



# EUROPEAN CATALOG 2014/2015

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

www.extechinstruments.eu



### **Endless Possibilities**

There's so much excitement around our growing line of test tools because so many help make our world a better place by keeping systems running and improving productivity.

For over 43 years, we've earned the trust of industry professionals who rely on the Extech brand of meters for electrical and mechanical repairs, industrial plant maintenance, HVAC troubleshooting, electronic testing and R&D. Many are also using our testers to increase energy efficiency, monitor air & water quality, and safeguard people's health and comfort. The applications are endless!

Our #1 priority is to provide you with quality, affordable products that meet your daily demands for performance and reliability. We've built our reputation around Tough Tools for Tough Budgets. We stay focused on innovation and solicit feedback from our customers on product ideas and new technologies, applications and requirements.

Extech continues to be one of the most recognized brands of test equipment that is sold through our network of distributor partners globally. We're highlighting over 50 New Products in this catalog. I invite you to browse through these pages and explore what Extech offers, then...

Discover your own endless possibilities!

Upind

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



# **Dedicated Support & Service**

Our Customer Service & Technical Support professionals provide friendly and knowledgeable before- and after-sale support to Extech customers worldwide. Our products are backed by a full warranty against defects, and our full-service repair team provides top-notch warranty and non-warranty services.





# **Customer-Driven Innovation**

We continually strive to provide you with innovative new tools that have value-added features our customers ask for – all to make their jobs faster, easier and safer. Our Engineering Group constantly researches the latest technologies and materials to develop new cutting-edge meters and testers.



MO290 Moisture Meter with built-in IR thermometer

# COMMITTED TO QUALITY

# NIST Calibration Services 🔳

For customers who require documentation that their devices meet the standards set forth by the National Institute of Standards and Technology (NIST), Certificates of Calibration are available on nearly all Extech product categories. Full "before-and-after" data is supplied with NIST-traceable certificates at a reasonable cost, along with fast turnarounds, global shipments, and convenient recertification reminders.

Meters and testers listed in this catalog that feature an accompanying **N** logo indicate when a NISTtraceable certification is available for a specific product. (See page 144 for a complete listing.)



PQ3450 Power Quality Meter

For more than 43 years Extech has committed itself to delivering the best value in test equipment. Our start-to-finish approach to quality is reinforced by our ISO 9001:2008 certification, which covers everything we do – Engineering, Sales & Marketing, Service & Support, Manufacturing, and Distribution.



# TRUSTED BY

# **Electrical & Mechanical**

When electricians and mechanics need test tools for their equipment installation, maintenance, and repair work, Extech meters and testers are up to the task. Use our tools to track down electrical faults and power quality problems, perform predictive vibration analysis, diagnose motors and controllers, and detect emerging issues before damage occurs.



# Electrical Distribution

Measure inbound or localized power quality with power clamps & analyzers.



# Plant Assets

Pinpoint equipment vibration problems with vibration testers.



# Component Diagnostics

Troubleshoot circuits, insulation, and motor controls with Extech digital multimeters.

# **Facility Maintenance**

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





Check controls and sensors on out-of-order elevators with electrical testers and meters.





# Ventilation

Optimize air distribution and system efficiency with anemometers & manometers.

# **Facilities**

Calibrate linear speeds on conveyor lines with contact tachometers. Meeting the needs of professionals in numerous industries and applications, Extech continues to build brand loyalty and trust among electrical contractors, industrial mechanics, facilities maintenance, HVACR technicians, sustainability & safety directors, public works managers, and more.

# PROFESSIONALS

# Safety & Health

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



# **Air Quality**

When carbon monoxide (CO) alarms sound repeatedly, check CO levels with CO meters.



# Noise Levels

Monitor noise levels and perform workplace audits using sound level meters.



# Water Quality

Simplify field testing of water treatment samples using portable pH meters.

# HVAC/R

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









Check for corrosion/ deposits in leaking or blocked boiler tubes with video boroscopes.

# Cold Chain Maintenance

Identify temperature variations in refrigerated areas with temperature/ humidity dataloggers.

# **AC Systems**

Service AC systems with anemometers that measure airflow, air temperature, humidity, and more.

# WIRED

# **Sustainability & Safety**

Air quality, water quality and light are vital to everyone's health. This is why Extech constantly develops new meters that monitor indoor air quality in businesses and homes, test water quality for treatment and food/beverage plants, measure indoor and outdoor light levels, and many other conditions.

# **Multifunctional Designs**

Less is more when it comes to test & measurement tools. This is why demand for "combination testers" keeps growing. As our customers continue to appreciate the productivity, convenience and value of doing more with less, Extech will continue developing new feature-rich tools.



Laser Distance Meter DT500

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DT500 Distance Meter p.56

> Part# Page# Product UV Light Meter SDL470 106 A В AN300 93 Anemometer С Personal Dosimeter SL355 112 D CO<sub>2</sub> Meter CO220 97 Е LED Light Meter LT45 107 F Wet Bulb Meter WB200 77 G **Turbidity Meter** TB400 131 Н Moisture Meter MO300 84 1 **Environmental Meter** EN150 89 J WQ530 Water Quality Meter/Stirrer 129 Κ **VPC300** Particle Counter 94 SD750 1 Pressure Datalooger 99 Μ Salinity Meter EC170 138

# FOR INNOVATION

# 2001

688



# Wireless Connectivity

Wireless connectivity drives workplace productivity. This is why Extech is adding Bluetooth to its testers-because streaming data to mobile devices lets our customers perform faster/safer diagnostics, share findings with colleagues, as well as streamline decision-making and repair processes.

# Extech

continually introduces new test & measurement tools that provide world-class versatility and real-world affordability. Packed with features designed to enhance performance and productivity, these

IRT500 IR Thermal Scanner p.64



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new products reflect technology trends and market shifts towards Advanced Diagnostics, Multifunctional Capabilities, Sustainability & Safety, and Connectivity & Collaboration.



# **Advanced Diagnostics**

Industrial systems are growing in complexity. This is why professionals around the world rely on Extech tools for advanced diagnostics. Whether in the plant, at the bench, or on the jobsite, Extech's new meters give our customers the capabilities they need to troubleshoot their complex systems.

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# TOUGH TOUGH

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EXTECH VAC 03/12/12 01:14:25 0.0 00:05 00:10 SAVE 118 51 18 SUMMARY True RMS Graphical Muttimeter CLO HOLD DINFO MAX GX900 Hz % HA mA A ĩ OFF

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Extech is the undisputed leader when it comes to offering you a comprehensive line of test & measurement tools known for their powerful combination of quality, reliability and value. Extech arms you with rugged, accurate, and affordable tools that you can trust on every job.



BUDGETS





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GX900 Graphical Multimeter p.18

	Product	Part#	Page#
Α	Magnet Detector	MD10	43
В	Clamp Meter	MA430	26
С	Electrical Test Kit	ETK30	20
D	Insulation Tester	MG500	51
Е	Thermocouple/Datalogger	TM500	69
F	Power Clamp Meter	PQ2071	53
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Н	3-Phase Power Analyzer	PQ3450	54
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MG302-ETK Electrical Troubleshooting Kit p.17









# **Digitial MultiMeter (DMM) Index Guide**

Pick the right MultiMeter for your application



EX200 Series Mini Digital MultiMeters with models featuring low cost True RMS for better accuracy and built-in Infrared Thermometer. CAT III-600V safety rated. p. 11



EX300 Series Mini Digital DMMs with built-in Noncontact Voltage Detector with models to choose between Manual Ranging or Autoranging and numerous electrical readings and temperature. p. 10



EX400 Series Professional Full Size Series Digital MultiMeters. Features include Large Digits, Manual Ranging or Autoranging, True RMS or Averaging, and Type K temperature measurements. р. 12-13



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, 19



MM Series The MultiMaster series of rugged and reliable DMMs feature extreme accuracy, resolution, and functionality, perfect for troubleshooting complex equipment in advanced manufacturing. p. 16



GX900 Series Flagship True RMS DMM with graphical backlit display for viewing trend data, Low Pass Filter for capturing accurate and stable readings on VFD equipment, wireless datastreaming to PCs and Android devices for safer/easier diagnostics, and a CAT-IV safety rating. p. 18



MG302 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. 17, 50

NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol 💶 on products that offer NIST.

# EX300 Series Mini Digital MultiMeters + Voltage Detector







Integrated Non-contact Voltage Detector for auickly 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)
- 2 years 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

EX310	EX320	EX330
2000 counts	2000 counts	4000 counts
0.50%	0.50%	0.50%
100 to 600VAC	100 to 600VAC	100 to 600VAC
0.1mV to 600V	0.1mV to 600V	0.1mV to 600V
0.1V to 600V	0.1mV to 600V	0.1mV to 600V
0.1mA to 10A	0.1µA to 10A	0.1µA to 10A
$0.1\Omega$ to 2000k $\Omega$	$0.1\Omega$ to $20M\Omega$	0.1Ω to 40MΩ
-	-	0.001nF to 200µF
-	-	0.001Hz to 10MHz
-	-	-20 to 750°C (-4 to 1382°F)
-	-	0.1 to 99.9%
Yes	Yes	Yes
CAT III-600V, CAT II-1000V	CAT III-600V, CAT II-1000V	CAT III-600V, CAT II-1000V
	2000 counts 0.50% 100 to 600VAC 0.1mV to 600V 0.1V to 600V 0.1MA to 10A 0.1Ω to 2000kΩ - - - - Yes	2000 counts         2000 counts           0.50%         0.50%           100 to 600VAC         100 to 600VAC           0.1mV to 600V         0.1mV to 600V           0.1mV to 600V         0.1mV to 600V           0.1mV to 600V         0.1mV to 600V           0.1mA to 10A         0.1µA to 10A           0.1Ω to 2000kΩ         0.1Ω to 20MΩ           -         -

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





# **EX200** Series Mini Digital MultiMeters + IR Thermometer

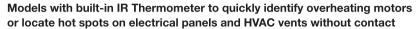


EX230









- Large backlit dual LCD with easy-to read digits
- Low current capability
- Input fuse protection
- · Auto power off and Data Hold
- Complete with test leads, general purpose bead wire temperature probe (Model EX230), and 9V battery; 2 years warranty

### Model EX205T

- 2000 counts
- Max Hold
- True RMS gives accurate readings of distorted waveforms
- Model EX210 and EX210T
- 2000 counts
- Built-in IR Thermometer with 4:1 Distance to Target Ratio
- Max Hold
- True RMS (EX210T only) gives accurate readings of distorted waveforms
- Model EX230
- 4000 counts
- Built-in IR Thermometer with 6:1 Distance to Target Ratio
- Advanced functions include Type K Temperature,
  - Capacitance, Frequency, and Duty Cycle
- Relative Mode

SPECIFICATIONS	EX205T	EX210/EX210T	EX230
Display Counts	2000	2000	4000
True RMS	True RMS	- / True RMS	-
Basic Accuracy (VDC)	±0.5%	±0.5%	±0.5%
AC/DC Voltage	0.1mV to 600V	0.1mV to 600V	0.1mV to 600V
AC/DC Current	0.1µA to 10A	0.1µA to 10A	0.1µA to 10A
Resistance	0.1Ω to 20MΩ	0.1Ω to 20MΩ	0.1Ω to 40MΩ
Capacitance	-	-	0.01nF to 100µF
Frequency	-	-	0.001Hz to 10MHz
Temperature (IR)	-	-5 to 446°F (-20 to 230°C)	-5 to 446°F (-20 to 230°C)
Temperature (Type K)	-	-	-4 to 1400°F (-20 to 760°C)
Duty Cycle	_	_	0.1% to 99.9%
Continuity / Diode	Yes	Yes	Yes
Category Rating	CAT III-600V	CAT III-600V	CAT III-600V
Dimensions/Wt 5.8x2.9x1.6" (147x76x42mm)/ 9.17oz (260g)			

ORDERING	
EX205T N	True RMS Autoranging MultiMeter
EX210 N	Autoranging MultiMeter + IR Thermometer
EX210T N	True RMS Autoranging MultiMeter + IR Thermometer
EX230 N	Autoranging MultiMeter + IR Thermometer
409996	Vinyl pouch carrying case
TP873	Replacement Bead wire Temperature Probe (-22 to 572°F/-30 to 300°C)
TL803	Replacement Test Leads

# **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

Air Flow Meters



# Big Digits, Big Results.

The EX400 Series multimeters have a large display with easy-to-see 1" digits, Type K thermocouple, and CAT III-600V rating. Select True RMS for better accuracy, and built-in IR in the topof-the line model lets you perform non-contact temperature scans.









# **EX410** Manual Ranging MultiMeter

Basic averaging multimeter with 8 functions

- Large backlit LCD display with easy-to-read 1" digits
- Type K thermometer built-in for temperature measurements
- Low current capability: measure down to 0.1µA
- Input fuse protection and misconnection warnings
- Complete with CAT III test leads, multiposition tilt stand and velcro strap for hanging, protective holster with test lead holder, general purpose Type K bead wire temperature probe, and 9V battery

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ACCES	SORIES (SEE P. 38-41 FOR MULTIMETER ACCESSORIES)
TL841	Test Lead Kit
TI 833	Industrial Test Lead Set
12000	Industrial fest Lead Set
TL831	Master Electrical Test Lead Kit
TL803	Standard Test Leads
TL 805	Devible Injected Test Loads
11005	Double Injected Test Leads
TP200	Type K Clamp Probe (212°F/100°C)
	(212 1) 100 C)
HG500	Magnetic Hanging Strap

SPECIFICATIONS	EX410 💌	
Averaging/True RMS	Averaging	
Basic Accuracy (VDC)	±0.5%	
AC Voltage	1mV to 750V	
DC Voltage	0.1mV to 1000V	
AC Current	0.1mA to 20A	
DC Current	0.1µA to 20A	
Resistance	0.1Ω to 20MΩ	
Capacitance	-	
Frequency	-	
Temperature (IR)	-	
Temperature (Type K)	-4 to 1382°F (-20 to 750°C)	
Duty Cycle	-	
Continuity / Diode	Yes	
UL/CE/Category Rating	UL/CE/CAT III-600V, CAT II-1000V	
Dimensions/Weight	7.4x3.2x2" (187x81x50mm)/0.75lbs (342g)	
Warranty	2 years	

CALIBRATION NIST

# **EX400 Series Professional MultiMeters**



# **EX420** Autoranging MultiMeter

Economical averaging multimeter with 11 functions

- Advanced functions include Capacitance, Frequency, and Type K thermometer
- Large backlit LCD display with easy-to-read 1" digits
- Low current capability: measure down to 0.1µA
- Input fuse protection and misconnection warnings
- Complete with CAT III test leads, multiposition tilt stand and velcro strap for hanging, protective holster with test lead holder, general purpose Type K bead wire temperature probe, and 9V battery



# EX430 True RMS Autoranging MultiMeter

Economical True RMS multimeter with 11 functions

- True RMS for accurate readings of non-sinusoidal waveforms
- Advanced functions include Capacitance, Frequency, and Type K thermometer
- Large backlit LCD display with easy-to-read 1" digits
- Low current capability: measure down to 0.1µA
- Input fuse protection and misconnection warnings
- Complete with CAT III test leads, multiposition tilt stand and velcro strap for hanging, protective holster with test lead holder, general purpose Type K bead wire temperature probe, and 9V battery



# EX470 True RMS Autoranging MultiMeter + IR Thermometer

Combination multimeter with 12 functions including non-contact Temperature measurement

- Built-in non-contact IR Thermometer design with laser pointer
- Advanced functions include Capacitance, Frequency, Type K thermometer, and Relative
- Large backlit LCD display
- Low current capability: measure down to 0.1µA
- Input fuse protection and misconnection warnings
- Complete with CAT III test leads, multiposition tilt stand and velcro strap for hanging, protective holster with test lead holder, general purpose Type K bead wire temperature probe, and 9V battery

EX420 N	EX430 🔳	EX470 🔳
Averaging	True RMS	True RMS
±0.3%	±0.3%	±0.3%
0.1mV to 750V	0.1mV to 750V	0.1mV to 750V
0.1mV to 1000V	0.1mV to 1000V	0.1mV to 1000V
0.1µA to 20A	0.1µA to 20A	0.1µA to 20A
0.1µA to 20A	0.1µA to 20A	0.1µA to 20A
0.1Ω to 40MΩ	0.1Ω to 40MΩ	0.1Ω to 40MΩ
0.01nF to 100µF	0.01nF to 100µF	0.01nF to 100µF
0.001Hz to 10MHz	0.001Hz to 10MHz	0.001Hz to 10MHz
-	-	-58 to 518°F (-50 to 270°C)
-4 to 1382°F (-20 to 750°C)	-4 to 1382°F	-4 to 1382°F (-20 to 750°C)
0.1% to 99.9%	0.1% to 99.9%	0.1% to 99.9%
Yes	Yes	Yes
UL/CE/CAT III-600V, CAT II-1000V	UL/CE/CAT III-600V, CAT II-1000V	UL/CE/CAT III-600V, CAT II-1000V
7.4x3.2x2" (187x81x50mm)/0.75lbs (342g)	7.4x3.2x2" (187x81x50mm)/0.75lbs (342g)	7.4x3.2x2" (187x81x50mm)/0.75lbs (342g)
2 years	3 years	3 years



# Serious about Ruggedness & Versatility Along with advanced DM features and True RMS a the EX500 series' Catego

Along with advanced DMM features and True RMS accuracy, the EX500 series' Category IV rating ensures the highest level of protection against sudden transient overvoltage and arcing flash-over. This rugged, waterproof and drop-proof multimeter will take whatever rough handling you dish out. Get Industrial-Duty Protection with Extech's EX500 series.





IBRATION NIST











ACCESSORIES (SEE P. 38-41 FOR MULTIMETER ACCESSORIES)		
TL841	Test Lead Kit	
TL833	Industrial Test Lead Set	
TL831	Master Electrical Test Lead Kit	
TL810	Electrical Test Lead Kit	
TL805	Double Injected Test Leads	
TP200	Type K Clamp Probe (100°C)	
HG500	Magnetic Hanging Strap	

SPECIFICATIONS
Averaging/True RMS
Basic Accuracy
DC Voltage
AC Voltage
DC/AC Current
Resistance
Capacitance
Frequency (electrical)
Frequency (electronic)
Temperature (Type K)
Duty Cycle
Diode (2.8V)/Continuity
UL/CE
Category Rating
Waterproof / Drop proof
Dimensions/Weight

Warranty



# CAT IV Waterproof Industrial MultiMeters



# **EX505 CAT IV True RMS** Heavy Duty Industrial MultiMeter

True RMS multimeter with 0.5% basic accuracy and 4,000 count backlit display

- Waterproof (IP67) rugged double molded design for heavy duty use
- 1000V input protection on all functions
- Dual sensitivity frequency functions
- Type K Temperature function
- Data hold, Relative, and 10A max current
- Diode open circuit voltage of 2.8V DC
- Auto power off with disable feature
- CAT IV-600V, CAT III-1000V
- Complete with double molded test leads, magnetic hanging strap, general purpose Type K bead wire temperature probe, 9V battery, and pouch case



# **EX520 CAT IV True RMS** Heavy Duty Industrial MultiMeter

True RMS multimeter with 0.09% basic accuracy and 6,000 count backlit display with bargraph

- Waterproof (IP67) rugged double molded design for heavy duty use
- 1000V input protection on all functions
- Dual sensitivity frequency functions
- Type K Temperature function
- Min/Max/Relative/Data Hold, 20A max current
- Diode open circuit voltage of 2.8V DC
- Auto power off with disable feature
- CAT IV-600V, CAT III-1000V
- Complete with double molded test leads, magnetic hanging strap, general purpose Type K bead wire temperature probe, 9V battery, and pouch case



# **EX530 CAT IV True RMS** Heavy Duty Industrial MultiMeter

True RMS multimeter with 0.06% basic accuracy and 40,000 count backlit display with bargraph

- Waterproof (IP67) rugged double molded design for heavy duty use
- 1000V input protection on all functions
- Dual sensitivity frequency functions
  - Type K Temperature function
  - Min/Max/Relative/Data Hold, 20A max current
  - Peak Hold (AC only)
  - Data hold, Relative, and 10A max current
- Diode open circuit voltage of 2.8V DC
- Auto power off with disable feature
- CAT IV-600V, CAT III-1000V
- Complete with double molded test leads, magnetic hanging strap, general purpose Type K bead wire temperature probe, 9V battery, and pouch case

EX505 N	EX520 N	EX530 N
True RMS	True RMS	True RMS
0.5%	0.09%	0.06%
0.1mV to 1000VDC	0.1mV to 1000VDC	0.01mV to 1000VDC
0.1mV to 1000VAC	1mV to 1000VAC	0.01mV to 1000VAC
0.1µA to 10A	0.1µA to 20A	0.01µA to 20A
0.1Ω to 40MΩ	0.1Ω to 40MΩ	$0.01\Omega$ to $40M\Omega$
0.01nF to 100µF	0.01nF to 1000µF	0.001nF to 40mF
5Hz to 1kHz	10Hz to 400Hz	40Hz to 400Hz
0.001Hz to 10MHz	0.001Hz to 40MHz	0.001Hz to 100MHz
-4 to 1382°F (-20 to 750°C)	-50 to 1382°F (-45 to 750°C)	-50 to 1382°F (-45 to 750°C)
0.1 to 99.9%	0.1 to 99.9%	0.1 to 99.90%
Yes	Yes	Yes
Yes	Yes	Yes
CAT IV-600V, CAT III-1000V	CAT IV-600V, CAT III-1000V	CAT IV-600V, CAT III-1000V
IP67 / 6.5ft (2m)	IP67 / 6.5ft (2m)	IP67 / 6.5ft (2m)
7.25x3.25x2.25" (184x83x57mm)/12.3oz (349g)	7.25x3.25x2.25" (184x83x57mm)/12.3oz (349g)	7.25x3.25x2.25" (184x83x57mm)/12.3oz (349g)
3 years	3 years	3 years



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# MM560A MultiMaster® Precision MultiMeter



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

- 0.03% basic DCV accuracy
- 50,000 count display with 500,000 counts for DCV and Hz
- True RMS combination AC+DC function
- Highest res. (1μV, 0.01μA, 0.0001Hz, 0.01Ω)
- · Auto power off with disable
- Complete with stand, test leads, holster, 9V battery; 3 year warranty; Optional SW810A PC software and cable

SPECIFICATIONS	
Display counts	50,000/500,000 count backlit
Averaging/True RMS	True RMS
DC/AC Voltage	0.001mV to 1000V
Basic DCV accuracy	±0.03%rdg
DC/AC Current	0.01µA to 10A
Resistance	$0.01\Omega$ to $50M\Omega$
Capacitance	0.01nF to 9999µF
Frequency	5Hz to 200kHz (Line)/5Hz to 2MHz (Logic)
AC Bandwidth	20Hz to 20kHz
Category rating	CAT IV-600V
Dimensions/Weight	7.32x3.42x1.39" (186x87x35.5mm)/0.75lb (340g)

ORDERING	
MM560A N	MultiMaster <sup>™</sup> Precision MultiMeter
SW810A	MultiMaster <sup>™</sup> Software CD & RS-232 Cable
USB100	RS-232 to USB Adaptor
CA899	Vinyl Pouch Carrying Case

# **MM570A** MultiMaster<sup>®</sup> Precision MultiMeter with Temperature

### 50,000/500,000 count, highest accuracy, wide bandwidth True RMS multimeter with Temperature function

- 0.02% basic DCV accuracy
- 50,000 count display with 500,000 counts for DCV and Hz
- True RMS combination AC+DC function
- Highest res. (1μV, 0.01μA, 0.0001Hz, 0.01Ω)
- Dual input Type K Thermometer, higher True RMS ACV bandwidth
- (up to 100kHz) and 1000V input protection on all functions
- 4 to 20mA, displayed as 0 to 100% for process current measurements
- Auto power off with disable
- Complete with stand, test leads, holster, 9V battery, and general purpose Type K probe; 3 year warranty; Optional SW810A PC software and cable

SP	FCI	FIC	ATI	ΩN	S

SPECIFICATIONS	
Display counts	50,000/500,000 count backlit
Averaging/True RMS	True RMS
DC/AC Voltage	0.001mV to 1000V
Basic DCV accuracy	±0.02%rdg
DC/AC Current	0.01µA to 20A
Resistance	$0.01\Omega$ to $50M\Omega$
Capacitance	0.01nF to 9999µF
Frequency	5Hz to 200kHz (Line)/5Hz to 2MHz (Logic)
Temperature	-58 to 1832°F (-50 to 1000°C)
AC Bandwidth	20Hz to 100kHz
Category rating	CAT IV-600V
Dimensions/Weight	7.32x3.42x1.39" (186x87x35.5mm)/0.75lb (340g)

ORDERING	
MM570A N	MultiMaster <sup>™</sup> Precision MultiMeter with Temperature
SW810A	MultiMaster <sup>™</sup> Software CD & RS-232 Cable
USB100	RS-232 to USB Adaptor
CA899	Vinyl Pouch Carrying Case



CALIBRATION TRACEABLE TO

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





Watch the **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; 2yr warranty

### Combines a 1000V Insulation Tester with a True RMS MultiMeter

- Wireless USB interface transmits measurement data to a PC
- Backlit large triple display and waterproof (IP67) rugged housing design
- Insulation Resistance from  $0.001 M\Omega$  to  $4000 M\Omega$
- Auto discharge of capacitive voltage
- Lock Power On Function for hands-free operation
- Min/Max, Relative mode, Data Hold, and Auto power off

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Insulation Resistance	4ΜΩ, 40ΜΩ, 400ΜΩ, 4000ΜΩ	0.001MΩ	±3%
Insulation Test Voltages	125V, 250V, 500V, 1000V		
AC/DC Voltage	1000V	0.1mVAC/0.01mVDC	AC: ±1%, DC: ±0.06%
AC/DC Current	10A	0.1µA AC/ 0.01µA DC	AC: ±1.5%, DC: ±1%
Resistance	40ΜΩ	0.01Ω	±0.3%
Capacitance	40mF	0.001nF	±3.5%
Frequency	100MHZ	0.001HZ	±0.1%
Duty Cycle	0.1 to 99.9%	0.01	±1.2%
Temperature	-58 to 2192°F (-50 to 1200°C)	0.1°F (0.1°C)	±1% + 4.5°F (2.5°C)
4-20mA%	-25 to 125%	0.01%	
Continuity/Diode	Yes		
Dimensions/ Weight	7.8 x 3.6 x 1.9" (200 x 92 x 50m	m)/ 20.5oz (582g)	

# MG302-ETK Electrical Troubleshooting Kit



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

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

- Model MG302: 13 Function, Wireless PC Interface, True RMS Multimeter/Insulation Tester (see above)
- 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. 62)
- Model MA430T: 400A True RMS AC Clamp Meter with built-in non-contact voltage detector and ideal for noisy or non-sinusoidal AC measurement (see p. 26)
- 1.2" (30mm) jaw size for conductors up to 350MCMSupplied with test leads, Type K thermocouple
  - bead wire probe, batteries, and case

ORDERING

ORDERING

MG302 N

Electrical Troubleshooting Kit (with MG302)

# MG300-MTK Motor & Drive Troubleshooting Kit



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

- Model MG302: 13 Function, Wireless PC Interface, True RMS Multimeter/Insulation Tester (see above)
- 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 (see p. 27)
- 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

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



# GX900 True RMS Graphical MultiMeter for Android™





View key electrical readings taken by the GX900 at a safe distance on your Android device. Power up equipment from remote switches or use your Android to show readings to a customer/manager. Download the Extech GX900 ExView<sup>™</sup> App at play.google.com.

# Transmit readings to Android smartphones and tablets wirelessly via Bluetooth<sup>®</sup> function, plus includes Low Pass Filter Mode

- Integrated Bluetooth<sup>®</sup> connects with most Android devices to transmit readings for remote viewing
- Works with free Android App to display large, easy-to-read values up to 30ft (10m) away
- Low Pass Filter conditions the inputs to provide accurate Voltage and Frequency readings on motors, drives and other large electrical equipment that generate electrical noise
- Tracks readings showing a graphical trend over time to help users pin point and avoid system failures
- Datalogging stores up to 2500 readings with date and time stamp
- True RMS measurements for accurate AC Voltage and Current measurements
- Diode open circuit voltage of 3.2V DC
- CAT IV-600V safety rating for industrial applications
- 1000V input protection on all functions
- AC+DC measurement components displayed combined or separately
- Dual sensitivity frequency functions
- Peak Hold (>1ms) Min/Max/Average / Relative (%) / Data Hold /
- Automatic Data Hold; Auto power off with disable feature
- Backlit graphical dot matrix display allows for customized screens to optimize critical data within a measurement mode and provide visual menus for easy navigation to settings and ranges
- 2 year warranty
- Complete with double molded test leads, hanging strap, Type K bead wire temperature probe and six AA batteries

### SPECIFICATIONS

SPECIFICATIONS	
Display Counts	50,000 count with bargraph
Basic Accuracy	0.05%
ACV Bandwidth	100kHz
DC/AC Voltage	0.001mV to 1000V
DC/AC Current	0.01µA to 20A
Resistance	0.001Ω to 50MΩ
Capacitance	0.001nF to 10mF
Frequency (electrical)	40.00Hz to 10kHz
Frequency (electronic)	0.001Hz to 10MHz
Temperature	-58 to 1832°F (-50 to 1000°C)
Duty Cycle	0.1 to 99.90%
dBm/dBV	-70 to 60dB (nine selectable impedances)
4-20mA%	-25 to 125%
Conductance	50µS
RPM	12,000rpm (with optional inductive pickup)
Clamp Adapter input	1mV/A, 10mV/A or user settable from 0.1mV/A to 100mV/A
Diode (3.2V)/Continuity	Yes
Dimensions/ Weight	9.25x4.25x2.5"(235x108x63.5mm)/ 1.85lbs (839g)

### ORDERING

GX900 N True RMS Graphical Multimeter/Datalogger with Bluetooth

### Sample GX900 Display Functions



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# EX570 CAT IV Industrial MultiMeter + IR Thermometer





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



WIRELESS

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

design (IP67).

