

Celebrating Our th Anniversary





#### It's All About You!

Please join me in celebrating Extech's 40th year in business. Your loyalty to Extech and your expectations for rugged, durable, and accurate Extech meters and testers have kept us focused on building the best test and measurement products on the market. Extech is stronger than ever: our business continues to grow exponentially and it's all because of you!

Thanks to all the men and women who choose to use Extech every day on the job in an increasingly broad array of industries. Our thanks go out to the dad who recommends Extech to a son or daughter entering the trades, to the tech school using Extech in the classroom, and to the pro who says to a co-worker, "Try my Extech."

We want to promise you the best quality—not only in our meters, but also in the many services we provide to support our customers. Our goal is to earn your trust and loyalty as lifelong Extech customers.

We're achieving this with a product development attitude that is all about innovation. Extech products stand out with capabilities you won't find anywhere else—functions designed to help you do more—faster. I invite you to browse through our catalog with over 50 new products and see how the best test and measurement tools just got better.

Lars Creutzer

Sales Manager FLIR T&M

ausrend

EXTECH EMEA



#### **A History of Innovation**

If you are thinking about buying a new test and measurement tool, look for the brand with a long-standing history of innovative tools, rugged capabilities, and sensible value. Look for Extech.

Since 1970, Extech has been constantly redefining the test and measurement market by pioneering bold new technologies in testers and meters.

#### **Historic Firsts from Extech**

Extech is the only test equipment maker to offer a range of electrical, industrial, and HVACR meters with a built-in infrared thermometer. Extech is the only meter maker to offer a DMM with wireless datalogging capabilities. For HVAC professionals, Extech introduced a 5-in-1 meter that helps them "get more done."

For every tech who has lost a meter after it fell in a puddle, we created the EX530, a drop-proof



# BYMOVATON







HDV640W High Resolution, waterproof, drop-proof



SDL800

Datalogging to MS Excel via SD Card

and water-proof multimeter. When Extech introduced an award-winning video borescope with a wireless, detachable display and digital photo/video camera capabilities—all at a price that is a fraction of comparable models—customers opted for Extech in record numbers.

In 2010, Extech transformed the relationship between meter and infrared camera by offering MeterLink, a Bluetooth-based technology that wirelessly sends readings from Extech clamp meters and moisture meters to FLIR infrared cameras for accurate, coordinated documentation. Look for products with the METERLINK logo in this catalog.

#### **Innovation for the Best**

With over 40 years of historic firsts, only

Extech is positioned to take the lead in innovation when it comes to test and measurement. At Extech, test equipment is our only business—It's what we know best. Hand tool and power tool makers that are now selling meters just can't say that.

At Extech, we focus on being the best, and we are achieving that by driving new technologies in test and measurement tools to make your job easier with maximum functionality and no compromises—for less than other top-tier brands.

More and more professionals in electrical, HVACR/ mechanical, repair, plant maintenance, building inspection, restoration, engineering, lab, water quality, and R&D are making the switch to Extech. See why, in page after page of innovative products in this catalog.

#### **Awards**

Extech innovation is recognized around the world by a range of industry publications and professional organizations.



The IR feature in a multimeter format is a great idea. It eliminates carrying multiple pieces of equipment—a real time saver!

The screen and recording options of your BR200 make the presentation to homeowners much easier and more professional. Rich C., New York

# FOCUSED ON QUALITY

Multimeters, Clamp Meters, Thermometers, Humidity & Airflow Meters, Light Meters, Sound



We could use this BR200 for a thousand different applications. The most important feature is our ability to photo-document what we see through the borescope. Great product! Corey R., Mold Inspector, Maryland





NIST-traceable calibration services are available on nearly all Extech product categories. Look for the logo throughout the catalog denoting products available with NIST-traceable certification.



Meters, Air & Water Quality Testers, Borescopes, Tachometers, Moisture Meters, and more...

The EX330 can measure as low as 1pF, not available on any other meter with capacitance. We have been so happy with Extech meters that we bought 8 to 10 more! Martin E., California

The Wireless detachable screen rocks! Mike H., New York, commenting on the Extech BR200 borescope.

#### **A Quality-Focused Company**

When you buy an Extech test instrument, you receive a commitment to quality that extends beyond the meter: we're committed to a company-wide focus on quality.

Based in the Northeast United States for forty years, Extech has been committed to an end-to-end, start-to-finish approach to quality. In fact, Extech is proud to be ISO 9001:2008-certified by TÜV SÜD America for its Quality Management System which includes:

- Design and Development
- Sales
- Manufacturing
- Distribution
- Service

#### **Quality Design**

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

#### **Quality Control**

Our Quality Control department ensures that products are inspected to meet our engineers' exacting quality specifications.

#### Website

Visit www.extechinstruments.eu and discover our easyto-use and information-packed website. We're proud that our site was ranked the top test and measurement website by *Industrial Equipment News*. See for yourself.



Inspect heat exchangers | Education

Labs | Measure crawl space

humidity | Troubleshoot | Fire alarm

systems | Read amps on a panel |

Residential electrical | Auto repairs

| Construction material testing |

**Measure foot-candles on LEED jobs** 

Measure compressor current draw

| Measure superheat | Commercial
lighting installations Outdoor

HVAC/mechanical repairs | Repair
heat pumps, chillers, boilers | Fire
investigation inspections | Install
card access systems | Wastewater

# BULDING TRUST









#### **40 Years of Building Trust**

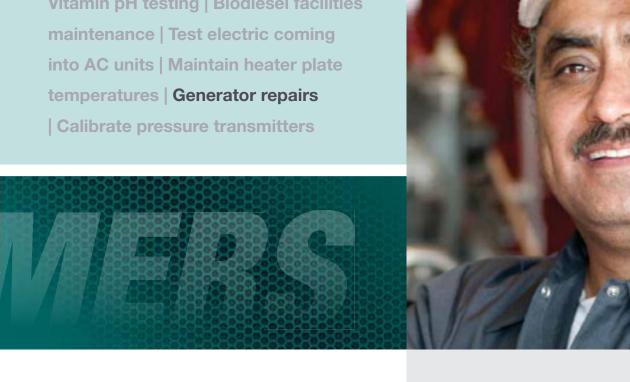
Extech is proud to have built a legacy of long-term customers, father-and-son customers, technical school customers, owner/operator customers, and large "standardized" companies.

Since 1970, our loyal customers demonstrate the relationship- and trust-building that make Extech the stand-out brand for the best test and measurement products from the best company. That relationship-based approach has also helped us build an immense global distributor network over the years making it easy to find an Extech product in your town or online.

#### **More Users Make the Switch**

Across industries, and around the world, more and more users are making the switch to Extech testers and meters. Now, they're telling their stories on Planet Extech.com. Read some of the compelling "switch stories" on this page and throughout the catalog.

treatment plant repairs | Repair VFDs | Waterfront resort maintenance | Vitamin pH testing | Biodiesel facilities



Extech is committed to our customers, from the beginning of their technical education and training throughout their careers. Visit www.extechinstruments.eu to learn about our Educational Discount program with added savings for students and apprentices.

#### **Pioneering T&M Social Networking**

Along with our Facebook and Twitter pages, we've recently introduced PlanetExtech.com, a vibrant social networking site where Extech fans and users can connect to learn about Extech-related news, read user stories, ask tech questions, and enter frequent contests and giveaways. No other test equipment company stays connected to you like Extech.



**CUSTOMER FEEDBACK** 

"It's a best buy. I have used other brands, and I like this meter better. Keep up the good work. We field techs appreciate you listening and striving to make better tools for us."

Ken M., Purvis, Mississippi

"I use my Extech for troubleshooting traffic signal equipment. I switched to Extech because I can carry one meter that does the work of three. Get rid of all your meters and get one, the EX840. ""

Brian F., Ohio



### MultiMeter Selection Guide Pick the right multimeter for your application (see compact multimeter selection guide on p.16)

		<b>=</b> V= 40			=====	=>/=00	WV440	<b>E</b> 1/400	=>/.=0
Model	EX570	EX542	MM560A	MM570A	EX520	EX530	EX410	EX430	EX470
Basic Accuracy (VDC)	0.06%	0.06%	0.03%	0.02%	0.09%	0.06%	0.5%	0.3%	0.3%
Display Counts	40,000	40,000	50,000/500,000	50,000/500,000	6000	40,000	2000	4000	4000
True RMS	•	•	•	•	•	•		•	•
Wireless		RF							
Temperature (Type K)	•	•		•	•	•	•	•	•
Temperature (IR)	•								•
Capacitance	•	•	•	•	•	•		•	•
Frequency	•	•	•	•	•	•		•	•
Battery Test									
Duty Cycle	•	•	•	•	•	•		•	•
Autoranging	•	•	•	•	•	•		•	•
Backlit Display	•	•	•	•	•	•	•	•	•
Relative	•	•	•	•	•	•		•	•
Min/Max	•	•	•	•	•	•			
Input Alert							•	•	•
Category Rating	CAT IV - 600V	CAT IV - 600V	CAT IV - 600V	CAT IV - 600V	CAT IV - 600V	CAT IV - 600V	CAT III - 600V	CAT III - 600V	CAT III - 600V

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

#### 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
- 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
- Auto power off with disable feature
- Capacitance, Frequency, Diode and Continuity functions
- 3 year warranty
- Complete with double molded test leads, magnetic hanging strap, general purpose Type K bead wire probe, case, and 9V battery





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





SPECIFICATIONS	
Basic Accuracy	±0.06%
DC/AC Voltage	0.01mV to 1000V
DC/AC Current	0.01µA to 20A
Resistance	$0.01\Omega$ to $40M\Omega$
Capacitance	0.001nF to 10,000μF
Frequency	0.0001Hz to 40MHz
Temperature (Type K)	-50 to 1382°F (-45 to 750°C)
IR Temperature	-22 to 1022°F (-30 to 550°C)
Field of View	30:1 ratio
Duty Cycle	0.01 to 99.99%
Diode (2.8V)/Continuity	Yes
Dimensions/ Weight	7.25x3.25x2.25" (184x83x57mm)/ 12.3oz (349g)

ORDERING	
EX570 N	CAT IV Industrial MultiMeter + IR Thermometer



# **EX542 CAT IV MultiMeter/Dataloggers with Real Time Streaming**



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 power off with disable feature
- 3 year warranty
- Complete with double molded test leads, magnetic hanging strap, general purpose Type K bead wire temperature probe, remote receiver with USB cable, Windows® compatible software, 9V battery and carrying case

SPECIFICATIONS	
Basic Accuracy	±0.06%
DC/AC Voltage	0.01mV to 1000V
DC/AC Current	0.01µA to 20A
Resistance	$0.01\Omega$ to $40M\Omega$
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)



EX542 N

CAT IV MultiMeter/Datalogger with Real Time Streaming (433MHz)





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





# **Serious about Ruggedness & Versatility**

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.

















## **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



ACCESSO	ACCESSORIES (SEE P. 40-43 FOR MULTIMETER ACCESSORIES)		
TL841	Test Lead Kit		
TL833	Industrial Test Lead Set		
TL831	Master Electrical Test Lead Kit		
TL810	Electrical Test Lead Kit		
TL805-EU	Double Injected Test Leads		
TP200	Type K Clamp Probe (212°F/100°C)		

SPECIFICATIONS	EX505 N
Averaging/True RMS	True RMS
Basic Accuracy	0.5%
DC Voltage	0.1mV to 1000VDC
AC Voltage	0.1mV to 1000VAC
DC/AC Current	0.1μA to 10A
Resistance	$0.1\Omega$ to $40M\Omega$
Capacitance	0.01nF to 100μF
Frequency (electrical)	5Hz to 1kHz
Frequency (electronic)	0.001Hz to 10MHz
Temperature (Type K)	-4 to 1382°F (-20 to 750°C)
Duty Cycle	0.1 to 99.9%
Diode (2.8V)/Continuity	Yes
UL/CE	Yes
Category Rating	CAT IV-600V, CAT III-1000V
Waterproof / Drop proof	IP67 / 6.5ft (2m)
Dimensions/Weight	7.25x3.25x2.25" (184x83x57mm)/12.3oz (349g)
Warranty	3 years





## 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

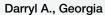
- Waterproof (IP67) rugged double molded design for heavy duty use
- 1000V input protection on all functions
- Dual sensitivity frequency functions
- Type K Temperature function
- Min/Max/Relative/Data Hold, 20A max current
- Peak Hold (AC only)
- Data hold, Relative, and 10A max current
- Diode open 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

SPECIFICATIONS	EX530 ₪	EX520 N	
Averaging/True RMS	True RMS	True RMS	
Basic Accuracy	0.06%	0.09%	
DC Voltage	0.01mV to 1000VDC	0.1mV to 1000VDC	
AC Voltage	0.01mV to 1000VAC	1mV to 1000VAC	
DC/AC Current	0.01μA to 20A	0.1μA to 20A	
Resistance	$0.01\Omega$ to $40M\Omega$	$0.1\Omega$ to $60M\Omega$	
Capacitance	0.001nF to 40mF	0.01nF to 1000μF	
Frequency (electrical)	40Hz to 400Hz	10Hz to 400Hz	
Frequency (electronic)	0.001Hz to 100MHz	0.001Hz to 40MHz	
Temperature (Type K)	-50 to 1382°F (-45 to 750°C)	-50 to 1382°F (-45 to 750°C)	
Duty Cycle	0.1 to 99.90%	0.1 to 99.9%	
Diode (2.8V)/Continuity	Yes	Yes	
UL/CE	Yes	Yes	
Category Rating	CAT IV-600V, CAT III-1000V	CAT IV-600V, CAT III-1000V	
Waterproof / Drop proof	IP67 / 6.5ft (2m)	IP67 / 6.5ft (2m)	
Dimensions/Weight	7.25x3.25x2.25" (184x83x57mm)/12.3oz (349g)	7.25x3.25x2.25" (184x83x57mm)/12.3oz (349g)	
Warranty	3 years	3 years	



# Big Digits, Big Results.

"I was looking for more reliable test equipment and now use my EX400 for checking voltages, and tracing circuits for shorts and openings. It's a very good product worth giving a try."









