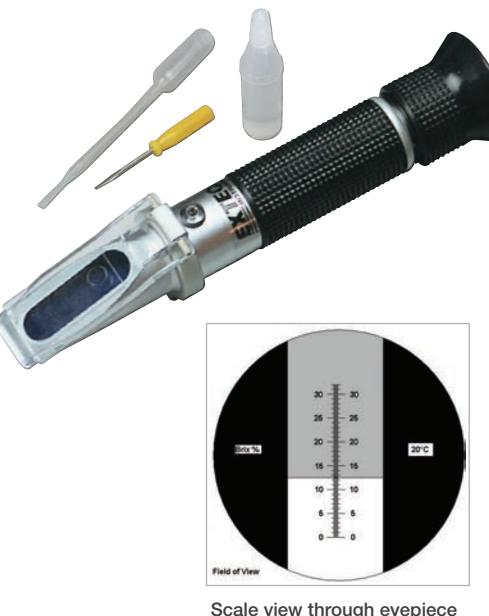
BR80	Video Borescope Inspection Camera
BRC-17CAM	17mm Borescope Camera Head with Cable
BRC-EXT	Borescope Extension Cable (19mm diameter/0.9m cable)

(Note: Recommended up to two BRC-EXT connected to a Borescope to maintain resolution)

CALIBRATION  
TRACEABLE TO  
NIST

134 N Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.

## RF Series Portable Brix Refractometers



Scale view through eyepiece

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

- Accurate, easy to operate refractometers with simple 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
- Complete with case, calibration screwdriver, and calibration solution; 1 yr warranty

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

- Measure the concentration of sugar in fruit juice and industrial fluids

## Brix (RF12 and RF18)

- Maintain proper lubricant cooling concentration to extend equipment life

## Salinity (RF20)

- Measures the concentration of dissolved salt in water

## General Purpose Brix (RF30)

- Triple Range: 0 to 42% Brix, 42 to 71% Brix, 71 to 90% Brix

## SPECIFICATIONS

SPECIFICATIONS	TYPE	RANGES	RESOLUTION	ACCURACY
RF10	Sucrose	0 to 32% Brix	0.2	±0.2%
RF11	Sucrose (ATC)	0 to 10% (10 to 30°C)	0.1	±0.1%
RF12	Lubricants/Cutting fluids (ATC)	0 to 18% Brix (10 to 30°C)	0.2	±0.2%
RF15	Sucrose (ATC)	0 to 32% Brix (10 to 30°C)	0.2	±0.2%
RF16	Sucrose	0 to 10% Brix	0.1	±0.1%
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
RF30	Triple Range General Service	0 to 42% Brix, 42 to 71% Brix, 71 to 90% Brix	0.2	±0.2%

## ORDERING

RF10	0 to 32% Brix Refractometer - Dims/Wt: 6.6x1.3x1.3" (168x32x32mm)/ 3.2oz (91g)
RF11	0 to 10% Brix Refractometer with ATC - Dims/Wt: 7.5x1.6x1.2" (190x40x30mm)/ 6.5oz (185g)
RF12	0 to 18% Brix Refractometer with ATC - Dims/Wt: 6.7x1.6x1.2" (170x41x31mm)/ 3.2oz (91g)
RF15	0 to 32% Brix Refractometer with ATC - Dims/Wt: 6.3x1.4x1.4" (159x35x35mm)/ 7oz (200g)
RF16	0 to 10% Brix Refractometer - Dims/Wt: 7.5x1.6x1.2" (190x40x30mm)/ 6.5oz (185g)
RF18	0 to 18% Brix Refractometer - Dims/Wt: 6.7x1.6x1.2" (170x41x31mm)/ 3.2oz (91g)
RF20	Salinity Refractometer with ATC - Dims/Wt: 7.6x1.5x1.5" (194x38x38mm)/ 8oz (227g)
RF30	Triple Range General Service (0 to 90% Brix) Refractometer - Dims/Wt: 7.9x1.5x1.1" (200x38x28mm)/ 21.86oz (620g)

## RF40/RF41 Battery Coolant/ Glycol Refractometer



Measure the % of Ethylene Glycol and Propylene Glycol

- Measures the freezing point of automotive coolants plus battery charge condition
- Provide accurate and repeatable measurements of % Ethylene Glycol and Propylene Glycol and °F on easy to read scale
- Automatic Temperature Compensation
- Requires only 2 or 3 drops of solution
- Complete with case, calibration screwdriver, and calibration solution; 1 yr warranty

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Propylene Glycol freeze point	RF40: -60°F (63%) to 32°F (12%) RF41: -50°C to 0°C	2°F (1%) 1°C	±5°F (2%)
Ethylene Glycol freeze point	RF40: -60°F (59%) to 25°F (16%) -51 to 0°C (-60 to 32°F) RF41: -50°C to 0°C	2°F (1%) 1°C/2°F 1°C	±5°F (2%)
Specific Gravity of Battery Acid	RF40/RF41: 1.15 to 1.30	0.01	

## ORDERING

RF40	Battery Coolant/Glycol Refractometer w/ATC (°F)
RF41	Battery Coolant/Glycol Refractometer w/ATC (°C)

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 135

**SDL800/VB500 Vibration Meter/Dataloggers**

Includes remote vibration sensor(s) with magnetic adapter, batteries, SD card, and hard case; SDL800 has 3yr warranty and optional AC Adaptor. VB500 has 1yr warranty and also includes 4 vibration sensors and 100-240V Universal AC Adaptor.

Datalogs readings with date/time stamps via SD card in Excel® format for easy transfer to a PC

- Wide frequency range of 10Hz to 1kHz
- RMS, Peak Value measurement modes
- Min/Max, Zero function, Max Hold, Data Hold and Auto Power Off
- Adjustable data sampling rate: 1 to 3600 seconds

**Model SDL800**

- Single Channel input; includes one vibration sensor

**Model VB500**

- Four Channel input; includes 4 vibration sensors and Universal AC Adaptor

**SPECIFICATIONS**

Acceleration (max res)	656ft/s <sup>2</sup> (1ft/s <sup>2</sup> ), 200m/s <sup>2</sup> (0.1m/s <sup>2</sup> ), 20.39g (0.01g)
Velocity (max res)	7.87in/s (0.01in/s), 200mm/s (0.1mm/s), 19.99cm/s (0.01cm/s)
Displacement (max res)	0.078in (0.001in), 2mm (0.001mm)
Basic accuracy	±5%
Dimensions/ Weight	SDL800: Meter: 7.2x2.9x1.9" (182X73X48mm)/Meter: 1.3lbs (599g) VB500: Meter: 8 x 3 x 1.5" (203 x 76 x 38mm)/ Meter: 1.13lbs (515g)

**ORDERING**

SDL800	Vibration Meter/Datalogger
VB500	4-Channel Vibration Meter/Datalogger
UA100-240	100-240V AC Adaptor with 3 plugs (US, EU, UK, AU)

**407860 Heavy Duty Vibration Meter**

Includes remote sensor with 3.9ft (1.2m) cable, magnetic mount, 9V battery, holster with stand and case; 3 year warranty.

**Measure Velocity, Acceleration and Displacement**

- Frequency range: 10Hz to 1kHz
- RMS or Peak Value measurement modes
- Auto/Manual store/recall up to 500 readings
- Max/Min, Data Hold and Auto Power off functions

**SPECIFICATIONS**

Acceleration (max res)	656ft/s <sup>2</sup> (2ft/s <sup>2</sup> ) or 200m/s <sup>2</sup> (0.5m/s <sup>2</sup> )
Velocity (max res)	7.87in/s (0.02in/s) or 200mm/s (0.5mm/s)
Displacement (max res)	0.078in (0.001in) or 1.999mm (0.001mm)
Basic accuracy	±5%
Dimensions/ Weight	Meter: 7.1x2.9x1.3" (180x72x32mm)/Meter: 0.87lbs (395g)

**ORDERING**

407860	Vibration Meter/Datalogger
156119	117VAC Adapter
156221	220VAC Adapter

**VB450 Vibration Meter**

**NEW**

Includes remote sensor, magnetic mount, 9V battery, wrist strap, and soft case; 1 year warranty



**CALIBRATION** **NIST**

**Wide 10Hz to 1500Hz frequency range**

- Frequency range: 10Hz to 1kHz
- Velocity (RMS), Acceleration (Peak), and Displacement (Peak-to-Peak) modes
- Auto Power Off and Low battery indicator
- Automatic data hold after measurement button is released