 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 Indu	strial MultiMeter + IR Thermometer

# EX542 CAT IV MultiMeter/Dataloggers with Real Time Streaming

tter



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<sup>®</sup> 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 99.90%
Diode (2.8V) / Continuity	Yes
Dimensions/ Weight	7.25x3.25x2.25" (184x83x57mm)/ 12.3oz (349g)
ORDERING	
EX542 N	CAT IV MultiMeter/Datalogger with Real Time Streaming (433MHz)



# ETK30/ETK35 Electrical Test Kits with 400A Clamp Meter



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 (see p. 26) Model ETK35 kit includes MA435T: True RMS 400A AC/DC Current (see p. 27) 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 (see p. 11)
- 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	

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





### 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. 28)

**Model 40130:** Non-Contact Voltage Detector detects AC Voltage from 100VAC to 600VAC without touching the source. (see p. 36)

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. 28)

**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 TK430-IR Electrical Test Kit with IR





# EX505-K Heavy Duty Industrial MultiMeter Kit



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

- 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 doublemolded 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. 15) 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. 36)

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

ORDERING		
EX505-K	Heavy Duty Industrial MultiMeter Kit	

# MA620-K Industrial DMM/Clamp Meter Test Kit



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

- Kit contains EX505 rugged, waterproof multimeter with 11 functions, MA620 600A True RMS AC Clamp-on MultiMeter with built-in noncontact 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. 15) **Model MA620:** 600A True RMS 6000 count AC Clamp-on MultiMeter with built-in non-contact AC Voltage Detector, test leads and temperature probe; CE/ETL approved (see p. 27)

### ORDERING

MA620-K Industrial DMM/Clamp Meter Test Kit

# 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 (see p. 29 for specifications)
- **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. 36 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

 MA640-K
 Phase Rotation/Clamp Meter Test Kit

# **Clamp Meter Index Guide**

Pick the right Clamp Meter for your application







p. 27

Compact Clamp Mini 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 current sensitivity. All technicians. р. 28-29

Series Mini Clamp Meters with extra-small diameter jaw sizes for reaching into very small areas while providing high resolution and lowmodels measure both models AC/DC Current and p. 26-27 Voltage, along with choices of Averaging or True RMS. p. 30-31

MA400 Series MA600 Series Robust 600A AC or Compact 400A AC or AC/DC models with AC/DC models with built-in Non-Contact built-in Non-Contact Voltage detector and Voltage detector and Type K temperature. Type K temperature. 1.2" (30mm) jaw size 1.5" (40mm) jaw size fits up to 350MCM fits up to 500MCM conductors. Select conductors. Select True RMS or Averaging True RMS or Averaging models.



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. 24



FX700 Series Rugged 800A AC or AC/DC models with 1.2" (30mm) jaw size. Available True RMS or Averaging models and Type K temperature. Test Lead IR Thermometer. inputs for multimeter readings include Voltage, Resistance, Capacitance, and Frequency. p. 25



mobile devices.

р. 22-23

EX800 Series **High Current** Professional grade. 1000A True BMS AC or AC/DC Clamp Meters with 1.7" (43mm) jaw size. Built-in non-contact Models available with CAT IV rating for measurements in high current/voltage areas, plus Bluetooth connectivity to Android

Clamp Series Powerful clamp meters that measure high current with models that go up to 2000A. Large jaw sizes range from 1.6" (40mm) to 2.2" (50mm) fit conductors up to 1000MCM. Choose from AC or AC/DC measurements, power quality diagnostics, True RMS accuracy, and much more. р. 32-33

NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol 🚺 on products that offer NIST.

## EX850 Monitor Readings via Bluetooth®



Clamp meter transmits readings to Android smartphones and tablets. Vew key electrical readings taken by the EX850 at a safe distance on 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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ACCES	SORIES (SEE P. 38-41 FOR TEST LEAD ACCESSORIES)
TP873	Replacement Bead wire Temperature probe (-22 to 572°F/-30 to 300°C)
TL841	Test Lead Kit
TL833	Industrial Test Lead Kit
TL831	Master Test Lead Kit
TL803	Standard Test Leads



SPECIFICATIONS

Display counts Jaw size/Cable size AC Current (Max Res.) DC Current (Max Res.) Basic ACA Accuracy (% rdg) AC/DC Voltage (Max Res.) Resistance (Max Res.) Capacitance (Max Res.) Frequency (Max Res.) Temperature (Type K) Temperature (IR)/ Field of View Diode (2.8V)/ Continuity Wireless Communication UL, ETL, CE, Category Rating Dimensions/Weight Warranty

N Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.



# 1000A Clamp Meters with Built-in IR Thermometer & Bluetooth®



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 inrush currents and 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 sp ots
- Diode open circuit voltage of 2.8V DC
- Peak hold captures inrush currents
- and transientsData 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<sup>®</sup> connects with most Android devices; Works with free Android App; Download the Extech EX850 ExView<sup>™</sup> App at play.google.com

EX820 📧	EX830 N	■ EX840 <b>N</b> I 🔺 EX850
Yes	Yes	Yes
4000 count backlit LCD	4000 count backlit LCD	4000 count backlit LCD
1.7" (43mm); 750MCM	1.7" (43mm); 750MCM	1.7" (43mm); 750MCM
1000A (0.1A)	1000A (0.1A)	1000A (0.1A)
_	1000A (0.1A)	1000A (0.1A)
±2.5% (AC)	±2.5% (AC); ±2.5% (DC)	±2.5% (AC); ±2.5% (DC)
600V (0.1mV)	600V (0.1mV)	1000V (0.1mV)
40ΜΩ (0.1Ω)	40ΜΩ (0.1Ω)	40ΜΩ (0.1Ω)
40mF (0.001nF)	40mF (0.001nF)	40mF (0.001nF)
4kHz (1Hz)	4kHz (1Hz)	4kHz (1Hz)
-4 to 1400°F (-20 to 760°C)	-4 to 1400°F (-20 to 760°C)	-4 to 1400°F (-20 to 760°C)
-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
Yes	Yes	Yes
-	-	■ No   ▲ BlueTooth
UL, CE, CAT III-600V	UL, CE, CAT III-600V	ETL, CE, CAT IV-600V; CAT III-1000V
10.6x4.3x2" (270x110x50mm)/ 13.6oz (386g)	10.6x4.3x2" (270x110x50mm)/ 13.6oz (386g)	10.6x4.3x2" (270x110x50mm)/ 13.6oz (386g)
2 years	2 years	3 years



# Ideal for HVACR, And Much More...

The Extech EX623 enables HVACR technicians to check circuits, sensors and controllers, perform amperage load tests without interrupting current flow, measure both system and surface temperatures using dual Type K thermocouple inputs and the built-in IR thermometer, as well as identify energized components using the NCV detector.

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ACCESS	ORIES (SEE P. 38-41 FOR DETAILS)
TP200	Type K Pipe Clamp Probe (212°F/100°C)
TP400	Type K Pipe Clamp Probe (450°F/232°C)



See p. 38, 40 for test lead kits



BLE TO

SPECIFICATIONS	EX613 <b>N</b>	EX623 N
True RMS	Yes	Yes
Jaw size/Cable size	1.25" (32mm); 500MCM	1.25" (32mm); 500MCM
AC/DC Current	400.0A AC/DC	400.0A AC/DC
Max resolution	10mA	10mA
Basic ACA accuracy	±1.5%	±1.5%
AC/DC Voltage (Max Res.)	600V (0.1mV)/600V (0.01mV)	600V (0.1mV)/600V (0.01mV)
DC µA Current	4000µA (0.01µA)	4000µA (0.01µA)
Resistance (Max Res.)	40.000ΜΩ (0.01Ω)	40.000ΜΩ (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%
UL, ETL, CE, Category Rating	ETL, CE, CAT III-600V	ETL, CE, CAT III-600V
Dimensions/Weight	9x3.1x1.9" (229x80x49mm)/ 10.7oz (303g)	9x3.1x1.9" (229x80x49mm)/ 10.7oz (303g)
Warranty	2 years	2 years



# EX613 HVAC AC/DC TRMS 400A Clamp Meter+NCV

Dual thermocouple inputs plus Non-contact Voltage Detector (NCV)

- Dual type K thermocouple input with Differential Temp erature function (T1, T2, T1-T2)
- Built-in non-contact Voltage detector
- DC µA multimeter function for HVAC flame rod Current measurements
- Data Hold plus fast Peak Hold of current surges during motor startup
- Measures motor capacitors to 40,000µF
- Auto off with disable function
- Autoranging (manual override)
- Includes double molded test leads, 9V battery, two general purpose Type K bead wire probes, and carrying case



# EX623 HVAC AC/DC TRMS 400A Clamp Meter+NCV+IR

Built-in IR Thermometer, AC/DC function, dual thermocouple inputs and Non-contact Voltage Detector (NCV)

- DC Current with Zero function
- Built-in non-contact IR
   Thermometer with laser pointer
- Dual type K thermocouple input with Differential Temperature function (T1, T2, T1-T2)
- DC µA function for HVAC flame rod Current measurements
- Data Hold plus fast Peak Hold of current surges
- Measures motor capacitors to 40,000µF
- Auto off with disable function
- Autoranging (manual override)
- Includes double molded test leads, 9V battery, two general purpose Type K bead wire probes, and carrying case

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Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

# 400A & 800A Clamp Meters



EX710 800A AC Clamp Meter

Ergonomically designed in rugged double molded housing

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



# **EX720** 800A True RMS AC Clamp Meter with Type K Temperature

True RMS clamp meter with Type K surface Temperature measurements

- True RMS measurements
- Type K thermocouple temperature function
- Data Hold and Auto power off
- Peak Hold for inrush currents
- AC/DC Voltage, Resistance, Capacitance, and Frequency
- Includes test leads, 9V battery, general purpose Type K bead wire probe, and belt holster



# EX730 800A True RMS AC/ DC Clamp Meter with Type K Temperature

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

- DC Current with Zero function
- True RMS measurements
- Type K thermocouple temperature function
- Data Hold and Auto power off
- Peak Hold for inrush currents
- AC/DC Voltage, Resistance, Capacitance, and Frequency
- Includes test leads, 9V battery, general purpose Type K bead wire probe, and belt holster

EX710 💌	EX720 N	EX730 🔳	SPECIFICATIONS
_	Yes	Yes	True RMS
1.2" (30mm); 500MCM	1.2" (30mm); 500MCM	1.2" (30mm); 500MCM	Jaw size/Cable size
40.00A, 400.0A, 800A AC/	40.00A, 400.0A, 800A AC/	40.00A, 400.0A, 800A AC/DC	AC/DC Current
0.01A (AC)	0.01A (AC)	0.01A AC/DC	Max resolution
±2.8%	±2.5%	±2.8%	Basic ACA accuracy
600V (0.1mV)	600V (0.1mV)	600V (0.1mV)	AC/DC Voltage (Max Res.)
_	_	_	DC µA Current
40ΜΩ (0.1Ω)	40ΜΩ (0.1Ω)	40ΜΩ (0.1Ω)	Resistance (Max Res.)
40mF (0.001nF)	40mF (0.001nF)	40mF (0.001nF)	Capacitance (Max Res.)
4kHz (1Hz)	4kHz (1Hz)	4kHz (1Hz)	Frequency (Max Res.)
_	-4 to 1400°F (-20 to 760°C)	-4 to 1400°F (-20 to 760°C)	Temperature (Type K)
-	-	-	Temperature (IR)
Yes	Yes	Yes	Diode (2.8V)/ Continuity
-	-	_	Duty Cycle
UL, CE, CAT III-600V	UL, CE, CAT III-600V	UL, CE, CAT III-600V	UL, ETL, CE, Category Rating
9x3.1x1.9" (229x80x49mm) / 10.7oz (303g)	9x3.1x1.9" (229x80x49mm) / 10.7oz (303g)	9x3.1x1.9" (229x80x49mm) / 10.7oz (303g)	Dimensions/Weight
2 years	2 years	2 years	Warranty



# Compact, Capable CAT III Safety Rated

Great for accessing tight spots, the compact MA430 Series of professional clamp meters are easy to use and easy on your wallet. Offering an ample 1.2" (30mm) jaw opening to access conductors up to 350MCM, these clamp meters have large easy-to-read screens, and ergonomic thumb-dials allow one-handed operation.







# 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
- Auto Power Off
- Complete with test leads, general purpose Type K bead wire probe, two AAA batteries, and carrying case



# MA430/MA430T 400A AC Clamp Meters + NCV

2A, 20A, 200A, and 400A Current ranges plus built-in Non-Contact Voltage (NCV) detector with LED alert

- 1.2" (30mm) jaw size for conductors up to 350MCM
- Backlit LCD display
- Data Hold
- Low battery indication and Auto Power Off
- Model MA430T takes True RMS measurements for accurate readings of nonsinusoidal waveforms
- Complete with test leads, 9V battery, and soft case

See Special Value Kits on p. 20-21

ACCESSORIES (SEE P. 38-41)	
TP873 Replacement Bead wire Temperatu probe (-22 to 572°F/-30 to 300°C)	re

TL803 Replacement Test Leads



See Speical Value Kits on p. 20-21.

SPECIFICATIONS	MA250 💌	■ MA430 ℕ I 🔺 MA430T ℕ
True RMS	-	■ No   ▲ Yes
Display counts	4000 count LCD	2000 count LCD (backlit)
Jaw size/Cable size	1.2" (30mm); 350MCM	1.2" (30mm); 350MCM
AC Current	20A, 200A	2A, 20A, 200A, 400A
DC Current	_	-
Max Resolution	0.01A (AC)	0.001A
Basic ACA Accuracy (% rdg)	±2.5%	±2.5%
AC/DC Voltage (Max Res.)	600V (0.1mV)	600V (0.1mV)
Resistance (Max Res.)	40.00ΜΩ (0.1Ω)	20ΜΩ (0.1Ω)
Capacitance (Max Res.)	100μF (0.01nF)	-
Frequency (Max Res.)	10kHz (1Hz)	-
Temperature	-4 to 1400°F (-20 to 760°C)	-
Duty Cycle	0.1 to 99.9%	-
Diode/Continuity	Yes	Yes
Data Hold	Yes	Yes
Min/Max	Min/Max	Max only
UL, ETL, CE, Category Rating	ETL, CE, CAT III-600V	ETL, CE, CAT III-600V
Dimensions/Weight	7.9x2.6x1.5" (200x66x37mm)/ 7.2oz (205g)	7.8x2.8x1.6" (197x70x40mm)/ 6.5oz (183g)
Warranty	2 years	2 years

N Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

# **Clamp Meters with Built-in Non-Contact Voltage Detector**



MA435T True RMS 400A AC/DC Clamp Meter + NCV

40A and 400A Current ranges and True RMS for accurate readings of non-sinusoidal waveforms

- DC Current function
- Built-in Non-Contact Voltage (NCV) detector with LED alert
- 1.2" (30mm) jaw size for conductors up to 350MCM
- Backlit LCD display
- Type K temperature function
- Data Hold
- Low battery indication and Auto Power Off
- Complete with test leads, general purpose Type K bead wire temperature probe, 9V battery, and soft case

See Special Value Kits on p. 20-21



# MA620 True RMS 600A AC Clamp Meter + NCV

60A and 600A Current ranges and True RMS for accurate readings of non-sinusoidal waveforms

- Built-in Non-Contact Voltage
   (NCV) detector with LED alert
- 1.5" (40mm) jaw size for conductors up to 500MCM
- Backlit LCD with bargraph
- Type K temperature function
- Relative Mode for Capacitance Zero and Offset Adjustment
- Data Hold, MIN/MAX, and Auto Power Off
- Complete with test leads, general purpose Type K bead wire probe, 9V battery and carrying case

See Special Value Kits on p. 20-21



# MA640 True RMS 600A AC/DC Clamp Meter + NCV

60A and 600A Current ranges and True RMS for accurate readings of non-sinusoidal waveforms

- DC Current function
- Built-in Non-Contact Voltage (NCV) detector with LED alert
- 1.5" (40mm) jaw size for conductors up to 500MCM
- Backlit LCD with bargraph
- Type K temperature function
- Relative Mode for Capacitance Zero and Offset Adjustment
- Data Hold, MIN/MAX, and Auto Power Off
- Complete with test leads, general purpose Type K bead wire probe, 9V battery and carrying case

See Special Value Kits on p. 20-21

MA435T 🔊	MA620 N	MA640 💌	SPECIFICATIONS
Yes	Yes	Yes	True RMS
4000 count LCD (backlit)	6000 count LCD (backlit)	6000 count LCD (backlit)	Display counts
1.2" (30mm); 350MCM	1.5" (40mm); 500MCM	1.5" (40mm); 500MCM	Jaw size/Cable size
40A, 400A	60A, 600A	60A, 600A	AC Current
40A, 400A	_	60A, 600A	DC Current
0.01A	0.01A	0.01A	Max Resolution
±2.5%	2.8%	2.8%	Basic ACA Accuracy (% rdg)
600V (0.1mV)	600V (1mV)	600V (1mV)	AC Voltage (Max Res.)
40ΜΩ (0.1Ω)	60ΜΩ (0.1Ω)	60ΜΩ (0.1Ω)	Resistance (Max Res.)
100µF (0.01nF)	4000.0µF (0.01nF)	4000.0μF (0.01nF)	Capacitance (Max Res.)
10Hz to 10kHz (0.01Hz)	10kHz (0.001Hz)	10kHz (0.001Hz)	Frequency (Max Res.)
-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
Yes	0.1 to 99.9%	0.1 to 99.9%	Duty Cycle
Yes	Yes	Yes	Diode/Continuity
Yes	Yes	Yes	Data Hold
Max only	Min/Max	Min/Max	Min/Max
ETL, CE, CAT III-600V	ETL, CE, CAT III-600V	ETL, CE, CAT III-600V	UL, ETL, CE, Category Rating
7.8x2.8x1.6" (197x70x40mm)/ 6.5oz (183g)	9.1x3x1.5" (232x77x39mm)/ 9.6oz (271g)	9.1x3x1.5" (232x77x39mm)/ 9.6oz (271g)	Dimensions/Weight
2 years	2 years	2 years	Warranty



# The Choice for Technical Education

"My son used these meters (MA200) in college and I was impressed when I got a chance to use one. If it was good enough for the college to teach their students, it must be a quality product. I haven't been disappointed."

Dave H., Minnesota



### ACCESSORIES (SEE P. 38-41)

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

 TL802
 Replacement Test Loads

TL803	Replacement Test Leads	

SPECIFICATIONS	MA200 💌
True RMS	_
Display counts	2000 count LCD
Jaw size/Cable size	0.9" (23mm); 300MCM
AC Current	2.000A, 20.00A, 200.0, 400A
DC Current	-
Max Resolution	0.001A AC
Basic ACA Accuracy (% rdg)	±2.5%
AC Voltage (Max Res.)	600V (0.1mV)
DC Voltage (Max Res.)	600V (0.1mV)
Resistance (Max Res.)	20ΜΩ (0.1Ω))
Capacitance (Max Res.)	-
Frequency (Max Res.)	-
Temperature	-
Duty Cycle	-
Diode/Continuity	Yes
Data Hold	Yes
Min/Max	Max
UL, ETL, CE, Category Rating	UL, CE, CAT III-600V
Dimensions/Weight	7.9x2x1.4" (200x50x35mm)/7oz (200g)
Warranty	2 years



# MA200 400A AC Clamp Meter

Easy-to-use, economical clamp meter with 8 functions

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

EXTECH

• Complete with test leads, case and two AAA batteries

NIST. See page 144 for a complete listing.

28

TRACEABLE TO

# **Compact Clamp Meters**



# MA220 400A AC/DC Clamp Meter

Easy-to-use, economical clamp meter with 11 functions

- AC and DC Current measurement
- Capacitance, Frequency, Temperature and Duty Cycle
- One touch "Auto Zero"
- Compact size allows measurements in tight locations
- Auto power off
- Complete with test leads, general purpose Type K bead wire probe, case and two AAA batteries



# MA410 400A AC Clamp Meter + NCV

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

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



# MA410T True RMS 400A AC Clamp Meter + NCV

True RMS measurements for accurate readings of nonsinusoidal waveforms

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

MA410 🛯	MA410T <b>N</b>
	T 51/0
-	True RMS
4000 count LCD	4000 count LCD
1.2" (30mm); 350MCM	1.2" (30mm); 350MCM
40A, 400A	40A, 400A
-	-
0.01A (AC)	0.01A (AC)
±2.5%	±2.5%
600V (0.1mV)	600V (0.1mV)
600V (0.1mV)	600V (0.1mV)
40.00ΜΩ (0.1Ω)	40.00ΜΩ (0.1Ω)
100µF (0.01nF)	100µF (0.01nF)
10kHz (1Hz)	10kHz (1Hz)
-4 to 1400°F (-20 to 760°C)	-4 to 1400°F (-20 to 760°C)
0.1 to 99.0%	0.1 to 99.0%
Yes	Yes
Yes	Yes
Min/Max	Min/Max
ETL, CE, CAT III-600V	ETL, CE, CAT III-600V
7.9x2.6x1.5" (200x66x37mm)/ 7.2oz (205g)	7.9x2.6x1.5" (200x66x37mm)/ 7.2oz (205g)
2 years	2 years
	40A, 400A  0.01A (AC) ±2.5% 600V (0.1mV) 600V (0.1mV) 40.00MΩ (0.1Ω) 100μF (0.01nF) 10kHz (1Hz) -4 to 1400°F (-20 to 760°C) 0.1 to 99.0% Yes Yes Min/Max ETL, CE, CAT III-600V 7.9x2.6x1.5° (200x66x37mm)/ 7.2oz (205g)



# Small Size, Big Performance

"The Extech mini-clamp was perfect for reaching tight spaces due to the narrower design and thinner clamps. And where other brands only offered four functions, Extech offered six."

Ilya K., United States Marine Corps, North Carolina







See p. 38, 40 for test leads and accessories

ACCES	SORIES
TL841	Test Lead Kit
TL833	Industrial Test Lead Kit
TL831	Master Test Lead Kit
TL803	Standard Test Leads

### SPECIFICATIONS

True RMS Display counts Jaw size/Cable size AC Current DC Current Max Resolution Basic ACA Accuracy (% rdg) AC Voltage (Max Res.) DC Voltage (Max Res.) Resistance (Max Res.) Frequency (Max Res.) Diode/Continuity Data Hold Min/Max/Peak UL, CE, Category Rating Dimensions Weight Warranty

### CALIBRATION TRACEABLE TO

30

# Milliamp Clamp Meters



# **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



# 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

380942 💌	380950	380941 💌
True RMS	_	_
4000 count LCD	4000 count LCD	4000 count LCD
0.9" (23mm); 4/0 AWG	0.5" (12mm); 3/0 AWG	0.9" (23mm); 4/0 AWG
400mA, 4A, 30A	4.000A, 80.0A	40A, 200A
4A, 40A	4A, 80A	40A, 200A
AC: 0.1mA, DC: 0.001A	1mA	0.01A AC/DC
±1.5%	±2.5%	±1.0%
400V (0.1V)	600V (0.1mV)	400V (0.1V)
400V (0.1V)	600V (0.1mV)	400V (0.1V)
-	40ΜΩ (0.1Ω)	400Ω (0.1Ω)
_	10MHz (0.001Hz)	100kHz (0.001Hz)
-	Continuity	Continuity
Yes	Yes	Yes
Min/Max	Max	Min/Max
UL, CE, CAT III-300V	CE, CAT III-600V	UL, CE, CAT III-300V
7x1.8x1.3" (178x45x32mm)	8.2x2.7x1.4" (210x70x37mm)	7x1.75x1.25" (178x45x32mm)
8oz (225g)	7oz (200g)	8oz (225g)
2 years	2 years	2 years



# Power Clamp Powerhouse

The PQ2071's broad capabilities as a power clamp meter enable modern industrial and commercial facilities to trace many electrical and powerquality problems. The PQ2071 can also datalog 50,000 readings on a USB-connected PC running the included software, which enables technicians to analyze various power issues and realize actionable insights.





# 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 transients during motor startups
- Relative Mode for Capacitance Zero and Offset Adjustment
- Data Hold, Peak Hold, MIN/ MAX, and Auto Power Off
- Complete with test leads, general purpose Type K bead wire temperature probe, 9V battery and carrying case

# More Power Clamps

See Extech's complete line of power clamps on pages 52-53

SPECIFICATIONS	MA1500 📧
True RMS	Yes
Display counts	40,000/4000 count dual LCD with bargraph (backlit)
Jaw size/Cable size	2.0" (52mm); 500MCM
AC Current	1500A
DC Current	1500A
Max resolution	0.01A
Basic ACA Accuracy (% rdg)	±2.8%
AC Voltage (Max Res.)	750V (0.01mV)
DC Voltage (Max Res.)	1000V (0.01mV)
Resistance (Max Res.)	40ΜΩ (0.01Ω)
Capacitance (Max Res.)	40mF (0.01nF)
Frequency (Max Res.)	40MHz (0.001Hz)
Temperature	-148 to 1832°F (-100 to 1000°C)
Diode/Continuity	Yes
Data Hold	Yes
Min/Max/Peak	Yes
Category Rating	CAT IV-600V
UL/CE	CE
Dimensions/ Weight	11.57x4.13x1.85" (294x105x47mm)/ 18.9oz (536g)
Warranty	2 years

CALIBRATION NIST

32

N Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

# High Current & Power Clamp Meters



# 380926 CAT IV 2000A AC/DC Clamp Meter

Full range MultiMeter functions with high resolution to  $0.1\mu A/0.1mV$  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





# **380976-K** 1-Phase and 3-Phase 1000A AC Power Clamp Meter

Functions include Power, Current, High Resistance, and Type K Temperature

- True Power, Apparent Power and Reactive Power, plus Horsepower, Power Factor, and Phase Angle with Lead/Lag indicator (see p. 53 for details)
- AC+DC µA Current with 10nA resolution for flame rod tests
- Auto power off with disable
- Test Lead Kit includes: two CAT IV-600V 72" (1.8m) lead extensions with right angle and straight end shrouded banana plugs; two modular test probe handles with stainless steel tips; two plunger activated retractable jaw clips; two extra large alligator clips



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

Functions including Power, Current, and Frequency plus USB interface

- True Power, Apparent Power and Reactive Power, plus Power Factor, Active Power and Phase Angle (see p. 53 for details)
- AC+DC µA Current with 10nA resolution for flame rod tests
- 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
- USB interface with cable and software included for further data analysis
- Complete with test leads, USB cable, PC software, 9V battery, and carrying case

380926 🔳	380976-К ₪	PQ2071 <b>N</b>
Yes	Yes	Yes
5000 count LCD (backlit)	9999 count LCD	9999 count LCD with bargraph (backlit)
2" (50mm); 750MCM	1.6" (40mm); 500MCM	2.2" (55mm); 1000MCM
400.0A, 2000A (Clamp); 400mA (DMM)	100.0A, 1000.0A	1000A
400.0A, 2000A Clamp); 400mA (DMM)	_	_
0.1A (Clamp); 0.1µA (DMM)	0.010A (Clamp); 0.01µA (DMM)	100mA
±2%	±2% (Clamp), ±1% (DMM)	±3%rdg
1000V (1mV)	600V (0.1mV)	750V (0.1V)
1000V (0.1mV)	600V (0.1mV)	_
40ΜΩ (0.1Ω)	100ΜΩ (0.1Ω)	-
50µF (10pF)	7000μF (1nF)	_
100kHz (0.001Hz)	1kHz (0.1Hz)	50Hz to 200Hz (1Hz)
_	-58 to 1000°F (-50 to 900°C)	_
Yes	Yes	-
Yes	Yes	_
-	Min/Max	Yes
CAT IV-600V	CAT III-600V	CAT III-1000V; CAT IV-600V
CE	UL/CE	CE
10x2.9x1.5" (255x73x38mm)/ 14oz (380g)	9x3x1.6" (228x76x39mm)/ 16.4oz (465g)	11.5x3.75x1.5" (292x95x38mm)/18.4oz (522g)
2 years	2 years	2 years



# **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 counterclockwise) 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)
- 2 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

Check 3-phase sequence and motor rotation

Tests phase orientation of 3-Phase power sources

and whether each of the 3-Phases is liveEasy to open alligator clips with wide jaws

clips, case, and 9V battery (for 480403)

· Indicates rotation direction of motor

Multi-line LCD Displays; No battery required
 480403 Motor Rotation and 3-Phase Tester
 LEDs display motor rotation and phase status

· Determine rotation of a motor without contact

Yes

480400

40 to 600V

15 to 400Hz

CE, CAT III-300V

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

480403

40 to 600V

2 to 400Hz

CE, CAT III-600V

Yes

Yes

• Durable double molded housing

480400 3-Phase Tester

2 year warranty

• Indicates phase orientation (clockwise or counter-clockwise)

· Complete with cable and 3 large color-coded alligator

# 480400/480403 Motor Rotation and 3-Phase Testers



480403



**ORDERING**480400
480403

CE/Category Rating

SPECIFICATIONS

Phase Sequence

Motor Rotation

Voltage

Frequency

Dimensions

3-Phase Rotation Tester

Motor Rotation and 3-Phase Tester

TRACEABLE TO



# **DL150 True RMS AC Voltage/Current Datalogger**





Supplied with a protective hard case

CE

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

- Measure True RMS AC Voltage (600V) or Current (200A)
- Readings can be downloaded to your PC via the USB interface and analyzed using the included software or exported to a spreadsheet
- LCD indicates time/date, current readings, Min/Max, and whether alarm settings have been exceeded
- Normal, Peak and Capture (user-specified trigger level) recording modes
- Auto Power off and battery check
- 2 year warranty
- Complete with current clamp, test leads, alligator clips, USB cable, Windows<sup>®</sup> compatible software, universal AC adaptor, and 4 AAA batteries

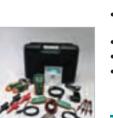
SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY	
AC Current	10 to 200A	0.1A	±(2% rdg ± 1A)	
AC Voltage	10 to 600V	0.1V	±(1.5% rdg ± 1V)	
Memory	16,350 points			
Sampling Rate	1 second to 24 hours	1 second to 24 hours		
PC Interface	USB includes softwa	USB includes software		
Dimensions	4.5 x 2.5 x 1.3" (114 x 63 x 34mm)			
Weight	8.7oz (248g)			

# ORDERING

True RMS AC Voltage/Current Datalogger

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





Supplied with a protective hard case

CE

Datalog up to 256,000 readings with user programmable

- sample rate from 1 second to 24 hours
- Measures simultaneously:
  - Two True RMS AC Voltage inputs or
     Two AC Current inputs or
  - Two AC Current Inputs or
  - One AC Voltage and one AC Current input
- Readings can be downloaded to your PC via the USB interface and analyzed using the included software or exported to a spreadsheet
- LCD indicates time/date, current readings, Min/Max, and whether alarm settings have been exceeded
- Auto Power off and battery check
- 2 year warranty
- Complete with two Current sensor modules, two Voltage sensor modules, two sets of test leads, two sets of alligator clips, USB cable, Windows<sup>®</sup> compatible software, universal AC Adaptor, 4 AAA batteries and two 2032 button batteries

RANGE	RESOLUTION	BASIC ACCURACY	
10 to 200A	0.1A	±(2% rdg ± 1A)	
10 to 600V	0.1V	±(2% rdg ± 1V)	
256,000 points			
1 second to 24 hours	1 second to 24 hours		
USB includes software			
4.5 x 2.5 x 1.3" (114 x 63 x 34mm)			
8.7oz (248g)			
	10 to 200A 10 to 600V 256,000 points 1 second to 24 hours USB includes softwar 4.5 x 2.5 x 1.3" (114 x	10 to 200A         0.1A           10 to 600V         0.1V           256,000 points         1           1 second to 24 hours         USB includes software           4.5 x 2.5 x 1.3" (114 x 63 x 34mm)	

### ORDERING

DL160

Dual Input True RMS AC Voltage/Current Datalogger



# 40130 AC Voltage **Detector with On/Off** Audible Beeper Button



# DV20/DV24 AC Voltage **Detectors with Flashlight** and CAT IV Option



### Rugged double molded housing

- Suitable for outlets or against
- For use on 50/60Hz circuits
- Built-in bright flashlight
- Dimensions: 6.25x1" (159x25mm) Weight: 1.5oz (42g)
- 2 year warranty
- Complete with pocket clip and two AAA batteries
- Model DV20 CAT III-600V; 100V to 600V AC Voltage Model DV24 - CAT IV-1000V: 50V to 1000V AC Voltage

AC Volt Detector with Flashlight CAT IV AC Volt Detector with Flashlight

# DV25 Dual Range AC **Voltage Detector with** Flashlight



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

- 2 ranges: 24 to 1000VAC and 100 to 1000VAC
- CAT IV-1000V safety rating
- · Suitable for outlets or against wire insulation testing
- For use on 50/60Hz circuits
- Audible and Visual voltage indication
- Built-in bright flashlight with On/Off button
- Dimensions: 6.25 x 1" (159 x 25mm) Weight: 1.48oz (42g)
- 2 year warranty
- Complete with pocket clip and two AAA batteries

### ORDERING

DV25 Dual Range AC Volt Detector

# **DV30** Adjustable **AC Voltage Detector with** Sensitivity Adjustment



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

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

### ORDERING

Adjustable AC Voltage Detector DV30

# **DA30** Non-Contact **Current Detector with** Sensitivity Adjustment



### Locates current in hidden wires and cables up to 1000A

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

### ORDERING

DA30 Non-Contact Current Detector

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



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

- The only two-in-one AC Current (200mA to 1000A) and AC Voltage (12V to 600V) detector designed for electrical testing
- Loud audible and bright visible current and voltage detect indicators
- Sensitivity adjustment increases or reduces sensor trigger threshold
- CAT III-600V
- Dimensions: 7.6x1.2x0.9" (192x31x24mm) Weight: 2.1oz (60g)
- 2 year warranty
- Complete with pocket clip and four LR44 button batteries

### ORDERING

DVA30 Non-Contact Volt/Current Detector

€ All products on this page are UL and CE approval

ATION NISI



## **DV26** CAT IV Non-contact Voltage Detector + Flashlight





Flashing Red LED with audible beeper indicate presence of live wires.