ACCESSO	ACCESSORIES (SEE P. 40-43 FOR MULTIMETER ACCESSORIES)		
TL841	Test Lead Kit		
TL833	Industrial Test Lead Set		
TL831	Master Electrical Test Lead Kit		
TL810	Electrical Test Lead Kit		
TL803-EU	Standard Test Leads		
TP200	Type K Clamp Probe (212°F/100°C)		
HG500	Magnetic Hanging Strap		



# **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



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	$0.1\Omega$ to $20M\Omega$
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





# **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, multi-position 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, multi-position 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, multi-position 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 🕦	EX430 N	EX470 N	SPECIFICATIONS
Averaging	True RMS	True RMS	Averaging/True RMS
±0.3%	±0.3%	±0.3%	Basic Accuracy (VDC)
0.1mV to 750V	0.1mV to 750V	0.1mV to 750V	AC Voltage
0.1mV to 1000V	0.1mV to 1000V	0.1mV to 1000V	DC Voltage
0.1μA to 20A	0.1μA to 20A	0.1μA to 20A	AC Current
0.1μA to 20A	0.1μA to 20A	0.1µA to 20A	DC Current
$0.1\Omega$ to $40M\Omega$	$0.1\Omega$ to $40M\Omega$	$0.1\Omega$ to $40M\Omega$	Resistance
0.01nF to 100μF	0.01nF to 100μF	0.01nF to 100μF	Capacitance
0.001Hz to 10MHz	0.001Hz to 10MHz	0.001Hz to 10MHz	Frequency
_	_	-58 to 518°F (-50 to 270°C)	Temperature (IR)
-4 to 1382°F (-20 to 750°C)	-4 to 1382°F	-4 to 1382°F (-20 to 750°C)	Temperature (Type K)
0.1% to 99.9%	0.1% to 99.9%	0.1% to 99.9%	Duty Cycle
Yes	Yes	Yes	Continuity / Diode
UL/CE/CAT III-600V, CAT II-1000V	UL/CE/CAT III-600V, CAT II-1000V	UL/CE/CAT III-600V, CAT II-1000V	UL/CE/Category Rating
7.4x3.2x2" (187x81x50mm)/0.75lbs (342g)	7.4x3.2x2" (187x81x50mm)/0.75lbs (342g)	7.4x3.2x2" (187x81x50mm)/0.75lbs (342g)	Dimensions/Weight
2 years	3 years	3 years	Warranty



#### MM560A/MM570A MultiMaster® Series





ACCESSOF	RIES (See p. 40-43 for MultiMeter accessories)
SW810A	MultiPro® Software CD & RS-232 Cable
USB100	RS-232 to USB Adaptor
CA899	Vinyl Pouch Carrying Case

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

- 0.02% (MM570A) and 0.03% (MM560A) basic DCV accuracy
- 50,000 count display with 500,000 counts for DCV and Hz
- True RMS combination AC+DC function
- Highest res. (1μV, 0.01μA, 0.0001Hz, 0.01Ω)
- Auto power off with disable
- · 3 year warranty
- Complete with stand, test leads, holster, 9V battery, and general purpose Type K probe for MM570A; Optional SW810A PC software and cable

#### **Model MM570A Additional Functions**

- 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

SPECIFICATIONS	MODEL MM560A	MODEL MM570A
Display counts	50,000/500,000 count backlit	50,000/500,000 count backlit
Averaging/True RMS	True RMS	True RMS
DC/AC Voltage	0.001mV to 1000V	0.001mV to 1000V
Basic DCV accuracy	±0.03%rdg	±0.02%rdg
DC/AC Current	0.01μA to 20A	0.01μA to 20A
Resistance	$0.01\Omega$ to $50M\Omega$	$0.01\Omega$ to $50M\Omega$
Capacitance	0.01nF to 9999µF	0.01nF to 9999μF
Frequency	5Hz to 200kHz (Line)/5Hz to 2MHz (Logic)	5Hz to 200kHz (Line)/5Hz to 2MHz (Logic)
Temperature	_	-58 to 1832°F (-50 to 1000°C)
AC Bandwidth	20Hz to 20kHz	20Hz to 100kHz
Category rating	CAT IV-600V	CAT IV-600V
Dimensions/Weight 7.32x3.42x1.39" (186x87x35.5mm)/0.75lb (340g)		

ORDERING	
MM560A N	MultiMaster™ Precision MultiMeter
MM570A N	MultiMaster™ Precision MultiMeter with Temperature

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





True RMS multimeter gives accurate readings of distorted waveforms



Measure the insulation resistance of transformer windings

#### 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
- Data Hold and Auto power off
- Min/Max and Relative mode
- 2 year warranty
- Complete with remote receiver with USB cable, Windows® compatible software, heavy duty 4-wire test leads, protective rubber holster, multimeter test leads, carrying case, and 6 x AA batteries

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Insulation Resistance	4MΩ, 40MΩ, 400MΩ, 4000MΩ	0.001MΩ	±3%
Insulation Test Voltages	125V, 250V, 500V, 1000V		
AC Voltage	1000V	0.1mV	±1%
DC Voltage	1000V	0.01mV	±0.06%
AC Current	10A	0.1μΑ	±1.5%
DC Current	10A	0.01µA	±1.0%
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 50mi	m)/ 20.5oz (582g)	

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

ORDERING

MG302 N



# **DT300** Laser Distance Meter (164ft/50m)



Laser measurement accurate to 0.06 inches with Historical Storage that recalls the previous 20 records (measured or calculated results)

- 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)
- 2 year warranty

DT300

• Complete with carrying case and 2 AAA batteries

Measurement Range	2" to 164' (0.5 to 50m)	
Accuracy (up to 32'/10m)	±0.06" (±1.5mm)	
Resolution	0.001" (0.001m)	
Length Add calculation	99'11" (99.99m)	
Area calculation	999.99 sq. ft. (999.99m²)	
Volume calculation	999.99 cu. ft. (999.99m³)	
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)	

Laser Distance Meter (164ft/50m)



# Compact MultiMeter Selection Guide Pick the right multimeter for your application

Model	EX310	EX320	EX330	EX210	EX230	Model
Basic Accuracy (VDC)	0.5%	0.5%	0.5%	0.5%	0.5%	Basic Accuracy (VDC)
Display Counts	2000	2000	4000	2000	4000	Display Counts
Non-Contact Voltage Detector (NCV)	•	•	•			Non-Contact Voltage Detector (NCV)
Temperature (Type K)			•		•	Temperature (Type K)
Temperature (IR)				•	•	Temperature (IR)
Capacitance			•		•	Capacitance
Frequency			•		•	Frequency
Battery Test	•					Battery Test
Duty Cycle			•		•	Duty Cycle
Autoranging		•	•	•	•	Autoranging
Backlit Display				•	•	Backlit Display
Relative			•		•	Relative
Min/Max		Max only		Max only		Min/Max
Category Rating	CAT III- 600V	Category Rating				

# **EX300** Series Mini Digital MultiMeters + Voltage Detector





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

#### Combination MultiMeter with non-contact AC Voltage Detector

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

#### Model EX310 (Manual Ranging)

• Battery test 1.5V and 9V

#### Model EX320 (Autoranging)

• Max Hold, Data Hold, and Auto Power Off

#### Model EX330 (Autoranging)

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

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

ORDERING	
EX310 N	Manual Ranging 9 Function Mini MultiMeter + Non-Contact Voltage Detector
EX320 N	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-EU	Replacement Test Leads



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









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

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

#### Model EX210

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

#### Model EX230

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

SPECIFICATIONS	EX210	EX230
Display Counts	2000	4000
Basic Accuracy (VDC)	±0.5%	±0.5%
AC/DC Voltage	0.1mV to 600V	0.1mV to 600V
AC/DC Current	0.1μA to 10A	0.1μA to 10A
Resistance	$0.1\Omega$ to $20M\Omega$	$0.1\Omega$ to $40M\Omega$
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
Dimensions	5.8x2.9x1.6" (147x76x42mm)	5.8x2.9x1.6" (147x76x42mm)
Weight	9.17oz (260g)	9.17oz (260g)

ORDERING	
EX210 N	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-EU	Replacement Test Leads



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

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

















MultiMeters

Psychrometers

Humidity Meters

Moisture Meters

Tachometers

Air Flow Meters



#### 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. 25)

**Model 40130:** Non-Contact Voltage Detector detects AC Voltage from 100VAC to 600VAC without touching the source. (see p. 31)

ORDERING	
TK430	Electrical Test Kit
TK430-IR	Electrical Test Kit with IR
EX505-K	Heavy Duty Industrial MultiMeter Kit
MA620-K	Industrial DMM/Clamp Meter Test Kit

## 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. 25)

**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

# **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 Noncontact AC Voltage Detector + Flashlight, TL808
   8-piece Professional Test Lead Kit, plus professional double-molded test leads, Type K
- thermocouple bead probe with banana input adaptor, and magnetic hanging strap
- Supplied in a soft carrying case that provides protection and organization for the meters and accessories
- Dimensions: 9.8x8x2" (248x203x51mm); Weight: 1.2lbs (544g)

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

ModelDV 25: 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. 31)

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

# **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. 10)

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. 24)



The Extech EX800 series clamp meters work as hard as you. The EX800s are designed for safety and ruggedness, without compromising performance or innovation. Only Extech offers available CAT IV-rated, 1000A AC/DC capabilities, True RMS accuracy and a built-in infrared thermometer for hot-spot detection. Plus, the EX845's MeterLink™ technology can wirelessly transmit your readings to a FLIR infrared camera via Bluetooth.



# ACCESSORIES (SEE P. 40-43 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-EU Standard Test Leads



# EX820 1000A True RMS AC Clamp Meter + IR Thermometer

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



# EX840/EX845 CAT IV 1000A True RMS AC/DC Clamp Meters + IR Thermometer

CAT IV 600V approval rating assures maximum safety and functionality

- AC/DC Voltage measurement to 1000V and AC/DC Current to 1000A
- True RMS AC Voltage and Current measurements
- Built-in non-contact IR Thermometer design with laser pointer
- Diode open circuit voltage of 2.8V DC
- Peak Hold, Data Hold, Min/ Max, and Auto Power off
- Includes CAT IV test leads, 9V battery, Professi onal test lead set, general purpose Type K probe, and case
- Model EX845 Bluetooth®
   Transmitter with METERLINK™ wirelessly transmits Voltage and Current readings to your FLIR camera to incorporate meter readings with thermal images

SPECIFICATIONS	EX820 N	EX830 N	■ EX840 N   ▲ EX845
True RMS	Yes	Yes	Yes
Display counts	4000 count backlit LCD	4000 count backlit LCD	4000 count backlit LCD
Jaw size/Cable size	1.7" (43mm); 750MCM	1.7" (43mm); 750MCM	1.7" (43mm); 750MCM
AC Current (Max Res.)	1000A (0.1A)	1000A (0.1A)	1000A (0.1A)
DC Current (Max Res.)	_	1000A (0.1A)	1000A (0.1A)
Basic ACA Accuracy (% rdg)	±2.5% (AC)	±2.5% (AC); ±2.5% (DC)	±2.5% (AC); ±2.5% (DC)
AC/DC Voltage (Max Res.)	600V (0.1mV)	600V (0.1mV)	1000V (0.1mV)
Resistance (Max Res.)	$40$ Μ $\Omega$ $(0.1\Omega)$	40ΜΩ (0.1Ω)	$40$ Μ $\Omega$ (0.1 $\Omega$ )
Capacitance (Max Res.)	40mF (0.001nF)	40mF (0.001nF)	40mF (0.001nF)
Frequency (Max Res.)	4kHz (1Hz)	4kHz (1Hz)	4kHz (1Hz)
Temperature (Type K)	-4 to 1400°F (-20 to 760°C)	-4 to 1400°F (-20 to 760°C)	-4 to 1400°F (-20 to 760°C)
Temperature (IR)	-58 to 518°F (-50 to 270°C)	-58 to 518°F (-50 to 270°C)	-58 to 518°F (-50 to 270°C)
Diode (2.8V)/ Continuity	Yes	Yes	Yes
Wireless Communication	_	_	■ No   ▲ BlueTooth and METERLiNK
UL, ETL, CE, Category Rating	UL, CE, CAT III-600V	UL, CE, CAT III-600V	ETL, CE, CAT IV-600V; CAT III-1000V
Dimensions/Weight	10.6x4.3x2" (270x110x50mm)/ 13.6oz (386g)	10.6x4.3x2" (270x110x50mm)/ 13.6oz (386g)	10.6x4.3x2" (270x110x50mm)/ 13.6oz (386g)
Warranty	2 year	2 year	3 years



# Get More Done With a 5-in-1

"The EX623 gave me what I needed to effectively perform my daily requirements with a single device. I use it for installation and maintenance of VFDs plus other machinery and upgrades. The IR thermometer, along with the dual K thermocouples, allows me to compare pertinent data for troubleshooting: electrical hot spots and differential temperatures in HVAC. It's rugged with lots of features at a great price."