**SPECIFICATIONS**

Acceleration (max res)	0.1 to 199.9m/s <sup>2</sup> (0.1m/s <sup>2</sup> )
Velocity (max res)	0.1 to 199.9mm/s (0.1mm/s)
Displacement (max res)	1 to 1999μm (1μm)
Basic accuracy	±5%
Dimensions/ Weight	7.3x2.7x1.2" (185x68x30mm)/ 8.1oz (230g)

**ORDERING**

VB450	Vibration Meter
-------	-----------------

**461880 Vibration Meter + Laser Combination Tachometer****VB400 Pen Vibration Meter**

Includes both test pin tip and magnetic base

**Measures Acceleration, Velocity, Displacement, RPM and Surface Speed**

- Unique large LCD displays characters on reverse direction depending on function
- Windows® XP compatible software (included) to analyze data on your PC
- Basic accuracy: Tachometer: ±(0.05% rdg), Vibration: ±(5% rdg)
- Dimensions/Weight with Probe: 7.4x3x1.8" (188x75.5x46.8mm)/ 1.12lbs (507g)
- Include vibration sensor with 39" (1m) cable, magnetic mount, wheels (cone & flat tips), reflective tape, 4 AA batteries, software with cable, and hard case; 1yr warranty

**Vibration Meter Functions and Features:**

- Velocity (max res.): 7.87in/s (0.01in/s), 200mm/s (0.1mm/s), 19.99cm/s (0.01cm/s); Acceleration (max res.): 656ft/s<sup>2</sup> (1ft/s<sup>2</sup>), 200m/s<sup>2</sup> (0.1m/s<sup>2</sup>), 20.39g (0.01g); Displacement: 0.078in (0.001in), 2mm (0.001mm); Frequency: 10Hz to 1kHz
- RMS or Peak Value measurement modes
- Manual/Auto store/recall up to 1000 readings, Data Hold and Auto power off features

**Tachometer Functions and Features:**

- RPM ranges — Photo: 10 to 99,999rpm / Contact: 0.5 to 19,999rpm; Surface Speed: 0.2 to 6,560ft/min (0.05 to 1,999.9m/min)
- Uses a laser for greater distance non-contact measurements up to 4.9ft (1.5m)
- Stores Last, Max, and Min readings

**ORDERING**

461880	N	Vibration Meter + Laser Combination Tachometer
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**Measures RMS Acceleration and Velocity with metric and imperial units**

- Ranges — Acceleration (RMS): 656ft/s<sup>2</sup>, 20.39g, 200m/s<sup>2</sup>; Velocity (RMS): 7.87in/s, 2.00cm/s, 200mm/s; Frequency: 10Hz to 1kHz
- Resolution to 1ft/s<sup>2</sup>; 0.01g; 0.1m/s<sup>2</sup> and 0.02in/s; 0.01cm/s; 0.1mm/s
- Basic accuracy of ±5%
- Zero adjustment, Data Hold, and Low battery indicator
- Water and dust resistant to IP65
- Dimensions: Meter: 6.9 x 1.6 x 1.3" (175 x 40 x 32mm); Weight: 0.53lbs (240g); Sensing Head: 0.4" dia x 1.9" (9mm dia x 30mm)
- 1 year warranty
- Complete with test pin tip, magnetic base, 4 x AAA batteries, and case

**ORDERING**

VB400	Pen Vibration Meter
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**VB300 3-Axis G-Force Datalogger**

Magnetized/Bolt-on Mounting Base  
USB connector easily plugs into a computer for data analysis

**Built-in 3-axis accelerometers record the shock and time when it occurs**

- Measure and compute real-time spectral data using FFT
- Acceleration — Sampling Rate: 200Hz, Range: ±18g, Resolution: 0.00625g, Accuracy: ±0.5g; Bandwidth: 0 to 60Hz
- Record storage, transport or operational data over time
- Record and time 3-axis shock and peaks
- Datalogs 168,042 normal recording records or 112,028 motion detection records per axis
- Choose X-, Y-, Z-axis or any combination (via software)
- Programmable data sampling rate: 50mSec to 24 hours
- Manual/Programmable start modes and user-programmable alarm threshold
- Dimensions/ Weight: 3.7 x 1.1 x 0.8" (95 x 28 x 21mm)/ 1oz (20g)
- Complete with Magnetized/Bolt-on Mounting Base, 3.6V Lithium battery and Windows® compatible analysis software; 1 year warranty

**ORDERING**

VB300	3-Axis G-Force Datalogger
42299	3.6V Lithium Battery (pk of 2)

## PRC30 Multifunction Process Calibrator



CE

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

- Palm-sized double molded housing and large dot-matrix backlit LCD
- Measures DC process signals
- High accuracy calibration function simulates precision thermocouple outputs for use in calibrating thermometers, transmitters, controllers or recorders
- Up to five user adjustable calibration presets
- Displays output in terms of millivolts or temperature based on thermocouple tables
- 24V Loop Power
- Zero adjustment, auto zero when power on and change mode
- Standard banana I/O ports and mini thermocouple inputs
- Large battery bank for extended work cycle
- External power adapter for continuous work cycle
- 1 year warranty
- Complete with test leads, alligator clips, Thermocouple calibration cable with subminiature connector, universal calibration cable with subminiature terminal, 100V-240V AC Universal Adaptor with 4 plugs, six 1.5V AA batteries, and hard carrying case

SPECIFICATIONS	DC SOURCE	DC MEASURE	BASIC ACCURACY
Current	0 to 24mA, -25% to +125%	0 to 50mA, -25% to +230%	±(0.01%+1d)
Voltage	0 to 2000mV, 0 to 20V	0 to 1999mV, 2 to 20V	±(0.01%+1d)
Type J	-58 to 1830°F (-50 to 1000°C)	-58 to 1830°F (-50 to 1000°C)	±(0.05%+1.8°F/1°C)
Type K	-58 to 2498°F (-50 to 1370°C)	-58 to 2498°F (-50 to 1370°C)	±(0.05%+1.8°F/1°C)
Type T	-184 to 752°F (-120 to 400°C)	-184 to 752°F (-120 to 400°C)	±(0.05%+1.8°F/1°C)
Loop Power	24V		±(10µV ± 1d)
Max. Load	1000Ω @ 24mA		
Dimensions/Wt	6.3x3.2x1.7" (159x80x44mm)/ 8.4oz (236g) - not including battery weight		

## ORDERING

PRC30 Multifunction Process Calibrator

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

## PRC20 Multi-Type Calibrator Thermometer



CE

**Source and measure 8 thermocouple type devices J, K, T, E, C, R, S, and N**

- Palm-sized double molded housing and large dot-matrix digital backlit LCD with thermocouple type indication
- High accuracy calibration function simulates precision thermocouple outputs for use in calibrating thermometers, transmitters, controllers or recorders
- Displays output in terms of millivolts or temperature based on thermocouple tables
- Standard mini-thermocouple input
- Large battery bank for extended work cycle
- Up to five user adjustable calibration presets
- External power adapter for continuous work cycle
- 1 year warranty
- Complete with Thermocouple calibration cable with subminiature connectors, standard calibration cable with subminiature connectors, 100V-240V AC Universal Adaptor with 4 plugs, 6 x 1.5V AA batteries, and hard carrying case

SPECIFICATIONS	RANGE	BASIC ACCURACY
Type J	-58 to 1830°F (-50 to 1000°C)	±0.05% rdg ±1°
Type K	-58 to 2498°F (-50 to 1370°C)	±0.05% rdg ±1°
Type T	-184 to 752°F (-270 to 400°C)	±0.05% rdg ±1°
Type E	-58 to 1382°F (-50 to 750°C)	±0.05% rdg ±1°
Type C	32 to 3182°F (0 to 1750°C)	±0.05% rdg ±1°
Type R/S	32 to 3182°F (0 to 1750°C)	±0.05% rdg ±1°
Type N	-58 to 2372°F (-50 to 1300°C)	±0.05% rdg ±1°
Voltage	-10.00mV to +60.00mV	10µV ±1d
Dimensions/Wt	6.3x 3.2x1.7" (159x80x44mm)/ 8 oz (225g) - not including battery weight	

## ORDERING

PRC20 Calibrator Thermometer

**NIST**

138 Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.