Built-in bright flashlight allows for viewing in

## 



## dimly lit areas.





#### Rugged CAT IV rated non-contact Voltage (NCV) Detector displays a Green LED light when it is powered on and ready for use

- Non-contact detection of AC Voltage from 100 to 1000VAC
- For use on 50/60Hz circuits
- CAT IV-600V, CAT III-1000V safety rating
- Rugged double-molded housing
- · Green LED indicator lights up when powered on and ready to use
- · Tip fits into outlets or against wire insulation testing
- · Flashing Red LED indicator light with auidible beeper indicates presence of live wires
- Built-in bright flashlight with On/Off button
- Compact size with pocket clip
- Dimensions/Weight: 6.25 x 1" (159 x 25mm); 1.5oz (42g)
- · Complete with two AAA batteries; 2 year warranty

#### ORDERING DV26

CAT IV AC Voltage Detector + Flashlight

## **DV40 AC Voltage Detector + IR Thermometer**





Non-contact Voltage Detection

Non-contact InfraRed Temperature measurement

## 

#### Non-contact Voltage detector that measures non-contact temperature

- Detects AC Voltage from 50V to 1000V
- · Tip fits into outlets or against wire insulation
- Low battery indicator and Auto power off feature
- CAT III-1000V
- Built-in InfraRed Thermometer function Range: -20 to 445°F (-30 to 230°C) Resolution: 0.1° Field of View: 1:1 Emissivity: Fixed 0.95
- Dimensions: 6.25x1" (159x25mm); Weight: 1.48oz (42g)
- · Complete with pocket clip and three LR44 batteries; 2 year warranty

#### ORDERING

DV40

AC Voltage Detector with IR Thermometer

## VT30 Multi-function Voltage Tester



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

- · Large LCD display with digital bargraph
- AC Voltage (0 to 480V) and DC Voltage (0 to 690V)
- Meets EN61010-1 CAT IV-600V and CAT III-600V safety ratings
- LED indication of AC/DC voltage
- DC Polarity LED indication; Continuity beeper;
- Low impedance; Double molded housing
- · Phase rotation test for motors
- Dimensions: 9.4x3x1.6" (240x78x40mm); Weight: 8.4oz (237g)
- · Complete with 2 AAA batteries, protective cap, and soft case; 2 year warranty

#### ORDERING

VT30 Digital Voltage Tester with bargraph



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



#### 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

## **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) 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

#### TL806/7 Alligator Clips for Test Lead Tips



#### 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

#### **TL805** Double Injected Test Leads



#### Non-slip comfort grip

- Professional grade test leads. Double coated silicon 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

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



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

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

## CALIBRATION MIST



## CA200 200A AC Clamp-on Adaptor



#### AC Current measurements, no battery required

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

#### ORDERING

CA200 200A AC Clamp Adaptor

## **CA250 400A AC/DC** Clamp-on Adaptor + NCV



#### Built-in non-contact AC voltage detector

- 1.2" (30mm) clamp jaw
- Measures AC/DC Current in two ranges: 0 to 40A (10mV per Amp output) and 0 to 400A (1mV per Amp output)
- ±2.5% basic accuracy; CAT III-600V;
- DC zero adjust
- Optional CA250-NIST available
- Dims: 5.8x2.3x1.3" (146x60x32mm) Weight: 8oz (226g)
- Complete with built-in 3.8ft (1.1m) cable with banana plugs and two AAA batteries; one year warranty

#### ORDERING

CA250 400A AC/DC Clamp Adaptor + NCV

**TP200 Type K Pipe Clamp** 

**Temperature Probe** 

## **TP400** High Temperature Type K Pipe Clamp Probe



# Hands-free temperature measurement to 450°F (232°C) without the use of tape or Velcro®

- Spring-loaded jaw for secure grip on pipes from 0.25" (6.35mm) to 1.5" (38mm) diameter
- For use with any Thermometer or MultiMeter with a Type K input
- Measurement range: -4 to 450°F (-20 to 232°C)
- Basic accuracy: ±3.6°F (1.8°C)
- Complete with attached 36" (0.9m) cable and Type K connector

#### ORDERING

TP400 Type K High Temperature Pipe Clamp Probe



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

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

#### ORDERING

TP200 Type K Temperature Pipe Clamp Probe







409996





409997

CA500





CA900

#### ORDERING

409992	Small carrying case 6.25x4.5x1" (159x114x25mm)
409996	Medium carrying case 7.8x5.3x1.6" (197x133x41mm)
409997	Large carrying case 9.5x7x2" (243x178x51mm)
CA500	Case w/shoulder strap, side pockets 7.4x3.5x2.5" (188x89x64mm)
CA899	Large case with shoulder strap 10x5x3" (254x127x76mm)
CA900	Wide carrying case for DMM Kits 9.8x8x2" (248x203x51mm)



## **TL841 Professional** Test Lead Kit



## 16-piece kit with multiple test lead tip configuration

- Test Lead Set with Straight Probes, 0.16" (4mm) long tips with removable category control tip covers; CAT III-1000V, 16A
- Alligator Clip Set, 5A, CAT III-300V
- TL743 Slim Reach Test Probe Set; CE
- Spade Lugs, 0.16" (4mm) opening, 30VAC/60VDC, 5A
- Test Leads, Right Angle and Straight End, CAT III-1000V, 16A
- Test Leads with Hook Tip, Pincer Tip, and Couplers
- Conveniently stored in a pouch case

#### ORDERING

TL841 Professional Test Lead Kit

## TL741 Heavy Duty Plunger Style Hook Clips



## Spring loaded clip ideal for gripping component lead or wire

- 1000V, 10A
- 0.08" (2mm) gripping diameter
- 5.5" (140mm) overall length
- CAT III-1000V/3A max;

#### ORDERING

TL741	Heavy Duty Plunger Style Hook Clips

## TL833 Industrial Test Lead Kit



#### 11-piece kit with CAT III-1000V rating

- TL726 Double Molded
   Silicone Test Leads; CE
- TL740 Industrial Plunger Style Test Clips; CE
- TL741 Heavy Duty Plunger Style Hook Clip Set; CE
- TL708 Large Alligator Clip Set
- TL743 Slim Reach Test Probe Set; CE
- Type K Bead Probe with Banana Adaptor
- Conveniently stored in a pouch case

#### ORDERING

TL833 Industrial Test Lead Kit

## TL831 Master Electrical Test Lead Kit



#### 12-piece kit industrial grade test leads

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

#### ORDERING

TL831 Master Electrical Test Lead Kit

## **TL742** Heavy Duty Plunger Style Pincer Grip Set



## Insulated, flexible silicon shaft with good heat resistance

- 1000V, 4A
- 0.2" (5mm) jaw opening
- 6" (152mm) overall length
- CAT IV-600V; CAT III-1000V

#### ORDERING

TL742 Heavy Duty Plunger Style Pincer Grip Set

#### TL743/TL744 Sharp or Flat Blade Test Probe Set



#### **TL743 Sharp Point for piercing insulation**

- 1000V, 16A; CAT IV-600V/10A max; CAT III-1000V
- 0.16" (4mm) long tip and sharp 0.08" (2mm) diameter with removable category control tip covers; 4.5" (115mm) overall length

#### TL744 Flat Blade fit outlet receptacles

- 1000V, 10A; CAT III-1000V
  0.16" (4mm) long x 0.1" (2.5mm) flag
  - 0.16" (4mm) long x 0.1" (2.5mm) flat tip with removable category control tip covers; 4.9" (124mm) overall length

#### ORDERING

TL743	Slim Reach Test Probe Set
TL744	Flat Blade Test Probe Set

CALIBRATION



## PQ500/PQ1000 CAT IV Test TL708/TL709 Alligator 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

and Red ONLY)

#### PQ1000 Test Lead Set

Red, Blue, Yellow)

#### ORDERING

PQ500 Test Leads PQ1000 Test Leads

## **TL747 Electronic Sharp Test Probe Set**



#### For use on high density components and boards and for piercing insulation

- 1000V. 6A max
- 0.16" (4mm) long tip with sharp 0.08" (2mm) diameter
- 4" (102mm) overall length
- CAT III-1000V

#### ORDERING

TL747

Electronic Sharp Test Probe Set

# **Clip Sets**



#### 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

- TI 708 Large Heavy Duty Alligator Clips
- TI 709 Medium Alligator Clips

## **TL740 Industrial Plunger Style Test Clip Set**



#### Spring loaded clip with steel jaws

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

#### ORDERING

Industrial Plunger Style TL740 Test Clip Set

#### TL748 Spring Loaded Hook TL726 Double Molded Silicone Test Lead Set **Tip Probes**



TL748 Spring Loaded Hook Tip Probes TI 726

Test Lead Set



## **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)
- · 2 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)
- 2 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 Cob	la Idontifiar/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) 2 vear warrantv
- · Complete with Amplifier probe and Tone Generator with alligator clips and modular RJ11 phone and RJ45 digital connector cables, 9V batteries and case

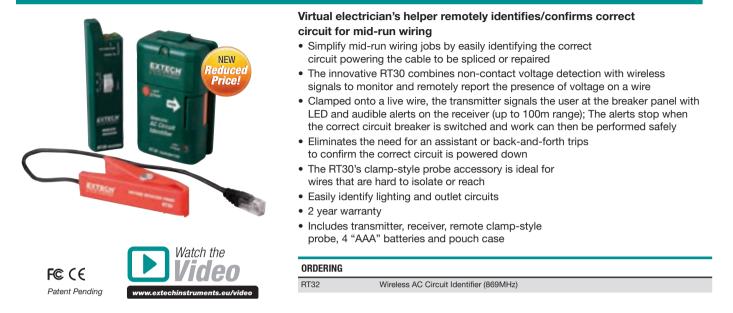
ORDERING 40180

Tone Generator and Amplifier Probe Kit

42



## **RT32** Wireless Remote AC Circuit Identifier



## 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 0.8x 1" (159 x 21 x 25mm); Weight: 1.7oz (48g)
- Complete with two AAA batteries; 2 year warranty

#### ORDERING

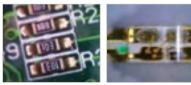
**MD10** 

Non-contact Magnet Detector + Flashlight

## MC108 Digital Mini Microscope



F©CE



PC Board inspection S

Soldering check

## Color LCD screen with memory and zoom features to capture and download JPEG images to your PC

- 7x to 108x magnification range:
  - Optical Zoom: 7x to 27x
  - Digital Zoom: 4x
- Three white LEDs with adjustable brightness for object illumination
- 5 Image Effect modes: Normal, Gray, Inverse, Emboss, and Dual Window View
- Dual Window View simultaneously displays the magnified image next to the original image
- Real-time imaging on your PC screen via USB interface and included software
- Includes microscope stand for hands-free viewing
- Dimensions: 4.7 x 2.2 x 0.8" (120 x 56 x 20mm) Weight: 2.5oz (70g) without batteries
- Complete with stand, three AAA Ni-MH rechargeable batteries, 100 to 240VAC (50/60Hz) adaptor/charger, Windows<sup>®</sup> compatible PC software with mini USB cable, cleaning cloth, and wrist strap; 2 year warranty

MC108-2 Mini Microscope (220V) MC108-4 Mini Microscope (240V)

For the name of your local stocking distributor, visit **www.extechinstruments.eu** 43



## LCR200 Passive Component LCR Meter





Tweezer for sorting out SMD components

LCR203 - Optional SMD 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) R (resistance),  $\theta$  (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 strav impedances from the measurement
- · Complete with test leads and 9V battery; 2 year warranty
- Optional SMD Tweezer (LCR203) and plug-in SMD Component Fixture (LCR205)

SPECIFICATIONS	RANGE	BASIC ACCURACY
Inductance	20µН, 200µН, 2000.0µН, 20.000mH, 200.00mH, 2000.0mH, 20.000H, 200.00H, 2000.0H	±(0.5%rdg)
Capacitance	20pF, 200pF, 2000pF, 20.000nF, 200.00nF, 2000.0nF, 20.000 $\mu$ F, 200.00 $\mu$ F, 2.0000mF, 20.00mF	±(0.5%rdg)
Resistance	20.00Ω, 200.00Ω, 2.0000kΩ, 20.000kΩ, 200.00kΩ, 2.0000MΩ, 20.000MΩ, 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

#### 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	RANGE	BASIC ACCURACY
Inductance	2000.0µH, 20.000mH, 200.00mH, 2000.0mH 20.000H, 200.00H, 2000.0H, 10000H	±(0.7%rdg)
Capacitance	2000.0pF, 20.000nF, 200.00nF, 2000.0nF, 20.000μF, 200.00μF, 2000.0μF	±(0.7%rdg)
Resistance	20.000Ω, 200.00Ω, 2.0000kΩ, 20.000kΩ, 20.000kΩ, 200.00kΩ, 2.0000MΩ, 20.000MΩ	±(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	Dessive Component I CD Motor	
300193	Passive Component LCR Meter	

230VAC adaptor

153220



## MS420 20MHz 2-Channel Digital Handheld Oscilloscope





Complete with two 1X/10X oscilloscope probes, test leads, Windows® compatible software, capacitor measuring module, adjustment screwdriver, universal AC adaptor, and carrying case; 2yr warranty **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

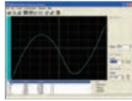
SPECIFICATIONS	
Display Size	3.8" (96mm) color LCD; 320 x 240 pixels
Bandwidth	20MHz
Real time sample rate	100MS/s
Risetime	17.5ns
Channels	2
Record Length	6K points per channel
Glitch Capture	50ns
Vertical Sensitivity	5mV to 5V/div
Vertical Resolution	8 bits
Timebase Range	5ns to 5s/div
Sample Mode	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 Functio	ns
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	7x4.4x1.6" (180x113x40mm) / 24.3oz (690g)

ORDERING

MS420 20 PWRCORD-MS420 E0

20MHz 2-Channel Oscilloscope European Power Cord for MS420





Software PC screens display analog bargraph and graphical waveform





## 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
- 2 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" (258x110	)x47mm) / 1.5lbs (700g) (	(meter only)

382357 N

## **382252 Earth Ground Resistance Tester Kit**





Includes all hardware necessary to measure earth ground in 3 ranges from 20 to 2000  $\Omega$ 

Clamp-On Ground Resistance Tester

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

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Earth Ground Resistance 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 or	lly)

#### ORDERING

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

CE

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CALIBRATION TRACEABLE TO



## **GRT300 4-Wire Earth Ground Resistance Tester Kit**





Complete with test leads, 4 auxiliary earth bars, hard carrying case, and eight 1.5V AA batteries

#### 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
- Automatic Zero adjustment
- AC Earth Voltage
- Data Hold and Auto Power off features
- Over-range and low battery indication
- 2 year warranty

#### SPECIFICATIONS

Earth Ground Resistance ranges	2Ω/20Ω/200Ω/2000Ω
Basic Accuracy	±(2%rdg)
Resolution	0.01Ω/0.1Ω/1Ω/0.01kΩ
Test Current / Frequency	<2mA/820Hz
AC Earth Voltage / Frequency	0 to 300VAC/40 to 500Hz
Power supply	Eight 1.5V 'AA' Batteries
Dimensions	9.8 x 7.8 x 4.3" (250 x 190 x 110mm)
Weight	3.15lbs (1.4kg) - batteries included

## ORDERING

4-Wire Earth Ground Resistance 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 $1\mu\Omega$ 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  $1\mu\Omega$
- 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
- · 2 year warranty
- Complete with 4-wire cables with Kelvin clip connectors, rechargeable Li-Polymer battery, AC adapter/charger, software and USB cable, and carrying case

SPECIFICATIONS	RANGE	RESOLUTION	CURRENT	BASIC ACCURACY
Resistance	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		
Dimensione (Mainht	101.001.00	0 (0 E 7 x 1 E E x E 7 mama) / (	Clb (1100m)	

Dimensions/Weight 10.1 x 6.1 x 2.2" (257 x 155 x 57mm)/ 2.6lb (1160g)

High Resolution Micro-Ohm Meter

#### ORDERING

UM200 N



## **380580 Battery Powered Milliohm Meter**



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

- 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%
	20.00Ω	0.01Ω	10mA	±0.5%
	200.0Ω	0.1Ω	10mA	±0.5%
	2000Ω	1Ω	1mA	±0.5%
Dimensions/ Weight	9.8x7.5x4.3" (25	0x190x110mm)/ 3.3lk	os (1.5kg)	

#### ORDERING

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

## 380562 High Resolution Milliohm Meter



#### Benchtop meter provides resolution down to $0.01m\Omega$

- 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; 2 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" (28	30x210x90mm)/ 4.85lb (2	2.2kg)	

ORDERING	
380562 N	High Resolution Milliohm Meter, 220VAC
380465	Spare Kelvin Clip Test Lead Set

#### 380462 Precision Milliohm Meter



#### Portable Milliohm meter provides resolution to $\textbf{0.1m}\Omega$

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

SPECIFICATIONS	RANGE	RESOLUTION	MAX VOLTAGE	BASIC ACCURACY
Resistance	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, 60H	z or 220VAC, 50Hz		
Dimensions/Weight	6.3x2.8x3.4" (160x120x85mm)/ 1.5lb (680g)			

## ORDERING 380462 Precision Milliohm Meter, 220VAC 380465 Spare Kelvin Clip Test Lead Set

CALIBRATION TRACEABLE TO

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#### 380320 Analog High Voltage Megohmmeter



#### Three Insulation Test Ranges with Live Circuit Warning

- Insulation Resistance ranges:  $100M\Omega$ ,  $200M\Omega$ , and  $400M\Omega$
- 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
- 2 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: 200M $\Omega$  and 2000M $\Omega$  with 0.1M $\Omega$  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  $200\Omega$  and Voltage to 600VAC
- CAT III-600V
- Dimensions: 6.3x3.8x2.3" (160x97x58mm); Weight: 13oz (369g)
- 2 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 N 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: 200M\Omega and 2000M\Omega with 0.1MΩ max resolution and  $\pm 3\%$  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)
- 2 year warranty
- Complete with heavy duty test leads, alligator clip test lead, hanging strap, carrying case, and 6 x AA batteries

#### ORDERING

380260 N 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 and 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.









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

Combines a 1000V Insulation Tester with a True RMS MultiMeter

- Wireless USB interface transmits measurement data to a PC
- Large backlit triple display
- Insulation Resistance from 0.001 M  $\Omega$  to 4000 M  $\Omega$
- 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<sup>®</sup> 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. 17



MG302 Kits available. See p. 17 for details.

SPECIFICATIONS	
Insulation Resistance (max resolution)	
Basic Accuracy	:
Insulation Test Voltages	
AC Voltage Test	
Low Resistance Test	(
MultiMeter Functions	
AC/DC Voltage (max resolution)	
AC/DC Current (max resolution)	
Resistance (max resolution)	
Frequency (max resolution)	
Duty Cycle (max resolution)	(
Temperature (max resolution)	
4-20mA% (max resolution)	
CE, FCC	
Dimensions/Weight	
Warranty	;

MG302 N
4ΜΩ, 40ΜΩ, 400ΜΩ, 4000ΜΩ (0.001ΜΩ)
±3%
125V, 250V, 500V, 1000V
1000V
0 to 400Ω

1000V (0.1mV AC/0.01mV DC) 10A (0.1μA AC/0.01μA DC) 40MΩ (0.01Ω) 100MHZ (0.001Hz) 0.1 to 99.9% (0.01%) -58 to 2192°F /-50 to 1200°C (0.1°) -25 to 125% (0.01%) CE 7.8 x 3.6 x 1.9" (200 x 92 x 50mm)/ 20.5oz (582g) 2 years

CALIBRATION NST

N Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

## Insulation Testers, MultiMeters & Dataloggers



# **380363** Digital Insulation Tester

Autoranging insulation measurements to  $10G\Omega$  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



## **380396** Digital High Voltage Insulation Tester

## High test Voltages up to 5kV with Insulation Resistance to $60G\Omega$

- Test Voltages of 500V, 1000V, 2500V, and 5000V
- Large 6000 count display with bargraph and backlight
- Polarization Index (PI) measurement
- Dielectric Absorption Ratio measurement
- 1 to 15 minute Timer function for Insulation Resistance measurements
- AC/DC Voltage from 0 to 600V with MAX/Min, Peak and Relative functions
- Autoranging and timer function
- Indication of output voltage
   and discharge voltage
- Auto-discharge and voltage output warning function
- Auto Power off and battery check
- Complete with test leads, 8 x C batteries, 220V AC adaptor and heavy duty carrying case



## MG500 Digital High Voltage Insulation Tester

High test Voltages up to 10kV with Insulation Resistance to  $500G\Omega$ 

- Test Voltages of 500V to 10kV (adjustable in 500V steps)
- Polarization Index (PI) measurement
- Dielectric Absorption Ratio (DAR) measurement
- EnerSave<sup>™</sup> 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

380363 🔊	380396 🔳	MG500 💶
4ΜΩ, 40ΜΩ, 400ΜΩ, 4000ΜΩ, 10GΩ (1kΩ)	6MΩ, 60MΩ,600MΩ, 6GΩ, 60GΩ (1kΩ)	800kΩ to 500GΩ (1kΩ) Autoranging
±3%	±2.5%	±5%
250V, 500V, 1000V	500V, 1000V, 2500V, 5000V	500V to 10kV (adjustable in 500V steps)
999VAC	600VAC	-
0 to 40Ω	0 to 600Ω	_
-	_	-
-	-	-
-	-	-
-	-	-
_	_	-
-	-	-
_	_	_
CE	CE	CE
9.3x4.6x2.1" (235x116x54mm)/ 1.15lbs (520g)	7.8x5.8x3.4" (198x148x86mm)/ 3.2lbs (1438g)	13x10.2x6.3" (330x260x160mm)/ 7.9lbs (3.6kg)
2 years	2 years	2 years



## **Beyond Compare**

"We use the Extech 380976 for power factor correction in commercial and industrial facilities as well as basic trouble shooting. Far more features than other, more expensive meters."

David L., Florida







NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** on products that offer NIST.

EXTECH



See our Lighting Retrofit Kits (LRK10 and LRK15) on p. 106

SPECIFICATIONS	
Display counts	
Jaw size/Cable size	
True RMS	
True Power (max res.)	
Basic Accuracy (ACA)	
Apparent Power	
Reactive Power	
Power Factor	
Phase Angle (ø)	
Active Power Energy	
Horsepower	
Peak Capture	
AC/DC Current (max res.)	
µA AC+DC Current (max res.)	
AC/DC Voltage (max res.)	
Resistance (max res.)	
Capacitance (max res.)	
Frequency (max res.)	
Temperature (max. res.)	
UL, CE, Category rating	
Dimensions/Weight	
Warranty	



## **380940 400A** AC/DC Power Clamp Meter

Measures True Power, Current, and Voltage

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

380940 📧
4000 count LCD with bargraph
0.9" (23mm); 350MCM
Yes
40kW, 240kW AC/DC (10W)
±1.5%rdg
-
-
-
-
-
-
-
400.0A AC/DC (0.1A)
-
600VAC/400VDC (1AC/0.1VDC)
-
-
10Hz to 10kHz (0.01Hz)
-
CE, CAT II-600V
7.2X2.5X1.4" (183X64X36mm)/6.7oz (190g)
2 years

NINT. See page 144 for a complete listing.

## True RMS Power Quality Clamp Meters



## **380976-K** 1000A AC 1-/3-Phase Power Clamp Meter

#### Includes test lead kit

- AC+DC µA Current with 10nA resolution for flame rod tests
- Auto Detect AC/DC Voltage measurements with simultaneous Frequency display
- Test Lead Kit includes: two CAT IV-600V 72" (1.8m) lead extensions; two modular test probe handles; two plunger activated retractable jaw clips; two extra large alligator clips
- Complete with test lead kit, general Type K bead wire probe, case, and 9V battery



## **382075 2000A** AC/DC 3-Phase Power Clamp Analyzer

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

- Display Lead/Lag Current/ Voltage phase shift in degrees
- Store/recall last 4 readings
- DC Current Auto-Zero
- Dual displays: kW+PF, kVA+kVAR, phase-angle+Hz, Volts+Hz, or Amps+Hz
- Advanced Relative and Min/Max functions
- Data Hold
- Complete with test leads, carrying case, and 9V battery



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

Measures AC Current, Frequency, and Power including True Power, Apparent Power, Reactive Power and Active Power

- 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 and Max/Min
- · Auto power off
- USB interface
- Complete with test leads, USB cable, PC software, 9V battery, and carrying case

380976-К ℕ	382075 🔳	PQ2071 <b>N</b>
10,000 count LCD	9999 count LCD	9999 count LCD
1.6" (40mm); 500MCM	2.2" (55mm); 1000MCM	2.2" (55mm); 1000MCM
Yes	Yes	Yes
600kW (10W)	1200kW (0.01kW)	750kW (10W)
±2%rdg	±1.5%rdg	±3%rdg
600kVA (10VA)	1200kVA (0.01kVA)	750kVA (10kVA)
600kVAR (10VAR)	1200kVAR (0.01kVAR)	750kVAR (10VAR)
Yes	Yes	Yes
-65 to +60°	-90° to +90° (0.1°)	-180° to 180° (1°)
-	-	9999kWh (0.001kWh)
Yes	-	-
-	-	-
100.00A, 1000.0A AC (10mA)	2000A AC/DC (0.1A)	1000A AC (100mA)
1000μA Trms (0.01μA)	-	-
600V (0.1mV)	600V (0.1V)	750V AC (0.1V)
1000kΩ, 100MΩ (0.1Ω)	_	-
7000μF (0.001μF)	_	-
40Hz to 1kHz (0.1Hz)	40 to 400kHz (0.1Hz)	50Hz to 200Hz (1Hz)
-58 to 1000°F or -50 to 900°C (0.1°)	_	-
UL, CE, CAT III-600V	UL, CE, CAT III-600V	CE, CAT III-1000V; CAT IV-600V
9x3x1.6" (228x76x39mm)/16.4oz (465g)	10.7x4.8x1.8" (271x122x46mm)/24.7oz (700g)	11.5x3.75x1.5" (292x95x38mm)/18.4oz (522g)
2 years	2 years	2 years



## PQ3450/PQ3470 3-Phase Power Quality Analyzer/Dataloggers



Œ Patent Pending

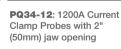
Model PQ3470 with Harmonics

#### Clamp Probes for PQ3450 & PQ3470

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



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





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



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

- · Large, dot-matrix, sun readable, numerical, backlit LCD
- Optional 200A, 1200A Current Clamps or 3000A Flexible Current Probes
- · 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 Complete with meter, 4 voltage leads with alligator clips, 8 AA batteries. SD memory card, Universal AC adaptor (100 to 240V), and durable hard carrying case. Clamp probes sold separately; 2 year warranty

#### Model PQ3470 Additional Features

- 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 (%)

SPECIFICATIONS	RANGE	BASIC ACCURACY
AC Voltage (True RMS)	600.0V	±(0.5%rdg)
AC Current	1200A	±(0.5%rdg)
Active Power (MW)	9.999MW	±(1.0%rdg)
Apparent Power (MVA)	9.999MVA	±(1.0%rdg)
Reactive Power (MVAR)	9.999MVAR	±(1.0%rdg)
Power Factor	0.00 to 1.00	±0.04
Frequency 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)

ORDERING	
PQ3450	3-Phase Power Analyzer/Datalogger
PQ3470	3-Phase Graphical Power and Harmonics Analyzer/Datalogger
PQ3450 Kits	
PQ3450-2	200A Power Analyzer Kit: PQ3450 with PQ34-2
PQ3450-12	1200A Power Analyzer Kit: PQ3450 with PQ34-12
PQ3450-30	3000A Power Analyzer Kit: PQ3450 with PQ34-30
PQ3470 Kits	
PQ3470-2	200A Power Analyzer Kit: PQ3470 with PQ34-2
PQ3470-12	1200A Power Analyzer Kit: PQ3470 with PQ34-12
PQ347-30	3000A Power Analyzer Kit: PQ3470 with PQ34-30
Accessories	
PQ1000	Voltage Test Leads with Alligator and Plunger Clips (4 leads)
PQ34-2	200A Current Clamp Probes (Set of 3)
PQ34-12	1200A Current Clamp Probes (Set of 3)
PQ34-30	3000A, Flexible Current Probes (Set of 3)

N Indicates products that are available with optional calibration traceable to NIST. See page 144 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; 2 year warranty

Power Measurements and Analysis + Datalogging of single and 3-phase/3-wire or 3-phase/4-wire systems

- 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)
- Graphic Phase diagram with 3-Phase system parameters
- 3-phase Voltage or Current Unbalanced Ratio (VUR, AUR) and unbalanced factor
- Calculated Unbalanced Current through Neutral Line (In)
- Capture 28 Transient events (including Dip, Swell and Outage) with programmable threshold (%)
- Optically isolated USB interface with software to download Waveforms, Power Parameters and Harmonics

AC Voltage (True RMS)		
	600V	±0.5%rdg
AC Current (True RMS)	100A, 1000A, 3000A*	±0.5%rdg
Active Power (kW)	9.999MW	±1%rdg
Apparent Power (kVA)	9999kVA	VA=Vrms x Arms
Reactive Power (kVAR)	9999kVAR	VAR= sqr (VA <sup>2</sup> -W <sup>2</sup> )
Power Factor	0.0 to +1.00	±1.5%rdg
Frequency	45-65Hz	0.1Hz
Phase	-180.0°~ 0°~ +180.0°	±1°
larmonics	1 to 99	±2%
Crest Factor	1.00 to 99.99	±5%
Peak AC Voltage accuracy	±(5%rdg+30d)	
Peak AC Current accuracy	±(5%rdg+30d)	
Active Power Energy (kWh)	0mWh to 999,999kWh	
Reactive Power Energy (kVARh)	0.0kVARh to 1000MWh	
Datalogging	52428 records (1P2W)/17476 reco	ords (3P4W)
CAT rating	CAT III-600V	
Dimensions/ Weight	Meter: 10.1 x 6.1 x 2.3" (257 x 155 Clamp: 2.2" (55mm), 2.5" x 1.0" (6	

<sup>t</sup> Using PQ3220 Current Probe (included with PQ3350-3 kit)

ORDERING	
PQ3350-1 N	1200A 3-Phase Power Harmonics Analyzer Kit (includes PQ3210)
PQ3350-3 N	3000A 3-Phase Power Harmonics Analyzer Kit (includes PQ3220)
PQ3350	3-Phase Power Harmonics Analyzer (Meter, Test Leads, and Case)
PQ1000	Voltage Test Leads with Alligator and Plunger Clips (4 leads)
PQ3110	100A Current Clamp Probes (Set of 3)
PQ3120	1000A Current Clamp Probes (Set of 3)
PQ3210	1200A, Flexible Current Probes (Set of 3)
PQ3220	3000A, Flexible Current Probes (Set of 3)

#### **OPTIONAL CLAMP PROBES FOR MODEL PQ3350 POWER ANALYZER**



Model PQ3110 100A Current Clamp Probes with 1.2" (30mm) jaw opening



Model PQ3120 1000A Current Clamp Probes with 2.2" (55mm) jaw opening



Model PQ3210 (1200A) Model PQ3220 (3000A) 1200A (12"/304mm) or 3000A (24"/609mm) Flexible Current Clamp Probes for wrapping around busbars



## **DT500** Laser Distance Meter with Bluetooth®







Transmits readings to most\* Apple<sup>®</sup> iPhones<sup>®</sup> and iPads<sup>®</sup> using free Apple<sup>®</sup> App up to 30ft (10m) away. Download the Extech DT500 ExView™ app at itunes.apple.com

Watch the

DT300 only

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

- Integrated Bluetooth<sup>®</sup> connects with iOS devices to transmit readings for remote viewing
- Works with free Apple app to display large easyto-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; 2 year warranty

#### SPECIFICATIONS

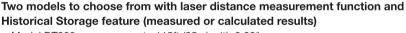
Measurement Range	2" to 229' (0.05 to 70m) with a target plate 2" to 164' (0.05 to 50m) without a target plate
Accuracy (up to 32'/10m)	±0.06" (±1.5mm)
Resolution	0.0625" (0.001m)
Length Add calculation	99'11" (99.99m)
Area calculation	999.99 sq. ft. (999.99m2)
Volume calculation	999.99 cu. ft. (999.99m3)
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®

Mac App Store logo, Apple, iPhone, and iPad are trademarks of Apple Inc.