Jenn L., Ontario, Canada















ACCESSORIES (SEE P. 40-43 FOR DETAILS)		
TP200	Type K Pipe Clamp Probe (212°F/100°C)	
TP400	Type K Pipe Clamp Probe (212°F/100°C)	
TL841	Test Lead Kit	
TL833	Industrial Test Lead Kit	
TL831	Master Test Lead Kit	

# **Beyond Clamp Meters**

The Extech EX600 series 400A Clamp Meters go beyond basic clamp-on functions. The available built-in IR thermometer is perfect for quick and safe non-contact temperature measurements. The unique tip on the clamp is designed with an integrated non-contact voltage detector to safely check the presence of live wires. These specialized HVAC clamp meters with  $\mu$ A feature also function as advanced multimeters measuring voltage, resistance, capacitance, frequency, and contact temperature with the ability to calculate delta-T.

SPECIFICATIONS
True RMS
Jaw size/Cable size
AC/DC Current
Max resolution
Basic ACA accuracy
AC/DC Voltage (Max Res.)
DC μA Current
Resistance (Max Res.)
Capacitance (Max Res.)
Frequency (Max Res.)
Temperature (Type K-dual input)
Temperature (IR)
Diode (2.8V)/ Continuity
Duty Cycle
ETL, CE, Category Rating
Dimensions/Weight
Warranty



# **EX613** AC/DC True RMS 400A Clamp Meter

Dual thermocouple inputs for differential temperature measurement plus Non-contact Voltage Detector

- Dual type K thermocouple input with Differential Temperature 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 power off with audible alert and disable function

EX613 🕦

- · Autoranging with manual override
- Complete with CAT III-600V, double molded test leads, 9V battery, two general purpose Type K bead wire probes, and carrying case



## EX622 AC True RMS 400A Clamp Meter + IR Thermometer

Built-in IR Thermometer and dual thermocouple inputs for differential temperature measurement plus non-contact Voltage Detector

- Built-in non-contact IR
   Thermometer with laser pointer;
   8:1 distance to target ratio
- Dual type K thermocouple input with Differential Temperature 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 power off with audible alert and disable function

EX622 N

- · Autoranging with manual override
- Complete with CAT III-600V, double molded test leads, 9V battery, two general purpose Type K bead wire probes, and carrying case



## EX623 AC/DC True RMS 400A Clamp Meter + IR Thermometer

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

- · DC Current with Zero function
- Built-in non-contact IR
   Thermometer with laser pointer;
   8:1 distance to target ratio
- Dual type K thermocouple input with Differential Temperature 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 power off with audible alert and disable function
- · Autoranging with manual override
- Complete with CAT III-600V, double molded test leads, 9V battery, two general purpose Type K bead wire probes, and carrying case

Yes	Yes	Yes
1.25" (32mm); 500MCM	1.25" (32mm); 500MCM	1.25" (32mm); 500MCM
400.0A AC/DC	400.0A AC only	400.0A AC/DC
10mA	10mA	10mA
±1.5%	±1.5%	±1.5%
600V (0.1mV)/600V (0.01mV)	600V (0.1mV)/600V (0.01mV)	600V (0.1mV)/600V (0.01mV)
4000μΑ (0.01μΑ)	4000μΑ (0.01μΑ)	4000μΑ (0.01μΑ)
$40.000$ Μ $\Omega$ ( $0.01$ $\Omega$ )	$40.000$ Μ $\Omega$ ( $0.01$ $\Omega$ )	$40.000$ Μ $\Omega$ ( $0.01$ $\Omega$ )
40mF (0.01nF)	40mF (0.01nF)	40mF (0.01nF)
40MHz (0.001Hz)	40MHz (0.001Hz)	40MHz (0.001Hz)
-58 to 1832°F (-50 to 1000°C)	-58 to 1832°F (-50 to 1000°C)	-58 to 1832°F (-50 to 1000°C)
-	-58 to 518°F(-50 to 270°C)	-58 to 518°F (-50 to 270°C)
Yes	Yes	Yes
0.5 to 99.0%	0.5 to 99.0%	0.5 to 99.0%
ETL, CE, CAT III-600V	ETL, CE, CAT III-600V	ETL, CE, CAT III-600V
9x3.1x1.9" (229x80x49mm)/ 10.7oz (303g)	9x3.1x1.9" (229x80x49mm)/ 10.7oz (303g)	9x3.1x1.9" (229x80x49mm)/ 10.7oz (303g)
2 year	2 year	2 year

EX623 III



# **Tough Clamps for Tough Jobs**

The Extech EX700 series of clamp meters offers users a mix of versatile measurement capabilities coupled with a durable design. The EX700s feature available True RMS accuracy and an 800A AC/DC current rating. For diagnostics, the EX700 captures inrush currents and transients with fast peak hold. And for temperature extremes, the available thermocouple thermometer measures up to 1400°F (760°C). Discover the rugged, advanced and ergonomic EX700 series for yourself.











ACCESSORIES (SEE P. 40-43 FOR DETAILS)		
TP873	Replacement Bead wire Temperature probe (-22 to 572°F/-30 to 300°C)	
TL803	Replacement Test Leads	
TL841	Test Lead Kit	
TL833	Industrial Test Lead Kit	
TL831	Master Test Lead Kit	

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



# EX710 800A AC Clamp Meter

Ergonomically designed in rugged double molded housing

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



# EX720 800A 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
- Complete with 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
- Complete with test leads, 9V battery, general purpose Type K bead wire probe, and belt holster

EX710 🕦	EX720 🕦	EX730 N	SPECIFICATIONS
<del>-</del>	Yes	Yes	True RMS
4000 count backlit LCD	4000 count backlit LCD	4000 count backlit LCD	Display counts
1.2" (30mm); 500MCM	1.2" (30mm); 500MCM	1.2" (30mm); 500MCM	Jaw size/Cable size
40.00A, 400.0A, 800A	40.00A, 400.0A, 800A	40.00A, 400.0A, 800A	AC Current
_	_	40.00A, 400.0A, 800A	DC Current
0.01A (AC)	0.01A (AC)	0.01A AC/DC	Max resolution
±2.8%	±2.5%	±2.8% (AC); ±2.5% (DC)	Basic ACA Accuracy (% rdg)
600V (0.1mV)	600V (0.1mV)	600V (0.1mV)	AC/DC Voltage (Max Res.)
$40$ M $\Omega$ (0.1 $\Omega$ )	$40$ M $\Omega$ (0.1 $\Omega$ )	$40$ Μ $\Omega$ $(0.1\Omega)$	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)
UL, CE, CAT III-600V	UL, CE, CAT III-600V	UL, CE, CAT III-600V	UL, 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 year	2 year	2 year	Warranty





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

TL803 Replacement Test Leads



# MA620 True RMS 600A AC Clamp Meter + NCV

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

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



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





SPECIFICATIONS	MA620 N	MA640 N
True RMS	Yes	Yes
Display counts	6000 count LCD (backlit)	6000 count LCD (backlit)
Jaw size/Cable size	1.5" (40mm); 500MCM	1.5" (40mm); 500MCM
AC Current	60A, 600A	60A, 600A
DC Current	_	60A, 600A
Max Resolution	0.01A	0.01A
Basic ACA Accuracy (% rdg)	2.8%	2.8%
AC Voltage (Max Res.)	600V (1mV)	600V (1mV)
DC Voltage (Max Res.)	600V (1mV)	600V (1mV)
Resistance (Max Res.)	$60$ Μ $\Omega$ $(0.1\Omega)$	$60$ Μ $\Omega$ $(0.1\Omega)$
Capacitance (Max Res.)	4000.0μF (0.01nF)	4000.0μF (0.01nF)
Frequency (Max Res.)	10kHz (0.001Hz)	10kHz (0.001Hz)
Temperature	-4 to 1400°F (-20 to 760°C)	-4 to 1400°F (-20 to 760°C)
Duty Cycle	0.1 to 99.9%	0.1 to 99.9%
Diode/Continuity	Yes	Yes
Data Hold	Yes	Yes
Min/Max	Min/Max	Min/Max
UL, ETL, CE, Category Rating	ETL, CE, CAT III-600V	ETL, CE, CAT III-600V
Dimensions/Weight	9.1x3x1.5" (232x77x39mm)/ 9.6oz (271g)	9.1x3x1.5" (232x77x39mm)/ 9.6oz (271g)
Warranty	2 year	2 year



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

Clamp meter with built-in AC Voltage detector + flashlight

- Functions include AC/DC Current and Frequency
- Data Hold
- Zero Function
- Backlit LCD
- Non-contact AC Voltage (NCV) detector via clamp tip
- Built-in white LED flashlight
- · Auto power off
- Complete with pouch case and two AAA batteries



## MA200 400A AC Clamp Meter

Basic AC Current Meter with 6 functions

- AC Current measurement
- Compact size allows measurements in tight locations
- Auto power off
- Complete with test leads, case and two AAA batteries



## MA220 400A AC/DC Clamp Meter

AC/DC clamp meter with 11 functions

- AC/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, case, two AAA batteries and a general purpose
   Type K bead wire probe

MA120 N	MA200 N	MA220 N	SPECIFICATIONS
_	_	_	True RMS
2000 count backlit LCD	2000 count LCD	4000 count LCD	Display counts
0.7" (18mm); 300MCM	0.9" (23mm); 300MCM	0.9" (23mm); 300MCM	Jaw size/ Cable size
200A	2.000A, 20.00A, 200.0, 400A	2.000A, 20.00A, 200.0, 400A	AC Current
200A	_	2.000A, 20.00A, 200.0, 400A	DC Current
0.1A	0.001A AC	0.01A AC/DC	Max. Resolution
±3%	±2.5%	±3%	Basic ACA Accuracy (% rdg)
NCV	600V (0.1mV)	600V (0.1mV)	AC Voltage (Max Res.)
_	600V (0.1mV)	600V (0.1mV)	DC Voltage (Max Res.)
_	$20$ Μ $\Omega$ ( $0.1$ $\Omega$ )	$40$ M $\Omega$ (0.1 $\Omega$ )	Resistance (Max Res.)
_	_	100μF (0.01nF)	Capacitance (Max Res.)
1kHz (0.01Hz)	_	150kHz (0.001Hz)	Frequency (Max Res.)
_	_	-58 to 1832°F (-50 to 1000°C)	Temperature
_	_	0.5% to 99.0%	Diode/Continuity
_	Yes	Yes	Data Hold
Yes	Yes	Yes	Min/Max/Peak
_	Max	_	Category Rating
CE, CAT III-300V	UL, CE, CAT III-600V	UL, CE, CAT III-600V	Dimensions
6.5x2.6x1.3" (164x65x32mm) /6.2oz (176g)	7.9x2x1.4" (200x50x35mm)/7oz (200g)	7.9x2x1.4" (200x50x35mm)/7oz (200g)	Weight
2 year	2 year	2 year	Warranty



# **Powerful Tools for High Current Jobs**

For the most demanding applications, Extech's high-current clamp meters provide trustworthy measurements up to 3000A. Find the right high-current clamp for your job. Extech offers AC and AC/DC options, power quality measurements, True RMS accuracy, voltage to 1000V, flexible clamps for hard-to-reach wires, inrush measurements, and more.