## PRC10/PRC15 Current &amp; Voltage Calibrators/Meters



**“Source” for calibrating process devices and measuring DC process signals**

- Palm-sized double molded housing and large dot-matrix digital backlit LCD
- Measures DC process signals
- Standard banana I/O ports
- Large battery bank for extended work cycle
- Up to five user adjustable calibration presets
- External power adapter for continuous work cycle
- 1 year warranty
- Each meter includes test leads, alligator clips, 100V-240V AC Universal Adaptor with 4 plugs, six 1.5V AA batteries, and hard carrying case

## PRC10 Additional Features

- 0 to 24mA (-25 to 125%)
- 24V DC power source for 2-wire current loop

## PRC15 Additional Features

- 0 to 24mA (-25 to 125%)
- 0 to 20V DC calibration source

## SPECIFICATIONS

Source	Output 0 to 24mA current for loads up to 1000 ohms; Output 0 to 20V (PRC15 only)
Measure	0 to 50mA current signal; 0 to 19.99V (PRC15 only)
Power/Measure	Provides power (24VDC) to loop & measures current (PRC10 only)
Input/Output	<b>Ranges and Display</b>
	-25.0 to 125.0% (representing 0 to 24mA) <b>Resolution</b> 0.1%
	0 to 19.99mA 0.01mA
	0 to 24.0mA 0.1mA
	0 to 1999mV 1mV
	0 to 20.00V 10mV
Accuracy	± 0.01% ±1 digit
Dimensions/Weight	6.3x3.2x1.7" (159x80x44mm)/ 8.2oz (232g) - not including battery weight

## ORDERING

PRC10 Current Calibrator/Meter  
PRC15 Current & Voltage Calibrator/Meter

## 412440-S Calibration Source Checker



**Easy to use pocket checker for simulating Current Loops**

- Pocket Checkers are easy to use and provide a quick and easy way for checking calibration of meters or controllers
- Instantly determine if your device needs calibration or if sensor needs to be replaced
- Sources three discrete current levels: 4mA, 12mA and 20mA
- Bright red LEDs indicate simulation output or battery status
- Accurate to 0.1mA
- 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/ Weight: 3.5x2.3x1" (89x58.4x25.4mm)/ 10oz (283.5g)
- 1 year warranty

## ORDERING

412440-S Calibration Source Checker

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 139



## Perfect Timing

Stopwatches ensure consistent timing of critical industrial/lab processes and provide split/lap times at sporting events



### HW30 Humidity/ Thermometer Stopwatch

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

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



### 365510 Stopwatch/ Clock

Digital Stopwatch plus Calendar and Alarm

- Stopwatch/Chronograph mode with 1/100th second resolution
- 12 or 24 hour clock operation
- Programmable alarm with an hourly chime
- Split time and two competitor timer
- Calendar displays day, month and date
- Water resistant housing is complete with LR44 battery and 39" (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
- Water resistant housing is complete with LR44 battery and 39" (1m) neckstrap



### 365535 Decimal Stopwatch/Clock

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

- 1/100th second precision
- 500 memory records of Split and Lap times
- Calendar displays day, month and date
- Time of day with daily alarm
- 12 or 24 hour clock format
- 3 Mode Countdown timer: count down stop, count down repeat, count down then count up
- Stroke measurement
- Pacer from 5 to 240 beeps per minute
- Water resistant housing
- Complete with CR2032 lithium battery and 39" (1m) neckstrap

SPECIFICATIONS	HW30 <small>N</small>	365510 <small>N</small>	365515 <small>N</small>	365535 <small>N</small>
Timing capacity	9hrs, 59mins, and 59secs	23hrs, 59mins and 59.99secs	23hrs, 59mins and 59.99secs	19hrs, 59mins and 59.99secs
Accuracy	±5 seconds/day	±3 seconds/day	±3 seconds/day	±5 seconds/day
Alarm	Yes	Yes	Yes	Yes
Countdown Timer	Yes	—	—	3 Modes
Lap Memory	30 laps	—	—	500 laps
Heat Index	70 to 122°F (22 to 50°C)	—	—	—
Temperature	14 to 122°F (-10 to 50°C)	—	—	—
Humidity	1 to 99%	—	—	—
CE approved	Yes	Yes	Yes	Yes
Dimensions	3.1x2.6x0.8" (79x66x21mm)	2.3x2.8x0.5" (57x70x15mm)	2.3x2.8x0.5" (57x70x15mm)	2.5x3.2x0.8" (64x81x20mm)
Weight	3oz (85g)	2oz (50g)	2oz (50g)	2.7oz (77g)
Warranty	1 year	1 year	1 year	1 year



140 N Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 141

## CG104 Coating Thickness Tester



CE

NEW

Smart display rotates 180° for easy viewing angle and Automatic recognition for ferrous and non-ferrous substrates

- Conforms to GB/T 4956, 1985, GB/T 4957-1985, JB/T 8393-1996, JJG 889-95, and JJG 818-93
- 180° reversible LCD display with LED backlight
- Magnetic induction for ferrous substrates; Eddy current for non-ferrous substrates
- Memory stores 255 readings
- User adjustable high/low alarms, Min/Max/Average,
- Substrate Zeroing and two-point calibration function
- Auto-Hold, Auto Power Off, and low battery indicator
- Includes two AAA batteries, calibration standards (one ferrous plate, one non-ferrous plate, and one standard coating plate film), wrist strap, and pouch; 1yr warranty

## SPECIFICATIONS

## FERROUS PROBE (MAGNETIC INDUCTION)    NON-FERROUS PROBE (EDDY CURRENT)

Range (max res)	0 to 2000µm (1µm); 0 to 80.0mils (0.1mils)	0 to 1000µm (1µm); 0 to 40.0mils (0.1mils)
Basic Accuracy	±3%	±3%
Minimum Thickness	0 to 80mils (0 to 2000µm)	0 to 40mils (0 to 1020µm)
Dimensions/Weight	4.1x2.2x1.1" (105x55x27mm)/ 2.82oz (80g)	

## ORDERING

CG104	Coating Thickness Tester
CG104-REF	Calibration References (one ferrous plate, one non-ferrous plate, & one film)

## CG204 Coating Thickness Tester



CE

NEW  
Reduced  
Price!

Automatic recognition for ferrous and non-ferrous substrates with USB interface with software for further analysis of reads on a PC

- Conforms to GB/T 4956-1985, GB/T 4957-1985, JB/T 8393-1996, JJG-889-95, and JJG 818-93
- Magnetic induction for ferrous substrates
- Eddy current measurement for non-ferrous substrates
- Two measuring modes (Single and Continuous) and Working modes (Direct & Group)
- Memory stores 400 readings: 80 Direct and 320 Group
- User adjustable high/low alarms, Min/Max/Average, One or two point calibration
- USB interface includes software
- Complete with two AAA batteries, USB cable, software, Calibration Iron, Calibration Aluminum, Reference Films, and carrying case; 1 year warranty

## SPECIFICATIONS

## FERROUS PROBE (MAGNETIC INDUCTION)    NON-FERROUS PROBE (EDDY CURRENT)

Range (max res)	0 to 1250µm (0.1µm); 0 to 49mils (0.004mils)	0 to 1250µm (0.1µm); 0 to 49mils (0.004mils)
Basic Accuracy	±3%	±3%
Min. Curvature Radius	1.5mm (59.06mils)	3mm (118.1mils)
Minimum Diameter	7mm (275.6mils)	5mm (196.9mils)
Minimum Thickness	0.5mm (19.69mils)	0.3mm (11.81mils)
Dimensions/Weight	4.7x2.4x1.25" (120x63x32mm)/ 6.17oz (175g)	

## ORDERING

CG204	Coating Thickness Tester
CG204-REF	Replacement Calibration Reference Films

CALIBRATION  
TRACEABLE TO  
NIST

142 **N** Indicates products that are available with optional calibration traceable to **NIST**. See page 160 for a complete listing.

Downloaded from [Arrow.com](http://Arrow.com).

## CG206 Coating Thickness Tester



CE

NEW

Automatic recognition for ferrous and non-ferrous substrates with 1500 data storage and USB interface for further data analysis on a PC

- Magnetic induction for ferrous substrates
- Eddy current measurement for non-ferrous substrates
- Easy-to use menu system
- Dot matrix LCD display with 8 level adjustable backlight
- Two working modes: Direct and Group
- Memory stores 1500 readings (30 Group readings)
- One or two point calibration
- USB interface includes software
- Low battery indicator
- Complete with two AAA batteries, USB cable, software, Calibration Iron, Calibration Aluminum, Precision Standards, and pouch

## SPECIFICATIONS

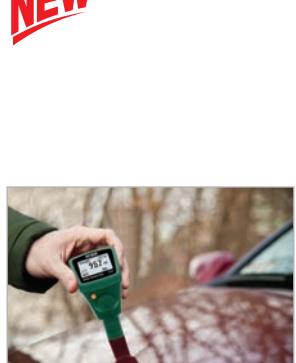
## FERROUS PROBE    NON-FERROUS PROBE

Measuring Range	0 to 1350µm (0 to 53mils)	0 to 1350µm (0 to 53mils)
Resolution	0.1µm (0.004mils)	0.1µm (0.004mils)
Accuracy	±2.5%	±2.5%
Minimum Curvature Radius	1.5mm (59.06mils)	3mm (118.1mils)
Minimum Diameter	7mm (275.6mils)	5mm (196.9mils)
Minimum Thickness	0.5mm (19.69mils)	0.3mm (11.81mils)
Dimensions/Weight	4.5x2.1x1.1" (113.5x54x27mm)/ 3.9oz (110g)	