## **DT200/DT300** Laser Distance Meters



- Model DT200 measures up to 115ft (35m) with 0.08" accuracy; Model DT300 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; 2 year warranty

SPECIFICATIONS	
Measurement Range	DT200: 2" to 115' (0.05 to 35m); DT300: 2" to 164' (0.05 to 50m)
Accuracy (up to 32'/10m)	DT200: ±0.08" (±2mm); DT300: ±0.06" (±1.5mm)
Resolution	0.001" (0.001m)
Length Add calculation	99'11" (99.99m)
Area calculation	999.99 sq. ft. (999.99m²)
Volume calculation	999.99 cu. ft. (999.99m³)
Historical Storage	Measured or calculated results - DT200: 10 records; DT300: 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	

ORDERING	
DT200	Laser Distance Meter (115ft/35m)
DT300	Laser Distance Meter (164ft/50m)

DT200 (115ft/35m) DT300 (164ft/50m)

15

CALIBRATION TRACEABLE TO

CE



## 401014 Indoor/Outdoor Thermometer



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

- Large LCD displays 1" (25mm) digits for indoor/outdoor temperature
- Indoor Range: 14 to 140°F (-10 to 60°C) Outdoor Range: -58 to 158°F (-50 to 70°C) Basic accuracy: ±1.8°F /1°C Resolution: 0.1°F/°C
- Dimensions: 4.4x4x0.9" (112x102x22mm); Weight: 6.5oz (186g)
- 2 year warranty
- Complete with weatherproof 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



#### 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: ±2°F/1°C Resolution: 0.1°/1°
- Dimensions: 5.9x0.8x0.7"
- (150x20x18mm); Weight: 0.7oz (20g) • 2 year warranty
- Complete with one LR44 button battery and protective cover

#### ORDERING

39240 Waterproof Thermometer

## TM20 Waterproof Temperature Indicator



## Measures temperature with remote stainless steel probe

- 0.78" (20mm) probe, 9.6ft (2.9m) cable
- Measures from -40 to 158°F (-40 to 70°C)
- Audible/visual alarm with High/Low set points
- ±1.8°F/1°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 magentic back, foot stand, probe, and one CR2032 3V button battery; 2 yr warranty

#### ORDERING

TM20 Waterproof Temperature Indicator

## TM25 Waterproof Temperature Indicator



#### Measures temperature in semi-solids and liquids with stainless steel penetration probe

- 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
- ±1.8°F/1°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 magentic back, foot stand, probe, and one CR2032 3V button battery; 2 yr warranty

#### ORDERING TM25

Waterproof Temperature Indicator with Penetration Probe

# **392050** Penetration Dial Thermometer

# 

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

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

#### ORDERING

392050 Penetration Dial Thermometer

## TM55 NSF Pocket Fold-Up Food Thermometer



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 secs in moving liquid</li>
- Large LCD display with 0.1° resolution
- Basic accuracy: ±1°F/0.5°C
- Probe can be positioned from 0° (storage) to 180°; Auto off when probe is stored
- Built-in magnetized strip
- Dimensions: 4.6x1.5x0.8" (116 x 38 x 20mm); Weight:1.5oz (41.2g)
- Complete with CR2032 battery; 2 yr warranty

#### ORDERING

TM55 Pocket Fold-Up Food Thermometer



CE

## 480846 8GHz RF EMF Strength Meter



#### 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 (CW, TDMA, GSM, DECT) and microwave leakage
- Non-directional (isotropic) measurement with 3-channel (triaxial) measurement probe
- Max Hold and Average functions
- Manual store/recall up to 99 sets
- Level exceed audible alarm with user selectable threshold
- 2 year warranty
- Complete with 9V battery and carrying case

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>
Audible Alarm	Adjustable threshold with On/Off
Memory	Manual save/recall of 99 sets
Dimensions/Weight	2.6x2.4x9.7" (67x60x247xmm)/ 8.8oz (250g)
ORDERING	

480846

## 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

RF EMF Strength Meter (8.0GHz)

- Non-directional (isotropic) measurement with 3-channel (triaxial) measurement probe
- User selectable alarm threshold
- Max Hold and Average functions
- 2 year warranty
- Complete with 9V battery and carrying case

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/m² to 30.93mW/m²
	0µW/cm <sup>2</sup> to 3.093mW/cm <sup>2</sup>
Audible Alarm	Adjustable threshold with On/Off
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)

CE



## 480826 Triple Axis EMF Tester



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

- · Designed to provide user a quick, reliable and easy way to measure EMF radiation levels around power lines, electrical appliances and industrial devices
- Wide ranges (3 ranges measured in µTesla or mGauss)
- Calibrated to measure EMF radiation at wide bandwidths from 30Hz to 300Hz
- Big digit LCD display with Data hold
- Easy to use remote probe
- 2 year warranty
- Complete with sensor with 3ft (930mm) cable, 9V battery, and hard carrying case

SPECIFICATIONS	RANGE	MAX. RESOLUTION	BASIC ACCURACY
µTesla	20µTesla	0.01µTesla	±4%
	200µTesla	0.1µTesla	±5%
	2000µTesla	1µTesla	±10%
mGauss	200mGauss	0.1mGauss	±4%
	2,000mGauss	1mGauss	±5%
	20,000mGauss	10mGauss	±10%
Number of Axis	3-axis X, Y, Z direction		
Bandwidth	30Hz to 300Hz		
Sampling Time	Approx. 0.4 second		
Power Current	Approx. DC 2.7mA		
Dimensions/Weight	2.6x1.2x 7.6" (68x30x19	95mm)/16.2 oz (460g) including	g probe and battery

#### ORDERING

480826 Triple Axis EMF Meter

## 480823 EMF/ELF Meter

CE



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

- ELF frequency bandwidth of 30 to 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)
- · Complete with 9V battery; 2 year warranty

ORDERI	NG	
480823	Electromagnetic Fie	eld Meter
409992	Soft case	

#### **EMF300** Microwave Leakage Detector

	<ul> <li>Designed to measure high frequency radiation levels emitted from household and commercial microwave ovens</li> <li>0 to 1.999mW/cm<sup>2</sup> measurement range</li> <li>&lt;2db accuracy (1mW/cm<sup>2</sup> @ 2.45GHz ± 50MHz)</li> <li>Audible alarm if level is &gt;1mW/cm<sup>2</sup></li> <li>2.45GHz calibration frequency</li> <li>EMF values from 30MHz to 3GHz can also be measured for reference only</li> <li>Peak Hold function captures highest value</li> <li>Overrange indicator</li> <li>Dimensions: 6x2.7x1.4" (152x69x36.3mm); Weight: 7oz (202g)</li> <li>Complete with 9V battery; 2 year warranty</li> </ul>
CE	ORDERING EMF300 Microwave Leakage Detector



MINI INFRARED THERMOMETERS

## Tough, Reliable and Accurate

Extech infrared thermometers provide non-contact, pointand-shoot temperature measurements ensuring safety and accuracy on the job. With unrivaled distance ratios, temperature ranges, and laser targeting options, Extech offers IR thermometers for every application.





## **IR Thermometers**

Choose the best InfraRed Thermometer to fit your application needs by selecting the proper measurement range, field of view, resolution, and accuracy. Applications include industrial plant maintenance, HVAC/R, electrical contracting, boiler/steam systems, automotive, foodservice, laboratory, metallurgy & more.



## **42500** 500°F (260°C), 6:1, Compact Laser IR Thermometer

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

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

SPECIFICATIONS	42500 🔊
IR Temperature (Non-contact)	-4 to 500°F (-20 to 260°C)
Basic Accuracy	±2% of rdg or ±4°F/±2°C (whichever is greater)
Max. Resolution	1°F/°C
Emissivity	0.95 fixed
Field of view (Distance to Target)	6:1
CE approved	Yes
Dimensions	3.2x1.7x6.7" (82x44x170mm)
Weight	4.9oz (140g)
Warranty	2 years

CALIBRATION TRACEABLE TO

NINT. See page 144 for a complete listing.

## Mini Non-contact InfraRed & Contact Thermometers



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

#### Compact thermometer measures up to 630°F (332°C) 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



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

Compact thermometer measures up to 1200°F (650°C) 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



## **42515/42515-T** 1472°F (800°C), 13:1, IR Thermometer Type K Input, Memory

Automatic Emissivity Adjustment allows accurate measurement of virtually any surface

- Wide temperature range for IR temperature and type K thermocouple measurements
- Automatic emissivity adjustment (for temperatures 212°F or higher)
- Stores up to 20 data points
- Adjustable high/low visual and audible alarm
- MAX/MIN/AVG/DIF display highest, lowest, average, and MAX minus MIN values
- LCD display with backlight
- Built-in laser pointer
- Data Hold, Auto power off, and Low battery indication
- **42515**: Includes 9V battery, general purpose type K bead wire probe, and soft case

**Special offer 42515-T**: Includes 42515 and TP200 pipe clamp temperature probe (-4 to 200°F/-20 to 93°C)

IR400 💌	42510A 📧	■ 42515 ℕ   🔺 42515-T ℕ
-4 to 630°F (-20 to 332°C)	-58 to 1200°F (-50 to 650°C)	IR: -58 to 1472°F (-50 to 800°C); Type K: -58 to 2498°F (-50 to 1370°C)
±2% of reading +4°F/2°C	$\pm(1\% \text{ of reading} + 2^{\circ}\text{F}/1^{\circ}\text{C})$	IR: ±2%rdg or 4°F(2°C); Type K: ±1.5%rdg + 2°F/1°C
0.1°F/°C	0.1°F/°C; 1°F/°C	0.1°F/°C
0.95 fixed	0.1 to 1.00 Adjustable	0.1 to 1.00 Adjustable
8:1	12:1	13:1
Yes	Yes	Yes
3.2x1.6x6.3" (82x42x160mm)	3.2x1.6x6.3" (82x42x160mm)	3.2 x1.6x6.3" (82x42x160mm)
6.3oz (180g)	6.4oz (180g)	6.4oz (180g)
2 years	3 years	3 years



# Set Yourself Apart from the Competition

Dual-laser IR temp gun accurately detects temperatures at farther distances, and the 100-millisecond response time enables faster hot spot scanning. Advanced features include a Type K probe and continuous data transfer to a PC via the USB connection and included software.





For a variety of Type K Thermocouple temperature probes for products with Type K input, see pages 38, 39, & 66



## **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 Hold
- Lock function for continuous readings
- Adjustable emissivity
- Adjustable High/Low set points with audible alarm
- Double molded housing
- Complete with case and 9V battery

SPECIFICATIONS	42509 <b>N</b>
Range	-4 to 950°F (-20 to 510°C)
Basic Accuracy	$\pm(1\% \text{ of } rdg + 2^{\circ}F/1^{\circ}C)$
Repeatability	±0.5% or 1.8°F/1°C
Max. Resolution	0.1°F/C
Emissivity	0.10 to 1.00 Adjustable
Field of View (Distance to Target)	12:1
CE approved	Yes
Dimensions/ Weight	5.7x4x1.6" (146x104x43mm)/ 5.7oz (163g)
Warranty	3 years

**NFRARED** THERMOMETERS

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N Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

## High Temperature InfraRed & Contact Thermometers



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

## Fast response and accurate measurements

- Dual laser simplifies distance-totarget 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



## **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

42512 N	42545 🔊	42570 💌
-58 to 1832°F (-50 to 1000°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)
$\pm(1\% \text{ of } rdg + 2^{\circ}F/1^{\circ}C)$	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)
±0.5% or 1.8°F/1°C	±0.5% or ±1.8°F/1°C	±0.5% or ±1.8°F/1°C
0.1°F/°C	0.1°F/°C	0.1°F/°C
0.10 to 1.00 Adjustable	0.1 to 1.00 Adjustable	0.1 to 1.00 Adjustable
30:1	50:1	50:1
Yes	Yes	Yes
5.7x4x1.6" (146x104x43mm)/ 5.7oz (163g)	3.9x2.2x9" (100x56x230mm)/ 10.2oz (290g)	8x6.1x2" (204x155x52mm)/ 11.3oz (320g)
3 years	3 years	3 years



#### **IRT500** Dual Laser IR Thermal Scanner



Cf Three-color LED Indicators. Any readings above (Red) and below (Blue) user set points (Green) will trigger the LED color alert

Five preset threshold settings and 3 color LED indicators make it easy to locate hot and cold spots quickly by scanning the area being tested

- Three-color LED indicates High (red), Normal (green), or Low (blue) when scanning for temperature irregularities
- Audible alarm increases as temperature increases or decreases
- 5 user-programmable threshold settings
- A dual laser system indicates ideal measuring distance by converging at 20" (50.8cm) to confirma 1" (2.5cm) target spot
- Fast-response, 150 millisecond sampling rate
- Tilt adjustable LCD display with bright white backlit feature and dual bargraphs
- Min/Max and easy keypad operation
- Trigger lock for continuous use
- Complete with 9V battery and carrying case; 2 year warranty

Dual Laser IR Thermal Scanner

#### SPECIFICATIONS

SPECIFICATIONS	
Laser Convergence Distance	20" (50.8cm)
Range	-58 to 500°F (-50 to 260°C)
Max Resolution	0.1°F/°C
Basic Accuracy	±(1% of rdg + 3.3°F/1.5°C)
Emissivity	Fixed at 0.95
Threshold for color transition	1°, 5°, 10°, set Min, set Max
Field of View (Distance to Target)	20:1
Dimensions	6.6x3.2x2.3" (168x82x58mm)
Weight	5.7oz (163g)
ORDERING	

#### **IRT600** Dual Laser IR Thermal Condensation Scanner



 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

IRT500 N

• Complete with case and 9V battery; 2 year warranty

#### SPECIFICATIONS

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	6.6x3.2x2.3" (168x82x58mm)
Weight	5.7oz (163g)
ORDERING	
IRT600 N	Dual Laser IR Thermal Condensation Scanner

CALIBRATION TRACEABLE TO



## VIR50 Digital Laser Video IR Thermometer





Large 2.2" color video LCD displays measurement area with temperature/humidity, min/max/avg, date, and time stamp

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
- · Double molded housing
- Complete with microSD card, general purpose Type K bead wire probe, USB cable, rechargeable 3.7V battery, and carrying case; 3 year warranty (See p. 38, 39, and 66 for additional optional Type K Thermocouple probes)

#### SPECIFICATIONS

OI EOII IOATIONO	
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
Type K Temperature Range	-58 to 2498°F (-50 to 1370°C)
Air Temperature Range	32 to 122°F (0 to 50°C)
Relative Humidity	0 to 100%RH
Dimensions	7.4x6.0x2.2" (189x152x57mm)
Weight	17.4oz (494g)

#### ORDERING VIR50 N BATT-37V

Dual Laser Video IR Thermometer Rechargeable 3.7V battery

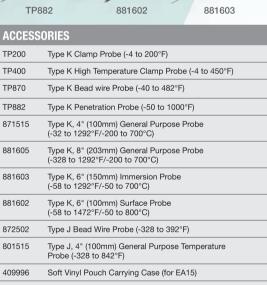


Upload images and videos to a PC or laptop for further analysis or use for report documentation.



## More Capabilities for Better Diagnostics

Our thermocouple thermometers deliver accurate temperature readings and easy, one-button Delta-T calculations. With high/low alarms, dual and triple displays, data functions, and datalogging, Extech expands your problem-solving capabilities..



See p. 38-39 for additional temperature probes.



See desktop or Pocket style Temperature Indicators on p. 57







## TM100 Type J/K Single Input Thermometer

Side-mounted controls allow for convenient one-handed operation

• Large backlit LCD display

EXTECH

Dual K/J

- 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 pages 38-39)

66 N Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

## Thermocouple Contact Thermometers



## TM300 Type J/K Dual Input Thermometer

Dual inputs allow for calculation of differential temperature readings

- Dual inputs and displays T1, T2, T1-T2 differential, plus Min, Max, Avg
- 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 two Type K bead wire temperature probes, three AAA batteries, and case.
   (Optional temperature probes available on left accessories chart and p. 38, 39, and 66)



## **EA11A** EasyView<sup>®</sup> Type K Single Input Thermometer

Large dual LCD display with 0.3% accuracy and memory

- Simultaneously displays current temperature and Max/Min/Avg or stored memory location
- Selectable units of °F and °C
- Manually store/recall up to 150 readings
- Data Hold and Auto power off
- Records MAX /MIN/AVG readings for later recall
- Complete with built-in stand, protective holster, general purpose Type K bead wire probe, and 6 AAA batteries. (Optional temperature probes available on p. 38, 39, and 66)



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

## Big backlit display with relative and elapsed time indication

- Displays [T1 and T2] or [T1-T2 and T1] or [T1-T2 and T2]
- Selectable units of °C/°F or Kelvin
- Timer function displays elapsed time plus the time when MAX/ MIN readings are taken
- OFFSET key used for zero function to make relative measurements
- Data hold and Auto power off
- Complete with built-in stand, protective holster, two general purpose Type K bead wire temperature probes, and 6 AAA batteries. (Optional temperature probes available on p. 38, 39, and 66)

TM300 💌	EA11A 📧	EA10 💵
Dual	Single	Dual
-328 to 2501°F (-200 to 1372°C)	-58 to 1999°F (-50 to 1300°C)	-200 to 1999°F (-200 to 1360°C)
-346 to 2012°F (-210 to 1100°C)	_	_
±0.15% rdg	±0.3% rdg	±0.3% rdg
0.1°/1°	0.1°/1°	0.1°/1°
Yes	Yes	Yes
8.7x2.5x1.1" (220x 63 x 28mm)	5.9x2.8x1.3" (150x72x35mm)	6x2.8x1.5" (152x72x37mm)
7oz (200g)	8.3oz (235g)	8.3oz (235g)
2 years	2 years	2 years



## Track Temperature Trouble with Extech

Extech's thermocouple thermometers and dataloggers make it easier than ever to monitor and record up to 12 channels of temperature with easy to read displays and flexible datalogging options.



ACCESSO	RIES
TP200	Type K Clamp Probe (-4 to 200°F)
TP400	Type K High Temperature Clamp Probe (-4 to 450°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 Pouch Carrying Case (for 421502, 421509)
UA100-240	100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)
See p. 38, 39, and 66 for details and additional temperature probes.	



EXTECH

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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<sup>®</sup> compatible software, RS-232 cable, protective holster, case, and 6 AAA batteries. (Optional temperature probes available on p. 38, 39, and 66)

7	

See desktop or Pocket style Temperature Indicators on p. 57

SPECIFICATIONS	EA15 ₪
Number of Inputs	Dual
Type K °F (°C)	-200 to 1994°F (-150 to 1090°C)
Type J °F (°C)	-200 to 1999.9°F (-150 to 1370°C)
Basic Accuracy	±0.05% rdg
Max. Resolution	0.1°
Datalogging	8800 readings
PC Interface	Yes
CE approved	Yes
Dimensions/Weight	5.91x2.83x1.38" (150x72x35mm)/8.3oz (235g)
Warranty	2 years

Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

## Multi-Channel Thermocouple Thermometers & Datalogger



## SD200 3-Channel Temperature Datalogger

Records data on an SD card in Excel<sup>®</sup> 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<sup>®</sup> format for easy transfer to a PC
- Selectable data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto
- Complete with (6) AAA batteries, 2G SD card, Univeral AC Adaptor, (3) 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 Pt100 $\Omega$  probes

- Displays [T1, T2, T3, T4] or [T1-T2]
- Datalogs up to 20M records using a 2G SD card
- 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
- Built-in RS-232 interface
- 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 20M readings via 2G SD card
- Records readings with date and time stamp
- User programmable sampling rate: 1 to 3600 seconds
- Min/Max and Data Hold functions
- Auto power off with disable function
- Built-in PC interface with optional software
- Complete with 8 AA batteries, twelve general purpose Type K bead wire temperature probes, SD card, and hard carrying case

SD200 N	SDL200 💌	TM500 💌
Triple	Quad	Twelve
-58 to 2372°F (-100 to 1300°C)	-148 to 2372°F (-100 to 1300°C)	-148 to 2372°F (-100 to 1300°C)
_	-148 to 2102°F (-100 to 1200°C)	-148 to 2102°F (-100 to 1150°C)
±(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
0.1°	0.1°/1°	0.1°/1°
20M readings using 2G SD memory card	20M readings using 2G SD memory card	20M data records using a 2G SD card
Optional 407001 Software (see p. 104)	Optional 407001 Software (see p. 104)	_
Yes	Yes	Yes
5.2x 3.1x1.3" (132x80x32mm)/10oz (285g)	7.2x2.9x1.9" (182X73X48mm)/ 17.6oz (500g)	8.9x4.9x2.5" (225x125x64mm)/ 2.1lbs (944g)
2 years	3 years	2 years



## **RHT50 Humidity/Temperature/Pressure Datalogger**





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<sup>®</sup> compatible analysis software; 2 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			

11/21/95/15 42299 3.6V Lithium Battery (pk of 2)

BHT50

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





Monitors Temperature & Humidity42(RHT10) levels. USB plugs into aloPC for data analysis with softwareba

CE

42299 — Replacement long lasting Lithium batteries

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

Humidity/Temperature/Pressure Datalogger

- Model RHT10 datalogs 16,000 Temperature/ 16,000 RH readings; Dew point indication via Windows<sup>®</sup> compatible software; Optional RHT10-SW software for RHT10 to calculate Grains Per Pound (grams per kilogram) to 1120GPP (160g/kg)
   Model TH10 datalogs 32,000 Temperature readings
- Selectable data sampling rate: 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°F/0.5°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<sup>®</sup> compatible software for analysis; 2 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**





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: 2 seconds 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<sup>®</sup> compatible analysis software; 2 year warranty

ORDERING

BHT20

Humidity and Temperature Datalogger

CALIBRATION
 TRACEABLE TO



## **RH520A Humidity and Temperature Chart Recorder**



LabView based 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<sup>™</sup>-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, LabView-based PC software, 100-240VAC 50/60Hz adaptor, and 3 AA batteries; 2 year warranty

## 42280 Humidity and Temperature Datalogger



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

- Programmable from keypad or PC, Selectable data sampling rate, and User programmable audible and visual alarms
- Measurement ranges: 0 to 100% RH and -4 to 144°F(-20 to 70°C); Resolution: 0.1%RH, 0.1°F/°C; Basic accuracy: ±3% RH, ±1°F /0.6°C
- Dimensions/Weight: 4.75x3.5x1.5" (120.7x88.9x38.1mm)/ 5.7oz (163g)
- Complete with Windows<sup>®</sup> compatible software, USB cable, 110V AC adaptor, and four AA batteries; 2 year warranty

|--|

 42280
 Temperature and Humidity Datalogger

 RH300-CAL
 33% and 75%RH Calibration Kit

## 42265/42275 Humidity and Temperature Datalogger Kits



CE

CE



42299 — Replacement long lasting Lithium batteries

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

- **42265** Waterproof (IP65) Temperature (-40 to 185°F /-40 to 85°C) Datalogger Kit records up to 8000 readings
- 42275 Water resistant Humidity (0 to 100% RH) and Temperature (-40 to 185°F / -40 to 85°C) Datalogger Kit records up to 16,000 readings (8,000 readings/parameter)
- Resolutions: 0.1%RH, 0.1°F/°C; Basic accuracy:  $\pm$ 3%RH,  $\pm$ 1°F ( $\pm$ 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 (42260 or 42270) can be programmed
- and data downloaded from one single docking station
- Programmable sampling rate from 1sec to 2hrs plus Hi/Lo limits with alarm indication
- 42265 or 42275 4.9x3.8x2" (123.8x95.3x51mm); 9oz (254g)
- 2 year warranty

# ORDERING 42275 Humidity/Temperature Datalogger Kit with PC Interface 42270 Humidity/Temperature Datalogger for 42275 42265 Temperature Datalogger Kit with PC Interface 42260 Temperature Datalogger for 42265 42299 Replacement 3.6V Lithium batteries (2pk)



## **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





HD500 only

#### ACCESSORIES

USB100 RS-232 to USB Adaptor UA100-240

100-240V AC Adaptor w/4 plugs (US, EU, UK, AU)



NIST traceable certificate Certificate Traceable to NIST.



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N Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

EXTECH



## **RH390** Precision **Hygro-Thermometer Psychrometer**

Highest 2% RH accuracy with Fast **30 second Response Time** 

- · Dual backlit display
- · Simultaneous display of:
  - Humidity/Temperature
  - Humidity/Dew Point
  - Humidity/Wet Bulb
- Fast 30 second response time
- Slim design with rubberized sides for better grip and for one hand operation
- · Complete with carrying case and 9V battery

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with data is available when you order your meter with Look for this symbol **N** on products that offer NIST.