# 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

SPECIFICATIONS	MA1500 N
True RMS	Yes
Display counts	40,000/4000 count dual backlit LCD
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 year





# 380926 CAT IV 2000A AC/DC Clamp Meter

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

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





## 382400 3000A AC Flexible Clamp Meter

Flexible probe easily wraps around bus bars and cable bundles

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







## 380976-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. 60 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
- Complete with test lead kit, general purpose Type K bead wire probe, case, and 9V battery

		·
380926 ₪	382400 🕦	380976-K №
Yes	Yes	Yes
5000 count Backlit LCD	4000 count LCD	9999 count LCD
2" (50mm); 750MCM	Flexible	1.6" (40mm); 500MCM
400.0A, 2000A (Clamp); 400mA (DMM)	300.0A, 1000.0A, 3000A	100.0A, 1000.0A
400.0A, 2000A Clamp); 400mA (DMM)	_	_
0.1A (Clamp); 0.1μA (DMM)	0.1A	0.010A (Clamp); 0.01µA (DMM)
±2%	±1%	±2% (Clamp), ±1% (DMM)
1000V (1mV)	600V (0.1V)	600V (0.1mV)
1000V (0.1mV)	_	600V (0.1mV)
40ΜΩ (0.1Ω)	_	100ΜΩ (0.1Ω)
50μF (10pF)	_	7000μF (1nF)
100kHz (0.001Hz)	45 to 65Hz (0.1Hz)	1kHz (0.1Hz)
_	_	-58 to 1000°F (-50 to 900°C)
Yes	_	Yes
Yes	Yes	Yes
_	Yes	Min/Max
CAT IV-600V	CAT III-600V	CAT III-600V
CE	CE	UL/CE
10x2.9x1.5" (255x73x38mm)/ 14oz (380g)	5.1x3.1x1.7" (130x80x43mm)/ 15oz (430g)	9x3x1.6" (228x76x39mm)/ 16.4oz (465g)
2 year	2 year	2 year



# **Small Size, Big Performance**







# 380942 30A AC/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

SPECIFICATIONS	380942 🕦	380950
True RMS	True RMS	<del>'</del>
Display counts	4000 count LCD	4000 count LCD
Jaw size/Cable size	0.9" (23mm); 4/0 AWG	0.5" (12mm); 3/0 AWG
AC Current	400mA, 4A, 30A	4.000A, 80.0A
DC Current	4A, 30A	4A, 80A
Max Resolution	AC: 0.1mA, DC: 0.001A	1mA
Basic ACA Accuracy (% rdg)	±1.5%	±2.5%
AC Voltage (Max Res.)	400V (0.1V)	600V (0.1mV)
DC Voltage (Max Res.)	400V (1V)	600V (0.1mV)
Resistance (Max Res.)	_	$40$ Μ $\Omega$ $(0.1\Omega)$
Frequency (Max Res.)	_	10MHz (0.001Hz)
Diode/Continuity	_	Continuity
Data Hold	Yes	Yes
Min/Max/Peak	Min/Max	Max
UL, CE, Category Rating	UL, CE, CAT III-300V	CE, CAT III-600V
Dimensions	7x1.8x1.3" (178x45x32mm)	8.2x2.7x1.4" (210x70x37mm)
Weight	8oz (225g)	7oz (200g)
Warranty	2 year	2 year

#### 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		

#### 480400/480403 Motor Rotation and 3-Phase Testers



#### Check 3-phase sequence and motor rotation

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

#### 480400 3-Phase Tester

• Multi-line LCD Displays; No battery required

#### 480403 Motor Rotation and 3-Phase Tester

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

SPECIFICATIONS	MODEL 480400	MODEL 480403
Phase Sequence	Yes	Yes
Voltage	40 to 600V	40 to 600V
Frequency	15 to 400Hz	2 to 400Hz
Motor Rotation	_	Yes
CE/Category Rating	CE, CAT III-600V	
Dimensions 5.1x2.7x1.25" (130x69x32mm)/ 4.5oz (130g)		(130g)

ORDERING	
480400	Non-Contact Phase Rotation Tester
480403	Motor Rotation and 3-Phase Tester



## **DL152 True RMS AC Voltage/Current Datalogger**





Supplied with a protective hard case

CE

# Datalog up to 16,350 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
- High/Low user-programmable alarms
- LCD indicates time/date, current readings, Min/Max, and whether alarm settings have been exceeded
- Normal, Peak and Capture (user-specified trigger level) recording modes
- Auto Power off and battery check
- 2 year warranty
- Complete with current clamp, test leads, alligator clips, USB cable, Windows® compatible software, universal AC adaptor, and 3.6V Lithium battery

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
AC Current	10 to 200A	0.1A	±(2% rdg ± 1A)
AC Voltage	10 to 600V	0.1V	$\pm$ (1.5% rdg $\pm$ 1V)
Memory	16,350 points		
Sampling Rate	1 second to 24 hours	3	
PC Interface	USB includes softwa	re	
Dimensions	4.5 x 2.5 x 1.3" (114 :	x 63 x 34mm)	
Weight	8.7oz (248g)		

ORDERING		
DL152	True RMS AC Voltage/Current Datalogger	

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





Supplied with a protective hard case

 $\epsilon$ 

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

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
AC Current	10 to 200A	0.1A	±(2% rdg ± 1A)
AC Voltage	10 to 600V	0.1V	$\pm$ (2% rdg $\pm$ 1V)
Memory	256,000 points		
Sampling Rate	1 second to 24 hours		
PC Interface	USB includes software	•	
Dimensions	4.5 x 2.5 x 1.3" (114 x	63 x 34mm)	
Weight	8.7oz (248g)		

ORDERING		
DL160	Dual Input True RMS AC Voltage/Current Datalogger	\$299.99

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



#### Non-contact detection of AC Voltage up to 600VAC

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

#### ORDERING

40130 AC Voltage Detector

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



#### Rugged double molded housing

- Suitable for outlets or against wire insulation testing
- 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

#### ORDERING

DV20 AC Volt Detector with Flashlight DV24 CAT IV AC Volt Detector with

# **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**

DV30 Adjustable AC Voltage Detector

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



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

- The only two-in-one AC Current (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

DVA30 Non-Contact Volt/Current Detector



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











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)

- 2 year warranty
- Complete with pocket clip and three LR44 batteries

#### ORDERING

DV40

AC Voltage Detector with IR Thermometer

# **VT30** Multi-function Voltage Tester



# ₩ (€

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

- LED indication of AC/DC voltage:
- DC Polarity LED indication; Continuity beeper; Low impedance; Double molded housing
- Phase rotation test for motors
- IEC1010-1 CAT IV 600V and CAT III 1000V safety rating
- Dimensions: 9.4x3x1.6" (240x78x40mm);
   Weight: 8.4oz (237g)
- 2 year warranty
- Complete with 2 AAA batteries, protective cap, and pouch case

#### VT30

- Digital bargraph
- Large LCD display
- AC Voltage (0 to 480V) and DC Voltage (0 to 690V)

#### ORDERING

VT30

Digital Voltage Tester with bargraph





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



# **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 listed
- Two modular 4" (102mm) Heavy Duty test probe handles with 0.16" (4mm) banana plug tip, CAT III-1000V, UL listed
- Two plunger mini-hooks
- · Two alligator clips with removable insulators
- Includes 3 compartment sealable nylon pouch to organize/protect your test leads

ORDERING	G
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
- TL807 Alligator clips with insulated rubber boot fit onto test leads,

CAT III-1000V. Compatible with TL805 (bottom left). TL807C fits TL803 leads

ORDERING	
TL806	Extra Large Alligator Clips for TL810 or TL809
TL807	Insulated Alligator Clips for TL805
TL807C	Insulated Alligator Clips for TL803

# **TL805-EU** Double Injected **Test Leads**



#### Non-slip comfort grip

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

#### ORDERING

TL805-EU Double Injected Test Leads

# **TL803-EU Standard Test Leads**



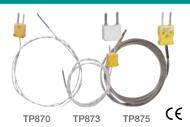
#### Protective tip covers for safe storage

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

#### ORDERING

TL803-EU Standard Test Leads

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



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

ORDERING	
TP870	Bead wire with Type K connector (-40 to 482°F/-40 to 250°C)
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

# **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

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



#### Hands-free temperature measurement to 450°F 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

# **TP200** Type K Pipe Clamp **Temperature Probe**



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

- Spring-loaded jaw for secure grip on pipes; 0.25" (6.35mm) to 1.5" (38mm) diameter
- For use with any Thermometer or MultiMeter with a Type K 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

#### **Protective Soft Cases**



409992

409996





409997

CA500





CA899

CA900

#### 000EDIN0

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)

Wide carrying case for DMM Kits

9.8x8x2" (248x203x51mm)



# **TL841** Professional Test Lead Kit



# 16-piece kit with multiple test lead tip configuration

- Alligator Clip Set, 5A, CAT III-300V
- 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

# **TL833** Industrial **Test Lead Kit**



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

- TL726 Double Molded Silicone Test Leads
- TL740 Industrial Plunger Style Test Clips
- TL741 Heavy Duty Plunger Style Hook Clip Set
- TL708 Large Alligator Clip Set
- · 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
- TL741 Heavy Duty Plunger Style Hook Clip Set
- TL742 Heavy Duty Plunger Style Pincer Grip Set
- TL740 Industrial Plunger Style Test Clips
- TL709 Medium Alligator Clip Set
- · Conveniently stored in a pouch case

#### ORDERING

TL831 Master Electrical 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 IV-600V/3A max; CAT III-1000V

#### ORDERING

TL741

Heavy Duty Plunger Style Hook Clips

# **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



# PQ500/PQ1000 CAT IV Test Lead Kits



#### Set of Four Test Lead Kit for Power Quality Analyzers and set of 2 Test Lead Kit for other Test Equipment

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

#### **PQ500 Test Lead Set**

 2φ 2-wire test lead kit (Black and Red ONLY)

#### PQ1000 Test Lead Set

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

ORDERIN	G	
PQ500	Test Leads	
DO1000	Toot Loads	

# **TL708/TL709** Alligator 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, 16A, CAT III-1000V
- 1.4" (37mm) jaw length; 0.8" (20mm) opening; 3.9" (98mm) overall length

ORDERING	
TL708	Large Heavy Duty Alligator Clips
TL709	Medium Alligator Clips

# **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

ORDERI	IG	
TL740	Industrial Plunger Style Test Clip Set	

# **TL748** Spring Loaded Hook Tip Probes



#### Ideal for gripping a component lead or fine wire

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

#### ORDERING

TL748 Spring Loaded Hook Tip Probes

# **TL726** Double Molded Silicone Test Lead Set



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

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

#### ORDERING

TL726 Double Molded Silicone Test Lead Set

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



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

- Simplify mid-run wiring jobs by easily identifying the correct circuit powering the cable to be spliced or repaired
- The innovative RT30 combines non-contact voltage detection with wireless signals to monitor and remotely report the presence of voltage on a wire
- Clamped onto a live wire, the transmitter signals the user at the breaker panel with LED and audible alerts on the receiver (up to 100m range); The alerts stop when the correct circuit breaker is switched and work can then be performed safely
- Eliminates the need for an assistant or back-and-forth trips to confirm the correct circuit is powered down
- The RT30's clamp-style probe accessory is ideal for wires that are hard to isolate or reach
- · Easily identify lighting and outlet circuits
- 2 year warranty
- Includes transmitter, receiver, remote clamp-style probe, 4 "AAA" batteries and pouch case

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RT32 Wireless AC Circuit Identifier (869MHz)

#### **CT20** Continuity Tester Pro



#### 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

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	$0.1\Omega$ to $20M\Omega$
Diode/Continuity	Yes
Dimensions/Wt	6.3x2.9x1.7" (162x74.5x44mm)/ 10.8oz (308g)

ORDERING	
CT40	16-Line Cable Identifier/Tester Kit



#### **CT100** Network Cable Tester



#### Continuity Tester for twisted pair cables and F Type coaxial cables

- Tests cable lengths from 3 to 600ft (0.9 to 183m);
   Dimensions/Weight: 3.25x2x1.25" (83x51x32mm)/3.6oz (102g)
- 2 year warranty
- Complete with 2 AAA batteries.

#### **Twisted Pair Features**

- Tests EIA/TIA568A and 568B and 10Base-T
- · Tests for shorts, opens, miswires and reversals
- · Shield detection tests shield integrity
- Tests installed wiring and jumper cables; shielded or unshielded twisted pair cable; Cat 5e, Cat 5, Cat 4, and Cat 3

#### **CATV** Features

• "F" connector for troubleshooting CATV coaxial installations

ORDERING	
CT100	Network Cable Tester
409992	Vinyl pouch carrying case

#### **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 year warranty
- Complete with Amplifier probe and Tone Generator with alligator clips and modular RJ11 phone and RJ45 digital connector cables, 9V batteries and case

ORDERING	
40180	Tone Generator and Amplifier Probe Kit

#### TG30 Wire Tracer/Tone Generator Kit





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

#### Trace communications and coaxial cables

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

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TG30	Wire Tracer/Tone Generator Kit	

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



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



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

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

SPECIFICATIONS	
Trigger Coupling	AC, DC
Input impedance	1MΩ/20pF
Max Input Voltage	400V (peak)
Cursor Measurement	Voltage and time
True RMS MultiMeter	Functions
AC/DC Voltage	400mV, 4V, 40V, 400V
AC/DC Current	40mA, 300mA, 20A
Resistance	400Ω, 4kΩ, 40kΩ, 400kΩ, 40MΩ
Capacitance	51.2nF to 100μF
Diode and Continuity	Yes
PC Interface	USB cable
Power Supply	6 hours Li-ion rechargeable battery; AC Adaptor/charger
Dimensions/Weight	7x4.4x1.6" (180x113x40mm) / 24.3oz (690g)

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PWRCORD-MS420 European Power Cord for MS420

## MS6060/MS6100/MS6200 2-Channel Digital Handheld Oscilloscopes



5.6" (142mm) color LCD display simplifies viewing multiple waveforms with 3 models to choose from 60MHz, 100MHz, or 200MHz bandwidth

- Easy to use setup optimizes the position, range, timebase, and triggering to assure a stable display of virtually any waveform
- 23 Automatic Measurements
- Waveform Math: Add, Subtract, Multiply, and Divide
- Store and recall waveform screens using the installed 2G microSD card
- · Automatic cursor tracking
- XY Mode
- Built-in FFT function converts a time-domain signal into its frequency components to measure harmonic content and distortion in systems
- Waveform Recorder to capture/replay input waveforms from CH1 and CH2
- Average Mode for smoothing waveforms
- Square Wave Output (2V, 1kHz) for probe adjustment
- 6,000 count MultiMeter with analog bargraph
- SD Card and software for saving waveforms and data
- Complete with two 1X/10X oscilloscope probes, test leads, SD Card, universal AC adaptor/charger, and carrying case

SPECIFICATIONS	MODEL MS6060	MODEL MS6100	MODEL MS6200					
Oscilloscope Functions	Oscilloscope Functions							
Bandwidth	60MHz	100MHz	200MHz					
Real time sample rate	1GS/s	1GS/s	1GS/s					
Risetime	5.8ns	3.5ns	1.8ns					
Glitch Capture	8ns	2.5ns	2.5ns					
Common Oscilloscope F	unctions							
Record Length	1M points per channel							
Display Size	5.6" (142mm) color	5.6" (142mm) color LCD; 640x480 pixels						
Channels	2							
Vertical Sensitivity	2mV to 5V/div	2mV to 5V/div						
Vertical Resolution	8 bits							
Timebase Range	2ns to 2000s/div							
Sample Mode	Normal, Average, Peak Detect							
Trigger Modes	Edge, Pulse, Alt, Video, Slope, O.T.							