## ORDERING

CG206	Coating Thickness Tester
CG204-REF	Replacement Calibration Reference

## CG304 Coating Thickness Tester with Bluetooth®



CE

NEW

Bluetooth® interface feature wirelessly transmits data to your PC

- Provides automatic recognition of ferrous and non-ferrous substrates
- Magnetic induction for ferrous substrates
- Eddy current measurement for non-ferrous substrates
- Easy-to use menu system
- Dot matrix LCD display with backlight and contrast
- Memory stores 2500 readings in 50 groups with 50 readings in each group
- Zero-point calibration function
- Complete with two AAA batteries, software, hard case, Steel and Aluminum substrates, and standard films for calibration; 1year warranty

## SPECIFICATIONS

## FERROUS PROBE    NON-FERROUS PROBE

Working Principle	Magnetic Induction	Eddy Current
Measuring Range	0 to 2000µm; 0 to 78.7mils	0 to 2000µm; 0 to 78.7mils
Accuracy	±(2%+2µm); ±3.5% (1000 to 2000µm)	±(2%+2µm); ±3.5% (1000 to 2000µm)
Resolution	0.1µm (0.01mils)	0.1µm (0.01mils)
Minimum Curvature Radius	1.5mm (59.06mils)	3mm (118.1mils)
Minimum Diameter	7mm (275.6mils)	5mm (196.9mils)
Minimum Thickness	0.5mm (19.69mils)	0.3mm (11.81mils)
Dimensions /Weight	4.7x2.4x1.25" (120x63x32mm)/ 6.17oz (175g)	

## ORDERING

CG304	Coating Thickness Tester with Bluetooth
CG304-REF	Replacement Calibration Reference

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 143

**SC600 Electronic Counting Scale/Balance**

Measure batches of electronic components.

CE

Wide capacity measuring single small electronic component weighing 0.005oz (0.1g) or batches up to 21.164oz (600g)

- $\pm 0.05\%$  accuracy with 0.01g and 0.0005oz resolution
- LCD display with 0.8" (20.9mm) easy-to-read digits
- Built-in self-calibration system using traceable weights
- High precision counting function with preset counting sampling number selection of 10pcs, 20pcs, 50pcs, or 100pcs
- TARE function to set the scale to zero
- Built-in bubble level with adjustable rubber pads
- RS-232 interface (optional 407001 software with cable)
- Dimensions: 9.8x7.5x2.8" (250x190x70mm); Platform Diameter: 4.7" (120mm); Weight: 2.2lbs (1kg)
- Complete with 6 AA batteries, metal platform, and Universal AC adaptor; 1 year warranty

**ORDERING**

SC600	Electronic Counting Scale/Balance
407001	Data Acquisition Software with Cable
407001-USB	USB adaptor for 407001

**SC50 Electronic Digital Scale**

CE

Portable electronic scale weighs items that won't fit on a flat floor scale

- 1.6" color LCD with 0.5" digits provides
- Weight and Tare indication
- 110lbs/50kg with 0.01lb (0.01kg) resolution
- Simple touchscreen Zero and Tare programming
- Automatic 30 seconds Data Hold
- Auto Power Off in 30 seconds
- Overload indicator
- Complete with CR2032 battery, 9.4" (238mm) strap, and metal hook; 1 year warranty

**ORDERING**

SC50	Electronic Digital Scale
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A. Verifying the level of refrigerant inside the tank as well as checking the remaining level when used before the next job.

B. Conveniently weigh your luggage to ensure you meet the proper guidelines before checking your bag in at the airport.



144 **N** Indicates products that are available with optional calibration traceable to **NIST**. See page 160 for a complete listing.

**CL500 Free and Total Chlorine Meter**

CE

Complete with all the accessories to conveniently take measurements of both Free and Total Chlorine up to 3.50ppm with 0.01ppm resolution

- The method used is adapted from USEPA Method 330.5 for waste water and Standard Method 4500-Cl-G for drinking water
- Advanced optical system uses a narrow band LED lamp that provides accurate and repeatable readings
- Requires only a 10mL sample size
- Independent 2-point calibration for Free and Total Chlorine
- Splash-proof front panel
- Battery operated for field and on-site testing
- Data Hold and Min/Max record/recall
- Auto power off
- Complete with 1.0ppm Free Chlorine standard solution, 1.0 Total Chlorine standard solution, Zero Chlorine standard solution, (2) test bottles and covers, Free Chlorine DPD powder (10pcs), Total Chlorine DPD powder (10pcs), cleaning cloth, six AAA batteries, and hard carrying case; 1 year warranty

**SPECIFICATIONS**

Range (ppm)	0.01 to 3.50ppm
Resolution	0.01ppm
Accuracy	$\pm 0.02\text{ppm}$ @ 1ppm
Light source	LED, 525nm
Method	Adaptation of USEPA Method 330.5 for waste water and Standard Method 4500-Cl-G for drinking water
Response Time	<10 seconds
Dimensions	6.1 x 3.0 x 2.4" (155 x 76 x 62mm)
Weight	11.3oz (320g)

Contact Extech or your local lab supply for refills on the standard solutions and reagents

**ORDERING**

CL500	Free and Total Chlorine Meter
-------	-------------------------------

**TB400 Portable Turbidity Meter**

CE

Complete with all the accessories to conveniently test the turbidity of municipal water, food and beverage water, and other aqueous solutions where fluid clarity is important

- Microprocessor-based circuitry assures high accuracy and repeatable readings
- Requires only a 10mL sample size
- 2-point calibration
- Splash-proof front panel
- Battery operated for field and on-site testing
- Data Hold and Min/Max record/recall
- Auto power off
- Complete with 0 NTU standard solution test bottle, 100 NTU standard solution test bottle, cleaning solution (distilled water), (2) test bottles and covers, cleaning cloth, six AAA batteries, and hard carrying case; 1 year warranty

**SPECIFICATIONS**

Range (NTU)	0.00 to 50.00 NTU, 50 to 1000 NTU (Nephelometric Turbidity Unit)
Resolution	0.01 NTU
Accuracy	$\pm 5\%$ FS or $\pm 0.5$ NTU, whichever is greater
Light source	LED, 850nm
Standard	Designed to meet ISO 7027
Response Time	<10 seconds
Dimensions	6.1 x 3.0 x 2.4" (155 x 76 x 62mm)
Weight	11.3oz (320g)

Contact Extech or your local lab supply for refills on the standard solutions and reagents

**ORDERING**

TB400	Turbidity Meter
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## ExStik® Series — Why Flat Surface Electrodes?

ExStik is the first waterproof stick meter with an interchangeable flat surface electrode. It measures pH, Chlorine, ORP, and Temperature and features built-in memory. The electrodes measure solids and semi-solids on flat surfaces, and in liquids.

### ACCESSORIES

PH105	pH ExStik® Electrode Module
PH115	Spare Refillable pH ExStik® Electrode Module
PH113	Reference Refill Solution Kit for PH110
RE305	ORP ExStik® Electrode Module
CL205	Spare Chlorine electrode
PH103	Tripak Buffer pouches
PH4-P	pH 4 Buffer Solution (2 bottles - 1 pint each)
PH7-P	pH 7 Buffer Solution (2 bottles - 1 pint each)
PH10-P	pH 10 Buffer Solution (2 bottles - 1 pint each)
CA895	Small vinyl carrying case with belt loop
CA904	Large hard case for meter and accessories

### SPECIFICATIONS

	■ PH100   ▲ PH110
pH	0.00 to 14.00pH
ORP (mV)	—
Chlorine (ppm)	—
Temperature	23° to 194°F (-5 to 90°C)
Max Resolution	0.01pH, 0.1°
Basic Accuracy	±0.01pH, ±1.8°F/1°C
Memory	15 readings
Dimensions/ Weight	1.4x6.8x1.6" (35.6x172.7x40.6mm)/3.8oz (110g)
Warranty	1yr (meter)/6mo conditional warranty (electrode)