SPECIFICATIONS	RH390 <b>N</b>
Sensor Type	Capacitance
Dew Point	-22 to 199°F (-30 to 100°C)
Wet Bulb	32 to 176°F (0 to 80°C)
Humidity (Basic Accuracy)	0 to 100%RH (±2%RH)
Mixing Ratio	-
Internal Temperature (Basic Accuracy)	-22 to 199°F/-30 to 100°C (±1.8°F/1°C)
External Temperature (Basic Accuracy)	-
IR Temperature (Basic Accuracy)	-
Emissivity	_
Field of View	-
PC Interface	_
Memory/Datalogging	-
CE Approved	Yes
Dimensions/Weight	7.8x1.7x1.3" (200x45x33mm)/7oz (200g)
Warranty	2 years

# **Dew Point/Wet Bulb Psychrometers**



#### RH490 Precision Hygro-Thermometer Psychrometer plus GPP (g/kg)

# Highest 2% RH accuracy with Fast 30 second Response Time

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



#### HD500 Psychrometer + 30:1 InfraRed Thermometer

#### Combination Humidity meter, Type K thermometer, and InfraRed Thermometer

- Built-in IR Thermometer for non-contact surface temperature measurements
- 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<sup>®</sup> 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. 38, 39, and 66 for optional Type K and J Thermocouple probes

RH490 <b>N</b>	HD500 ₪	SDL500 N
Capacitance	Capacitance	Capacitance
-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)
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)
0 to 100%RH (±2%RH)	0 to 100% (±2%RH)	5% to 95% (±3%RH)
0 to 1120 GPP (grains per pound); 0 to 160 g/kg (grams per kilogram)	-	_
-22 to 199°F/-30 to 100°C (±1.8°F/1°C)	-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)
-	Type K: -148 to 2501°F/-100 to 1372°C (±3%)	Type K: -148 to 2372°F /-100 to 1300°C Type J: -148 to 2192°F/-100 to 1200°C ±(0.4% + 1.8°F/1°C)
-	-58 to 932°F/-50 to 500°C (±2% or ±4°F/±2°C)	-
_	0.95 fixed	_
-	30:1	-
_	Yes	_
_	-	20M readings using 2G SD memory card
Yes	Yes	Yes
7.8x1.7x1.3" (200x45x33mm)/7oz (200g)	10x2.9x2" (255x75x50mm)/12.2oz (350g)	7.2x2.9x1.9" (182X73X48mm)/23oz (655g)
2 years	3 years	3 years



# **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.



#### ACCESSORIES

TRACEABLE TO

 RH300-CAL
 33% & 75% RH Calibration Kit for 445580

 UA100-240
 100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)



Danich

#### **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

SPECIFICATIONS	445580 💌
Sensor Type	Capacitance
Humidity	10 to 90%
Dew Point	_
Temperature (Air)	14 to 122°F (-10 to 50°C)
Temperature (IR)	-
Barometric Pressure	-
Basic Accuracy	±5%, ±1.5°
Max. Resolution	0.1%, 0.8°
PC Interface	_
Datalogging	-
CE approved	Yes
Dimensions	5.7x1.2x1" (145x30x25mm)/ 2.3oz (65g)
Warranty	2 years

74 IN Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

# Humidity, Temperature, & Barometric Pressure Meters/Dataloggers



#### 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



#### **SD500** Humidity/ Temperature Datalogger

# Records data on an SD card in Excel<sup>®</sup> format

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



#### SD700 Humidity/ Temperature Datalogger plus Barometric Pressure

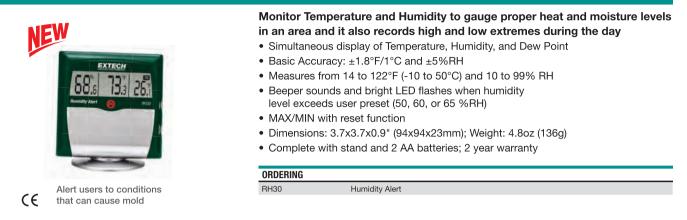
Records data on an SD card in Excel<sup>®</sup> format

- Triple LCD displays Barometric Pressure, Temperature, and Relative Humidity
- Datalogger date/time stamps and stores readings on an SD card in Excel<sup>®</sup> format for easy transfer to a PC
- Selectable data sampling rate: 5 to 600 seconds or Auto
- Complete with 6 AAA batteries, 2G SD card, Universal AC Adaptor, and mounting bracket

RH101	SD500	SD700
Capacitance	Capacitance	Capacitance
10 to 95%	10 to 95%RH	10 to 90%RH
_	-	-
-4 to 140°F (-20 to 60°C)	32 to 122°F (0 to 50°C)	32 to 122°F (0 to 50°C)
-58 to 932°F (-50 to 500°C)	_	-
-		10 to 1100hPa; 7.5 to 825mmHg; 0.29 to 32.48 inHg
±3.5%RH; ±2% or ±4°F/2°C (IR); ±3°F/2°C (Air)	±4%RH, ±1.8°F (±0.8°C)	±4%RH, ±1.8°F (±0.8°C)
0.1%, 0.1°	0.1%, 0.1°	0.1%, 0.1°, 0.1 hPa, 0.1mmHg, 0.01inHg
_	Optional 407001 software (see p. 112)	Optional 407001 software (see p. 112)
-	20M readings using 2G SD memory card	20M readings using 2G SD memory card
Yes	Yes	Yes
5.9x2.95x1.57" (150x75x40mm)/ 7oz (200g)	5.2x3.1x1.3" (132x80x32mm)/ 9.9oz (282g)	5.2x3.1x1.3" (132x80x32mm)/ 9.9oz (282g)
2 years	2 years	2 years



#### **RH30 Hygro-Thermometer**



#### 445703/445715 Big Digit Hygro-Thermometers



445703

CE

445715 with remote probe

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 ±1.8°F/1°C and ±5%RH basic accuracy
- Model 445715 includes remote probe with 18" (457mm) cable and probe with ±1.8°F/1°C and ±4%RH basic accuray; 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)

Optional NIST 445715-NISTL includes certificate of Traceability to NIST at 75%. For Certificate of Traceability to NIST at 2 points (33% and 75%), order 445715-NIST (see p. 144 for ordering information)

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

#### 445814/445815 Humidity Alerts



445815 with remote probe

CE

Optional NIST 445815-NISTL includes Certificate of Traceability to NIST at 75%. For Certificate of Traceability to NIST at 2 points (33% and 75%), order 445815-NIST (see p. 144 for ordering information)

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

- %RH audible and visual alarm alerts when humidity is higher or lower than HI/LO set points, plus Max/Min with reset function
- Simultaneous display of Temperature (14 to 140°F/-10 to 60°C) and Humidity (10 to 99% RH)
- Max resolution: 0.1°, 1%; Basic Accuracy: ±1.8°F/1°C and ±4%RH
- Displays Dew Point temperature
- · Rear calibration adjustment pot for Humidity and Temperature
- Warns when conditions for mold growth exist (bad for health) or air too dry (static)
- Dims: 4.3x3.9x0.78" (109x99x20mm); Wt: 6oz (169g); 1 year warranty
- · Complete with built-in stand, wall mount bracket, sensor and one AAA battery; optional calibration salt bottles (RH300-CAL)
- Model 445814 is designed with built-in Humidity and Temperature sensor
- Model 445815 includes remote probe with 18" (457mm) cable and probe clip on side of meter and offers certificate of calibration traceable to NIST)

ORDERING	
445814	Humidity Alert
445815 N	Humidity Alert II
RH300-CAL	33% & 75% RH Calibration Kit (for 445815)



#### WB200 Wet Bulb Hygro-Thermometer Datalogger



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Combines traditional dry/wet bulb operation with modern electronic circuitry to provide accurate readings and trouble-free operation especially in dusty environments such as greenhouses and paint booths

- Audible and visual alarm alerts when temperature and humidity level is higher or lower than the user programmed High/Low set points
- LCD displays Wet Bulb, Dew Point, and Air Temperature readings (41°F to 122°F /5°C to 50°C) and % Relative Humidity (0.0 to 99.9%RH)
- Resolution: 0.1°F/°C and 0.1%RH; Basic accuracy: ±1°F/±0.6°C; ±3%RH
- Two thermistors provide fast and accurate readings
- Built-in fan provides fast response time
- Datalogger stores100 records that can easily be Recalled on meter display
- Display update rate: 120 seconds
- User programmable datalogging sampling rate from 15 to 60 minutes in 5 minute increments
- Dual color LED indicator for datalogging (Green) and alarm (Red) modes
- Water and Dust resistant construction
- Maximum/Minimum function and Low battery indicator
- Dimensions: 2.8 x 3.1 x 7.0" (71 x 78 x 177mm); Weight: 8.0oz (250g)
- · Complete with four AAA batteries and 100-240V Universal AC adaptor; 2yr warranty

ORDERING WB200

Wet Bulb Hugro-Thermometer Datalogger

# 445702 Hygro-Thermometer Clock



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

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

# **ORDERING** 445702

Hygro-Thermometer Clock

#### 44550 Humidity and Temperature Pen



#### Pocket size for quick and reliable measurements at any location

- Built-in sensors provide simultaneous readings of Relative Humidity (20 to 90%) and Temperature (14 to 122°F/-10 to 50°C) on dual LCD
- Max resolution: 1°, 1%
- Basic Accuracy: ±2°F/1°C and ±5%RH
- Temperature is °C/°F switchable
- Max/Min memory functions for display of highest and lowest readings for both Temperature & Relative Humidity
- "Clear" function key to erase stored Max/Min readings to record new values
- Dimensions: 5.9x0.8x0.7" (150x20x18mm); Weight: 0.7oz (20g)
- 2 year warranty
- · Complete with pocket clip and one LR44 button battery

# **ORDERING** 44550

Humidity and Temperature Pen



# Extech Redefines Heat Index Meters



Extech's meters monitor Heat Index during hot humid days to prevent heat stroke during outdoor activities, sporting events or, indoor workplace. Heat Index measures how hot it feels when Humidity is combined with temperature, air movement, and radiant heat. Wet Bulb Globe Temperature (WBGT) considers the effects of temperature, humidity, and direct or radiant sunlight

#### ACCESSORIES

407752 Software and Cable for HT30



# 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

SPECIFICATIONS	HW30 💌
Heat Index	70 to 122°F (22 to 50°C)
Temperature	14 to 122°F (-10 to 50°C)
Humidity	1 to 99%
Dew Point	_
Wet Bulb	-
Wet Bulb Globe Temperature (WBGT)	_
Air Velocity	_
ft/min	-
m/s	_
km/h	_
mph	_
knots	_
Windchill	_
Timing capacity	9hrs, 59mins, and 59secs
Basic Accuracy	±5 seconds/day, ±5% RH, ±3°F (1.5°C)
CE approved	Yes
Dimensions/Weight	7.6x0.8x1.8" (192x30x45mm)/ 3.8oz (108g)
Warranty	2 years

78 Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.



# Heat Index and Heat Stress WBGT Meters

# **NEW**

## **RH25** Heat Index Psychrometer

Convenient pen style psychrometer monitors Heat Index during hot humid days

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

# NEW



#### AN25 Heat Index Anemometer

Convenient pen style Anemometer monitors Airflow and Heat Index during hot humid days

- Built-in multiparameter sensors measure Air Velocity,Heat Index, WGBT, Humidity, Ambient Temperature, Dew Point, Wet Bulb, Temperature, and Windchill
- Mini low friction vane meausures 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 (5sec/10sec/13sec)
- Data Hold
- Auto power off with disable
- Complete with CR2032 battery



## HT30 Heat Stress WBGT Meter

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

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

RH25	AN25	HT30 <b>N</b>
-50.8 to 401°F (-46 to 205°C)	-31 to 401°F (-35 to 205°C)	_
-4 to 122°F (-20 to 50°C)	5 to 122°F (-15 to 50°C)	32 to 176°F (0 to 80°C) - Black Globe
0 to 99.9%RH	5.0 to 95.0%RH	0 to 100% RH
-108.4 to 122°F (-78 to 50°C)	-103 to 122°F (-75 to 50°C)	-
5 to 122°F (-15 to 50°C)	5 to 122°F (-15 to 50°C)	
-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)
_		_
-	80 to 4920ft/min	-
-	0.4 to 25m/s	-
-	1.4 to 90.0km/h	-
-	0.9 to 55.9mph	-
-	0.8 to 48.6 knots	-
-	5 to 122°F (-15 to 50°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)
Yes	Yes	Yes
5.5x1.4x0.7" (140x35x18mm)/ 1.8oz (50g)	6x1.6x0.7" (152x40x18mm) / 2.1oz (60g)	10x1.9x1.1" (254x49x30mm)/4.8oz (136g) Ball: 1.6" (40mm) dia, 1.4" (35mm) high
2 years	2 years	2 years



# 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	
MO200-PINS	Replacement pins for MO210 (50 pins)
MO220-PINS	Replacement pins for MO220 (50 pins)
MO750-P	Replacement Moisture Probe for MO750
UA100-240	100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)



# M0210 Pocket Size Moisture Detector

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

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



# M0220 Wood Moisture Detector

Specifically designed for monitoring moisture in wood

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

SPECIFICATIONS	M0210	M0220
Sensor Type	Contact Pins	Contact Pins
Moisture Content	6 to 44% (Wood); 0.2 to 2.0% (Materials)	6 to 44% (Wood)
Humidity Content	_	-
Max. Resolution	1% (Wood) / 0.1% (Materials)	±1% (Wood)
Temperature (Air)	_	-31 to 176°F (-35 to 80°C)
Temperature (Type K)	-	-
Dew Point	_	_
PC Interface	-	-
Datalogging	_	_
CE approved	Yes	Yes
Dimensions	5.1x1.6x1.0" (130x40x25mm)	7x1.9x1.2" (180x50x31mm)
Weight	3.5oz (100g)	6.1oz (175g)
Warranty	2 years	2 years

80 N Indicates produce

N Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

# **Specialty Moisture Meters and Humidity Content Meter**



## M0257 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



# M0750 Soil Moisture Meter

Integrated 8" (20cm) Heavy Duty Moisture Probe monitors the moisture level in soil

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



## SDL550 Humidity Content Meter

23.7" (600mm) Heavy Duty Stainless Steel Probe measures Humidity in Grain, Corn, Rice, Cotton, Paper, and other materials

- Measures Humidity Content, Air Temperature, Dew Point and Type J/K Temperature
- Humidity content: 10 to 95%
- 1sec to 3600sec sampling rate (approx.)
- Date/time stamps and stores readings on an SD card in Excel<sup>®</sup> format for easy transfer to a PC
- Dual display simultaneously displays Humidity Content and Temperature
- Min/Max and Data hold
- Auto power off with disable
- Complete with Humidity Content Probe with 4.9ft (1.5m) cable, sensor cap, SD card and 6 AA batteries; Optional AC Adaptor UA100-240, also see pages 38, 39, and 66 for optional Type K and J Thermocouple probes

M0257	M0750	SDL550 <b>N</b>	SPECIFICATIONS
Pinless	Integrated Contact Probe	Stainless Steel	Sensor Type
0.0 to 100.0	0 to 50%	-	Moisture Content
-	_	10 to 95%RH	Humidity Content
0.1	0.1%	0.1%	Max. Resolution
_	_	32 to 122°F (0.50°C)	Temperature (Air)
-	-	Type J: -148 to 2192°F (-100 to 1200°C) Type K: -148 to 2372°F (-100 to 1300°C)	Temperature (Type J/K)
_	_	-13.5 to 120.1°F (-25.3 to 49.9°C)	Dew Point
_	_	Optional 407001 software (see p. 104)	PC Interface
_	_	20M readings using 2G SD memory card	Datalogging
Yes	Yes	Yes	CE approved
9.25x2.5x1.1" (235x63x28mm)	14.7x1.6x1.6" (374x40x40mm)	Meter: 7.2x2.9x1.9" (182X73X48mm) Probe: 23.7" (600mm) x 0.4" (10mm) dia	Dimensions
7.7oz (218g)	9.4oz (267g)	Meter: 23.1oz (655g); Probe: 16.3oz (461g)	Weight
2 years	2 years	3 years	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. And available MeterLink<sup>™</sup> technology transmits readings wirelessly to a FLIR infrared camera for accelerated diagnostics.



MO260/MO265 and MO290/ MO295 only.

ACCESSORI	IES
MO-P1	Replacement Moisture pin probe with 30" (76.2cm) cable & RJ45 Connector (for MO265 & MO270)
MO200-PINS	50 Replacement pins
UA100-240	100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)
Specialty Prob	oes for MO290, MO295, & MO300 (see p. 84)
MO290-P	Replacement Moisture pin probe with 30" (76.2cm) cable & RJ45 Connector
MO290-EP	Extension Probe with 30" (76.2cm) cable and RJ45 connector. Includes 4 pins
MO290-HP	Hammer Probe with 30"(76.2cm) cable & RJ45 connector. Includes 4 pins (1.6"/4cm pin depth)
MO290-BP	Moisture Baseboard Probe (Dual fixed flat pins, 4.1"/10.5cm pin length), 30" (76.2cm) cable & RJ45 connector
Telescoping H	andles for MO265 & MO270 (see p. 85)
EXT-1	4ft (1.2m) Telescoping Handle
EXT-3	9.8ft (3m) Telescoping Handle
EXT-5	16.4ft (5m) Telescoping Handle



EXTECH



Optional 1m (EXT-1), 3m (EXT-3), or 5m (EXT-5) telescoping handle for MO265



# M0280 Pinless Moisture Meter

Non-invasive moisture content of building materials and wood

- Quickly indicates the moisture content of materials
- Select from 10 wood types and measurement ranges
- LCD displays % moisture of wood or material being tested
- Measurement depth to 0.75" 19mm) below the surface
- Automatic internal test and calibration
- Electro-magnetic testing technology
- · Low battery indication
- Complete with 9V battery and case

SPECIFICATIONS	M0280
Pinless Moisture	0 to 99% (limited by wood type)
Pin-type Moisture (remote probe)	-
Relative Humidity	-
Temperature (Air)	-
Temperature (IR)	-
Max Resolution	0.1%
Memory	-
CE approved	Yes
Dimensions/Weight	7.6x0.8x1.8" (192x30x45mm)/ 3.8oz (108g)
Warranty	2 years



N Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

# **Multifunction Moisture Meters**



M0260 Combination Pin/Pinless Moisture Meter

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

- %WME (wood moisture equivalent) pin moisture reading
- Relative pinless moisture reading for non-invasive measurement
- Digital LCD readout with backlighting feature and tri-color LED bargraph
- Quickly indicates the moisture content of materials
- Pinless measurement depth to 0.75" (22mm) below the surface
- Electro-magnetic sensing technology
- Built-in calibration check
- Replaceable pins
- Low battery indication
- Cap protects pins during storage and can be snapped on to the side of the housing during use
- Complete with 9V battery, replacement pins (MO200-PINS), protective cap, and case



M0265 Combination Pin/Pinless Moisture Meter with Remote Probe

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

- Remote pin probe included to measure moisture in difficult to access areas
- %WME (wood moisture equivalent) pin moisture reading
- Relative pinless moisture reading for non-invasive measurement
- Digital LCD readout with backlighting feature and tri-color LED bargraph
- Quickly indicates the moisture content of materials
- Pinless measurement depth to 0.75" (22mm) below the surface
- Electro-magnetic sensing technology
- Built-in calibration check
- Low battery indication
- Storage cap protects pins
- Optional Telescoping Handle extends to 4ft (1.2m), 9.8ft (3m), or 16.4ft (5m) for easy reach (see p. 85)
- Complete with 9V battery, replacement pins (MO200-PINS), protective cap, remote pin probe (MO-P1) and case



# M0290/M0295 Pinless Moisture Meters + IR Thermometer

Multi-parameter Moisture meters with built-in IR Thermometer

- Pinless measurement depth to 0.75" (19mm) below the surface
- Remote Pin probe measures
   moisture in hard to reach areas
- IR thermometer measures non-contact surface temperature; 8:1 distance to spot ratio with 0.95 fixed emissivity
- Programmable high/low Moisture
   and Humidity alarms
- Calculation of differential Temperature (IR - DP) to determine condensation point
- Min/Max, Data Hold, Auto power off and low battery indication
- Complete with remote pin moisture probe (MO290-P), 9V battery, and case; Optional Universal AC adaptor UA100-240. (See p. 84 for specialty moisture probes)

#### Model MO295 Additional Features

- Memory stores 20 readings
- Displays trending bargraph
   of moisture levels

See p. 84 for Moisture Meter with Bluetooth® feature compatible with Android devices

M0260	M0265	■ M0290   I 🔺 M0295 ℕ
0 to 99 (relative)	0 to 99 (relative)	0 to 99.9 (Relative)
6.0 to 94.8% WME	6.0 to 94.8% WME	0 to 99.9%
-	_	0 to 99.9% RH
-	-	-20 to 170°F (-29 to 77°C)
-	_	-4 to 392°F (-20 to 200°C)
0.1/0.1%	0.1/0.1%	0.1%, 0.1°F/°C
-	_	■ No   ▲ 20 readings
Yes	Yes	Yes
8x2.3x1.7" (203x58.4x43.2mm)/ 7.2oz (204g)	8x2.3x1.7" (203x58.4x43.2mm)/ 7.2oz (204g)	6.5x2.8x1.5" (165x70x38mm)/ 7.4oz (210g)
2 years	2 years	2 years



#### M0300 Moisture Hygro-Thermometer for Android<sup>™</sup>

oogle play

Transmit readings to user's

Extech MO300 ExView<sup>™</sup> App at play.google.com.

Android smartphones &

tablets. Download the



View key environmental readings taken by the MO300 remotely on your Android device and datalog using the free Extech Android app.

- Integrated Bluetooth® connects with user's own Android devices to transmit readings for remote viewing
- Works with free Android App to display large, easy-to-read values for: Moisture, Humidity, Temperature, Grains Per Pound (GPP)/(g/kg), Dew Point, Vapor Pressure, and condensation point, up to 30' (10m) away
- Quickly indicates the moisture content of multiple wood types and other building materials with Pinless technology without damaging the surface; Remote Pin-type probe allows for contact moisture readings
- Manually store/recall up to 20 labeled readings or datalog up to 50K readings using the Android app
- · Easy to read, large dual display with automatic backlight feature and Fast Analog Bargraph
- Pinless moisture measurement depth to 0.75" (19mm) below the surface
- Programmable high/low Moisture/Humidity alarms
- Designed with an IR circuit to measure non-contact surface temperature • Automatic calculation of differential Temperature
- (IR DP) to determine condensation point
- Min/Max, Data Hold, and Auto power off
- Complete with pin moisture probe (MO290-P) with 3ft/0.9m cable, 9V battery and pouch case; 2 year warranty

#### SDECIEICATIONS

Pinless Moisture (Non-Penetrating)	0 to 99.9 (Relative); Depth up to 0.75" (19mm)
Pin-type Moisture (probe included)	0 to 99.9%
Max Resolution	0.1, 0.1°F/°C
Humidity	0 to 100%RH
Temperature (Air) / (InfraRed)	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)
Field of View	8:1 Distance to Target ratio
Emissivity	0.95 fixed
Dimensions/Weight	6.5x2.8x1.5" (165x70x38)/7.4oz (210g)

#### ORDERING

MO300 N Moisture Hygro-Thermometer for Android™

See below for specialty Moisture Probes

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ENTECH



Measure moisture with non-invasive pinless technology or with remote pin probe and non-contact surface temperature with built-in IR Thermometer

# **Moisture Probes and Pins**



MO290-EXT

MO290-BP


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

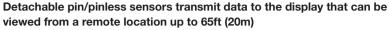
· Specialty Moisture probes with RJ45 connector compatible with Extech Moisture Meters MO290, MO295, and MO300

ORDERING (Below Probes for M0290, M0295, and M0300)		
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" 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 for Model MO290/295 Moisture Meter 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	



## M0270 Wireless Pin/Pinless Moisture Meter with BlueTooth®





- Full color graphical display
- Detachable sensors transmit data to the display that can be viewed from a remote location up to 65ft (20m) from the measurement point
- · Connect to multiple sensors on individual channel
- Trending Mode allows for recording and datalogging while showing graphical representation of live rea ding for fast scanning of large areas
- Wireless sensor affixes to telescoping handle (4ft/1.2m) for measurements in ceilings or in hard to reach areas; Optional 9.8ft (3m) and 16.4ft (5m) handles available
- %WME (wood moisture equivalent) pin moisture reading
- Visual and audible High/Low alarm modes
- Pinless measurement depth to 0.75" (22mm) below the surface
- 2 point calibration check built into protective cap
- · Cap protects pins during storage and snaps on to the side when in use
- Complete with 3.7V rechargeable Li-Polymer battery, wireless moisture sensor, external pin probe, replacement pins, telescoping handle (4ft/1.2m), AC adaptor, protective cap, 2G SD card, and hard case; 2 year warranty

#### SPECIFICATIONS

0. 20. 10. 110.11		
Pinless Range/ Depth	0 to 99.9 (relative)/ 0.75" (22mm)	
Pin Range	6.0 to 99.9%	
Transmission Frequency	2.4GHz (pin/pinless sensor to display)	
Transmission Range	65ft (20m) unobstructed view	
Dimensions/ Weight	8x2.3x1.7" (203x58.4x43.2mm)/ 7.2oz (204g)	

#### ORDERING

onbennia	
MO270	Combination Pin/Pinless Moisture Meter and wireless sensor
MO270-X	Optional Wireless Moisture Sensor
EXT-1	4ft (1.2m) Telescoping Handle
EXT-3	9.8ft (3m) Telescoping Handle
EXT-5	16.4ft (5m) Telescoping Handle
MO200-PINS	50 Replacement Pins
MO-P1	Moisture pin probe

C€F©













#### **M0290-RK** Water Restoration Contractor Kit



#### A complete solution for the Restoration Contractor

- Use combination moisture meter/thermal hygrometer to capture all ambient conditions as well as moisture levels in one meter. Includes essential probes to measure moisture levels under baseboards, in between walls, and in hard wood and plywood subfloors. Use USB Humidity/ Temperature datalogger for GPP calculations
- Kit includes: MO290, Pin Probe, Hammer Probe, Deep Wall Probe, and Baseboard Probe for contact moisture readings (see p. 84 for details)
- · Supplied in a rugged hard carrying case
- Model MO290 Pinless Moisture Psychrometer + IR Thermometer monitors moisture in wood and building materials with no surface damage. Built-in IR Thermometer for non-contact temperature; Fixed probe measures Air Temperature, RH, Grains Per Pound (GPP), Dew Point (DP), & Vapor Pressure (see p. 83)
- Model RHT10/RHT10-SW Humidity/Temperature USB Datalogger + GPP (g/kg) Calculation datalogs 16,000 data (RH and Temperature) USB interface and software included (see p. 70).

#### ORDERING

MO290-RK Water Restoration Contractor Kit

#### M0260-RK Restoration Kit



# Diagnose the amount of moisture content in buildings and measure accurate Humidity readings of ambient room conditions and GPP calculations

- Kit includes MO260 and RH490 meters and is supplied in a hard carrying case that provides protection and organization for the meters and accessories whenever they are needed
- Model MO260 Combination Pin/Pinless Moisture Meter monitors moisture in wood and other building material with virtually no surface damage (see p. 83 for details)
- Model RH490 Precision Hygro-Thermometer measures Temperature, Humidity, Dew Point, Wet Bulb, and Mixing Ratio in GPP (grains per pound/grains per kilogram) - (see p. 73 for details)

ORDERING

MO260-RK Restoration Kit

# **M0280-RK Restoration Contractor's Kit**



#### A complete solution for the Restoration Contractor

- Use pin and pinless meters to better diagnose the amount of moisture content. Thermal Hygrometer provides fast, accurate readings of ambient room conditions and GPP (g/kg) calculations
- Supplied in a rugged hard carrying case
- Model MO280 Pinless Moisture Meter displays 0 to 99% moisture (select from 10 wood types). Measurement surface depth to 0.75" (22mm) with virtually no surface damage (see p. 82).
- Model MO220 Wood Moisture Meter with integral pins or remote pin probe displays 6 to 99.9% moisture level (8 wood types with calibrations for approx. 170 species of wood) (see p. 80).
- **Model RH490** Precision Hygro-Thermometer with 2%RH accuracy and fast 30sec RH response time. Measures Humidity, Temperature, Dew Point, Wet Bulb, GPP and g/kg (see p. 73).
- Model RHT10/RHT10-SW Humidity/Temperature USB Datalogger + GPP (g/kg) Calculation datalogs 16,000 data (RH and Temperature). USB interface and software included (see p. 70).

ORDERING

Restoration Contractor's Kit



86



#### **M0290-EK Environmental Test Kit**



#### Specifically designed for Energy and Weatherization Auditors

- Helps monitor airflow, moisture levels, and provides inspection equipment to find energy loss in hard to see places
- Supplied in a rugged hard carrying case
- Model MO290 Pinless Moisture Psychrometer + IR Thermometer monitors moisture in wood and building materials with no surface damage. Built-in IR Thermometer for non-contact temperature; Fixed probe measures Air Temperature, RH, Grains Per Pound (GPP), Dew Point (DP), & Vapor Pressure (see p. 83)
- Model AN200 CFM/CMM Thermo-Anemometer + IR designed with large backlit LCD to display Airflow or Air velocity reading plus built-in IR Thermometer for non-contact temperature measurements (see p. 90)
- **Model CO250** Indoor Air Quality CO<sub>2</sub> Meter measures Carbon Dioxide, Temperature, Humidity, Dew Point and Wet Bulb and calculates statistical 8hr and 15 minute time weighted averages. RS-232 interface, data acquisition software and cable included to analyze data on your PC (see p. 98)
- Model BR200 Video Borescope/Wireless Inspection Camera with 17mm camera and 39" (1m) waterproof (IP67) flexible gooseneck. Wireless 3.5" Color Monitor can be viewed from up to 32ft (10m) from the measurement point. MicroSD memory card included for storing images (JPEG) or video (AVI) to view on your PC (see p. 120)

#### ORDERING

MO290-EK Environmental Kit

#### M0280-KH2 Home Inspector Kits



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

- · Specifically designed for home inspection professionals
- Supplied in an attractive storage case
- Dims: 9.5x6.8x2.8" (241x173x71mm); Wt: 1.8lbs (0.7kg)
- Model MO280 Pinless Moisture Meter displays 0 to 99% moisture (select from 10 wood types). Measurement surface depth to 0.75" with virtually no surface damage (see p. 82).
- Model 42500 IR Thermometer for testing HVAC system. Measures from -4 to 500°F (-20 to 260°C) (see p. 60)
- Model 39240 Waterproof Stem Thermometer for testing hot water heaters. Measures temperature from -40 to 392°F (-40 to 200°C) (see p. 57)

#### ORDERING

MO280-KH2 Home Inspector Kit

# **M0280-KW** Water Damage Restoration Kit



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

- Specifically designed for water damage restoration contractors
- Supplied in an attractive storage case
- Dims: 9.5x6.8x2.8" (241x173x71mm); Wt: 1.8lbs (0.7kg)
- Model MO280 Pinless Moisture Meter displays 0 to 99% moisture (select from 10 wood types). Measurement surface depth to 0.75" (22mm) with virtually no surface damage (see p. 82).
- Model RH490 Precision Hygro-Thermometer with 2%RH accuracy and fast 30sec RH response time. Measures Humidity, Temperature, Dew Point, Wet Bulb, GPP and g/kg (see p. 73).
- Model MO210 Pocket Moisture Meter measures moisture of wood or other building materials displaying both digital and graphical readings (see p. 80).

#### ORDERING

MO280-KW Water Damage Restoration Kit



# **Go Beyond Airflow Measurements**

Extech's compact multifunction environmental meters couple all-in-one versatility with accurate diagnostics. From solving HVAC problems to checking outdoor UV conditions, Extech helps you get results with fewer tools.