SPECIFICATIONS	MODEL MS6060	MODEL MS6100	MODEL MS6200
Trigger Source	CH1, CH2		
Trigger Coupling	AC, DC, GND		
Input impedance	1MΩ/15pF		
Max Input Voltage	300V (peak)		
Cursor Measurement	Voltage and time; D	elta (CH1-CH2)	
Common True RMS Mul	tiMeter Functions		
AC Voltage	60mV, 600mV, 6V, 6	0V, 600V	
DC Voltage	60mV, 600mV, 6V, 6	0V, 600V, 800V	
AC/DC Current	60mA, 600mA, 10A		
Resistance	600Ω, $6kΩ$ , $60kΩ$ , $60$	$600$ k $\Omega$ , $6$ Μ $\Omega$ , $60$ Μ $\Omega$	
Capacitance	5nF to 400µF		
Diode and Continuity	Yes		
PC Interface	USB cable		
Power Supply	3 hours Li-ion recha	argeable battery; AC A	daptor/Charger
Dimensions/Weight	9.6 x 6.4 x 2" (245 x	x 163 x 52mm) / 2.6lbs	(1.2kg)

ORDERING	
MS6060	60MHz 2-Channel Oscilloscope
MS6100	100MHz 2-Channel Oscilloscope
MS6200	200MHz 2-Channel Oscilloscope
TL620	60-200MHz Oscilloscope Probe
TL625	High Voltage 2500V, 100MHz Probe
BATT-74V	Rechargeable Batteries (7.4V/ 3500mAH)



#### **LCR200** Passive Component LCR Meter







Tweezer for sorting out SMD components

LCR203 - Optional SMD LCR205 - Optional SMD Component Fixture

#### L, C, R measurements 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), θ (phase), or ESR (equivalent series resistance)
- Auto Select measurement function with 1kHz default test frequency
- Five test frequencies
- Set Hi/Lo limits using absolute values or percentage limits
- Relative function, Auto power off with disable, Low battery and over-range indicators
- Parallel or Series equivalent circuit
- · Built-in test fixture or use external test leads
- RS-232 interface
- Open and Short calibration removes unwanted stray impedances from the measurement
- · 2 years warranty
- · Complete with test leads and 9V battery
- Optional SMD Tweezer (LCR203) and plug-in SMD Component Fixture (LCR205)

SPECIFICATIONS	RANGE	BASIC ACCURACY
Inductance	20µH, 200µH, 2000.0µH, 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, 20.000μF, 200.00μF, 2.0000mF, 20.00mF	±(0.5%rdg)
Resistance	20.00Ω, 200.00Ω, 2.0000kΩ, 20.000kΩ, 200.00kΩ, 2.0000MΩ, 20.000MΩ, 200.00MΩ	±(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





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

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

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

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

#### RC200 R/C SMD Tweezer Component Test with Built-in MultiMeter







Detachable Tweezer Tip for sorting SMD component and Test Lead Tip for taking voltage measurements

#### Interchangeable test leads for voltage and SMD Tweezers

- Auto/manual ranging; CAT III-600V
- · Over-range and low battery indicators and Auto Power off
- Includes two button batteries, test leads, SMD tweezers, cover and case; 1yr warranty

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
AC/DC Voltage	600mV, 6V, 60V, 600V	0.1mV	±(1.0%) AC/ ±(0.8%) DC
Resistance	600, 6k, 60k, 600k, 6M, 60M $\Omega$	$0.1\Omega$	±(1.5% of rdg)
Capacitance	6nF, 60nF, 600nF, 6μF, 60μF, 600μF, 6mF, 60mF	1pF	±(3.0% of rdg)
Diode/ Continuity Test	1mA @ 1.5V approx / <40Ω; 1.5mA test current Max.		
Dimensions/ Weight	7.1 x 1.4 x 0.8" (181 x 35 x 20mm)/ 2.3oz (65g)		

ORDERING		
RC200	MultiMeter with SMD Tweezer Component Test	
RC200-TL	Replacement Test Lead Tip	
RC200-TT	Replacement Tweezer Tip	

## MC108/MC200 Digital Mini Microscopes





MC108 - Mini Microscope



MC200 - Mini Microscope/Camera

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

- · LED illumination with adjustable brightness and contrast
- 5 Image Effect modes: Normal, Gray, Inverse, Emboss, and Dual Window View
- Dual Window View displays the magnified image next to the original image
- Real-time imaging on your PC screen via USB interface and included software
- Complete with batteries, adaptor/charger, Windows® compatible PC software with mini USB cable, cleaning cloth, and wrist strap; MC108 also includes a stand; MC200 also includes a Video cable, memory card and case; 2 years warranty Model MC108 Microscope
- 4.6cm TFT Color LCD Screen with 7x to 108x magnification range; Optical Zoom: 7x to 27x; Digital Zoom: 4x; Captures JPEG images (320x240 pixels) with 2MB memory
- Dimensions: 4.7x2.2x0.8" (120x56x20mm)/Weight: 2.5oz (70g) without batteries Model MC200 Microscope/Camera
- 7.1cm TFT Color LCD Screen with 1x to 200x magnification range; Optical Zoom: 1x to 10x (continuous) and 40x; Digital Zoom: 5x; Captures video and JPEG images (1600x1200 pixels) with 2G microSD memory card
- Dimensions: 5.1x2.6x1.1" (129x67x28mm)/Weight: 5.6oz (160g) including battery

ORDERING	
MC108-2	Mini Microscope (220V EU plug)
MC108-4	Mini Microscope (240V UK plug)
MC200-2	Mini Microscope/Camera (220V EU plug)
MC200-4	Mini Microscope/Camera (240V UK plug)

## **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	$0.002\Omega$	±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	4 to 122°F (-20 to 50°C)		
Dimensions/Weight	10.2x4.4x1.9" (258x110x47mm) / 1.5lbs (700g) (meter only)		

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382357 N Clamp-On Ground Resistance Tester



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





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

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

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

#### **GRT300** 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	$2\Omega/20\Omega/200\Omega/2000\Omega$
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	
GRT300 N	4-Wire Earth Ground Resistance Tester Kit
382153	Replacement Earth Bars (2pk)
382154	Replacement Set of Leads

## **UM200** High Resolution Micro-Ohm Meter



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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	$60 \text{m}\Omega$	1μΩ	10A	±(0.25%)
	$600 m\Omega$	10μΩ	1A	±(0.25%)
	6Ω	100μΩ	100mA	±(0.25%)
	60Ω	1mΩ	10mA	±(0.25%)
	$600\Omega$	10m $\Omega$	1mA	±(0.25%)
	6kΩ	100m $Ω$	100μΑ	±(0.75%)
Power	Rechargeable Li-Polymer Battery			
Dimensions/Weight	10.1 x 6.1 x 2.2" (257 x 155 x 57mm)/ 2.6lb (1160g)			

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JM200 N

High Resolution Micro-Ohm Meter

#### **380562** High Resolution Milliohm Meter



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

- · 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	$20 m\Omega$	0.01mΩ	1A	±0.2%
	200m $Ω$	$0.1 m\Omega$	1A	±0.2%
	$2\Omega$	$0.001\Omega$	100mA	±0.2%
	$20\Omega$	0.01Ω	10mA	±0.2%
	$200\Omega$	0.1Ω	1mA	±0.2%
	2kΩ	0.001kΩ	100μΑ	±0.2%
	20kΩ	0.1kΩ	10μΑ	±0.2%
Power	110VAC, 60Hz	or 220VAC 50Hz		
Dims/Wt	11x8.3x3.5" (28	80x210x90mm)/ 4.85lb (2.	2kg)	

#### ORDERING

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

#### **380462** Precision Milliohm Meter



#### Portable Milliohm meter provides resolution to 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	$0.1 m\Omega$	3.8VDC	±0.75%	
	2000m $Ω$	$1 m\Omega$	3.4VDC	±0.75%	
	200Ω	100m $Ω$	3.2VDC	±0.75%	
	2kΩ	1Ω	3.2VDC	±0.75%	
Power	110VAC, 60Hz or 220VAC, 50Hz				
Dimensions/Weight	6.3x2.8x3.4" (1	60x120x85mm)/ 1.5lb (68	0g)		

ORDERING			
380462 N	Precision Milliohm Meter, 220VAC		
000465	Consultation Clim Took Load Cat		



#### **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-600V
- Dimensions: 7.9x3.6x2" (200x92x50mm); Weight: 1.2lbs (546g) includes batteries
- 2 year warranty
- Complete with test leads, 6 x AA batteries, and hard carrying case

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380320 Analog High Voltage 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  $0.1M\Omega$  max resolution and  $\pm 3\%$  of reading basic accuracy
- 250V, 500V, and 1000V test voltages
- Auto power off
- Lo  $\Omega$  function for testing connections
- Lock Power On Function for hands-free operation
- Data Hold
- CAT III-600V
- Dimensions: 7.8x3.6x1.9" (200x92x50mm); Weight: 24.6oz (700g)
- 2 year warranty
- Complete with heavy duty test leads, alligator clip, hanging strap, protective carrying case, and 6 x AA batteries

#### ORDERING

380260 N

Handheld Megohmmeter











#### **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 measurement 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, and heavy duty carrying case; Model 380396 with 220V AC adaptor



## **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  $0.001 \text{M}\Omega$  to  $4000 \text{M}\Omega$
- · Auto discharge
- Lock Power On Function for hands-free operation
- Data Hold to freeze displayed reading
- Min/Max and Relative mode
- Auto power off
- Waterproof (IP67) rugged design
- Complete with remote receiver with USB cable, Windows® compatible software, heavy duty 4-wire test leads, protective rubber holster, multimeter test leads, carrying case, and 6 x AA batteries



## **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





SPECIFICATIONS	MG302 (433MHz) N	380363 N	380396 🕦
Insulation Resistance (max resolution)	$4$ Μ $\Omega$ , $4$ 0Μ $\Omega$ , $4$ 00Μ $\Omega$ , $4$ 000Μ $\Omega$ (0.001Μ $\Omega$ )	4M $\Omega$ , 40M $\Omega$ , 400M $\Omega$ , 4000M $\Omega$ , 10G $\Omega$ (1k $\Omega$ )	6MΩ, 60MΩ,600MΩ, 6GΩ, 60GΩ (1kΩ)
Basic Accuracy	±3%	±3%	±2.5%
Insulation Test Voltages	125V, 250V, 500V, 1000V	250V, 500V, 1000V	500V, 1000V, 2500V, 5000V
AC Voltage Test	1000V	999VAC	600VAC
Low Resistance Test	0 to $400\Omega$	0 to $40\Omega$	0 to $600\Omega$
MultiMeter Functions			
AC/DC Voltage (max resolution)	1000V (0.1mV AC/0.01mV DC)	_	_
AC/DC Current (max resolution)	10A (0.1μA AC/0.01μA DC)	_	_
Resistance (max resolution)	$40$ Μ $\Omega$ (0.01 $\Omega$ )	_	_
Frequency (max resolution)	100MHZ (0.001Hz)	_	_
Duty Cycle (max resolution)	0.1 to 99.9% (0.01%)	_	_
Temperature (max resolution)	-58 to 2192°F /-50 to 1200°C (0.1°)	_	_
4-20mA% (max resolution)	-25 to 125% (0.01%)	_	_
CE, FCC	CE, (FCC MG300 only)	CE	CE
Dimensions/Weight	7.8 x 3.6 x 1.9" (200 x 92 x 50mm)/ 20.5oz (582g)	9.3x4.6x2.1" (235x116x54mm)/ 1.15lbs (520g)	7.8x5.8x3.4" (198x148x86mm)/ 3.2lbs (1438g)
Warranty	2 year	2 year	2 year









## 380976-K 1-Phase & 3-Phase 1000A AC Power Clamp

Includes special test lead kit

- Measures True Power, Apparent Power, Reactive Power, Horsepower, Power factor, and Phase Angle with Lead/Lag indicator
- AC+DC µA Current with 10nA resolution for flame rod tests
- Auto Detect AC/DC Voltage measurements with simultaneous Frequency display
- 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 Clamp Power Analyzer

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

- Display Lead/Lag Current/Voltage phase shift in degrees
- Store/recall last 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



## PQ2070 1000A AC 1-/3-Phase Clamp Power Analyzer

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

- Built-in non-contact Voltage Detector with LED alert
- Measures 1φ and balanced 3φ kW, kVA, kVAR and kWh, plus Power Factor and Phase Angle
- Manually store/recall up to 99 data sets
- Data Hold and Max/Min
- Auto power off
- USB interface
- Complete with test leads,
   USB cable and software,
   carrying case and 9V battery