### PH100/PH110 Waterproof ExStik® pH Meters

Choose flat surface gel-filled or refillable pH electrode

- “RENEW” feature alerts user when electrode needs replacement
- “CAL” indicator alerts user to recalibrate
- Analog bargraph originates at neutral point (pH 7.00) to conveniently view trends in acidity or alkalinity
- 1, 2 or 3 point buffer calibration; ATC
- Records 15 labeled readings
- Waterproof housing (meets IP57)
- Interchangeable flat surface electrode; Optional RE305 electrode to measure ORP and CL205 to measure Total Chlorine
- Complete with protective sensor cap, sample cup with cap, four 3V button batteries, and 48" (1.2m) neckstrap; requires pH buffers sold separately
- Model PH100** meter includes gel filled pH flat surface electrode
- Model PH110** meter includes refillable flat surface pH electrode; PH113 KCl reference kit sold separately



### RE300 Waterproof 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
- Memory stores 15 labeled data
- Waterproof to IP57 protects meter from wet environment
- Complete with flat surface ORP electrode, protective sensor cap, sample cup with cap, four 3V button batteries and 48" (1.2m) neckstrap



### CL200 Waterproof ExStik® Chlorine Meter

Direct reading of Total chlorine down to 0.01ppm and is unaffected by color or Turbidity of the sample

- Wide dynamic range to 10ppm and low detection limit down to 0.01ppm
- Unaffected by sample color or turbidity
- Automatic electronic calibration
- Memory stores 15 labeled readings
- Unique flat surface chlorine electrode eliminates any concerns for clogged junctions or glass breakage
- Waterproof to IP57 protects meter from wet environment
- Large LCD simultaneously displays ppm of Total Chlorine, Temperature and analog bargraph indicator
- Complete with flat surface Chlorine electrode, ExTab™ reagent tablets (50 tests), protective sensor cap, sample cup with cap, four 3V button batteries, and 48" (1.2m) neckstrap



### EX900 Waterproof ExStik® 4-in-1 Kit

Complete kit allows you to measure Chlorine, pH, ORP, and Temperature with all the necessary accessories

- One meter with three interchangeable flat surface electrodes to measure Chlorine, pH or ORP
- Measure in liquids, semi-solids and solids
- Memory stores and recalls 15 readings and saves last calibrated value
- Automatic electronic self calibration for Chlorine and ORP; 1, 2 or 3 point buffer calibration for pH
- Waterproof to IP57 protects meter from wet environment
- Direct reading of Total Chlorine from low detection limit; Unaffected by sample color or turbidity
- See PH100, RE300, and CL200 for complete features and specification
- Complete with CL200 Chlorine ExStik® meter, flat surface pH electrode, flat surface ORP electrode, ExTab™ reagent tablets (50 tests), pH 4, 7 & 10 buffer solutions (20mL) and rinse solution, weighted base with 6 sample plastic cups with caps, four 3V CR2032 button batteries, 48" (1.2m) neckstrap, and case



## Save Time and Money

Value Kits allow you to measure multiple water quality parameters and provide all of the necessary accessories including calibration solutions, buffers, sample cups, batteries and a carrying case to store everything.

### ACCESSORIES

PH95	pH Electrode Module for PH90
EC405*	ExStik® II Conductivity Cell Module for EC400
EC505*	ExStik® II pH/Conductivity Cell Module for EC500
EC-84-P	84µS Conductivity Standard (2 bottles/1 pint ea)
EC-1413-P	1413µS Conductivity Standard (2 bottles/1 pint ea)
EC-12880-P	12880µS Conductivity Standard (2 bottles/1 pint ea)
PH103	Tripak pH Calibration Buffer pouches
EX010	3ft (1m) Extension Cable w/Probe Guard/Weight
EX050	16ft (5m) Extension Cable w/Probe Guard/Weight
CA895	Small vinyl carrying case with belt loop
CA904	Large hard case for meter and accessories



### PH90 Waterproof pH Meter

Flat Surface Electrode for measuring pH in liquids, semi-solids, and solids

- Rugged replaceable flat surface pH electrode for quick on-the-spot pH measurements
- Simultaneous display of pH and Temperature
- 2 or 3 point calibration automatically recognizes buffer solutions (pH buffers required - sold separately)
- PTS (percent of slope) tells you when it's time to replace your electrode (below 70% or above 130%)
- Automatic Temperature Compensation
- Data Hold, Min/Max, Auto Power Off, and low battery indication
- Waterproof design (IP57) floats in water and protects the meter in wet environment
- Complete with Conductivity/TDS electrode, sensor cap, sample cup with cap, four 3V CR2032 batteries, and 48" (1.2m) neckstrap. Order Conductivity standards separately (see Accessories chart on the left).



### EC400 Waterproof ExStik® II\* Conductivity Meter

4-in-1 multi-range sensor for measuring Conductivity, TDS, Salinity & Temperature

- Analog bargraph indicates trends
- Adjustable Conductivity to TDS ratio from 0.4 to 1.0
- 0.5 fixed Salinity ratio
- Data Hold, Auto power off, Low battery indicator
- Memory stores 25 labeled data
- Waterproof to IP57 protects meter from wet environment
- Complete with Conductivity/TDS electrode, sensor cap, sample cup with cap, four 3V CR2032 batteries, and 48" (1.2m) neckstrap. Order Conductivity standards separately (see Accessories chart on the left).



### EC500 Waterproof ExStik® II\* pH/Conductivity Meter

5-in-1 multi-range sensor for measuring pH, Conductivity, TDS, Salinity, and Temperature

- RENEW feature tells user to replace electrode
- Analog bargraph indicates trends
- Adjustable Conductivity to TDS ratio from 0.4 to 1.0
- 0.5 fixed Salinity ratio
- Data Hold, Auto power off, Low battery indicator
- Memory stores 25 labeled data
- Waterproof to IP57 protects meter from wet environment
- Complete with combination pH/Conductivity/TDS electrode, sensor cap, sample cup with cap, four 3V CR2032 batteries, and 48" (1.2m) neckstrap. Order Conductivity standards and pH Calibration buffers separately (see Accessories chart on the left).



### EC410 ExStik® II\* Conductivity Kit

Highly accurate multi-ranging sensor that measures Conductivity, TDS, Salinity, and Temperature

- EC400 ExStik® II Conductivity/TDS/Salinity/Temperature meter with sensor, protective cap, 84µS, 1413µS and 12880µS standards (30mL bottle each), weighted base, 3 sample plastic cups with caps, four 3V CR2032 button batteries, 48" (1.2m) neckstrap, and carrying case

• See p. 148 for more specifications on the EC400 meter



### EC510 ExStik® II\* DO/pH/EC Kit

Measures pH, Conductivity, TDS, Salinity, and Temperature using a combination electrode

- EC500 ExStik II pH/Conductivity/TDS/Salinity/Temperature meter with combination electrode module, 84µS, 1413µS, 12880µS calibration standards, pH buffer pouches (1 each of 4, 7, 10pH plus rinse solution), weighted base, three sample cups with caps, four 3V CR2032 batteries, neckstrap, and case

• See EC500 on the left for more details on the meter

SPECIFICATIONS	PH90	EC400	EC500	EC410	EC510	SPECIFICATIONS
pH	0.00 to 14.00pH	—	0.00 to 14.00pH	—	0.00 to 14.00pH	pH
ORP (mV)	—	—	—	—	—	ORP
Conductivity	—	0 to 199.9µS, 200 to 1999µS, 2.00 to 19.99mS	0 to 199.9µS, 200 to 1999µS, 2.00 to 19.99mS	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
TDS/Salinity/Fluoride	—	TDS/Salinity: 0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)	TDS/Salinity: 0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)	TDS/Salinity: 0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)	TDS/Salinity: 0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)	TDS/Salinity/Fluoride
DO saturation/concentration	—	—	—	—	—	DO saturation/concentration
Temperature	32° to 194°F (0 to 90°C)	32° to 149°F (0 to 65°C)	23° to 194°F (-5 to 90°C)	32° to 149°F (0 to 65°C)	23° to 194°F (-5 to 90°C)	Temperature
Max. Resolution	0.01pH, 0.1°	0.1µS, 0.1ppm (mg/L), 0.01pH, 0.1°F/°C	Max. Resolution			
Basic Accuracy	±0.01pH, ±1.8°F/1°C	±2%FS, ±0.01pH, ±1.8°F/1°C	±2%FS, ±0.01pH, ±1.8°F/1°C	±2%FS, ±0.01pH, ±1.8°F/1°C	±2%FS, ±0.01pH, ±1.8°F/1°C	Basic Accuracy
Dimensions	1.4x6.7x1.4" (36x170x36mm)	1.4x6.8x1.6" (35.6x172.7x40.6mm)	1.4x6.8x1.6" (35.6x172.7x40.6mm)	1.4x6.8x1.6" (35.6x172.7x40.6mm)	1.4x6.8x1.6" (35.6x172.7x40.6mm)	Dimensions
Weight	3oz (85g)	3.8oz (110g)	3.8oz (110g)	3.8oz (110g)	3.8oz (110g)	Weight
Warranty	1yr (meter)/6mo conditional warranty (electrode)	1yr (meter)/6mo conditional warranty (electrode)	1yr (meter)/6mo conditional warranty (electrode)	1yr (meter)/6mo conditional warranty (electrode)	1yr (meter)/6mo conditional warranty (electrode)	Warranty