**IFUNCTION** METERS

ACCESSO	nieð
45116	Mini Impeller (2pk) for 45118
45156	Mini Impeller (2pk) for 45158
EN100-TP	RTD Temperature probe 14 to 212°F/-10 to 100°C
EN100-V	Mini impeller (2 pk) for EN100 and EN150
TR100	Tripod
CA895	Small Vinyl Pouch Case for 45118, 45158
UA100-240	100-240V AC Adaptor w/ 4 plugs (US, EU, UK, AU)



# 45118/45158 **Mini Thermo-Anemometers**

3-in-1 or 5-in 1 meters

- Replaceable low friction vane
- · 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
- Water resistant housing floats
- Complete with CR2032 lithium battery and 43" (1.09m) lanyard 45158 Additional Features
- Measures %RH and Dew Point



#### **AN25** Heat Index Anemometer

7-in-1 meter

- · Heat Index measures how hot it feels when Humidity is combined with temperature, air movement, and radiant heat; Wet Bulb Globe Temperature (WBGT) considers the effects of temperature, humidity, and direct or radiant sunlight
- MIn/Max/Average (5sec/10sec/13sec)
- · Data Hold and Auto power off
- · Low friction mini vane
- · Complete with CR2032 battery



Using optional tripod TR100

SPECIFICATIONS	■ 45118   ▲ 45158	AN25
ft/min (res.)	100 to 5500 (20)	80 to 4920 (1)
m/s (res.)	0.5 to 28 (0.1)	0.4 to 25 (0.1)
km/h (res.)	1.8 to 100.6 (0.7)	1.4 to 90.0 (0.1)
MPH (res.)	1.1 to 62.5 (0.2)	0.9 to 55.9 (0.1)
knots (res.)	1.0 to 54.3 (0.3)	0.8 to 48.6 (0.1)
Beaufort Force (res.)	1 to 17 (1)	-
Air Volume CFM/CMM	_	_
Temperature	0 to 122°F (0.1°), -18 to 50°C (0.1°)	5 to 122°F, -15 to 50°C (0.1°)
Relative Humidity (res.)	■ No   ▲ 10% to 95% (1%)	5.0 to 95.0% (0.1%)
Heat Index	-	-31 to 401°F (-35 to 205°C)
Wet Bulb	-	5 to 122°F (-15 to 50°C)
Dew Point	■ No   ▲ 32 to 122°F (0 to 50°C)	-103 to 122°F (-75 to 50°C)
Light Level	-	-
UV Level	-	-
Sound Level (res.) - A weighting	-	-
Basic Accuracy		
Airflow	±3% of reading	±3% FS
Temperature/Relative Humidity	■ ±1.8°F, ±1°C   ▲ ±1.8°F, ±1°C/±5%RH	±2°F, ±1°C/ ±3%RH
Light/Sound	-	-
CE approved	Yes	Yes
Dimensions/Weight	5.25x2.75x0.75" (133x70x19mm)/ 3oz (95g)	6x1.6x0.7" (152x40x18mm) / 2.1oz (60g)
	Vane: 1" (26mm)D	Vane: 1" (25.4mm)D
Warranty	2 years	2 years



88 N Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

#### Thermo-Anemometers/Environmental Meters



EN100 EN150

#### 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 212°F/100°C)
- EN100 Additional Features • Measures light level with Auto-rotating display \*EN150 Additional Features
- Measures UV light level



#### 45170 Environmental Meter

#### 4-in-1 meter

- Auto-rotating display
- Low friction vane wheel
- Capacitance humidity sensor
- Type K input (Probe sold
- separately see p. 38, 39, & 66)Utilizes precision photo
- diode and correction filter
- MAX/MIN and Data hold
- Complete with wrist strap and 9V battery



#### 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. 38, 39, & 66)
- 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

■ EN100   ▲ EN150	45170	EN300	SPECIFICATIONS
80 to 3940 (1)	80 to 5910 (10)	80 to 5910 (1)	ft/min (res.)
0.4 to 20 (0.1)	0.4 to 30 (0.1)	0.4 to 30 (0.1)	m/s (res.)
1.4 to 72 (0.1)	1.4 to 108.0 (0.1)	1.4 to 108.0 (0.1)	km/h (res.)
0.9 to 45 (0.1)	0.9 to 67.0 (0.1)	0.9 to 67.0 (0.1)	MPH (res.)
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.)
0.847 to 1,271,300CFM/0.024 to 36,000CMM	_	-	Air Volume (CFM/CMM)
32 to 122°F (0 to 50°C)/15 to 111°F (-9 to 44°C)	32 to 122°F (0.1°), 0 to 50°C (0.1°)	32 to 122°F (0.1°), 0 to 50°C (0.1°)	Temperature
10 to 95% (0.1%)	10 to 95% (0.1%)	10 to 95% (0.1%)	Relative Humidity (res.)
32 to 212°F (0 to 100°C)	-	-	Heat Index
22.3 to 120.2°F (-5.4 to 49.0°C)	_	-	Wet Bulb
-13.5 to 120.2°F (-25.3 to 49.0°C)	-	-	Dew Point
■ 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
■ No   ▲ 0 to 1999µW/cm <sup>2</sup> (2 to 20mW/cm <sup>2</sup> )	-	-	UV Level
-	_	35 to 130dB (0.1dB)	Sound Level (res) - A weighting
			Basic Accuracy
±3% FS	±3% FS	±3% FS	Airflow
±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
■ No   ▲ Light: ±5% of reading	Light: ±5% of reading	Light: ±5% of reading/ Sound: ±1.4dB	Light/Sound
Yes	Yes	Yes	CE approved
6.1x2.4x1.3" (156x60x33mm)/ 5oz (160g)	6.1x2.4x1.3" (156x60x33mm)/ 5oz (160g)	6.1x2.4x1.3" (156x60x33mm)/ 5oz (160g)	Dimensions/Weight
Vane: 1.2" (30.5mm)D	Vane: 1.2" (30.5mm)D	Vane: 1.2" (30.5mm)D	
2 years	2 years	2 years	Warranty



# 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/HD300 only.





# 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 also features built-in IR Thermometer

Thermo- Anemometers





NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** on products that offer NIST.



SPECIFICATIONS	■ AN100 <b>N</b> I 🔺 AN200 <b>N</b>
Air Velocity (Max Res.)	
ft/min	80 to 5900 (1)
m/sec	0.4 to 30.00 (0.01)
km/h	1.4 to 108.0 (0.1)
MPH	0.9 to 67.0 (0.1)
knots	0.8 to 58.0 (0.1)
Temperature (Max Res.)	14 to 140°F/ -10 to 60°C (0.1°)
Temperature (IR)	■ No   ▲ -58 to 500°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)
Air Flow (CMM = m <sup>3</sup> /min)	■ 0 to 9999CMM (1)   ▲ 0 to 999,999CMM (0.1)
Basic Accuracy	±3%rdg; ±2°F (±1°C)
PC Interface	-
Datalogger	_
CE approved	Yes
Dimensions/Weight	7x2.9x1.3" (178x74x33mm)/1.6lbs (700g)
Warranty	2 years

90

Noticates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

# Vane and Hot Wire Thermo-Anemometers



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, builtin stand, case, and 9V battery



# **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. 104
- Complete with telescoping probe with 5.5ft (167.6cm) cable, and four AA batteries



# AN500 Hot Wire CFM/CMM Thermo-Anemometer

New sensor technology with ATC for accurate in-duct Air Velocity measurements with changing air temperatures

- Reads Air Velocity and Temperature on dual display
- Calculates CMM/CFM based on adjustable duct shape and size
- Slim sensor (8mm diameter) fits easily in 3/8" holes and Telescoping probe extends to 7ft (2.1m)
- Sensor cover for Zero Adjustment and storage
- Adjustable parameters for Altitude and GAIN
- Memory stores 36 readings
- Min/Max/Ave, Data hold and Auto Power off with disable
- Includes probe with cable, 100V-240V AC Universal Adaptor w/4 plugs, 6 x 1.5V AA batteries, and hard case

HD300 <b>N</b>	407119 <b>N</b>	AN500 N
80 to 5900 (1)	40 to 3346 (1)	40 to 3940 (1)
0.4 to 30.00 (0.01)	0.2 to 17 (0.1)	0.2 to 20 (0.01)
1.4 to 108.0 (0.1)	0.7 to 61.2 (0.1)	0.7 to 75 (0.1)
0.9 to 67 (0.1)	0.9 to 38.0 (0.1)	0.5 to 45 (0.1)
0.8 to 58.0 (0.1)	0.4 to 33.0 (0.1)	0.4 to 40 (0.1)
14 to 140°F/-10 to 60°C (0.1°)	32 to 122°F (0.1°)/ 0 to 50°C (0.1°)	32 to 140°F (0.1°)/ 0 to 60°C (0.1°)
-58 to 932°F/-50 to 500°C (0.1°/1°)	-	-
0 to 999,900CFM (0.001)	0 to 999,900CFM (0.001)	0 to 999,999CFM (0.01)
0 to 999,900CMM (0.001)	0 to 999,900CFM (0.001)	0 to 999,999CFM (0.01)
±3%rdg; ±4°F (2°C)	±2%rdg; ±1.5°F (±0.8°C)	±3%rdg; ±2°F (±1°C)
Yes	Optional 407001 Software (see p. 104)	-
Directly to PC using software	-	-
Yes	Yes	Yes
8x3x1.9" (203x75x50mm)/12.2oz (350g)	7x2.9x1.3" (178x74x32mm)/1.1lbs (482g)	7.1x2.8x1.3" (180x72x32mm)/12.5oz (355g)
3 years	3 years	2 years



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



**Vane Versus Hot Wire** HVAC and mechanical contractors often contact us to ask whether they should purchase a vane (propeller) or hot wire anemometer. 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. 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<sup>®</sup> 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. 38, 39, and 66 for optional Type K and J Thermocouple probes); 3 year warranty

#### SDL300 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 Metal 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	SLD350
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 = ft <sup>3</sup> /min)	_	_	0 to 1,907,000CFM
Air Flow (CMM = m <sup>3</sup> /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)
Common Features			
Temperature (Type J/K)	J: -148 to 2192°F (-100 to	1200°C)/K: -148 to 2372°F (	-100 to 1300°C)
PC Interface	Optional 407001 Software (see p. 112)		
Datalogging	20M readings using 2G SE	20M readings using 2G SD memory card	
Dimensions/Weight	7.2x2.9x1.9" (182X73X48n	nm)/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)



CALIBRATION NIST



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



AN320



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

- Fast responding sensors measure Air velocity and Ai
- 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 measurments for these common duct sizes; Adaptor size: Round 8.26" (210mm) and Square 13.6" (346mm)
- Complete with four AAA batteries and hard case; 2 year warranty AN310 Additional Functions:
- 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	ANL310	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" (269x106x51n	nm) / 7oz (200g)	

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

# AN340 CMM/CFM Anemometer/ Psychrometer Datalogger



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<sup>®</sup> compatible software, USB cable, 6 AAA batteries, and hard carrying case; 2 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 Anemome	Mini Vane CMM/CFM Anemometer/ Psychrometer Datalogger	





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



CE

# 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; 2 year warranty

#### SPECIFICATIONS

Particle Size Channels	0.3, 0.5, 1.0, 2.5, 5.0, 10µm
Flow Rate	0.1ft3 (2.83L/min) controlled by internal pump
Count Modes	Cumulative, Differential, Concentration
Counting Effeciency	50% @ 0.3µm; 100% for particles>0.45
Coincidence Loss	5% @ 2,000,000 particles per ft3
Air Temperature	-14 to 140°F (-25 to 60°C); Accuracy:±2°F/1°C
Relative Humidity	0 to 100%RH; Accuracy:±3%RH (40% to 60%RH)
Dew Point/ Wet Bulb	32 to 122°F (0 to 50°C)
Dimensions/Weight	9.4 x 3 x 2.2" (240 x 75 x 57mm)/1.26lbs (570g)

#### ORDERING VPC300

0 Video Particle Counter



CALIBRATION NST



#### **RD300 Refrigerant Leakage Detector**



(6

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; 2 year warranty

#### ORDERING

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



#### EZ40 EzFlex<sup>™</sup> 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; 2 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

ExFlex™ Combustible Gas Detector

#### FG100 Combustible Gas Leak Detector



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

- Detects flammable gases: Liquefied Natural Gas (LNG) and Liquefied Propane Gas (LPG)
- · Highly sensitive detection circuitry with audible and visual alarm
- · LED indicators for gas leakage and static 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

Combustible Gas Leak Detector



## FM300 Desktop Formaldehyde (CH<sub>2</sub>0 or HCH0) Monitor



Measures Formaldehyde (CH <sub>2</sub> O or HCHO) concentration, Air Temperature &
Humidity with user settable audible alarm

- Simultaneously displays Formaldehyde concentration, Air Temperature, and Relative Humidity readings with date (Year, Month, Day) and time
- 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
- · Complete with Universal AC adapter (UA100-240) & multiple plug types; 2yr warranty

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 EM300

Desktop Formaldehyde Monitor

# **C050** Desktop Carbon Monoxide (CO) Monitor



# Measures Carbon Monoxide (CO) concentration, Air Temperature & Humidity with extra loud beeping alarm (>85dB sound level at 3 meters away)

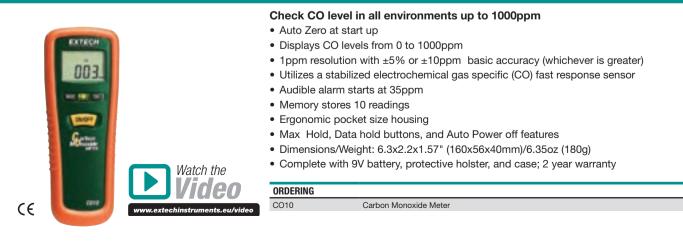
- Visibly bright LED (green & red) indicates indoor CO warning level
- Extra loud audible beeping alarm level meets UL2013 Standard (>85dB @ 3 meters); defaults alarm threshold at 30ppm CO level (user adjustable)
- Displays Date (Year, Month, Day) and time; Max function for CO readings
- Internal memory for manually storing up to 99 readings with easy recall function
- Complete with Universal AC adapter (UA100-240) & multiple plug types; 2yr warranty

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Carbon Monoxide (CO)	0 to 999ppm	1ppm	±2ppm
Temperature (Air)	14 to 140°F (-10 to 60°C)	0.1°F/°C	±1.2°F/0.6°C
Relative Humidity	10 to 90%RH	0.1%RH	±5%RH @ 25°C
Dimensions/Wt	6.1 x 3.4 x 3.2" (155 x 87 x 81mm)/ 5.8oz (165g)		
ORDERING			

CO50

Desktop Carbon Monoxide CO Monitor

# **C010** Carbon Monoxide (CO) Meter



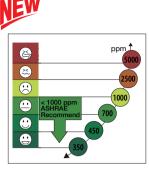
CALIBRATION NIST

96



#### **CO220** Desktop Indoor Air Quality CO<sub>2</sub> Monitor





Six facial icons indicating  $CO_2$  concentration level for indoor air quality

Measures Carbon Dioxide (CO<sub>2</sub>), Air Temperature and Humidity with useradjustable visual and audible alarm plus calculates Dew Point and Wet Bulb

- Checks for Carbon Dioxide (CO<sub>2</sub>) concentrations (0 to 9,999ppm) and displays Temperature (14 to 140°F / -10 to 60°C) and Relative Humidity (0.1 to 99.9%) readings, plus Calculates Dew Point and Wet Bulb values
- Maintenance free NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- · Six facial icons indicate indoor quality levels
- Audible CO<sub>2</sub> warning alarm when concentration level exceeds high/low user set point
  Displays Year, Month, Date, and Time
- Min/Max CO<sub>2</sub> value recall function plus Manually store/recall 99 readings
- Calculates statistical weighted averages of TWA (8 hour Time Weighted Average) and STEL (15 minute Short Term Exposure Limit)
- lps% (Liters per second per person) and cfm/p (cubic feet per minute per person)
- Automatic Baseline Calibration function
- Complete with Universal AC adapter (UA100-240) & multiple plug types; 2yr warranty

#### ORDERING

CO220

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

# CO200/CO210 Desktop Indoor Air Quality CO<sub>2</sub> Monitor



CE

Measures Carbon Dioxide (CO<sub>2</sub>), Air Temperature and Humidity with user adjustable high/low alarms and choice of datalogging model

- Checks for Carbon Dioxide (CO<sub>2</sub>) concentrations (0 to 9,999ppm) and displays Temperature (14 to 140°F / -10 to 60°C) and Relative Humidity (0.1 to 99.9%) readings
- Maintenance free NDIR (non-dispersive infrared) CO2 sensor
- Indoor Air Quality displayed in ppm with Good, Normal, Poor indication
- Displays Year, Month, Date, and Time
- Max/Min CO<sub>2</sub> value recall function
- Auto Baseline Calibration (minimum CO<sub>2</sub> level over 7.5 days) or manual calibration in fresh air
- Dimensions/Weight: 4.6x4x4" (117x102x102mm)/ 7.2oz (204g)
- Complete with Universal AC adaptor; 2 year warranty
- Model CO200 Visible and Audible CO<sub>2</sub> warning alarm with relay output for ventilation control
   Model CO210 - Datalogs up to 5333 points for each parameter and can be downloaded to a PC using included Windows<sup>®</sup> compatible software and cable

#### ORDERING

 CO200
 Desktop Indoor Air Quality CO2 Monitor

 CO210
 Desktop Indoor Air Quality CO2 Monitor/Datalogger

#### **C0100** Desktop Indoor Air Quality CO<sub>2</sub> Monitor



(6

Measures Carbon Dioxide (CO<sub>2</sub>), Air Temperature and Humidity with useradjustable visual and audible alarm

- Checks for Carbon Dioxide (CO<sub>2</sub>) concentrations (0 to 9,999ppm) and displays Temperature (14 to 140°F / -10 to 60°C) and Relative Humidity (0.1 to 99.9%) readings
- Maintenance free NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- Indoor Air Quality displayed in ppm with Good, Normal, Poor indication
- Visible and Audible CO<sub>2</sub> warning alarm
- Displays Year, Month, Date, and Time
- Max/Min CO<sub>2</sub> value recall function
- · Complete with Universal AC adaptor; 2 year warranty

#### ORDERING CO100

Desktop Indoor Air Quality CO2 Monitor



#### **C0250** Portable Indoor Air Quality CO<sub>2</sub> Meter





Measure CO<sub>2</sub> level in office buildings to insure proper ventilation. Measures Carbon Dioxide ( $CO_2$ ), 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)
- · 2 year warranty
- Complete with software and cable, 4 AA batteries, and carrying case

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%
Wet Bulb and Dew Point	t Calculated	
Dimensions	7.9x2.7x2.3" (200x70x57mm)	
Weight	6.7 oz. (190g)	
ORDERING		
CO250	Portable Indoor Air Quality CO, Meter	

Portable Indoor Air Quality CO<sub>2</sub> Meter 33% and 75%RH Calibration Kit

# SD800 CO<sub>2</sub>/Humidity/Temperature Datalogger

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, sensor
- Triple LCD simultaneously displays CO,, Temperature and Relative Humidity
- Selectable data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto
- 2 year warranty

RH300-CAL

 Complete with (6) AAA batteries, 2G SD memory card, Universal AC adaptor, and mounting bracket

SPECIFICATIONS	RANGE	MAX. RESOLUTION	BASIC ACCURACY
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/PC Interface	20M data using 2G SD memory	card/ Optional 407001 so	ftware (see p. 106)
Dimensions/ Weight	5.2 x 3.1 x 1.3" (132 x 80 x 32m	nm)/ 9.9oz (282g)	
Dimensiona/ Weight	0.2 × 0.1 × 1.0 (102 × 00 × 021)	111/ 0.002 (2029)	



CO<sub>2</sub>/Humidity/Temperature Datalogger



CE





#### SD750 3-Channel Pressure Meter/Datalogger



CE



pressure measurements from hydraulic, pneumatic, air compressor, and process gas systems, as well as other industrial applications.

Applications include



Optional Universal Pressure Transducers available in three ranges (30psi, 150psi, and 300psi).

Records data on an SD card in Excel<sup>®</sup> 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<sup>®</sup> format for easy transfer to a PC
- User can select the data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto
- Complete with six AAA batteries, 2G SD card, Universal AC Adaptor, three connectors, and mounting bracket; 2 year warranty
- 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
Memory	2M data using 2G SD memory card		
Dimensions/ Weight	5.2x3.1x1.3" (132x80x32mm)/7oz (199g)		

#### ORDERING

ORDERING

onbennna	
SD750 N	3-Channel Pressure Datalogger
Accessories (Meter not	t included)
PT30-SD	Pressure Transducer for SD750 (30psi)
PT150-SD	Pressure Transducer for SD750 (150psi)
PT300-SD	Pressure Transducer for SD750 (300psi)

# HD350 Pitot Tube Anemometer + Differential Manometer

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
- Max/Min/Avg, 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

SPECIFICATIONS	RANGE	MAX RESOLUTION	BASIC ACCURACY
Pressure			
psi	0.7252psi	0.0001psi	±0.3%FS
mbar	50.00mbar	0.01mbar	±0.3%FS
inH <sub>2</sub> O	20.07inH <sub>2</sub> O	0.01inH <sub>2</sub> O	±0.3%FS
mmH₂O	509.8mmH <sub>2</sub> O	0.01mmH <sub>2</sub> O	±0.3%FS
Pa	5000Pa	1Pa	±0.3%FS
Linearity/Hysteresis	±0.29FS		
Maximum Pressure	10psi		
Air Velocity/Flow			
ft/min	200 to 15733	1	±1% FS
m/s	1 to 80.00	0.01	±1% FS
km/h	3.5 to 288.0	0.1	±1% FS
MPH	2.25 to 178.66	0.01	±1% FS
knots	2.0 to 154.6	0.1	±1% FS
CFM/CMM	0 to 99,999	0.001	±1% FS
Temperature	32.0 to 122.0°F (0 to 50°C)	0.1°	±3°F/1.5°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)		



Includes Windows® compatible software with cable, 9V battery, pitot tube with two 33.5" (85cm) connection hoses, 100V-240V universal AC Adaptor, and hard carrying case; 3 year warranty

HD350 Pitot Tube Anemometer + Differential Manometer



#### HD700 Series Differential Pressure Manometers



HD700 - (2psi)

#### Low Range/High Resolution Gauge or Differential Pressure

- Three models to choose from: Model HD700 (±2psi range), Model HD750 (±5psi range), and Model HD755 (±0.5psi range)
- 11 selectable units of measure
- MAX/MIN recording and Relative time stamp
- Data Hold 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	55.40inH20 (0.01inH20)	138.3inH2O (0.1inH2O)	13.85inH20 (0.01inH20)
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	±0.3%FS	±0.3%FS	±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



#### **Applications:**

- HVAC: Pressure drop at filters and pressure loss in ducts - Testing pneumatic controls and pressurized equipment in
- manufacturing
- Clean rooms and medical equipment
- Testing and adjusting regulators
- Positive pressure testing in clean rooms & operating rooms
- Boiler installation and gas furnace pressure switch testing

#### Wide range dual input with multiple units and RS-232 interface

- · Dual differential inputs with internal sensors
- Wide (±802 inches of water) measurement range with high resolution to 0.5 inch
- · Displays 8 types of pressure units
- Zero function for offset measurements
- Data Hold, Auto power off, and MAX/MIN
- Built-in RS-232 PC interface optional 407001 Data Acquisition software (see p. 104 for details)
- · 3 year warranty
- · Complete with 2 guick-disconnect fittings, 9V battery, protective holster with stand, and case

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
psi	±29psi	0.02psi	±1% FS
mbar	±2000mbar	1mbar	±2% FS
kg/cm <sup>2</sup>	±2.040kg/cm <sup>2</sup>	0.001kg/cm <sup>2</sup>	±1% FS
mmHg	±1500mmHg	1mmHg	±1% FS
inHg	±59.05inHg	0.05inHg	±1% FS
mH <sub>2</sub> O	±20.40mH <sub>2</sub> O	0.01mH <sub>2</sub> O	±1% FS
inH <sub>2</sub> O	±802.0inH_0	0.5inH <sub>2</sub> O	±1% FS
Atmosphere	±1.974atm	0.001atm	±1% FS
Dimensions/Weight	Meter: 7x2.9x1.3" (178x74x33mm)/12oz (350g)		

#### 407910 N Heavy Duty Differential Pressure Manometer Soft Vinyl Pouch Carrying Case

# TRACEABLE TO

ORDERING

409997



#### **SDL700** Pressure Meter/Datalogger







SD memory card



Optional Pressure Transducers available in: 30psi (PT30) 150psi (PT150) 300psi (PT300)

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
- Stores 99 readings manually and 20M readings via 2G SD card
- 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.

	0.01 to 10	0.00 +- 00
	010110110	0.02 to 20
2 to 29	0.2 to 145	0.2 to 290
02 to 2.040	0.01 to 10.19	0.02 to 20.40
o 1500	10 to 7500	20 to 15000
5 to 59.05	0.2 to 295.2	0.5 to 590.5
2 to 20.40	0.1 to 101.9	0.2 to 204.0
o 802	5 to 4010	10 to 8020
02 to 1.974	0.01 to 9.87	0.02 to 19.74
o 2000	10 to 10000	20 to 20000
to 200.0	1 to 1000	2 to 2000
Meter: 7.2x2.9x1.9" (182X73X48mm)/ 17.3oz (490g)		
	5 to 59.05 2 to 20.40 0 802 02 to 1.974 0 2000 to 200.0	5 to 59.05       0.2 to 295.2         2 to 20.40       0.1 to 101.9         0 802       5 to 4010         0 2 to 1.974       0.01 to 9.87         0 2000       10 to 10000         to 200.0       1 to 1000

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 3 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. 99)



**SD700** Barometric Pressure/ Humidity/Temperature Datalogger (p. 75)



**SD200** 3-Channel Temperature Datalogger (p. 69)



SD800 CO2/Humidity/Temperature Datalogger (p. 98) SD500 Humidity/Temperature Datalogger (p. 75)



# Bright Solutions from Extech

Extech light meters deliver accurate, repeatable readings for users in a range of industries. Along with available calibration traceable to N.I.S.T., Extech light meters stand out with big-digit displays, wide-range models, ruggedized designs, as well as memory capabilities.





NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol 10 on products that offer NIST.



# **LT300** Light Meter

Digital and Analog display of light in Fc or Lux

- Wide range to 20,000 Foot-Candles or 200,000 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
- Cosine and color corrected measurements
- MIN/MAX and Data Hold
- Large LCD display with analog bargraph
- Backlight for readings in low light levels
- Complete with 9V battery, light sensor with protective cover, protective holster, and pouch case

SPECIFICATIONS	LT300 🛯
Fc Range	20,000Fc
Lux Range	200,000Lux
Max. Resolution	0.01Fc/Lux
Basic Accuracy	±5% rdg
Cosine & Color Corrected	Yes
CE approved	Yes
Dimensions	5.9x2.95x1.57" (150x75x40mm)
Weight	7oz (200g)
Warranty	2 years

102 Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

# **Light Meters**



#### EA31 EasyView<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> Light Meter with Memory

# Advanced illuminance functions and features

- Wide measurement range to 99,990Fc (999,900 Lux)
- Luminous intensity (candela) calculations
- Store and recall up to 50 measurements, includes relative or real time clock stamp
- Ripple function excludes the effect of stray light from the primary light source measurement
- Auto power off with disable
- Multiple point average function
- Timed-Hold, Relative in absolute value or % deviation, and Comparator function with high/low alarms
- Includes built-in stand, light sensor and protective cover with 36" (0.9m) coiled cable, protective holster, 6 AAA batteries, and case

EA31 📧	EA30 N	EA33 <b>N</b>
20, 200, 2000, 20,000Fc	40, 400, 4000, 40,000Fc	9.999, 99.99, 999.9, 9999, 99,990Fc
20, 200, 2000, 20,000Lux	40, 400, 4000, 40,000, 400,000Lux	99.99, 999.9, 9999, 99,990, 999,900Lux
0.01Fc/Lux	0.01Fc/Lux	0.001Fc/0.01Lux
±3%rdg + 0.5%FS	±3%rdg + 0.5%FS	±3%
Yes	Yes	Yes
Yes	Yes	Yes
5.9x2.8x1.4" (150x72x33mm)	5.9x2.8x1.4" (150x72x33mm)	5.9x2.8x1.4" (150x72x33mm)
8.3oz (235g)	8.3oz (235g)	11.29oz (320g)
2 years	2 years	2 years

For the name of your local stocking distributor, visit **www.extechinstruments.eu** 103



# Reliable, Easy to Use, and Accurate

"I use my Extech 407026 Heavy Duty Light Meter with PC Interface for measuring foot candles on LEED certification jobs. The Extech has impressive durability and battery life. Do a good comparison; Extech will come out on top."

Gregg S., New York



#### ACCESSORIES

407001	Data Acquisition Software	
407001-USB	USB Adaptor	
UA100-240	100-240V AC Adaptor with 4 plugs (US, EU, UK, AU)	



TRACEABLE TO

407001 Data Acquisition Software

2000

EXTECT

- Enables users of specific Extech meters to capture, display and store readings on a PC
- Sampling time: 1sec 60 mins
- Import data into Excel
- Includes Windows<sup>®</sup> 95/98/2000/NT/ XP/7 compatible software and serial cable
- Optional USB Adaptor 407001-USB



# 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. 104 for details)
- Complete with 9V battery, light sensor, and protective cover with 45" (1.1m) cable, and protective holster with stand. Optional 220V (156221) AC adaptor.

SPECIFICATIONS	407026 📧
Fc Range	200, 2000, 5000Fc
Lux Range	2000, 20000, 50000Lux
Max. Resolution	0.1Fc/1Lux
Basic Accuracy	±4%FS
Temperature (Type J/K)	_
Cosine & Color Corrected	Yes
Analog output	-
PC Interface	Optional 407001 Software (see p. 104)
Datalogging	_
CE approved	Yes
Dimensions /Weight	7x2.9x1.3" (178x74x33mm)/ 1.6lbs (726g)
Warranty	3 years
wanany	0 yours

104 Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

# Light Meters/Datalogger



#### **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<sup>®</sup> 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<sup>®</sup> compatible software, USB cable, built-in stand, case, and 9V battery



## 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)
- Manually store/recall up to 99 readings
- 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. 38, 39, and 66 for optional Type K and J Thermocouple probes

HD400 💌	HD450 💌	SDL400 📧
40, 400, 4000, 40kFc	40, 400, 4000, 40kFc	200, 2000, 10kFc
400, 4000, 40k, 400kLux	400, 4000, 40k, 400kLux	2000, 20k, 100kLux
0.01Fc/0.1Lux	0.01Fc/0.1Lux	0.1Fc/1Lux
±5%	±5%	±4%rdg
-	_	J: -148 to 2192°F (-100 to 1200°C) K: -148 to 2372°F (-100 to 1300°C)
Yes	Yes	Yes
_	_	_
USB with software included	USB with software included	Optional 407001 software (see p. 104)
Directly to PC using software	16,000 data (continuous)/ 99 data (manual)	Manual: 99 readings Continuous: 20M readings w/2GB SD card
Yes	Yes	Yes
6.7x 3.1x1.6" (170x80x40mm) /13.7oz (390g)	6.7x 3.1x1.6" (170x80x40mm) /13.7oz (390g)	7.2x2.9x1.9" (182X73X48mm)/16.8oz (475g)
3 years	3 years	3 years



## LRK10/LRK15 Lighting Retrofit Kits



CE

Applications:

- Lighting System Audits
- Post-retrofit Verification Testing
- Construction Audits
- Project Installation

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. 102)
  - Model DT200 Compact Laser Distance Meter Quickly calculate area even in hard-to-measure spots (see p. 56)
- LRK15 kit also includes:
  - Model 380940 400A AC/DC Power Clamp Meter: Versatile electrical test tool with built-in wattage measurement (see p. 106)

#### ORDERING

LRK10



Quickly measure lighting Laser distance meter with built-in levels with this ergonomic, tools to quickly calculate area easy to use light meter. even in hard-to-measure spots.

Lighting Retrofit Kit

Versatile electrical test tool with built-in wattage measurement.