SPECIFICATIONS	380976-K ₪	382075 💌	PQ2070
Display counts	10,000 count LCD	9999 count LCD	9999 count LCD with bargraph (backlit)
Jaw size/Cable size	1.6" (40mm); 500MCM	2.2" (55mm); 1000MCM	2.16" (55mm); 1000MCM
True RMS	Yes	Yes	Yes
True Power (max res.)	600kW (10W)	1200kW (0.01kW))	750kW (10W)
Basic Accuracy (ACA)	±2%rdg	±1.5%rdg	±2.0%rdg
Apparent Power	600kVA (10VA)	1200kVA (0.01kVA)	750kVA (10kVA)
Reactive Power	600kVAR (10VAR)	1200kVAR (0.01kVAR)	750kVAR (10VAR)
Power Factor	Yes	Yes	Yes
Phase Angle (φ)	-65 to +60°	-90° to +90° (0.1°)	0 to +90° (1°)
Active Power Energy	-	_	9999kWh (0.001kWh)
Peak Capture	_	_	_
AC/DC Current (max res.)	100.00A, 1000.0A AC (10mA)	2000A AC/DC (0.1A)	1000A AC (0.1A)
μA AC+DC Current (max res.)	1000μA Trms (0.01μA)	_	_
AC/DC Voltage (max res.)	600V (0.1mV)	600V (0.1V)	750VAC (0.1V)
Resistance (max res.)	1000kΩ, 100MΩ (0.1Ω)	_	_
Capacitance (max res.)	7000μF (0.001μF)	_	_
Frequency (max res.)	40Hz to 1kHz (0.1Hz)	40 to 400kHz (0.1Hz)	50Hz to 200Hz (1Hz)
Temperature (max. res.)	-58 to 1000°F or -50 to 900°C (0.1°)	_	_
UL, CE, Category rating	UL, CE, CAT III-600V	UL, CE, CAT III-600V	CE, CAT III-600V
Dimensions/Weight	9x3x1.6" (228x76x39mm)/16.4oz (465g)	10.7x4.8x1.8" (271x122x46mm)/24.7oz (700g)	11.5x3.75x1.5" (292x95x38mm)/18.4oz (522g)
Warranty	2 year	2 year	2 year



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



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



PQ34-12: 1200A Current Clamp Probes with 2" (50mm) 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
- Easy-to-use on-screen menu
- Banana style input jacks
- 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

#### **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, and outage) with programmable threshold (%)

SPECIFICATIONS	RANGE	BASIC ACCURACY
ACV (True RMS)	600.0V	±(0.5%rdg)
ACA	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 readings (2GB SD memory Card)	
Peak AC Voltage Accuracy (PQ3470)		±(5%)
Peak AC Current accuracy (PQ3470)		±(5%)
CE/CAT rating	CE/CAT III-600V	
Dimensions	8.86 x 4.92 x 2.52" (225 x 125 x 64mm)	
Weight	2.2lbs (1010g)	

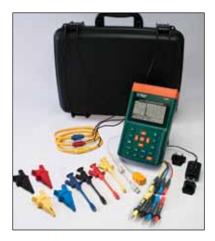
ORDERING	
PQ3450	3-Phase Power Analyzer/Datalogger
PQ3470	3-Phase Graphical Power and Harmonics Analyzer/Datalogger
PQ1000	Voltage Test Leads with Alligator and Plunger Clips (4 leads)
PQ34-2	200A Current Clamp Probes (Set of 3)
PQ34-12	1200A Current Clamp Probes (Set of 3)
PQ34-30	3000A, Flexible Current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



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



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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

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

SPECIFICATIONS	RANGES	BASIC ACCURACY
AC Voltage (True RMS)	600V	±0.5%rdg
AC Current (True RMS)	100A, 1000A, 3000A*	±0.5%rdg
Active Power (kW)	9.999MW	±1%rdg
Apparent Power (kVA)	9999kVA	VA=Vrms x Arms
Reactive Power (kVAR)	9999kVAR	VAR= 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°
Harmonics	1 to 99	±2%
Crest Factor	1.00 to 99.99	±5%
Peak AC Voltage accuracy	±(5%rdg+30d)	
Peak AC Current accuracy	±(5%rdg+30d)	
Active Power Energy (kWh)	0mWh to 999,999kWh	
Reactive Power Energy (kVARh)	0.0kVARh to 1000MWh	
Datalogging 52428 records (1P2W)/17476 records (3P4W)		(3P4W)
CAT rating	CAT III-600V	
Dimensions/ Weight Meter: 10.1 x 6.1 x 2.3" (257 x 155 x 57mm)/ 2 Clamp: 2.2" (55mm), 2.5" x 1.0" (64x24mm) b		

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

ORDERING	
PQ3350-1	1200A 3-Phase Power Harmonics Analyzer Kit (includes PQ3210)
PQ3350-3	3000A 3-Phase Power Harmonics Analyzer Kit (includes PQ3220)
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



100A Current Clamp Probes with 1.2" (30mm) jaw opening with 2.2" (55mm) jaw opening



Model PQ3120 1000A Current Clamp Probes



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



# **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° resolution
- Dimensions: 5.9x0.8x0.7" (150x20x18mm); Weight: 0.7oz (20g)
- · 2 year warranty
- Complete with one LR44 button battery and protective cover

ORDERING	
39240	Wate

Waterproof Thermometer

# **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	
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401014 Big Digit Indoor/Outdoor Thermometer

## **392050** Penetration Dial Thermometer



## Sharp stainless steel probe measures temperature in air, liquids, and semisolids

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

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392050 Penetration Dial Thermometer

## **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/m² to 30.93 W/m²
	0μW/cm² to 3.093 mW/cm²
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 RF EMF Strength Meter (8.0GHz)

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## 480836 3.5GHz RF EMF Strength Meter



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

- For electromagnetic field strength measurement of mobile phones, cell phone and base stations, microwave leakage
- Non-directional (isotropic) measurement with 3-channel (triaxial) measurement probe
- User selectable alarm threshold
- Max Hold and Average functions
- 2 year warranty
- Complete with 9V battery and carrying case

RANGE
50MHz to 3.5GHz
Isotropic, 3-dimensional
20mV/m to 108 V/m
53μA/m to 286mA/m
1μW/m² to 30.93mW/m²
0μW/cm² to 3.093mW/cm²
Adjustable threshold with On/Off
Manual save/recall of 99 sets
2.4x2.4x9.3" (60x60x237mm)/ 7.1oz (200g)

ORDERING	
480836	RF EMF Strength Meter (3.5GHz)

## **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 of 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	2.6x1.2x 7.6" (68x30x195mm)		

ORDERING		
480826	Triple Axis EMF Meter	

#### 480823 EMF/ELF Meter



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)
- 2 year warranty
- Complete with 9V battery

ORDERING		
480823	Electromagnetic Field Meter	
409992	Soft pouch carrying case	

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## 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

## **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 and more.



## 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
- MAX/MIN features display highest and lowest values
- 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

SPECIFICATIONS	42500 <b>N</b>	IR400 🕦	42510A N
IR Temperature (Non-contact)	-4 to 500°F (-20 to 260°C)	-4 to 630°F (-20 to 332°C)	-58 to 1200°F (-50 to 650°C)
Basic Accuracy	±2% of rdg or ±4°F/±2°C (whichever is greater)	±2% of reading +4°F/2°C	±(1% of reading + 2°F/1°C)
Max. Resolution	1°F/°C	0.1°F/°C	0.1°F/°C; 1°F/°C
Emissivity	0.95 fixed	0.95 fixed	0.1 to 1.00 Adjustable
Field of view (Distance to Target)	6:1	8:1	12:1
CE approved	Yes	Yes	Yes
Dimensions	3.2x1.7x6.7" (82x44x170mm)	3.2x1.6x6.3" (82x42x160mm)	3.2x1.6x6.3" (82x42x160mm)
Weight	4.9oz (140g)	6.3oz (180g)	6.4oz (180g)
Warranty	3 years	2 year	3 years



## Set Yourself Apart from the Competition

"I love the 42512's ability to adjust emissivity, proving to a client I am more accurate than the competition. The dual laser makes a visual measurement exact and it's very impressive to customers, giving me more credibility."

Norman D., Alberta, Canada









## 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



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

Fast response and accurate measurements

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

SPECIFICATIONS	42509 N	42512 N
Range	-4 to 950°F (-20 to 510°C)	-58 to 1832°F (-50 to 1000°C)
Basic Accuracy	±(1% of rdg + 2°F/1°C)	±(1% of rdg + 2°F/1°C)
Repeatability	±0.5% or 1.8°F/1°C	±0.5% or 1.8°F/1°C
Max. Resolution	0.1°F/C	0.1°F/°C
Emissivity	0.10 to 1.00 Adjustable	0.10 to 1.00 Adjustable
Field of View (Distance to Target)	12:1	30:1
CE approved	Yes	Yes
Dimensions/ Weight	5.7x4x1.6" (146x104x43mm)/ 5.7oz (163g)	5.7x4x1.6" (146x104x43mm)/ 5.7oz (163g)
Warranty	3 years	3 years





## 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 42515-T: Includes 42515 and TP200 pipe clamp

temperature probe (-4 to 200°F/-20 to 93°C)



## 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

■ 42515 🕦   🛦 42515-T 🕦	42545 <b>N</b>	SPECIFICATIONS
IR: -58 to 1472°F (50 to 800°C); Type K: -58 to 2498°F (-50 to 1370°C)	-58 to 1832°F (-50 to 1000°C)	Range
IR: ±2%rdg or 4°F(2°C); Type K: ±1.5%rdg + 2°F/1°C	2%rdg + 4°F/2°C<932°F (500°C); 3% + 9°F/4°C>932°F (500°C)	Basic Accuracy
±0.5% or ±1.8°F/1°C	±0.5% or ±1.8°F/1°C	Repeatability
0.1°F/°C	0.1°F/°C	Max. Resolution
0.1 to 1.00 Adjustable	0.1 to 1.00 Adjustable	Emissivity
13:1	50:1	Field of View (Distance to Target)
Yes	Yes	CE approved
3.2 x1.6x6.3" (82x42x160mm)/ 6.4oz (180g)	3.9x2.2x9" (100x56x230mm)/ 10.2oz (290g)	Dimensions/ Weight
3 years	3 years	Warranty



#### **42570** High Temperature IR Thermometer







Fast, easy-to-use, dual laser pointer for non-contact temperature readings plus Type K input for contact Temperature

## Fast response (100mS) with highest accuracy at point where dual lasers converge 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; 3 year warranty
   (See p. 33, 34, and 57 for additional optional Type K Thermocouple probes)

OPPOSEDATIONS	
SPECIFICATIONS	
Laser Convergence Distance	50" (127cm)
IR Temperature Range	-58 to 3992°F (-50 to 2200°C)
Repeatability	±0.5% or 1.8°F/1°C
Basic Accuracy	±(1% of rdg + 2°F/1°C)
Max resolution	0.1°F/°C
Emissivity	0.10 to 1.00 Adjustable
Field of View (Distance to Target)	50:1
Type K Range	-58 to 2498°F (-50 to 1370°C)
Dimensions/ Weight	8x6.1x2" (204x155x52mm)/ 11.3oz (320g)

ORDERING		
42570 N	50" Distance Dual Laser InfraRed Thermometer	

#### **VIR50** Digital Laser Video IR Thermometer



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

## 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
- Body Temperature Function for quickly detecting elevated body (forehead) temperature
- 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. 33, 34, and 57 for additional optional Type K Thermocouple probes)

SPECIFICATIONS	
Laser Convergence Distance	50" (127cm)
IR Temperature Range	-58 to 3992°F (-50 to 2200°C)
Repeatability	±0.5% or 1.8°F/1°C
Basic Accuracy	±(1% of rdg + 2°F/1°C)
Max resolution	0.1°F/°C
Emissivity	0.10 to 1.00 Adjustable
Field of View (Distance to Target)	50:1
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	Dual Laser Video IR Thermometer
BATT-37V	Rechargeable 3.7V battery







ACCESSORIES		
TP200	Type K Clamp Probe (-4 to 200°F)	
TP400	Type K High Tempera- ture 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 3 plugs (US, EU, UK)	
See p. 33, 34, and 57 for details and additional temperature probes.		



## HD200 Differential Thermometer Datalogger + IR

Automatically stores up to 18,000 readings and takes differential and non-contact surface temperature measurements

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



## SD200 3-Channel Temperature Datalogger

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

- Triple LCD simultaneously displays 3 Type-K Temperature channels
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto
- Complete with (6) AAA batteries, 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
- Complete with four general purpose Type K bead wire temperature probes, SD card, hard carrying case, and 6 AA batteries; Optional AC Adaptor 153117 or UA100-240

SPECIFICATIONS	HD200 №	SD200 ₪	SDL200 ₪
Number of Inputs	Dual + IR	Triple	Quad
Type K °F (°C)	-328 to 2501°F (-200 to 1372°C)	-58 to 2372°F (-100 to 1300°C)	-148 to 2372°F (-100 to 1300°C)
Type J °F (°C)	_	_	-148 to 2192°F (-100 to 1200°C)
InfraRed °F (°C)	-22 to 1022°F (-30 to 550°C) with IR probe	-	_
Basic Accuracy	±0.15%	±(0.5% + 1°F/ 0.5°C)	±0.4% rdg
Max. Resolution	0.1°/1°	0.1°	0.1°/1°
Datalogging	18,000 readings	20M readings using 2G SD memory card	20M readings using 2G SD memory card
PC Interface	Yes	Optional 407001 Software (see p. 106)	Optional 407001 Software (see p. 106)
CE approved	Yes	Yes	Yes
Dimensions/Weight	7.9x2.9x1.9" (201x75x50mm)/ 9.8oz (280g)	5.2x 3.1x1.3" (132x80x32mm)/10oz (285g)	7.2x2.9x1.9" (182X73X48mm)/ 17.6oz (500g)
Warranty	3 years	2 years	3 years



# More Capabilities for Better Diagnostics

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







TP882 Type K Penetration Probe

TP200/TP400 Pipe Clamp Probes

ACCESSORIES			
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)		
409996	Soft Vinyl Pouch Carrying Case (for EA15)		
See p. 33-3	See p. 33-34 for additional temperature probes.		