CALIBRATION TRACABLE TO NIST

## CL200 ExStik® Waterproof Chlorine Meter



Direct reading of Total chlorine down to 0.01ppm and is unaffected by color or Turbidity of the sample

- Direct reading of Total Chlorine provides fast and easy measurements
- Wide dynamic range to 10ppm and low detection limit down to 0.01ppm
- 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
- 1 year warranty (meter) / 6 months conditional warranty (electrode)
- Complete with meter and flat surface Chlorine electrode, ExTab™ reagent tablets (50 tests), protective sensor cap, sample cup with cap, four 3V button batteries, and 48" (1.2m) neckstrap

## SPECIFICATIONS

ppm	0.01 to 10.00ppm
Temperature	23° to 194°F (-5 to 90°C)
Resolution	0.01ppm; 0.1°F/°C;
Basic accuracy	±10% of reading ±0.01ppm; ±1.8°F/±1°C
Dimensions/ Weight	1.4x6.8x1.6" (35.6x172.7x40.6mm)/ 3.85oz (110g)

## ORDERING

CL200	ExStik® Chlorine Meter
CA895	Small vinyl carrying case with belt loop
CL205	Spare Chlorine electrode
CL207	Chlorine Standard (1ppm) - 3 ampules (20mL ea.)

## EX006/EX007 Accessories



## Weighted Base &amp; Solution Cups

- Recommended for ExStik® Chlorine
- Complete with weighted base and 5 solution cups with caps to hold meter and solution when taking a measurement to obtain a stable reading



## CL203/CL204 ExTab™ Chlorine Reagent tablets

- No messy powder reagents
- 1 tablet per test
- Foil packaging provides very stable environment with long shelf life
- No dosing equipment required
- No messy powder reagents
- Available in 10pk (100 tests) or Value pack 100pk (1000 tests)

## CL207 Chlorine Standard

- 1ppm standard for chlorine meter calibration
- Complete with 3 ampules (20mL each) 1ppm calibration standards

## ORDERING

EX006	Weighted base with 5 solution cups
EX007	Spare sample solution cups (24pk)
CL203	ExTab™ Reagent tablets (10pk - 100 tests)
CL204	ExTab™ Reagent tablets (100pk - 1000 tests)
CL207	Chlorine Standard (1ppm) - 3 ampules (20mL ea.)



150 **N** Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.

Downloaded from [Arrow.com](http://Arrow.com).

## FL700 ExStik® II\* Fluoride Meter



Includes flat surface electrode, cap, TISAB reagent tablets, four 3V button batteries, and 48" (1.2m) neckstrap; 1 year warranty



Direct reading of Fluoride from 0.1ppm to 10ppm with ATC; Waterproof IP57

- First Fluoride meter with built-in Automatic Temperature Compensation
- Fastest response Fluoride meter (<1min)
- Measures Temperature from 32 to 140°F (0 to 60°C)
- 0.1ppm, 0.1 max resolution and ±3.0% basic accuracy
- Small sample/TISAB volume required for testing (10mL)
- In compliance with EPA Method 340.2. (Potentiometric Ion Selective Electrode)
- Automatic electronic 1 or 2 point calibration with offset adjustment
- Memory stores 25 labeled data
- Dims: 1.4x6.8x1.6" (35.6x172.7x40.6mm); Wt: 3.8oz (110g)
- Contact Extech or your local lab supply for Fluoride calibration standards

## ORDERING

FL700	ExStik® II Fluoride Meter
FL705	ExStik® II Fluoride Module for FL700
FL704	TISAB reagent tablets for FL700 (100 tablets)

## DO600 ExStik® II\* Dissolved Oxygen Meter



DO600-K Kit available shown above. Includes DO600 meter, DO603 membrane kit, 16ft (5m) extension cable, weighted probe guard, and carrying case



Easy to replace screw-on membrane cap with optional extension cables

- Displays Oxygen level Saturation (0 to 200.0%) or Concentration (0 to 20.00mg/L [ppm]) and Temperature 32 to 122°F (0 to 50°C)
- Max resolution: 0.1%, 0.01ppm, 0.1°; Basic accuracy: ±2.0%FS, ±0.4ppm (mg/L), ±1.8°F/1°C
- Adjustable Altitude Compensation (0 to 20,000ft) in 1,000ft increments
- Adjustable Salinity Compensation from 0 to 50ppt
- Analog bargraph display; Self calibration on power up
- Memory stores 25 labeled data; Waterproof to IP57
- **Model DO600** meter includes DO electrode, sensor cap, spare membrane cap, electrolyte, four 3V CR2032 batteries, and 48" (1.2m) neckstrap
- **Model DO600-K** Kit shown on the left

## ORDERING

DO600	ExStik® II Dissolved Oxygen Meter
DO600-K	ExStik® II Dissolved Oxygen Kit
DO605	ExStik® II Dissolved Oxygen Module for DO600
DO603	Membrane Kit for DO600/DO605
EX010	3ft (1m) Extension Cable w/Probe Guard/Weight
EX050	16ft (5m) Extension Cable w/Probe Guard/Weight

## DO610 ExStik® II\* DO/pH/EC Kit



Measures Dissolved Oxygen, pH, Conductivity, TDS, Salinity, and Temperature

- EC500 pH/Conductivity ExStik® II meter with combination high accuracy multi-ranging Conductivity sensor for Conductivity, TDS, Salinity, pH and Temperature measurements
- DO600 Dissolved Oxygen ExStik® II meter with electrode, replacement membrane cap, electrolyte, and polishing paper
- Accessories included:

- Sample pH Buffers — Single use pouches for pH4, pH7, pH10, and rinse solution
- Weighted base with 2 cups and caps, four 3V CR2032 batteries and neckstrap with each meter, and case
- See p. 149 for more details on the EC500 and above for DO600 meter

## ORDERING

DO610	ExStik® II DO/pH/Conductivity Kit
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\*ExStik® II electrode modules are not interchangeable with ExStik® pH/ORP/Chlorine meters

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 151

## PH50/PH60 pH Pens



CE

## Easy-to-use, low cost waterproof pH pens

- Model PH50 — Measures pH
- Model PH60 — Measures pH and Temperature Automatic Temperature Compensation Waterproof housing
- Easy to calibrate single CAL key with automatic pH buffer recognition (4, 7, and 10pH calibration buffers sold separately)
- Data hold, Low battery indicator, and Auto power off with disable feature
- Complete with built in electrode, sensor cap, inner pH electrode protection cap, and four LR44 button batteries; 1 year warranty

## SPECIFICATIONS

pH	2.0 to 12.0pH	0.0 to 14.0pH
Temperature	—	32 to 122°F (0 to 50°C)
Resolution	0.1pH, 0.1°	0.1pH, 0.1°
Accuracy	±0.3pH	±0.2pH; ±1°F/±0.5°C
Dimensions/Wt	6x1.5x0.9" (152x37x24mm)/ 2.3oz (65g)	

## ORDERING

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

## EC100/EC150/EC170 Conductivity/TDS/Salinity Meters



CE

Complete with sensor with cap and four LR44 button batteries; 1 year warranty. Order Conductivity standards separately (required for calibration)

CALIBRATION  
TRACEABLE TO  
NIST

152 **N** Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.

## pH Electrodes



60120B - Mini size



601500 - Standard size



601100 - Flat Surface

Choice of Standard or Specialized electrodes with Ag/AgCl gel filled (fast response: 95% in 5sec)

Models 60120B and 601500 — General purpose pH/Ref electrodes

- Rugged, polycarbonate construction features glass pH sensing bulb surrounded by protective teeth. pH range (0 to 14pH), operating temperature (0 to 80°C). Choice of Mini or Standard size.

Model 601100 — Flat surface electrode (Easy to clean)

- PVC bodied electrode, ideal for pH of solid products with minimal moisture like cheese, soils or electrophoretic/agar gels. pH range (0 to 14pH), operating temperature (5 to 80°C).