#### 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; 2yr warranty Measures UVA (long wave) and UVC (short wave) light sources, plus date/ time stamps and stores files onto an SD memory card in Excel<sup>®</sup> format

- UVA probe captures long-wave 365nm UV irradiance measurements under a UVA (black light) source
- UVC probe captures short-wave 254nm UV irradiance measurements under a UVC light source
- · Cosine correction filter and metal housing
- Datalogger date/time stamps and stores readings onto an SD
- memory card in MS Excel® format for offline data analysis
- Offset adjustment used for zero function or to make relative measurements
- Adjustable data sampling rate: 1 to 3600 seconds
- Type K/J Thermocouple input for temperature measurements (probes sold separately)
- Large backlit LCD display
- Record/Recall MIN, MAX readings, Data Hold, and Auto power off functions

SPECIFICATIONS	RANGE	MAX RESOLUTION	BASIC ACCURACY
UVA Range	2mW/cm <sup>2</sup> , 20mW/cm <sup>2</sup>	0.001mW/cm <sup>2</sup>	±4% FS
UVC Range	2mW/cm <sup>2</sup> , 20mW/cm <sup>2</sup>	0.001mW/cm <sup>2</sup>	±4% FS
Frequency Bandwidth	365nm (UVA); 254nm (UVC)		
Type K Temperature	-148 to 2372°F (-100 to 1300°C)	0.1°F/°C	±(0.4%±1.8°F/1°C)
Type J Temperature	-148 to 2192°F (-100 to 1200°C)	0.1°F/°C	±(0.4%±1.8°F/1°C)
Memory	Manual: 99 data readings; 2GB S	D memory card: 20M read	ings
Dimensions/ Weight	7.2 x 2.9 x 1.9" (182 x 73 x 47.5n	nm)/ 16.2oz (475g)	

#### ORDERING

SDL470 N	UVA/UVC Light Meter/Datalogger
TP875	Type K Thermocouple Bead Wire Temperature Probe -58 to 1000°F (-50 to 538°C)

TRACEABLE TO



# LT40 LED Light Meter



#### 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
- Complete with built-in sensor with protective cover,
- 2 AAA batteries, and pouch; 2 year warranty

#### SPECIFICATIONS

OI LOII IOATIONO		
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		8.80z (250g)
ORDERING		
LT40 N	LED Light Meter	

#### LT45 Color LED Light Meter



# LED Light meters are used for monitoring and optimizing environmental light levels in buildings, schools, and offices

- Measure white, red, yellow, green, 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
- Complete with light sensor with protective cover and coiled cable expandable to 59" (1.5m), 9V battery, and hard case; 2 year warranty

#### 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 N 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.



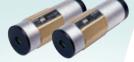
ACCESSO	RIES
TR100	Tripod (for meters with Tripod mount feature)
40705X	AC/DC Recorder Output Cable
407744 N	94dB Sound Calibrator (0.5", 1" microphones)
407766 N	94/114dB Sound Calibrator (0.5", 1" microphones)



#### **407730** Digital Sound Level Meter

Analog bargraph with 30dB range updates every 40ms

- ±2dB 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



#### **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 ±5% (frequency) and ±0.5dB (94dB); ±0.8dB (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	INIST

SPECIFICATIONS	407730 🔳
Range	40 to 130dB
Basic Accuracy	±2dB
Weighting (A&C)	Yes
Response Time (Fast/Slow)	Yes
Condenser Microphone	0.5" (12.7mm)
Analog Output	AC
CE approved	Yes
Dimensions	9x2.2x1.7" (230x57x44mm)
Weight	5.6oz (160g)
Warranty	2 years

108 NIND Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

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### Sound Level Meters and Kit



### 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-NISTL 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)
- Model 407722 Calibrator calibrates and verifies sound level meter operation
- Durable double molded housing
- Total Harmonic Distortion (THD) <2% at 94dB
- Complete with 407732 Sound Meter, 407722 Sound Calibrator, and protective hard carrying case (Optional NIST traceable certificate available for kit: 407732-KIT-NIST includes 407732-NISTL and 407722-NIST) - see p. 144 for ordering info



### 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

407732 🔟	407732-KIT <b>N</b>	407736 💌
Low: 35 to 100dB, High: 65 to 130dB	Low: 35 to 100dB, High: 65 to 130dB	Low: 35 to 90dB; High: 75 to 130dB
±1.5dB (Type 2)	±1.5dB (Type 2)	±1.5dB (Type 2)
Yes	Yes	Yes
Yes	Yes	Yes
0.5" (12.7mm)	0.5" (12.7mm)	0.5" (12.7mm)
_	_	AC/DC
Yes	Yes	Yes
8.2x2.1x1.25" (210x55x32mm)	Meter: 8.2x2.1x1.25" (210x55x32mm)	9.5x2.7x1" (241x69x25mm)
8.1oz (230g)	Meter: 8.1oz (230g)	7.6oz (215g)
2 years	2 years	2 years

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## Sound Investment for University

"We switched to Extech because of the price and the availability of many different models. I use the sound meter to measure ambient noise in our college's laboratories. I like the quality of the meter and its documentation. Extech offers a large line of products and the prices are reasonable."

Abdie T., California









Sound Level checks in constructions sites, hospitals and clinics, and concert halls in monitoring sound level safety and meeting OSHA regulations.

ACCESSORIE	S
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
AC Adaptors f	or 407780A and 407790
144220	220V AC adaptor
144240	240V AC adaptor
114100.040	100 040V/AC Adoptor with 4 plugs (US FULLIK ALI)





CALIBRATION NIST

NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol N on products that offer NIST.

SPECIFICATIONS
Range
Basic Accuracy
Weighting (A & C)
Response Time (Fast/Slow)
Condenser Microphone
Analog Output
PC Interface
Datalogging
CE approved
Dimensions/Weight
Warranty

110 Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

### Sound Level Meters and Dataloggers



### HD600 20,000 Point Datalogging Sound Level Meter

## Double Molded housing with USB port

- ±1.4dB accuracy
- Meets ANSI and IEC 61672-1
  Type 2 standards
- Capture up to 10 readings/sec when connected to a PC
- Datalogging capability up to 20,000 records at speeds from 1/sec to 1/59sec
- Records readings with real date and time stamp
- MIN/MAX and Data Hold
- USB port includes PC software
- Tripod included for convenient field use
- Auto power off with disable capability
- Complete with AC Adaptor, Windows<sup>®</sup> 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 up to 20M records using a 2G SD card

- ±1.4dB accuracy
- Meets ANSI and IEC 61672-1
  Type 2 standards
- Auto or Manual ranging
- User programmable sampling rate from 1 to 3600 seconds
- Records readings with date and time stamp
- Manual store/recall of up to 99 records
- 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)
- Datalogging function records 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
- Built-in USB interface with included datalogging software
- Analog and alarm output features can be used to connect with Frequency analyzers, chart recorders, external dataloggers, and sound level alarms
- Tripod mount ideal for field use (optional TR100 Tripod — sold separately)
- Complete with windscreen, adjustment screwdriver, USB cable, Windows<sup>®</sup> compatible software, battery, and case; (Optional AC Adaptor - see p. 110)

HD600 💌	SDL600 💶	407780A <b>N</b>
30 to 130dB	30 to 130dB (3 ranges)	30 to 130dB
±1.4dB	±1.4dB	±1.5dB
Yes	Yes	Yes
Yes	Yes	Yes
0.5" (12.7mm)	0.5" (12.7mm)	Detachable 0.5" (12.7mm)
AC/DC	AC	AC/DC
Yes	Yes	Yes
20,000 Records	20M Records on 2G Memory Card	32,000 Records
Yes	Yes	Yes
10.9x3x2" (278x76x50mm)/12.3oz (350g)	9.8x2.9x1.9" (250X73X48mm)/18.3oz (520g)	10.4x2.8x0.8" (265x72x21mm)/10.9oz (310g)
3 years	3 years	2 years



### **SL355** Personal Noise Dosimeter Datalogger and Kit



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Measure total sound exposure over an 8-hour period

- Perform OSHA and IEC Noise accumulation surveys (meet ANSI and IEC \*standards)
- USB interface; Datalogs up to 12,000 readings when used as a sound level meter
- 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)
- Complete with a belt clip, clip-on 0.5" microphone with 2.6ft (0.8m) cable, software, USB cable, mini screwdriver, batteries, and case; 2 year warranty
- SL355-KIT-3 available includes three SL355, 407766 sound level calibrator, and carying case

#### SPECIFICATIONS

JE LOIT IGATIONS	
Sound Level Range/Resolution	407355: 70 to 140dBA / 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

ORDERING	
SL355 N	Noise Dosimeter/Datalogger
SL355-KIT-3	Noise Dosimeter/Datalogger

\* Visit the product page at www.extechinstruments.eu for a list of ANSI and IEC standards

### 407760 USB Sound Level Datalogger

Features Record and Alarm LEDs, tripod, and USB connectivity



- 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, Windows® compatible software, USB cover, tripod, and windscreen; 2 year warranty

#### SPECIFICATIONS

Condenser Microphone	0.5" (12.7mm)
Range	30 to 130dB
Frequency Range	31.5 to 8kHz
Basic accuracy	±1.4dB
Weighting	A and C
Response Time	Fast (125ms)/Slow (1s)
Datalogging / PC Interface	129,920 points / USB
Dimensions/Weight	5.1x1.1x0.9" (130x30x25mm)/ 1oz (20g)

0	IDENING	
40	7760 N	USB Sound Level Datalogger
42	299	3.6V Lithium Battery (pk of 2)
TR	100	Tripod



### **SL130G Sound Level Alert with Alarm**



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Visual alert where flashing LEDs turn red or green when sound level is too high or too low



SL125 - remote 5 meter microphone cable

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
- 2 year warranty
- Complete with universal AC adaptor and microphone wind screen

#### SPECIFICATIONS

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 N	Sound Level Alert
SL125	Remote Microphone cable 15' (5m)
TR100	Tripod
407766 N	Sound Level Calibrator, 94/114dB



Use Extech sound level alert with visual indicators to highlight noise violations.





## Rev Up Your Diagnostics

Measure RPM, surface speed, and revolution counts with Extech's wide range of tachometers. Models include contact, non-contact and combination models, as well as compact, stroboscope and panelmount versions.



#### ACCESSORIES

**CALIBRATION** 

 
 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









NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol N on products that offer NIST.

SPECIFICATIONS
rpm
ft/min
m/min
Basic Accuracy
Max rpm Resolution
Laser
Temperature (IR)
CE approved
Dimensions
Weight
Warranty

114 Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

### **Contact & Photo Tachometers**



### 461895 Combination Contact/Photo Tachometer

Combines both contact and noncontact 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 noncontact models for use in all applications

- Characters on display reverse direction depending on contact or photo mode
- Laser guided for greater distance noncontact 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



### **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

461895 📧	461995 🔳	RPM10 🔳
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
0.2 to 6560	0.2 to 6560	0.2 to 6560
0.05 to 1999.9	0.05 to 1999.9	0.05 to 1999.9
±0.05%rdg	±0.05%rdg	±0.05%rdg
0.1rpm	0.1rpm	0.1rpm
-	Yes	Yes
-	-	-4 to 600°F (-20 to 315°C)
Yes	Yes	Yes
8.5x2.6x1.5" (216x66x38mm)	8.5x2.6x1.5" (216x66x38mm)	8.5x2.6x1.5" (216x66x38mm)
10.6oz (300g)	10.6oz (300g)	10.6oz (300g)
2 years	2 years	2 years



### 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
- 2 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 N Mini Laser Photo Tachometer Counter 461937 Spare reflective tape (23" each strip), 10pk

**RPM33** Mini Combination Contact/Laser Photo Tachometer



Quickly measure RPM, surface speed and length with one tool. Use the contact wheel for up-close readings or laser mode for safer, non-contact measurements up to 1.6ft (0.5m) away.

- Large 5 digit backlit LCD display
- · Microprocessor based with quartz crystal oscillator to maintain high accuracy
- Store/recall 10 data sets in memory with 4 parameters (measurement, max, min and average)
- Provides wide RPM (photo and contact) and Linear Surface Speed/Length (contact) measurements
- Laser guided for greater distance non-contact measurements up to 1.6ft (500mm)
- Complete with contact wheel for rpm or linear surface speed/length, 9V battery, reflective tape and soft case; 2 year warranty

SPECIFICATIONS		
Range (rpm)	2 to 99,999rpm	2 to 20,000rpm
Surface Speed	-	0 to 78,720 inches/min
	-	0 to 6560 ft/min
	-	0 to 2186 yards/min
	-	0 to 2000 m/min
Length	-	3.9 to 39370 inches
	-	0.3 to 3280 feet
	-	0.1 to 1093 yards
	-	0.1 to 1000 meters
Frequency (Hz)	-	333 Hz
Accuracy	0.05% rdg +1 digit	0.05% rdg +1 digit
Sampling Time	0.5 Sec > 120rpm	
Resolution	0.1rpm (< 10,000 rpm); 1rpm (> 10,000 rpm)	
Dimensions / Weight	6.2 x 2.3 x 1.6"(160 x 60 x 42 mm) / 5.3oz (151g)	

#### ORDERING RPM33 N 461937

Combination Contact/Laser Photo Tachometer Spare reflective tape (23" each strip), 10pk





CE



### 475055 High Capacity Force Gauge with PC Interface





Complete with tension and compression adaptors, six AA 1.5V batteries, and case; **Optional AC Adaptor** available UA100-240, see ordering section; 2 year warranty

#### 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)

#### 0

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

#### 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
- 2 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	<ul> <li>– / SD memory card for 475044-SD</li> </ul>
Range	176oz, 5000g, 49 Newtons	44lbs, 20kg, 196 Newtons
Basic Accuracy (23°C)	±(0.4%)	±(0.5%)
Resolution	0.05oz, 1g, 0.01 Newtons	0.01lbs, 0.01kg, 0.05 Newtons
Overload capacity	10kg	30kg
Update Rate	Fast mode 0.2secs; Slow mode 0.6secs	:
Full scale deflection	2.00mm	
Transducer type	Load cell	
Dimensions/ Weight	8.5x3.5x1.8" (215x90x45mm)/ 1.4 lbs (6	50g)

ORDERING	
475040 N	Digital Force Gauge
475040-SD N	Digital Force Gauge/Datalogger
475044 🔳	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)

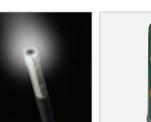


475040-SD & 475044-SD include SD memory card to conveniently datalog readings



### **HDV600 Series High Definition VideoScope Inspection Cameras**





Camera Tip features built-in LED lights



-in HDV-WTX Wireless Transmitter allows measurements up to 100ft (30m) away



## 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)
- 2 year warranty
- Complete with SD memory card, 3.7V rechargeable Li-Polymer battery, AC adaptor, USB and AV cables, camera with cable, and case

#### Model HDV610

- VideoScope with 5.5mm diameter camera head (1m flexible cable)
   MODEL HDV620
- VideoScope with 5.8mm diameter camera head (1m semi-rigid cable retains configured shape)

#### Model HDV640 & HDV640W

- VideoScope with 6mm diameter camera head (1m semi-rigid cable retains configured shape)
- Easy knob control of the articulating camera tip facilitates viewing in obstructed areas where standard camera tips cannot access.
- 240° camera probe rotation (from straight position, 120° left and 120° right) MODEL HDV640W
- Built-in wireless transmitter in camera cable controller allows you to transmit video up to 100ft (30m) from the measurement point to your monitor

### HDV650 Series — High Definition Plumbing VideoScope Inspection Cameras

Plumbing VideoScope Kits utilized the HDV600 color LCD monitor. From drains to pipe runs, these kits reveal problems with its large, waterproof, rugged, high definition color display and a 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





## VideoScope/Inspection Cameras



Articulating (6mm diameter) camera tip adjusts up to 240° viewing angle.



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.





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...

Video Inspection Can	nera 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)
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 Mo	nitor (order camera head separately from accessories list below)
HDV600	High Definition VideoScope (meter only)
Optional Camera Hea	ads
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-30FM	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



### **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; 2 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.



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

SPECIFICATIONS

UNDENING	
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)





### **BR300/BR350** Waterproof Borescope/Inspection Cameras



Waterproof IP67

## Waterproof (IP67), completely submersible in water down to 1 meter for 1hr plus built-in bright LED lamps illuminate dimly lit areas

- Lightweight, handheld design for quick, easy, on-the-spot viewing in small openings
- Model BR300 Borescope with 8mm diameter camera head with four bright LED lamps with dimmer
- Model BR350 Borescope with 5.5mm diameter camera head with two bright LED lamps with dimmer
- Built-in waterproof 39" (1m) flexible gooseneck cable retains configured shape
- 2.7" (68mm) color TFT LCD monitor for detailed images
- 2x digital zoom for close-up viewing
- 180° image rotation on screen
- Glare-free, close-up field of view
- Complete with camera probe and 39" (1m) flexible cable, 4 AA batteries, and case; 2 year warranty

SPECIFICATIONS	BR300	BR350
Camera Shaft Diameter; Cable Length	0.31" (8mm) diameter; 39" (1m) cable	0.22" (5.5mm) diameter; 39" (1m) cable
Focus Distance from Object	0.8 to 2.75" (2 to 7cm)	0.4 to 1.6" (1 to 4cm)
LED lamps	4 LEDs with dimmer	2 LEDs with dimmer
Camera resolution	640 x 480 pixels	320 x 240 pixels
COMMON FEATURES		
Camera Viewing Direction	Viewing Angle 60°	
Minimum Bend Radius	1.2" (30mm)	
Camera Zoom	2x Digital	
LCD Screen Type / Pixels	2.7" (68mm) color TFT / 960 x 240 p	ixels
Waterproof	IP67 rating (1 meter for 30 minutes)	
Battery life (continuous use)	Approx 3-4 hours (low battery indica	ation)
Dimensions/Weight (w/o batteries)	9.8x3.7x1.7" (249x94x43mm) /13.4c	oz (380g)

#### ORDERING

BR300 BR350 Waterproof Borescope/Inspection Camera (8mm diameter/1m cable) Waterproof Borescope/Inspection Camera (5.5mm diameter/1m cable)



- Underwater & marine applications
- Automotive maintenance/repair
- Pipe inspection/repair
- Industrial equipment inspection
- Construction sites, Workshops, & Laboratories
- Home Inspection



### **BR50** Video Borescope/Camera Tester



## 17mm camera diameter and 2.4" Color TFT LCD Monitor also tests installed surveillance cameras for correct target alignment

- 39" (1m) flexible gooseneck cable retains configured shape
- Mini water-proof (IP57) camera head for high resolution viewing
- · Four LED lamps with five brightness levels illuminate the viewed object
- Close-up field of view with 480 x 234 pixel display
- · Automatically detects NTSC and PAL cameras
- Switches to standby mode when no input is connected
- Battery can be recharged via the built-in USB port using the included AC adaptor/charger or a USB port on your PC
- Complete with rechargeable Lithium battery and Universal AC adapter/charger with USB cable; 2 year warranty

ORDERING	
BR50	Video Borescope/Camera Tester
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)	



### VB500 4-Channel Vibration Meter/Datalogger



Includes 4 remote vibration sensors with magnetic adapter on 39" (1m) cable, 8 x AA batteries, SD card, 100-240V Universal AC Adaptor and durable hard case; 2 yr warranty

#### Simultaneously displays four channels

- Adjustable data sampling rate: 5 to 600 seconds
- Wide frequency range of 10Hz to 1kHz
- RMS or Peak Value measurement modes
- Datalogs 20 Million readings with date/time stamps via a 2G SD card in Excel<sup>®</sup> format for easy transfer to a PC
- Data Hold and Auto power off functions

#### SPECIFICATIONS

SPECIFICATIONS	
Acceleration	656ft/s², 200m/s², 20.39g (peak)
Velocity	7.87in/s, 200mm/s, 19.99cm/s (peak)
Displacement	0.078in, 2mm (peak-to-peak)
Resolution	1ft/s², 0.1m/s², 0.01g; 0.01in/s, 0.1mm/s, 0.01cm/s; 0.001in, 0.001mm
Basic accuracy	±5%
Dimensions/ Weight	Meter: 8 x 3 x 1.5" (203 x 76 x 38mm)/ Meter: 1.13lbs (515g)
ORDERING	

VB500 N 4-Channel Vibration Meter/Datalogger

## **SDL800** Vibration Meter/Datalogger



Includes remote vibration sensor with magnetic adapter on 47.2" (1.2m) cable, 6 x AA batteries, SD card, and hard case; 3 year warranty. Optional AC Adaptor UA100-240 and PC software 407001 (see p. 104)

Includes remote sensor with 3.9ft (1.2m) cable, magnetic mount, 9V battery, holster with stand and case; Optional PC software 407001 (see p. 104). 3 year warranty.

CE

## Datalogs 20 Million readings with date/time stamps via 2G SD card in Excel<sup>®</sup> format for easy transfer to a PC

- Adjustable data sampling rate: 1 to 3600 second (1 hour)
- Wide frequency range of 10Hz to 1kHz
- RMS, Peak Value or Max Hold measurement modes
- Min/Max, Zero, Data Hold and Auto power off functions

SPECIFICATIONS	
Acceleration	

Acceleration	656ft/s², 200m/s², 20.39g
Velocity	7.87in/s, 200mm/s, 19.99cm/s
Displacement	0.078in, 2mm (peak-to-peak)
Resolution	1ft/s², 0.1m/s², 0.01g; 0.01in/s, 0.1mm/s, 0.01cm/s; 0.001in, 0.001mm
Basic accuracy	±5%
Dimensions/ Weight	Meter: 7.2x2.9x1.9" (182X73X48mm)/Meter: 1.3lbs (599g)

#### ORDERING

 SDL800
 Vibration Meter/Datalogger

 UA100-240
 100-240V AC Adaptor with 3 plugs (US, EU, UK, AU)

### 407860 Heavy Duty Vibration Meter

CE



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

- 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	656ft/s <sup>2</sup> or 200m/s <sup>2</sup>
Velocity	7.87in/s or 200mm/s
Displacement	0.078in or 1.999mm
Resolution	2ft/s <sup>2</sup> , 0.5m/s <sup>2</sup> , 0.05g; 0.02in/s, 0.5mm/s, 0.05cm/s; 0.001in, 0.001mm
Basic accuracy	±5%
Dimensions/ Weight	Meter: 7.1x2.9x1.3" (180x72x32mm)/Meter: 0.87lbs (395g)
ORDERING	

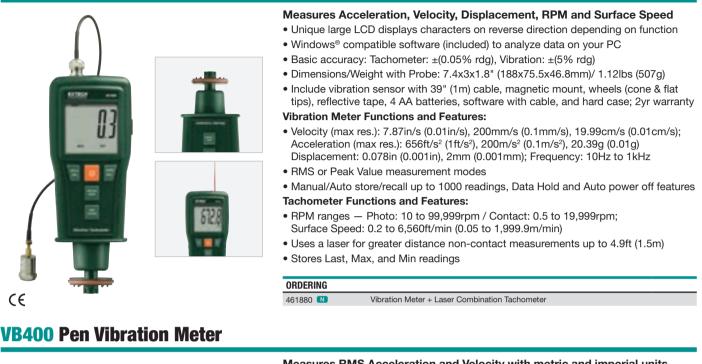
### 407860

407860	Vibration Meter/Datalogger
156221	220VAC Adapter





### 461880 Vibration Meter + Laser Combination Tachometer





### 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)
- 2 year warranty
- Complete with test pin tip, magnetic base, 4 x AAA batteries, and case

#### ORDERING

VB400

Pen Vibration Meter

### VB300 3-Axis G-Force Datalogger



CE



Magnetized/Bolt-on Mounting Base

USB connector easily plugs into a computer for data analysis

- 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<sup>®</sup> compatible analysis software; 2 year warranty

#### ORDERING

UNDENING	
VB300	3-Axis G-Force Datalogger
42299	3.6V Lithium Battery (pk of 2)



### **PRC30 Multifunction Process Calibrator**





CE



EXTECH

NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol **N** on products that offer NIST. 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
- 2 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)
Туре Ј	-58 to 1830°F (-50 to 1000°C)	-58 to 1830°F (-50 to 1000°C)	±(0.05%+1.8°F/1°C)
Туре К	-58 to 2498°F (-50 to 1370°C)	-58 to 2498°F (-50 to 1370°C)	±(0.05%+1.8°F/1°C)
Туре Т	-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 N Multifunction Process Calibrator

### PRC20 Multi-Type Calibrator Thermometer

Source and measure 8 thermocouple type devices J, K, T, E, C, R, S, and N

- Palm-sized double molded housing and large dot-matrix digital backlit LCD with thermocouple type indication
- High accuracy calibration function simulates precision thermocouple outputs for use in calibrating thermometers, transmitters, controllers or recorders
- Displays output in terms of millivolts or temperature based on thermocouple tables
- Standard mini-thermocouple input
- Large battery bank for extended work cycle
- Up to five user adjustable calibration presets
- External power adapter for continuous work cycle
- 2 year warranty
- Complete with Thermocouple calibration cable with subminiature connectors, standard calibration cable with subminiature connectors, 100V-240V AC Universal Adaptor with 4 plugs, 6 x 1.5V AA batteries, and hard carrying case

SPECIFICATIONS	RANGE	BASIC ACCURACY
Туре Ј	-58 to 1830°F (-50 to 1000°C)	±0.05% rdg ±1°
Туре К	-58 to 2498°F (-50 to 1370°C)	±0.05% rdg ±1°
Туре Т	-184 to 752°F (-270 to 400°C)	±0.05% rdg ±1°
Туре Е	-58 to 1382°F (-50 to 750°C)	±0.05% rdg ±1°
Туре С	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)/ 8oz (225g) - not including battery weight	
ORDERING		

PRC20 N Calibrator Thermometer

ALIBRATION TRACEABLE TO

CE



### PRC10/PRC15 Current & Voltage Calibrators/Meters



PRC15



- "Source" for calibrating process devices and measuring DC process signals
- Palm-sized double molded housing and large dot-matrix digital backlit LCD
- Measures DC process signals
- Standard banana I/O ports
- Large battery bank for extended work cycle
- Up to five user adjustable calibration presets
- External power adapter for continuous work cycle
- 2 year warranty
- Each meter includes test leads, alligator clips, 100V-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 (PR	C10 only)
Input/Output	Ranges and Display	Resolution
	-25.0 to 125.0% (representing 0 to 24mA)	0.1%
	0 to 19.99mA	0.01mA
	0 to 24.0mA	0.1mA
	0 to 1999mV	1mV
	0 to 20.00V	10mV
Accuracy	± 0.01% ±1 digit	
Dimensions/Weight	Dimensions/Weight 6.3x3.2x1.7" (159x80x44mm)/ 8.2oz (232g) - not including battery weight	
ORDERING		
PRC10 N	Current Calibrator/Meter	

- PRC15 N 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  $240\Omega$
- · 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)
- 2 year warranty

#### ORDERING

412440-S N	Calibration Source Checker



## **Perfect Timing**

When is a stopwatch more than a stopwatch? When it is helping protect the lives of athletes. Extech's exclusive HeatWatch with built-in heat index alarm is fast becoming standard-issue safety equipment for high school and college athletics coaches around the U.S. as a key part of new policies to monitor against heatstroke. Trust Extech for sports timing, industrial process optimization-and keeping cool.







### 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

DA DAT DATE

NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol N on products that offer NIST.