### TM100 Type J/K Single Input Thermometer

Side-mounted controls allow for convenient one-handed operation

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

## 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 onehanded 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)

SPECIFICATIONS	TM100 N	TM300 N
Single or Dual Input	Single	Dual
Type K °F (°C)	-328 to 2501°F (-200 to 1372°C)	-328 to 2501°F (-200 to 1372°C)
Type J °F (°C)	-346 to 2012°F (-210 to 1100°C)	-346 to 2012°F (-210 to 1100°C)
Basic Accuracy	±0.15% rdg	±0.15% rdg
Resolution	0.1°/1°	0.1°/1°
Datalogging	-	-
CE approved	Yes	Yes
Dimensions	8.7x2.5x1.1" (220x 63 x 28mm)	8.7x2.5x1.1" (220x 63 x 28mm)
Weight	7oz (200g)	7oz (200g)
Warranty	2 year	2 year





# **EA11A** EasyView® Type K Single Input Thermometer

Large dual LCD display with 0.3% accuracy and memory

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



# 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. 33, 34, and 57)



# **EA15** EasyView® 7 Thermocouple Datalogger

Internal memory stores up to 8800 data sets

- Seven Thermocouple type selections:
   K, J, T, E, R, S, N
- · Large backlit display
- Stores Time, T1 and T2
- Manual push-button datalogging or automatic with programmable sample rate of 3 to 355 seconds per reading
- · Manual record/recall of data
- Data Hold and Auto power off
- MAX/MIN/AVG or MAX/MIN with elapsed time
- Complete with two general purpose Type K bead wire temperature probes, Windows® compatible software, RS-232 cable, protective holster, case, and 6 AAA batteries. (Optional temperature probes available on p. 33, 34, and 57)

EA11A N	EA10 N	EA15 🕦	SPECIFICATIONS
Single	Dual	Dual	Single or Dual Input
-58 to 1999°F (-50 to 1300°C)	-200 to 1999°F (-200 to 1360°C)	-200 to 1994°F (-150 to 1090°C)	Type K °F (°C)
_	_	-200 to 1999.9°F (-150 to 1370°C)	Type J °F (°C)
±0.3% rdg	±0.3% rdg	±0.05% rdg	Basic Accuracy
0.1°/1°	0.1°/1°	0.1°	Resolution
_	_	8800 readings	Datalogging
Yes	Yes	Yes	CE approved
5.9x2.8x1.3" (150x72x35mm)	6x2.8x1.5" (152x72x37mm)	5.91x2.83x1.38" (150x72x35mm)	Dimensions
8.3oz (235g)	8.3oz (235g)	8.3oz (235g)	Weight
2 year	2 year	2 year	Warranty



#### 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

Complete with 3.6V Lithium battery, mounting bracket, and Windows® 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)		

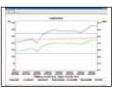
(	ORDERING	
F	RHT50	Humidity/Temperature/Pressure Datalogger
_	12299	3.6V Lithium Battery (pk of 2)

## RHT10/TH10 Humidity and Temperature USB Dataloggers



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Monitors Temperature and Humidity (RHT10) levels. USB connector easily plugs into a computer for data analysis using the included software

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

- Model RHT10 datalogs 16.000 Temperature/ 16.000 RH readings: Dew point indication via Windows® 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: 2s, 5s, 10s, 30s, 1m, 5m, 10m, 30m, 1hr, 2hr, 3hr, 6hr, 12hr, 24hr
- User-programmable alarm thresholds for RH and Temperature
- Humidity: 0 to 100%RH (Model RHT10 only), 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)
- Complete with 3.6V Lithium battery, protective USB cap, mounting bracket, and Windows® 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	

## 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.

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#### 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: 2s, 5s, 10s, 30s, 1m, 5m, 10m, 30m, 1hr, 2hr, 3hr, 6hr, 12hr, 24hr
- User-programmable alarm thresholds for RH and Temperature
- LCD displays current readings, Min/Max, and alarm status Humidity: 0 to 100%RH, 0.1%RH resolution, Accuracy: ±3%RH; Temperature: -40 to 158°F (-40 to 70°C), 0.1°F/°C resolution, Accuracy: ±1.8°F/1°C
- 3 month battery life; Dimensions: 3.7x1.9x1.2" (94.4x48.9x31.2mm)/Wt: 3.2oz (90.7g)
- Complete with 3.6V Lithium battery, mounting bracket with combination lock, and Windows® compatible analysis software; 2 year warranty

ORDERING	
RHT20	Humidity and Temperature Datalogger



## RH520A-220/RH520A-240 Humidity and Temperature Chart Recorder



#### 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

ORDERING	
RH520A-220 N	Humidity+Temperature Chart Recorder (220V adaptor EU plug)
RH520A-240 N	Humidity+Temperature Chart Recorder (240V adaptor UK plug)
RH522	Replaceable Humidity/Temperature Probe
SL123	AC Alarm Relay Module 9ft (3m) cable
SI 12/	DC Alarm Relay Module 9ft (3m) cable

## **42280** Humidity and Temperature Datalogger

software included



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

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

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

## **42265/42275** Humidity and Temperature Datalogger Kits

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Kits Include Windows® compatible software and docking station 42265 — includes one 42260 datalogger. 42275 — includes one 42270 datalogger.

#### Compact, powerful and easy to use with PC 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: ±3%RH, ±1°F (±0.6°C)
- Real time clock with date and time and Logs data for days, weeks or months
- Three start methods: Scheduled, immediate or magnetic
- Multiple Dataloggers (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)
USB100	RS-232 to USB Adaptor











#### RH390/RH490

## **Precision Hygro-Thermometer Psychrometers**

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

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

## HD500/HD550

## **Psychrometers** + 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
- Model HD550 measures Grains Per Pound (grams per kilogram) to 999GPP (160g/kg)
- Complete with general purpose Type K bead wire probe, PC software, USB cable, built-in stand, case, & 9V battery

## SDL500 Hygro-Thermometer/ **Datalogger**

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

- · Humidity, Temperature, Dew Point & Wet Bulb functions
- · Selectable data sampling rate: 1 to 3600 seconds
- Manually store/recall up to 99 readings
- Large backlit dual LCD
- Record/Recall MIN. MAX readings
- Data Hold plus Auto power off with disable function
- Built-in PC interface
- Includes 6 x AA batteries, SD card, case and Humidity probe; Optional AC Adaptor 153117 or UA100-240, also see p. 33, 34, and 57 for optional Type K and J Thermocouple probes

ACCESSOR	IES
JSB100	RS-232 to USB Adaptor
JA100-240	100-240V AC Adaptor with 3 plugs (US, EU, UK)

SPECIFICATIONS	■ RH390 🕟 l 🛦 RH490 🕟	■ HD500 N   ▲ HD550 N	SDL500 ₪
Sensor Type	Capacitance	Capacitance	Capacitance
Dew Point	-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)
Wet Bulb	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)
Humidity (Basic Accuracy)	0 to 100%RH (±2%RH)	0 to 100% (±2%RH)	5% to 95% (±3%RH)
Mixing Ratio	■ No   ▲ 0 to 1120 GPP (grains per pound); 0 to 160 g/kg (grams per kilogram)	■ No   ▲ 0 to 999 GPP (grains per pound); 0 to 160 g/kg (grams per kilogram)	_
Internal Temperature (Basic Accuracy)	-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)
External Temperature (Basic Accuracy)	-	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 $\pm (0.4\% + 1.8^{\circ}F/1^{\circ}C)$
IR Temperature (Basic Accuracy)	-	-58 to 932°F/-50 to 500°C (±2% or ±4°F/±2°C)	-
Emissivity	_	0.95 fixed	_
Field of View	_	30:1	_
PC Interface	_	Yes	Optional 407001 software (see p. 106)
Memory/Datalogging	_	_	20M readings using 2G SD memory card
CE Approved	Yes	Yes	Yes
Dimensions/Weight	7.8x1.7x1.3" (200x45x33mm)/7oz (200g)	10x2.9x2" (255x75x50mm)/12.2oz (350g)	7.2x2.9x1.9" (182X73X48mm)/23oz (655g)

**ACCESSORIES** 

33% & 75% RH

Software and Cable for HT30

100-240V AC

Adaptor with 3 plugs (US, EU, UK)

Calibration Kit for

RH300-

407752

UA100-240

CAL





#### 445580 Humidity/ Temperature Pen

Compact,
Digital HygroThermometer,
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

## 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



## 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/SD700 Humidity/ Temperature Dataloggers plus Barometric Pressure

Records data on an SD card in Excel® format

- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 5 to 600 seconds or Auto
- Complete with 6 AAA batteries, 2G SD card, Universal AC Adaptor, and mounting bracket
- Model SD500 —
   Dual LCD displays
   Relative Humidity and
   Temperature readings
- Model SD700 —
   Triple LCD displays
   Barometric Pressure,
   Temperature, and
   Relative Humidity

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SPECIFICATIONS	445580 N	HT30 N	RH101	■ SD500   ▲ SD700
Sensor Type	Capacitance	Capacitance	Capacitance	Capacitance
Humidity	10 to 90%	0 to 100% RH	10 to 95%	■ 10 to 95%RH   <b>▲</b> 10 to 90%RH
Dew Point	_	_	_	_
Temperature (Wet Bulb Globe)	_	32 to 122°F (0 to 50°C)	_	_
Temperature (Black Globe)	_	-32 to 176°F (-0 to 80°C)	_	_
Temperature (Air)	14 to 122°F (-10 to 50°C)	32 to 122°F (0 to 50°C)	-4 to 140°F (-20 to 60°C)	32 to 122°F (0 to 50°C)
Temperature (IR)	_	_	-58 to 932°F (-50 to 500°C)	_
Barometric Pressure	_	_	-	▲ SD700 only: 10 to 1100hPa; 7.5 to 825mmHg; 0.29 to 32.48 inHg
Basic Accuracy	±5%, ±1.5°	±3%, ±1.1°F/0.6°C	$\pm 3.5\%$ RH; $\pm 2\%$ or $\pm 4^{\circ}$ F/2°C (IR); $\pm 3^{\circ}$ F/2°C (Air)	±4%RH, ±1.8°F (±0.8°C)
Max. Resolution	0.1%, 0.8°	0.1%, 0.1°	0.1%, 0.1°	0.1%, 0.1°, 0.1 hPa, 0.1mmHg, 0.01inHg
PC Interface	_	Yes	_	Optional 407001 software
Datalogging	-	-	-	20M readings - 2G SD card
CE approved	Yes	Yes	Yes	Yes
Dimensions	5.7x1.2x1" (145x30x25mm)/ 2.3oz (65g)	10x1.9x1.1" (254x49x30mm)/4.8oz (136g) Ball: 1.6" (40mm) dia, 1.4" (35mm) high	5.9x2.95x1.57" (150x75x40mm)/ 7oz (200g)	5.2x3.1x1.3" (132x80x32mm)/ 9.9oz (282g)
Warranty	2 year	2 year	2 year	2 year



## 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	
153117	117V AC Adaptor	
UA100-240	100-240V AC Adaptor with 3 plugs (US, EU, UK)	



#### MO210 Pocket Size Moisture Detector

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

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





#### 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)
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 year	2 year







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** Moisture Content Meter

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

- Measures Moisture Content, Air Temperature, Dew Point and Type J/K Temperature
- Moisture content measurement from 10 to 95%
- 1 sec sampling rate (approx.)
- Date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Dual display simultaneously displays Moisture Content and Temperature
- Min/Max and Data hold
- Auto power off with disable
- Built-in RS-232 interface
- Complete with Moisture Content Probe with 4.9ft (1.5m) cable, sensor cap, and 9V battery; Optional AC Adaptor 153117 or UA100-240, also see p. 33, 34, and 57 for optional Type K and J Thermocouple probes)

M0257	M0750	SDL550 №	SPECIFICATIONS
Pinless	Integrated Contact Probe	Stainless Steel	Sensor Type
0.0 to 100.0	0 to 50%	10 to 95%	Moisture 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. 106)	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 year	2 year	3 years	Warranty



# **Extech Redefines Moisture Meters**

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™ technology transmits readings wirelessly to a FLIR thermal imaging camera for accelerated diagnostics.