## ORDERING

60120B	Mini pH Electrode (10 x 120mm)
601500	Standard pH Electrode (12 x 160mm)
601100	Flat Surface pH Electrode (15 x 106mm)

## ExStik® Replacement pH, ORP, and Chlorine Electrode Modules

Interchangeable pH, ORP, and Chlorine sensor modules for ExStik® series meters featured on (p. 144 and 146)

- ATC via built-in Pt-100Ω sensor (PH105, PH115 & CL205)
- Refillable pH electrode (PH115) provides an economical way to refill your electrode, eliminates the problem of limited electrode shelf life, contamination, and usage life in aggressive applications
- Note: The PH105, CL205 and RE305 replacement modules are not interchangeable with ExStik® II meters shown on p. 145
- 6 month conditional warranty

## ORDERING

PH105	pH ExStik® Electrode Module
PH115	Refillable pH ExStik® Electrode Module
PH113	Reference Refilling Solution Kit for PH115
CL205	Chlorine ExStik® Electrode Module
RE305	ORP ExStik® Electrode Module



PH105 CL205 RE305  
Reference Refilling  
Solution Kit for  
PH115 Refillable  
pH electrode  
module

## pH Buffers



## Convenient calibration solutions for your pH meter

- Easy to use, already made fresh pH buffers for calibration
- Helpful table shows what the pH value should be vs. the temperature of the buffer solution measured
- Rinsing solution used for cleaning off the pH electrode before and after taking the next measurement from a different solution to prevent contamination
- Convenient pouch eliminates the need for a cup to store buffer or rinsing solution
- PH103 contains 6 pouches of each buffer (pH 4.00, 7.00, and 10.00), plus 2 Rinsing solutions
- Pint size pH buffer solutions available (PH4-P, PH7-P, and PH10-P)

## ORDERING

PH4-P	pH 4 Buffer Calibration Solution (2 bottles - 1 pint each)
PH7-P	pH 7 Buffer Calibration Solution (2 bottles - 1 pint each)
PH10-P	pH 10 Buffer Calibration Solution (2 bottles - 1 pint each)
PH103	Tripak Buffer pouches (6ea: 4, 7, 10pH, 2 Rinse solutions)

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 153



## For Rugged, Accurate Results

Extech field-tested lab instruments are fast-responding tools designed to deliver accurate and repeatable readings with waterproof and datalogging models available.

### ACCESSORIES

60120B	Mini pH Electrode (10 x 120mm)
601500	Standard pH Electrode (12 x 160mm)
601100	Flat Surface pH Electrode (15 x 106mm)
67500B	ORP Electrode (13 x 154mm)
6015WC	Waterproof pH Electrode with cable for PH220
6012WS	Waterproof Stick Type pH Electrode for PH220
PH305	Spare pH Electrode for PH300
PH4-P	pH 4 Buffer Solution (2 bottles - 1 pint each)
PH7-P	pH 7 Buffer Solution (2 bottles - 1 pint each)
PH10-P	pH 10 Buffer Solution (2 bottles - 1 pint each)
PH103	Tripak Buffer pouches (see photo above)
850185	RTD Stainless Steel Temp. Probe for the Oyster
850188	Temperature probe, stainless steel for PH210
UA100-240	100-240V AC Adaptor w/ 4 plugs (US, EU, UK, AU)

SPECIFICATIONS	PH210	■ PH220-C   ▲ PH220-S	PH300	■ OYSTER-15   ▲ OYSTER-16	SDL100  	SPECIFICATIONS
Type	Cabled pH Electrode (sold separately)	■ Cabled pH Electrode   ▲ Stick pH Electrode	Cabled pH Electrode	■ Meter+pH electrode+case   ▲ Meter+pH electrode+ case+Temp probe	Cabled pH Electrode	Type
pH	0.00 to 14.00pH	0.00 to 14.00pH	-2.0 to 19pH	0.00 to 14.00pH	0 to 14pH	pH
mV	-1999 to 1999mV	-	-1999mV to 1999mV	-999 to 999mV	-1999mV to 1999mV	mV
Temperature	32 to 212°F/0 to 100°C (manual) 32 to 140°F/0 to 60°C (Temperature probe)	32° to 212°F (0 to 99.9°C)	32 to 212°F (0 to 100°C)	32° to 212°F (0 to 99.9°C)	32 to 149°F (0 to 65°C)	Temperature
Max Resolution	0.01pH, 1mV, 0.1°	0.01pH, 0.1°	0.01pH, 1mV, 0.1°	0.01pH, 1mV, 0.1°	0.01pH, 1mV, 0.1°	Max Resolution
Basic Accuracy	±0.04pH, ±0.5% mV, ±1.5°F/±0.8°C	±0.01pH, ±0.8°F/0.5°C	±0.02pH, ±0.15mV, ±1°F/0.5°C	±0.02pH, ±2mV, ±0.8°F/0.5°C	±0.02pH, ±0.5% mV, ±1.8°F/1°C	Basic Accuracy
Memory	15 readings	-	200 readings	25 readings	20M readings on 2G SD card	Memory
Dimensions/ Weight	5.3x2.4x1.3" (135x60x33mm)/ 7oz (200g)	4.4x3.1x1.5" (111x79x39mm)/ 9.2 oz (260g)	4.7x2.6x1.2" (120x65x31mm)/ 6.3oz (180g)	3.7x4.2x2" (94x107x51mm)/ 12oz (340g)	7.2x2.9x1.9" (182X73X48mm)/ 16oz (455g)	Dimensions/ Weight
Warranty	1year	1yr (meter)/6mo conditional warranty (electrode)	1yr (meter)/6mo conditional warranty (electrode)	1yr (meter)/6mo conditional warranty (electrode)	3yr (meter)/6mo conditional warranty (electrode)	Warranty

 All models are CE approved.

NOTE: It is recommended that you calibrate your conductivity meter to conductivity standards before use.

 CALIBRATION TRACEABLE TO NIST



## Ensuring Water Quality

Extech offers water quality testing tools. Find Extech on the job in wastewater treatment facilities, water treatment, industrial systems (boiler water systems, cooling towers, cooling systems, closed loops), alternative farming (hydro-/aeroponics), fish farming, lab testing, pool maintenance, R&D, and more.

### ACCESSORIES

EC-84-P	84μS Conductivity Standard (2 bottles - 1 pint each)
EC-1413-P	1413μS Conductivity Standard (2 bottles - 1 pint each)
EC-12880-P	12880μS Conductivity Standard (2 bottles - 1 pint each)
EC210-P	Replacement Conductivity/TDS Cell for EC210
EC605	Spare Polymer Conductivity Cell for EC600
804010A	Polymer Conductivity Cell for 341350A-P
PH305	Spare pH Electrode for EC600
60120B	Spare Mini pH Electrode for 341350A-P
67500B	ORP Electrode (13 x 154mm)
UA100-240	100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)
850190	Thermistor Probe (32 to 194°F/0 to 90°C) for 341350A-P

### SPECIFICATIONS

	EC210	EC600	341350A-P <small>N</small>
Conductivity	2000μS/cm, 20mS/cm, 100mS/cm	0.00 to 199.9mS	10 to 19,990μS/cm
TDS/Salinity	1200ppm, 12,000ppm, 66,000ppm	0 to 100g/L	TDS range: 10 to 19,990ppm (mg/L)
pH	—	-2 to 19pH	0.01 to 14.00pH
mV	—	-1999mV to +1999	—
Temperature	32 to 122°F (0 to 50°C)	pH/mV: 32 to 212°F (0 to 100°C); Other: 32 to 122°F (0 to 50°C)	Thermistor probe: 32 to 194°F (0 to 90.0°C)
Max. Resolution	1μS/cm, 0.01mS/cm, 0.1mS/cm, 1ppm 10ppm, 100ppm, 0.1°F/°C	0.01pH, 1mV, 0.01μS, 0.01mg/L, 0.01ppt, 0.1°F/°C	0.1mS; 0.01pH
Basic Accuracy	±2% FS, ±1.5°F/0.8°C	±0.02pH, ±0.15mV, ±1.5%FS, ±1°F/0.5°C	±2%, ±0.02pH
CE Approved	Yes	Yes	Yes
Dimensions	Meter: 5.3 x 2.4 x 1.3" (135 x 60 x 33mm)/ 10.4oz (295g) includes probe and battery	4.7x2.6x1.2" (120x65x31mm)/6.3oz (180g)	3.7x4.2x2" (96x108x45mm)/ 12oz (340g)
Warranty	1 year (6 months electrode)	1 year (6 months electrode)	1 year (6 months electrode)

NOTE: It is recommended that you calibrate your conductivity meter to conductivity standards before use.