CALIBRATION TRACEABLE TO

Specifications HW30 ඟ	
Timing capacity 9hrs, 59mins, and 59secs	
Accuracy	±5 seconds/day
Alarm	Yes
Countdown Timer	Yes
Lap Memory	30 laps
Heat Index	70 to 122°F (22 to 50°C)
Temperature	14 to 122°F (-10 to 50°C)
Humidity	1 to 99%
CE approved	Yes
Dimensions	3.1x2.6x0.8" (79x66x21mm)
Weight	3oz (85g)
Warranty	2 years

126 Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

### Stopwatches/Timers



### **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

365510 🔊	365515 💌	365535 💌
23hrs, 59mins and 59.99secs	23hrs, 59mins and 59.99secs	19hrs, 59mins and 59.99secs
±3 seconds/day	±3 seconds/day	±5 seconds/day
Yes	Yes	Yes
-	-	3 Modes
_	_	500 laps
-	-	-
_	_	-
_	_	_
Yes	Yes	Yes
2.3x2.8x0.5" (57x70x15mm)	2.3x2.8x0.5" (57x70x15mm)	2.5x3.2x0.8" (64x81x20mm)
2oz (50g)	2oz (50g)	2.7oz (77g)
2 years	2 years	2 years

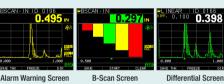


### Ultrasonic Thickness Testers

### **TKG Series Ultrasonic Thickness Testers**



**TKG250 Color Screen displays** 





Normal Screen-No Alarm Change color on Alarm



All models include 2oz bottle of couplant, 2 AA batteries, Transducer (5MHz, 0.375" diameter) with potted cable, and hard case, plus a certificate of calibration to NIST. TKG150 and TKG250 also include protective holster, USB cable, and Extech XPorter software; 2 year warranty

Compact, rugged housing ideal for field use & ultrasonic technology allows for non-destructive thickness measurements for primarily steel structures

- Wide measurement range: 5MHz probe: 0.040" to 20" of steel; 10MHz probe: 0.020" to 20" of steel (optional)
- Sunlight readable dot-matrix display with backlight
- Multiple transducer options for high temperature and difficult to measure materials
- Fast minimum feature to capture minimum thicknesses
- On screen display of 8 languages
- · Splash-proof (IP54), high impact, compact housing

Model TKG150 Additional Features

- · Echo to Echo option to reduce coating errors
- 100K internal datalogger with export to Excel
- B-scan (visual cross section of test piece)
- Vibrate on alarm
- Model TKG250 Additional Features
- · Color LCD display shows red, yellow and green visual alarm indication
- Live Waveform (A-scan for thickness verification)
- File compare feature as a real time corrosion monitor
- Dynamic change of waveform color on alarm
- · Grid review of saved readings
- · Echo to Echo option to ignore coatings
- 100K internal datalogger with export to Excel
- B-scan (visual cross section of test piece)
- Vibrating alarm indication

#### SPECIFICATIONS

OI LOII IOATIONO	
Thickness (Steel)	5MHz probe: 0.040 to 20" (1.0 to 508mm); 10MHz probe: 0.020 to 20" (0.50 to 508mm)
Material velocity calibration range	0.200 to 0.7362 in/µS (0.508 to 18.699mm/µS)
Languages	English, French, Spanish, Italian, Czech, German, Portuguese, Slovak, Finnish, Hungarian
Hold Mode	Holds display to retain last thickness reading with reverse video display
Freeze Mode	Freezes display (ideal for high temperature readings)
Fast Min/Max Mode	Displays min or max and actual thickness value at 20 measurements/sec
Units	Inches/Millimeters/Microseconds
Alarms	Audible beeping; illuminae flashing display and keypad; and vibration feedback (only on the TKG150/TKG250 models)
Illuminating Keypad	F1 = Red, F2 = Yellow, F3 = Green for easy, go/no-go testing

Additional Functions	TKG100	TKG150	TKG250		
Gain - Variable adjustment	-	Low, Standard, In 1dB steps from 20-90dB or Automatic Gain Control High (AGC) for waveform			
B-Scan - Displays a cross section of the test piece	-	Displays a visual cross section of inspection area with no correlation to distance. B-Scan alarm colors consist of: Red = below minimum/above maxi- mum; Yellow = Caution; and Green = Good.			
Echo to Echo	-	Measure the metal thickness value)	thickness only (paint & coatings do not affect base material		
Differential Mode	—		Displays the difference from the actual thickness measurement and a user entered reference value		
Velocity Mode	-	Displays acoustic s	sound speed to measure thickness of unknown materials		
Datalogger	_	Stores 50k readings (expandable to 100k) and 5,000 waveforms; file names up to 20 characters long; and the included Extech XPorter software extracts .csv data files that can be opened for viewing in MS Excel, Notepad, or Wordpad. TKG250 also has file compare & grid review features.			
Range	-	<ul> <li>Adjustment of manual range control or auto zoom track to center echoes independent of selected range</li> </ul>			
Rectification Modes	_	<ul> <li>RF, Half Wave Positive, Half Wave Negative and Finder Rectification</li> </ul>			
Live Waveform (A-Scan)	-	<ul> <li>Full adjustments for gain in 1dB step or AGC, main bane blank, blank after first received echo, range including zc auto tracking to center echoes independent of material and rectification</li> </ul>			
Battery Life	Up to 50 hrs (20hrs with backlighting)		8 to 14hrs (depends on operating conditions)		

### ORDERING

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TKG100	Digital Ultrasonic Thickness Gauge
TKG150	Digital Ultrasonic Thickness Gauge/Datalogger
TKG250	Color Waveform Ultrasonic Thickness Gauge/Datalogger

CALIBRATION TRACEABLE TO



### **CG204** Coating Thickness Tester





Measuring the thickness of automotive paint

#### 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
- 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; 2 year warranty

SPECIFICATIONS	FERROUS PROBE	NON-FERROUS PROBE
Vorking Principle	Magnetic Induction	Eddy Current
easuring Range	0 to 1250µm; 0 to 49mils	0 to 1250µm; 0 to 49mils
sic Accuracy	±3%	±3%
solution	0.1µm (0.004mils)	0.1µm (0.004mils)
imum Curvature Radius	1.5mm (59.06mils)	3mm (118.1mils)
imum Diameter	7mm (275.6mils)	5mm (196.9mils)
imum Thickness	0.5mm (19.69mils)	0.3mm (11.81mils)
ensions/Weight	4.7 x 2.4 x 1.25" (120 x 62 x 32	2mm)/ 6.17oz (175g)

#### ORDERING

CG204 CG204-BEF

Replacement Reference Films for CG204 (10 sets)

Coating Thickness Tester

### WQ500 Series Benchtop Water Quality Meters/Stirrer



Includes pH electrode, pH calibration solutions (4 and 7pH), Temperature probe, electrode clamp and rod, software and USB cable, Universal AC adapter with multiple plugs and magnetic stirrer; WQ510/WQ530 also include Conductivity cell, Conductivity calibration solutions (1413µS and 12.88mS); WQ530 also includes DO probe, plastic burette, polishing paper, 4 membrane caps and DO internal fill solution (30mL); 2 year warranty

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Three models to choose from from 3 measuring parameters to 7 plus they have built-in Stirrer with 30, 60, and 120 minute timer or continuous

- Large backlit dual LCD simultaneously displays measurement and temperature
- 2 or 3 point pH calibration for better accuracy (4, 7, and 10pH)
- Automatic Temperature Compensation
- · Memory stores up to 150 readings
- Readings can be captured directly to a PC via the built-in USB interface
- Stirrer with 30, 60 and 120 minute timer or continuous
- Splash-proof keyboard

#### Models WQ510 and WQ530 Additional Features

• One point Conductivity calibration - automatically recognizes 4 calibration solutions

- Adjustable Conductivity to TDS ratio from 0.5 to 1.0
- Model WQ530 Additional Features
- · Manual salinity (0-50ppt) and altitude (0-20k ft) compensation for DO measurements

SPECIFICATIONS	WQ500	WQ510	WQ530
pH			
рн	-2.00 to 16.00pH	-2.00 to 16.00pH	-2.00 to 16.00pH
ORP	-1999 to + 1999mV	-1999 to + 1999mV	-1999 to + 1999mV
Temperature (for pH)	32 to 212°F (0 to 100°C)	32 to 212°F (0 to 100°C)	32 to 212°F (0 to 100°C)
Conductivity	_	0.0 to 100.0mS	0.0 to 100.0mS
TDS	-	0.0 to 66.0ppt	0.0 to 66.0ppt
Salinity	_	0.0 to 50.0ppt	0.0 to 50.0ppt
Dissolved Oxygen	-	-	Concentration: 0 to 20.00mg/L; Saturation: 0 to 200.0%
Resolution	0.01pH, 0.1mV, 0.1µS, 0.1	1mS, 0.1°, 0.1ppm, 0.1ppt, 0	.01mg/L, 0.1%,
Accuracy	±0.02pH; ±2mV; ±1.8°F/1	°C; ±2%FS for other param	eters
Dims/Wt (Meter):	4 x 5.7 x 1.3" (103 x 145 x	x 32mm)/ 1.5lbs (700g)	

ORDERING (SEE P. 139 FOR pH ELECTRODE REPLACEMENTS)			
WQ500	Water Quality Meter/Stirrer (pH, mV, Temp)		
WQ510	Water Quality Meter/Stirrer (EC, TDS, Salinity, pH, mV, Temp)		
WQ530	Water Quality Meter/Stirrer (DO, EC, TDS, Salinity, pH, mV, Temp)		
	WQ500 WQ510	WQ500         Water Quality Meter/Stirrer (pH, mV, Temp)           WQ510         Water Quality Meter/Stirrer (EC, TDS, Salinity, pH, mV, Temp)	



### **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; 2 year warranty Sucrose (RF10, RF11, RF15, RF16, and RF18)
- Measure the concentration of sugar in fruit juice and industrial fluids Brix (RF12 and RF18)
- brix (hr 12 anu hr 10
- 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	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) 1.000 to 1.070 Specific Gravity	1ppt 0.001	±0.1‰ ±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 (2000)
- 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)
- RF16 0 to 16% Brix Reiractometer Dims/Wt: 6.7X1.6X1.2 (170X41X31mm)/ 3.202 (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 (620a)

### **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; 2 year 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	
Dimensions/Weight	6.5x1.5x1.5" (165x38x38mm)/ 7oz (	(200g)	

#### ORDERING

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RF40 Battery Coolant/Glycol Refractometer w/ATC (°F)

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

CALIBRATION NIST



### **CL500** Free and Total Chlorine Meter



# NEW



## 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-CI-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; 2 year warranty

#### SPECIFICATIONS

SPECIFICATIONS	
Range (ppm)	0.01 to 3.50ppm
Resolution	0.01ppm
Accuracy	±0.02ppm @ 1ppm
Light source	LED, 525nm
Method	Adaptation of USEPA Method 330.5 for waste water and Standard Method 4500-CI-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



NEW

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; 2 year warranty

SPECIFICATIONS	
Range (NTU)	0.00 to 50.00 NTU, 50 to 1000 NTU (Nephelometric Turbidity Unit)
Resolution	0.01 NTU
Accuracy	±5% FS or ±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	

CE



## Tested Tough In the Field

When the U.S. Environmental Protection Agency responded to the Gulf of Mexico oil spill, ExStik dissolved oxygen meters were there helping to ensure marine life was not threatened.



ACCESSO	RIES
PH105	pH ExStik® Electrode Module
RE305	ORP ExStik® Electrode Module
EC405*	ExStik® II Conductivity Cell Module for EC400
EC505*	ExStik® II pH/Conductivity Cell Module for EC500
DO605*	ExStik® II Dissolved Oxygen Module for DO600
DO603	Membrane Kit for DO600/DO605
FL705*	ExStik <sup>®</sup> II Fluoride Module for FL700
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 Buffer pouches
FL704	TISAB reagent tablets for FL700 (100 tablets)
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

SPECIFICATIONS

рΗ

ORP (mV)

Conductivity TDS/Salinity/Fluoride

Temperature

Max. Resolution

Basic Accuracy

Dimensions

Weight

Warranty

DO saturation/concentration



### PH100 ExStik® pH Meters

Flat Surface electrode provides on-the-spot pH measurements

- RENEW feature tells you when it's time to replace your pH electrode
- CAL feature tells you when it's time to recalibrate your meter
- Flat Surface pH electrode rugged design measures pH on solid and semi-solid surfaces
- Analog bargraph originates at neutral point (pH 7.00) to view trends in acidity or alkalinity
- 1, 2 or 3 point calibration (order pH buffers separately)
- ATC plus measures
   Temperature
- Memory stores 15 labeled data
- Waterproof to IP57 protects
- meter from wet environment
  Includes flat surface pH electrode, sensor cap, sample cup with cap, four 3V CR2032 button batteries and 48" (1.2m) neckstrap



### RE300 ExStik® ORP Meter

- High resolution of 1mV
- Measures ORP/Redox from -999 to 999mV
- Automatic electronic self calibration

RE300

-999 to 999mV

\_

\_

1mV

±4mV

3.8oz (110g)

1.4x6.8x1.6" (35.6x172.7x40.6mm)

2yr (meter)/6mo conditional warranty (electrode)

- 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 CR2032 button batteries and 48" (1.2m) neckstrap

*ExStik® II electrode modules
are not interchangeable with
ExStik® pH/ORP/Chlorine
meters

( E All models are CE approved



PH100

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0.00 to 14.00pH

0.01pH, 0.1°

3.8oz (110g)

23° to 194°F (-5 to 90°C)

±0.01pH, ±1.8°F/1°C

1.4x6.8x1.6" (35.6x172.7x40.6mm)

2yr (meter)/6mo conditional warranty (electrode)

## ExStik® pH, ORP, Conductivity, DO, and Fluoride Meters



### EC400/EC500 ExStik® II Conductivity Meters

Autoranging, high accuracy combination electrode measures multi parameters

- 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 electrode, sensor cap, sample cup with cap, four 3V CR2032 batteries, and 48" (1.2m) neckstrap.
   Order Conductivity standards separately on p. 132.
- Model EC400 includes Conductivity/TDS cell
- Model EC500 includes combination pH/Conductivity/ TDS cell; RENEW feature tells user to replace electrode



### D0600 ExStik<sup>®</sup> II Dissolved Oxygen Meter

Easy to replace screwon membrane cap with optional extension cables

- Oxygen level displayed as % Saturation or
- Concentration (mg/L [ppm]) • Adjustable Altitude
- Compensation (0 to 20,000ft in 1,000ft increments)
- Adjustable Salinity
   Compensation from 0 to 50ppt
- Analog bargraph display
- Self calibration on power up
- Memory stores 25 labeled data
- Waterproof to IP57 protects meter from wet environment
- 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 includes DO600 meter, DO603 membrane kit, 16ft (5m) extension cable, weighted probe guard, and case



### FL700 ExStik<sup>®</sup> II Fluoride Meter

## Direct reading of Fluoride down to 0.1ppm with ATC

- First Fluoride meter with built-in Automatic Temperature Compensation
- Fastest response Fluoride meter (<1min)</li>
- 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
- Waterproof to IP57 protects
   meter from wet environment
- Includes electrode, TISAB reagent tablets, sensor cap, four 3V button batteries, and 48" (1.2m) neckstrap
- Contact Extech or your local lab supply for Fluoride calibration standards

■ EC400   ▲ EC500	■ D0600   ▲ D0600-K	FL700	SPECIFICATIONS
■ No   ▲ 0.00 to 14.00pH	_	_	pН
-	-	-	ORP
0 to 199.9 $\mu S,$ 200 to 1999 $\mu S,$ 2.00 to 19.99mS	_	_	Conductivity
TDS/Salinity: 0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)	-	Fluoride: 0.1 to 10ppm	TDS/Salinity/Fluoride
_	0 to 200.0% / 0 to 20.00ppm (mg/L)	_	DO saturation/concentration
■ 32° to 149°F (0 to 65°C)   ▲ 23° to 194°F (-5 to 90°C)	32° to 122°F (0 to 50°C)	32° to 140°F (0 to 60°C)	Temperature
0.1µS, 0.1ppm (mg/L), 0.01pH, 0.1°F/°C	0.1%, 0.01ppm (mg/L), 0.1°F/°C	0.1ppm, 0.1°	Max. Resolution
±2%FS, ±0.01pH, ±1.8°F/1°C	±2.0% FS, 0.4ppm (mg/L), ±1.8°F/1°C	±3.0% of reading	Basic Accuracy
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
3.8oz (110g)	3.8oz (110g) Meter only	3.8oz (110g)	Weight
2yr (meter)/6mo conditional warranty (electrode)	2yr (meter)/6mo conditional warranty (electrode)	2yr (meter)/6mo conditional warranty (electrode)	Warranty



### **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
- 2 year warranty (meter)/ 6 months conditional warranty (electrode)
- Complete with meter and flat surface Chlorine electrode, ExTab™ reagent tablets (50 tests), protective sensor cap, sample cup with cap, four 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

URDERING	
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 & 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.)	



### EX900 ExStik® 4-in-1 Kit



## Complete kit allows you to measure Chlorine, pH, ORP, and Temperature with all the necessary accessories

Kit Includes:

- CL200 Chlorine ExStik<sup>®</sup> meter, flat surface pH electrode, flat surface ORP electrode, ExTab<sup>™</sup> reagent tablets (50 tests), pH 4, 7 & 10 buffer solutions (20mL) and rinse solution, weighted base with 6 sample plastic cups with caps, four 3V CR2032 button batteries, 48" (1.2m) neckstrap, and case
- Also available EX800 Kit includes all of the above except for ORP electrode.
- See p. 132-133 for specifications on the ExStik Meters

ORDERING	
EX900	ExStik <sup>®</sup> 4-in-1 Kit Chlorine, pH, ORP, Temperature
EX800	ExStik® 3-in-1 Kit Chlorine, pH, Temperature

### EC410 ExStik® II\* Conductivity Kit



## Highly accurate multi-ranging sensor that measures Conductivity, TDS, Salinity, and Temperature

- EC400 ExStik<sup>®</sup> 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. 141 for more specifications on the EC400 meter

#### ORDERING

EC410 ExStik® II Conductivity Kit

### EC510 ExStik® II pH/Conductivity 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 p. 141 for more details on the EC500 meter

#### ORDERING

EC510 ExStik® II pH/Conductivity Kit

### D0610 ExStik® II\* D0/pH/EC Kit



## Measures Dissolved Oxygen, pH, Conductivity, TDS, Salinity, and Temperature

- EC500 pH/Conductivity ExStik<sup>®</sup> II meter with combination high accuracy multi-ranging Conductivity sensor for Conductivity, TDS, Salinity, pH and Temperature measurements
- DO600 Dissolved Oxygen ExStik<sup>®</sup> 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. 141 for more details on the EC500 and DO600 meters

#### ORDERING

DO610 ExStik® II DO/pH/Conductivity Kit



## 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. EXTECH



ACCESSORIES		
PH105	Spare pH ExStik <sup>®</sup> Electrode Module	
PH115	Spare Refillable pH ExStik® Electrode Module	
PH113	Reference Refill Solution Kit for PH110	
PH305	Spare pH Electrode for PH300, EC600, DO700	
6015WC	Waterproof pH Electrode with cable for Palm pH	
6012WS	Waterproof Stick Type pH Electrode for Palm pH	
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)	
850188	Temperature probe, stainless steel for SDL100	
UA100-240	100-240V AC Adaptor w/ 4 plugs (US, EU, UK, AU)	
CA895	Vinyl Pouch Carrying Case for PH100	



### 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)
- 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 KCI reference kit sold separately

■ PH100   ▲ PH110		
■ Gel Filled   ▲ Refillable		
0.00 to 14.00pH		
_		
23° to 194°F (-5 to 90°C)		
0.01pH, 0.1°		
±0.01pH, ±1.8°F/1°C		
15 readings		
1.4x6.8x1.6" (35.6x172.7x40.6mm)/3.8oz (110g)		
2yr (meter)/6mo conditional warranty (electrode)		
NOTE: It is recommended that you calibrate your pH meter to pH Buffer standards before use.		

CE All models are CE approved.

CALIBRATION NIST

136 Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

### pH/mV/Temperature Meters/Datalogger



### PH220 Waterproof Palm pH/ORP Meter

#### Large LCD display in rugged housing with choice of stick or cabled pH Electrode

- Displays pH or mV and Temperature simultaneously
- Automatic Buffer recognition
- Automatic Temperature Compensation via Pt-100 sensor built into electrode
- · Low Battery indicator and Auto Power off
- Waterproof housing (meets IP57)
- Rugged design for handheld or wall mount (magnetic back)
- Complete with waterproof meter, pH electrode, protective holster, pH 4 & 7 buffers (one pouch ea.), and 9V battery
- Model PH220-C Kit includes ATC pH polycarbonate electrode (12mm diameter) with 39" (1m) cable
- Model PH220-S Kit includes ATC pH stick type polycarbonate electrode (12mm diameter) for direct connection to meter



### PH300 Waterproof pH/Temperature Kit

### Measures pH, mV, and Temperature

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



### **SDL100** pH/ORP/ Temperature Datalogger

Datalogger date/time stamps and stores 20M readings on a 2G SD card in Excel<sup>®</sup> format for easy transfer to a PC

- ATC or manual Temperature compensation
- 3 point calibration ensures the best linearity and accuracy
- Selectable data sampling rate: 1 second to 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
- Complete with 6 x AA batteries, SD card, sample buffers, mini pH electrode (60120B), temperature probe (850188), and hard carrying case; Optional Universal AC Adaptor UA100-240

■ PH220-C   ▲ PH220-S	PH300	SDL100 🔳
■ Cabled pH Electrode   ▲ Stick pH Electrode	Cabled pH Electrode	Cabled pH Electrode
0.00 to 14.00pH	-2.0 to 19pH	0 to 14pH
-999 to 999mV	-1999mV to 1999mV	-1999mV to 1999mV
32° to 212°F (0 to 99.9°C)	32 to 212°F (0 to 100°C)	32 to 149°F (0 to 65°C)
0.01pH, 1mV, 0.1°	0.01pH, 1mV, 0.1°	0.01pH, 1mV, 0.1°
±0.01pH, ±2mV, ±0.8°F/0.5°C	±0.02pH, ±0.15mV, ±1°F/0.5°C	±0.02pH, ±0.5% mV, ±1.8°F/1°C)
_	200 readings	20M readings on 2G SD card
4.4x3.1x1.5" (111x79x39mm)/ 9.2 oz (260g)	4.7x2.6x1.2" (120x65x31mm)/6.3oz (180g)	7.2x2.9x1.9" (182X73X48mm)/16oz (455g)
2yr (meter)/6mo conditional warranty (electrode)	2yr (meter)/6mo conditional warranty (electrode)	3yr (meter)/6mo conditional warranty (electrode)



### **Concrete pH Kit and pH Pens**

### EC100/EC150/EC170 Conductivity/TDS/Salinity Meters



Complete with sensor with cap and four LR44 button batteries; 2 year warranty. Order Conductivity standards separately (required for calibration)

#### Waterproof meters with one high accuracy multi-ranging sensor

- Units of measure (model dependent) include uS/cm, mS/cm, ppm, ppt, °F, and °C
- Large 3-1/2 digit (2000 count) LCD display • Data Hold, Low battery indication, and Auto Power off with disable
- Adjustable Automatic Temperature Compensation
- Waterproof design to withstand wet environment meets IP65 standard
- Model EC100 Additional Features
- Measures Conductivity and Temperature with simultaneous readout display
- Two ranges for Conductivity with one point calibration per range Model EC150 Additional Features
- Measures Conductivity, TDS and Temperature
- Adjustable Conductivity to TDS ratio factor from 0.4 to 1.0 (calculates the TDS value)
- Two ranges for Conductivity and TDS with one point calibration per range
- Model EC170 Additional Features
- · Measure Salinity in aquaculture, environmental studies, ground water, Koi ponds, irrigation, drinking water, and other applications
- Autoranging meter offers 2 ranges of measurement
- · Built-in NaCl Conductivity to TDS conversion factor
- Fixed Temperature Coefficient and Normalization Temperature
- One calibration point per range

#### SPECIFICATIONS

Conductivity (EC100/EC150)	0 to 1999µS/cm (0 to 19.99mS/cm)	1µS/cm (0.01mS/cm)	±1% FS
TDS (EC150 only)	0 to 1999ppm (0 to 19.99ppt)	1ppm (0.01ppt)	±1% FS
Salinity (EC170 only)	0 to 10.00ppt (10.1 to 70.0ppt)	0.01ppt (0.1ppt)	±2% FS
Temperature	32° to 122°F (0 to 50°C)	0.1°F/°C	±0.9°F/0.5°C
Dimensions/Wt	6.5 x 1.4 x 1.3" (165 x 35 x 32mm)/	3.8oz (110g)	

#### OPDEDING

UNDENING	
EC100	Conductivity Meter
EC150	Conductivity/TDS Meter
EC170	Salinity Meter
EX006	Weighted base with 5 solution cups
EX007	Spare sample solution cups (24pk)
EC-1413-P	1413µS Conductivity Standard (2 bottles - 1 pint each)
EC-12880-P	12880µS Conductivity Standard (2 bottles - 1 pint each)
CA895	Small vinyl carrying case with belt loop

### PH50/PH60 pH Pens



#### 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; 2 year warranty

SPECIFICATIONS		
рН	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)





### **pH Electrodes**



#### 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



PH105

CL205

**BF305** 

Flat surface pH, Chlorine, and ORP electrode modules



**Reference Refilling** Solution Kit for PH115 Refillable pH electrode module

Interchangeable pH, ORP, and Chlorine sensor modules for ExStik® series meters featured on (p. 132, 134, 136)

- 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. 141
- · 6 month conditional warranty

ORDERING	
PH105	pH ExStik® Electrode Module
PH115	Refillable pH ExStik® Electrode Module
PH113	Reference Refilling Solution Kit for PH115
CL205	Chlorine ExStik® Electrode Module
RE305	ORP ExStik® Electrode Module

### pH Buffers





#### Convenient calibration solutions for your pH meter

- Easy to use, already made fresh pH buffers for calibration
- Helpful table shows what the pH value should be vs. the
- temperature of the buffer solution measured · Rinsing solution used for cleaning off the pH electrode before and after taking
  - the next measurement from a different solution to prevent contamination
- Convenient pouch eliminates the need for a cup to store buffer or rinsing solution
- PH103 contains 6 pouches of each buffer (pH 4.00, 7.00, and 10.00), plus 2 Rinsing solutions
- Pint size pH buffer solutions available (PH4-P, PH7-P, and PH10-P)

ORDERING	
PH4-P	pH 4 Buffer Calibration Solution (2 bottles - 1 pint each)
PH7-P	pH 7 Buffer Calibration Solution (2 bottles - 1 pint each)
PH10-P	pH 10 Buffer Calibration Solution (2 bottles - 1 pint each)
PH103	Tripak Buffer pouches (6ea: 4, 7, 10pH, 2 Rinse solutions)



## Ensuring Water Quality

Extech offers must-have 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.



Conductivity Standard Bottles (1 pint). It is recommended that you calibrate your conductivity meter to conductivity standards before use.

### 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)
EC405*	Spare ExStik <sup>®</sup> II Conductivity Cell Module for EC400
EC505*	Spare ExStik <sup>®</sup> II pH/Conductivity Cell Module for EC500
EC605	Spare Conductivity Cell for EC600 and DO700
PH305	Spare pH Electrode for PH300, EC600, DO700
CA895	Small vinyl case with belt loop for EC400, EC500
UA100-240	100-240V AC Adaptor with 3 plugs (US, EU, UK, AU)

\*ExStik\* II electrode modules are not interchangeable with ExStik\* pH/ORP/Chlorine meters



CALIBRATION TRACEABLE TO NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST. Look for this symbol N on products that offer NIST.

**(** All models are CE approved







SPECIFICATIONS	
Conductivity	
TDS/Salinity	
pН	
mV	
Temperature	
Max. Resolution	
Basic Accuracy	
Dimensions	
Warranty	

NOTE: It is recommended that you calibrate your conductivity

140 Indicates products that are available with optional calibration traceable to NIST. See page 144 for a complete listing.

### Conductivity/TDS/pH Meters





### EC400/EC410 ExStik<sup>®</sup> II Conductivity/ TDS/ Salinity/ Temperature Meter

High accuracy multi-range sensor measures all four parameters

- 8 units of measure include: μS, mS, ppm, ppt, mg/L, g/L, °C, °F
- Simultaneous display of Conductivity or TDS plus Temperature and bargraph
- Memory stores up to 25 labeled readings
- Adjustable Conductivity to TDS ratio factor from 0.4 to 1.0
- Self calibration on power up
- Waterproof to IP57
- EC400 meter includes Conductivity cell\*, protective sensor cap, sample cup with cap, four 3V CR2032 button batteries, and 48" (1.2m) neckstrap; Calibration standards sold separately
- EC410 kit (p.135) includes EC400, 84µS, 1413µS, 12880µS calibration standards, weighted base, 3 sample cups with caps, and case



### EC500/EC510 ExStik<sup>®</sup> II pH/ Conductivity/ Temperature Meter

## Combination rugged flat surface pH electrode with Conductivity cell

- 9 units of measure: pH, μS, mS, ppm, ppt, mg/L, g/L, °C, °F
- Analog bargraph indicates trends
- Memory stores up to 25 labeled readings
- Adjustable Conductivity to TDS ratio from 0.4 to 1.0; 0.5 fixed Salinity ratio
- RENEW feature alerts user when electrode needs replacement
- Waterproof to IP57
- EC500 meter includes electrode, protective sensor cap, sample cup with cap, four 3V CR2032 batteries, and 48" (1.2m) neckstrap; Calibration standards sold separately
- EC510 Kit includes EC500, 84µS, 1413µS, 12880µS calibration standards, pH buffer pouches (1 each of 4, 7, 10pH plus rinse solution), weighted base, 3 sample cups with caps, and case





Meter and accessories packaged in hard case

### EC600 Waterproof Conductivity Kit

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

- Waterproof housing (meets IP57)
- Choice of 3 point pH calibration (4, 7, and 10pH) for better accuracy
- One point Conductivity calibration

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

■ EC400   ▲ EC410	■ EC500   ▲ EC510	EC600
0 to 199.9µS, 200 to 1999µS, 2.00 to 19.99mS	0 to 199.9µS, 200 to 1999µS, 2.00 to 19.99mS	0.00 to 199.9mS
0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)	0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L); 0 to 100ppt (g/L)	0 to 100g/L
_	0.00 to 14.00pH	-2 to 19pH
-	-	-1999mV to + 1999
32° to 149°F (0 to 65°C)	32° to 149°F (0 to 65°C)	pH/mV: 32 to 212°F (0 to 100°C); Other: 32 to 122°F (0 to 50°C)
0.1µS, 0.1ppm (mg/L), 0.1°F/°C	0.1µS, 0.1ppm (mg/L), 0.01pH, 0.1°F/°C	0.01pH, 1mV, 0.01µS, 0.01mg/L, 0.01ppt, 0.1°F/°C
±2%FS, ±1.8°F/1°C	±2%FS, ±1.8°F/1°C	±0.02pH, ±0.15mV, ±1.5%FS, ±1°F/0.5°C
■ Meter: 1.4x6.8x1.6" (36x173x41mm)/3.8oz (110g) ▲ Kit: 9.5x6.8x2.8" (241x173x71mm)/1.56lbs (708g)	■ Meter: 1.4x6.8x1.6" (36x173x41mm)/ 3.8oz (110g) ▲ Kit: 9.5x6.8x2.8" (241x173x71mm)/1.56lbs (708g)	4.7x2.6x1.2" (120x65x31mm)/6.3oz (180g)
2 years (meter); 6 months conditional warranty (electrode)	2 years (meter); 6 months conditional warranty (electrode)	2 years (meter); 6 months conditional warranty (electrode)
eter to conductivity standards before use.		



### SDL150 Dissolved Oxygen Meter/Datalogger



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

- Dual display of Oxygen Concentration and Temperature
- Measures dissolved oxygen from 0 to 20.0mg/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 (2G 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. 104)
- 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			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)





### **D0700** Waterproof Series Dissolved Oxygen Kit



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

- Automatic salinity compensation and manual barometric pressure compensation for DO measurements
- Waterproof housing (meets IP57) design and large blue backlit dual LCD display
- Choice of 3 point pH calibration for better accuracy; Automatic Temperature Compensation
- One point Conductivity calibration automatically recognizes 8 calibration solutions
- Memory stores up to 400 labeled readings
- Auto power off with disable function
- 2 year warranty (meter)/ 6 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	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

### D0600 ExStik® II Dissolved Oxygen Meter



easy replacement. DO603 Membrane Kit includes 6 screw on membrane caps, 15mL filling solution and polishing paper.



Choice of optional EX010 3ft (1m) or EX050 16ft (5m) extension cable with probe weight.

CE

#### Waterproof stick meter with Bonded Membrane Caps

- · Simultaneous display of DO and Temperature plus analog bargraph to view trends
- Memory stores up to 25 data readings
- Oxygen level displayed as % Saturation or Concentration (mg/L); ATC
- Adjustable Altitude Compensation (0 to 20,000ft in 1,000ft increments)
- Adjustable Salinity Compensation from 0 to 50ppt
- Data Hold, Auto power off and low battery indicator
- Optional 3ft (1m) or 16ft (5m) Extension Cable for remote measurements
- Complete with DO electrode, protective sensor cap, spare membrane cap, electrolyte, sample cup with cap, four 3V CR2032 batteries, and 48" (1.2m) neckstrap; 2 year warranty (meter)/ 6 months conditional warranty (electrode)

SPECIFICATION	S	RANGE	MAX RESOLUTION	BASIC ACCURACY	
DO (saturation m	iode)	0 to 200.0%	0.1%	±2% FS	
DO (concentratio	n mode)	0 to 20.00ppm (mg/L)	0.01ppm (mg/L)	0.4ppm (mg/L)	
Temperature		32 to 122°F (0 to 50°C)	0.1°F/°C	±1.8°F (1°C)	
Dimensions/Weig	ght	1.4x6.9x1.6" (36x176x41	mm)/ 3.8oz (110g)		
ORDERING					
DO600	ExStik <sup>®</sup> I	I Dissolved Oxygen Meter			
DO605	Spare Ex	Spare ExStik <sup>®</sup> II Dissolved Oxygen Electrode module			
		Membrane Kit for DO600 and DO605			
DO603	Membra	ne Kit for DO600 and DO605			
DO603 EX010		ne Kit for DO600 and DO605 n Cable 3ft (1m) with Probe Gu	uard/Weight		



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\*NISTL - Limited NIST for Certificate of Traceability to %RH, air temperature and IR

\*\*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 stopwatch functions only \*\*\*\*VIR50-NISTL - Limited NIST for Certificate of Traceability to Type K and max IR Temperature of 1500°F (815°C)



## CALIBRATION TRACEABLE TO

NIST-traceable calibration services are available on nearly all Extech product categories. Extech offers fast turnaround, global shipping, and convenient calibration reminder notifications. Look for the N logo throughout the catalog denoting products available with NIST-traceable certification.



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