### EC210 Compact Conductivity/TDS Meter

Adjustable Temperature compensation factor to maintain accuracy

- Simultaneous display of Conductivity or TDS with Temperature
- Automatic Temperature Compensation
- Temperature compensation factor adjustable between 0 to 5.0% per °C
- Min/Max and Data Hold functions
- Auto Power Off with disable feature
- Use optional 1413μS Conductivity Standard (EC-1413-P) for calibration
- Complete with Conductivity cell and 39" (1m) cable, 9V battery, and soft case

### EC600 Waterproof pH/ORP/Conductivity/TDS Kit

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

- Waterproof housing (meets IP57)
- Choice of 3 point pH calibration
- One point Conductivity calibration – automatically recognizes 8 calibration solutions
- Automatic Temperature Compensation (non-linear compensation for purified water <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

Exclusive Oyster™ Design can be used in the lab or in the field

- Large dual LCD built into adjustable “flip-up” cover
- Microprocessor based with splash-proof housing and front panel tactile touch pad to slope and calibrate
- Rugged design for handheld or benchtop use
- Convenient neckstrap holds meter while you take measurements
- Stores 25 labeled readings
- ATC for Conductivity/TDS
- Manual Temperature Compensation: pH (0 to 100°C)
- Includes mini pH electrode, thermistor probe (850190), sample buffers, polymer conductivity cell, 9V battery, neckstrap & case; Optional Universal AC adaptor (UA100-240) and ORP electrode (67500B)

**SDL150 Dissolved Oxygen Meter/Datalogger**Includes SD  
memory card

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

- Dual display of Oxygen Concentration and Temperature
- Measures dissolved oxygen from 0 to 20.0mg/L and 0 to 100.0% oxygen plus temperature from 32 to 122°F (0 to 50°C)
- Automatic Temperature Compensation from 0 to 50°C via temperature sensor built into polarographic type oxygen probe
- Selectable data sampling rate: 1 second to 8hrs:59min:59sec
- Manually store/recall up to 99 readings
- Large backlit dual LCD
- Record/Recall MIN, MAX readings
- Data Hold plus Auto power off with disable function
- 3 year warranty (meter)/ 6 months conditional warranty (electrode)
- Complete with 6 x AA batteries, SD card, probe, spare probe head with diaphragm, electrolyte, and hard carrying case; Optional Universal AC adaptor

SPECIFICATIONS	DISSOLVED OXYGEN	OXYGEN	TEMPERATURE
Range	0 to 20.0 mg/L	0 to 100.0%	32 to 122°F (0 to 50°C)
Accuracy	±0.4 mg/L	±0.7%	±0.8°C/1.5°F
Probe Compensation & Adjustment	Salt: 0 to 50%	Altitude: 0 to 8910m	Temp: 0 to 50°C
Datalogging	99 data (manual)/20M data (4G SD card)		
Dimensions/Weight	Meter: 7.2x2.9x1.9" (182x73x48mm)/ 25.6oz(725g)		
	Probe: Probe: 0.8Dx4.9" L		

**ORDERING**

SDL150	Dissolved Oxygen Meter/Datalogger
407510-P	Dissolved Oxygen probe with 13ft (4m) cable
780417A	Replacement Membranes (10/pack)
780418	DO Internal Fill Solution (2pks — 50mL each)
UA100-240	100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)

**407510 Heavy Duty Dissolved Oxygen Meter**Complete with 0.8"  
(20mm) probe on 13ft  
(4m) cable, membranes,  
protective holster with  
stand, 9V battery, and  
carrying case

Dual display of Oxygen concentration in solutions and Temperature — plus RS-232 PC interface

- Measures dissolved oxygen, oxygen, plus temperature
- Min/Max/Avg, Data Hold and Auto power off
- Automatic Temperature Compensation
- Large 1.4" (36mm) LCD display
- Built-in PC interface with optional Data Acquisition Software 407001 (see p. 114)
- 3 year warranty (meter)/ 6 months conditional warranty (electrode)

SPECIFICATIONS	DISSOLVED OXYGEN	OXYGEN	TEMPERATURE
Range	0 to 19.9mg/L	0 to 100.0%	32 to 122°F (0 to 50°C)
Accuracy	±0.4mg/L	±0.7%	±1.5°F/±0.8°C
Probe Compensation & Adjustment	Salt: 0 to 39%	Altitude 0 to 3900m	Temp: 0 to 50°C
Dimensions/ Weight	Meter: 7x3x1.3" (178x74x33mm); Probe: 0.8Dx4.9" L		
Weight	17oz (482g)		

**ORDERING**

407510	Heavy Duty Dissolved Oxygen Kit
407510-P	Dissolved Oxygen probe with 13ft (4m) cable
780417A	Replacement Membranes (10/pack)
780418	DO Internal Fill Solution (2pks — 50mL each)

158 **N** Indicates products that are available with optional calibration traceable to NIST. See page 160 for a complete listing.**DO700 Waterproof Series Dissolved Oxygen Kit**

Complete kit includes all the necessary accessories stored in a hard case for easy transportation. Ideal for field use.

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

- Automatic salinity compensation and manual barometric pressure compensation for DO measurements
- Waterproof housing (meets IP57) design and large blue backlit dual LCD display
- Choice of 3 point pH calibration for better accuracy; Automatic Temperature Compensation
- One point Conductivity calibration — automatically recognizes 8 calibration solutions
- Memory stores up to 400 labeled readings
- Auto power off with disable function
- 1 year warranty (meter)/ 6 months conditional warranty (electrode)
- 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

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Dissolved Oxygen (Concentration)	0 to 40.00mg/L	0.01mg/L	±1.5%FS
Dissolved Oxygen (Saturation)	0 to 200.0%	0.1%	±1.5%FS
pH	-2.00 to 19.99pH	0.01pH	±0.02pH
mV	-1999 to +1999mV	1mV	±0.15mV
Conductivity	0.00 to 199.9mS	0.01µS	±1.5%FS
TDS	0 to 100g/L	0.01mg/L	±1.5%FS
Salinity	0 to 100ppt	0.01ppt	±1.5%FS
Resistivity	0 to 100M cm	0.1	±1.5%FS
Temperature (for pH & mV)	32 to 212°F (0 to 100°C)	0.1°	±1°F/±0.5°C
Temperature (other)	32 to 122°F (0 to 50°C)	0.1°	±1°F/±0.5°C
Dimensions/Weight	4.7x2.6x1.2" (120x65x31mm)/ 6.3oz (180g)		

**ORDERING**

DO700	Waterproof Series Dissolved Oxygen Kit
DO705	Dissolved Oxygen Electrode
DO703	Replacement Membrane Caps (3 caps)
PH305	Spare pH/mV/Temperature Electrode
EC605	Spare Polymer Conductivity Cell

**DO210 Compact Dissolved Oxygen Meter**

Complete with DO probe with membrane and 13ft (4m) cable, two spare replacement membranes, electrolyte, 9V battery, and soft case



**Take quick measurements of Dissolved Oxygen or % Oxygen**

- Measures Dissolved Oxygen and % Oxygen plus Temperature
- Automatic Temperature Compensation via temperature probe sensor built into polarographic type oxygen probe
- Adjustable Altitude and Salinity Compensation
- Min/Max and Data Hold functions
- Auto Power Off with disable feature
- 1 year warranty (meter)/ 6 months conditional warranty (electrode)

SPECIFICATIONS	DISSOLVED OXYGEN	OXYGEN	TEMPERATURE
Range	0 to 20.0 mg/L	0 to 100.0%	32 to 122°F (0 to 50°C)
Basic Accuracy	±0.4 mg/L	±0.7%	± 1.5°F (±0.8°C)
Automatic Temperature Compensation (ATC)			32 to 122°F (0 to 50°C)
Probe Compensation & Adjustment	Salt: 0 to 39% Altitude: 0 to 3900m		
Dimensions	Meter: 5.3 x 2.4 x 1.3" (135 x 60 x 33mm); Probe: 28mm(1.1")D x 190mm(7.5")L		
Weigh	15.7oz (446g) includes probe and battery		

**ORDERING**

DO210	Dissolved Oxygen Meter
407510-P	Dissolved Oxygen Probe with 13ft (4m) cable
780417A	Replacement Membranes (10/pack)
780418	DO internal Fill Solution (2pks — 50mL each)

For the name of your local stocking distributor, visit [www.extech.com](http://www.extech.com) 159

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\*NISTL: Limited NIST for Certificate of Traceability to all functions except IR Thermometer

\*\*HT30-NISTL: Limited NIST for Certificate of Traceability to 33 and 75%RH and 21.0°C only

\*\*\*HW30-NISTL: Limited NIST for Certificate of Traceability to

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\*M0300-NISTL: Limited NIST for Certificate of Traceability to %RH, Air temp &amp; IR temperature

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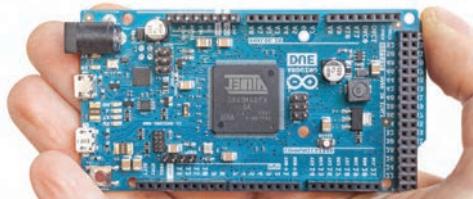
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