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 pouch case

ACCESSORIES		
MO-P1	Replacement Moisture pin probe for MO265 with 30" (76.2cm) cable and RJ45 Connector	
MO200-PINS	50 Replacement pins	
UA100-240	100-240V AC Adaptor with 3 plugs (US, EU, UK)	
MO290-EP	Extension Probe with 30" (76.2cm) cable and RJ45 connector. Includes 4 pins	
MO290-P	Replacement Pin Probe for MO290, MO295, MO297	
MO290-HP	Hammer Probe with 30" (76.2cm) cable and RJ45 con- nector. 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	landle for MO265	
EXT-1	4ft (1.2m) Telescoping Handle	

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





#### 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, protective cap, and pouch 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
- Replaceable pins
- Low battery indication
- Storage cap protects pins
- Optional Telescoping Handle extends to 4ft (1.2m) for easy reach (see p. 65)
- Complete with 9V battery, pin probe replacement pins, protective cap, remote pin probe (MO-P1) and pouch case; (see p. 68 for specialty moisture probes)



### M0290 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 pin moisture probe, 9V battery, and case; Optional Universal AC adaptor UA100-240. (See p. 68 for specialty moisture probes)

M0260	M0265	M0290 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
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



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



Detachable pin/pinless sensors transmit data to the display that can be viewed from a remote location up to 65ft (20m)

- Full color graphical display
- Display readings from 8 remote sensors on the meter's color LCD
- Receiver can record data from up to 40 remote sensors simultaneously on an SD card
- Trending Mode with graphical representation of live reading 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
- · Wirelessly transmits moisture and humidity data to your FLIR thermal imaging camera's thermal image
- · Use pinless technology for virtually no surface damage or traditional pintype measurement for applications that require more accurate readings
- %WME (wood moisture equivalent) pin moisture reading
- Visual and audible High/Low alarm modes
- 2 point calibration check built into protective cap
- · 2 year warranty
- 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

SPECIFICATIONS	
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	32ft (10m) unobstructed view
Dimensions/ Weight	8x2.3x1.7" (203x58.4x43.2mm)/ 7.2oz (204g)

ORDERING	
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

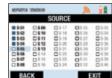


Trend Mode Display



Measurement Mode







Multi-Sensor Mode Sensor Selection Menu

Wirelessly transmits moisture and humidity data to your FLIR thermal imaging camera to incorporate meter readings with thermal images



#### M0297 Pinless Moisture Meter + IR Thermometer and METERLiNK™/BlueTooth®







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

## Wirelessly transmits moisture and humidity data to your FLIR infrared camera's thermal image

- Measures moisture content of multiple wood types and building materials with Pinless technology without damaging the surface; Remote Pin-type probe (included) allows for contact moisture readings (3ft/0.9m cable length)
- Wireless communication with FLIR Thermal Imaging Cameras (model specific)
- Pinless measurement depth to 0.75" (19mm) below the surface
- Manually store/recall up to 20 labeled readings
- Large dual display with automatic backlight feature and Fast Analog Bargraph
- Simultaneously displays moisture plus Air Temperature, IR Temperature, or Humidity
- Programmable high/low Moisture/Humidity alarms
- Built-in IR Thermometer measures non-contact surface temperature
- Built-in probe measures Relative Humidity, Air Temperature plus Grains Per Pound (GPP)/(g/kg), Dew Point (DP), Vapor Pressure, and condensation point
- Calculation of differential Temperature (IR DP) to determine condensation point
- Min/Max, Data Hold, and Auto power off
- 2 year warranty
- Complete with pin moisture probe with cable, 9V battery and pouch case

0 to 99.9 (Relative); Depth up to 0.75" (19mm)
0 to 99.9%
0.1, 0.1°F/°C
0 to 100%RH
Air: -20 to 170°F (-29 to 77°C)/ IR: -4 to 392°F (-20 to 200°C)
0 to 20.0kPA
-22 to 199°F (-30 to 100°C)
0 to 999GPP (0 to 160g/kg)
8:1 Distance to Target ratio
0.95 fixed
6.5x2.8x1.5" (165x70x38)/7.4oz (210g)

ORDERING	
MO297 N	Pinless Moisture Meter+IR Thermometer with METERLiNK™/BlueTooth®
UA100-240	Universal AC Adaptor (100-240V)
See below for spec	cialty Moisture Probes

#### **Moisture Probes and Pins**







MO-P1

MO290-HP

MO290-EP





MO290-BP

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

 Specialty Moisture probes with RJ45 connector compatible with Extech Moisture Meters MO270, MO290, MO295, and MO297

ORDERING	
MO-P1	Moisture pin probe with 30" (76.2cm) cable and RJ45 Connector for MO265
MO290-BP	Moisture Baseboard Probe (Dual fixed flat pins with 4.1"/10.5cm pin length) with 30" cable for MO290/295/297
MO290-EP	Extension Probe for Model MO290/295 Moisture Meter with 30" (76.2cm) cable and 4 pins for MO290/295/297
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) for MO290/295/297
MO290-PINS-HP	20 Replacement pins (1.6"/4cm pin depth), 2 lock nuts for MO290-HP probe
MO200-PINS	50 Replacement pins for MO-P1 probe



#### 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. 68 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. 66)
- Model RHT10/RHT10-SW Humidity/Temperature USB Datalogger + GPP (g/kg) Calculation datalogs 16,000 data (RH and Temperature) USB interface and software included (see page 59).

ORDERING		
MO290-RK	Water Restoration Contractor 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. 59).
- 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. 63).
- 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. 61).
- Model RHT10/RHT10-SW Humidity/Temperature USB Datalogger + GPP (g/kg) Calculation datalogs 16,000 data (RH and Temperature). USB interface and software included.

ORDERING		
MO280-RK	Restoration Contractor's 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. 65).
- Model 42500 IR Thermometer for testing HVAC system.
   Measures from -4 to 500°F (-20 to 260°C) (see p. 52)
- Model 39240 Waterproof Stem Thermometer for testing hot water heaters.
   Measures temperature from -40 to 392°F (-40 to 200°C) (see P.50).

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. 65).
- 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. 61).
- Model MO210 Pocket Moisture Meter measures moisture of wood or other building materials displaying both digital and graphical readings (see p. 63).

ORDERING		
MO280-KW	Water Damage Restoration Kit	

#### **445703** Big Digit Hygro-Thermometer



1" Digits on large dual LCD display for easy viewing

- 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 ±5%RH
- MAX/MIN with reset function
- Dimensions: 4.3x3.9x0.78" (109x99x20mm); Weight: 6oz (169g)
- 2 year warranty
- Complete with stand, wall mounting bracket, and 1 AAA battery

ORDERING		
445703	Big Digit Hygro-Thermometer	

## 445715 Big Digit Remote Probe Hygro-Thermometer

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#### Calibration traceable to NIST available

- Probe clips onto meter or extends on 18" (457mm) cable
- Large dual LCD simultaneously displays 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 ±5%RH
- · MAX/MIN with reset function
- Rear calibration adjustment pot
- Dimensions: 4.3x3.9x0.78" (109x99x20mm); Weight: 6oz (169g)
- 2 year warranty
- Complete with built-in stand, wall mount bracket, sensor and AAA battery; optional calibration salt bottles (RH300-CAL)
- Optional Limited NIST 445715-NISTL includes certificate of Traceability to NIST at 75%. For Certificate of Traceability to NIST at 2 points (33% and 75%), order 445715-NIST

ORDERING	
445715 N	Big Digit Remote Probe Hygro-Thermometer
RH300-CAL	33% & 75% RH Calibration Kit



#### 445814/445815 Humidity Alerts





#### 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
- 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
- Max/Min with reset function
- Rear calibration adjustment pot for Humidity and Temperature
- · Warns when conditions for mold growth exist (bad for health) or air too dry (static)
- Dimensions: 4.3x3.9x0.78" (109x99x20mm); Weight: 6oz (169g)
- · 2 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)
- Optional Limited NIST 445815-NISTL includes Certificate of Traceability to NIST at 75%. For Certificate of Traceability to NIST at 2 points (33% and 75%), order 445815-NIST

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

#### **445702** Hygro-Thermometer Clock

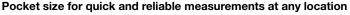




- Clock display 12/24 hour time
- MAX/MIN with "reset" function
- Simultaneous display of Time, Temperature (14 to 140°F/-10 to 60°C) and Humidity (10 to 85% RH)
- Max resolution: 0.1°, 1%
- Basic Accuracy: ±1.8°F/1°C and ±6%RH
- Temperature is °C/°F switchable
- Programmable clock alarm
- Dimensions: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

ORDERING		
445702	Hyaro-Thermometer Clock	

## **44550** Humidity and Temperature Pen



- 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



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#### **CO10** Carbon Monoxide (CO) Meter



#### Check CO level in all environments up to 1000ppm

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

ORDERING	
CO10	Carbon Monoxide Meter

#### **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
- 2 year warranty
- · Complete with 3 "C" batteries

SPECIFICATIONS	
Pump driven field calibratio	n 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 Ex	Flex™ Combustible Gas Detector

#### FG100 Combustible Gas Leak Detector



CE

#### 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)
- 2 year warranty
- Complete with pocket clip and two AAA batteries

ORDERING	
FG100	Combustible Gas Leak Detector



## Go Beyond Airflow Measurements

Extech's compact thermoanemometers and multifunction environmental meters couple all-in-one versatility with accurate diagnostics. From solving HVAC problems to ensuring workplace safety compliance, Extech helps you get results with fewer tools.







ACCESSORIES	
45156	Mini Impeller (2pk) for 45158
TR100	Tripod
CA895	Small Vinyl Pouch Case for 45118, 45158
110100 240	100 240V AC Adeptor with 2 plugg (US, ELL LIK)



#### 45158

## Mini Thermo-Anemometer+ Humidity

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

- Display air velocity and either Relative Humidity, Dew Point, Temperature or Windchill
- Adjustable averaging function of 5, 10, or 13 second intervals
- Fold up housing extends to 9" (229mm) for better reach
- Tripod mount (optional TR100 Tripod — sold separately)
- Data Hold with Auto power off
- Water resistant housing floats
- Replaceable plastic vane 45156
- Complete with CR2032 lithium battery and 43" (1.09m) lanyard

SPECIFICATIONS	45158
ft/min (res.)	100 to 5500 (20)
m/s (res.)	0.5 to 28 (0.1)
km/h (res.)	1.8 to 100.6 (0.7)
MPH (res.)	1.1 to 62.5 (0.2)
knots (res.)	1.0 to 54.3 (0.3)
Beaufort Force (res.)	1 to 17 (1)
Temperature & Windchill °F/°C	0 to 122°F (0.1°), -18 to 50°C (0.1°)
Relative Humidity (res.)	10% to 95% (1%)
Foot Candles/Lux (res.)	_
Sound Level (res.) - A weighting	-
Basic Accuracy	
Airflow	±3% of reading
Temperature	±1.8°F, ±1°C
Relative Humidity	±5%RH
Light	-
Sound	-
PC Interface	_
CE approved	Yes
Dimensions/Weight	5.25x2.75x0.75" (133x70x19mm)/ 3oz (95g)
	Vane: 1" (26mm)D
Warranty	2 year











## **45160/45170**

### **Environmental Meters**

Measures Humidity, Temperature, and Airflow plus Light Level

- Built-in low friction vane wheel improves air velocity accuracy
- Type K input (Probe sold separately see p. 40, 41, & 74)
- MAX/MIN and Data hold
- Thin-film capacitance humidity sensor for fast response
- Complete with wrist strap and 9V battery

#### 45170 Additional Features

- Utilizes precision photo diode and spectral response filter for Cosine and color corrected measurement
- Auto-rotating display depending on function

#### **EN300**

### **Environmental Meter**

Measures Humidity, Temperature, Air Velocity, Light, and Sound

- Auto-rotating display depending on function
- Built-in low friction vane wheel improves air velocity accuracy
- Thin-film capacitance humidity sensor built-in for fast response
- Thermistor for ambient temperature and Type K input for taking surface temperature
- 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

#### **AN400**

## **Cup Thermo- Anemometer**

Rotating cups provide accurate air velocity measurements from any direction

- Wide range air velocity measures m/s, ft/min, km/hr, and knots
- Dual LCD digital display of Air Velocity and Temperature
- Record MAX/MIN values
- Record up to 100 readings
- Water resistant housing (IP65)
- Complete with four AAA batteries

■ 45160   <b>▲</b> 45170	EN300	AN400	SPECIFICATIONS
80 to 5910 (10)	80 to 5910 (1)	144 to 6895 (1)	ft/min (res.)
0.4 to 30 (0.1)	0.4 to 30 (0.1)	0.9 to 35.0 (0.1)	m/s (res.)
1.4 to 108.0 (0.1)	1.4 to 108.0 (0.1)	2.5 to 126.0 (0.1)	km/h (res.)
0.9 to 67.0 (0.1)	0.9 to 67.0 (0.1)	1.6 to 78.2 (0.1)	MPH (res.)
0.8 to 58.3 (0.1)	0.8 to 58.3 (0.1)	1.4 to 68.0 (0.1)	knots (res.)
_	_	_	Beaufort Force (res.)
32 to 122°F (0.1°), 0 to 50°C (0.1°)	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 & Windchill °F/°C
10 to 95% (0.1%)	10 to 95% (0.1%)	_	Relative Humidity (res.)
■ No ▲ 0 to 1860Fc (0.1Fc)/0 to 20,000Lux (1Lux)	0 to 1860Fc (0.1Fc)/ 0 to 20,000Lux (1Lux)	_	Foot Candles/Lux (res.)
_	35 to 130dB (0.1dB)	_	Sound Level (res) - A weighting
		Basic Accuracy	Basic Accuracy
±3% FS	±3% FS	±2% of reading	Airflow
±2.5°F, ±1.2°C	±2.5°F, ±1.2°C	±1.5°F, ±0.8°C	Temperature
±4%RH	±4%RH	_	Relative Humidity
■ No   ▲ ±5% of reading	±5% of reading	_	Light
_	±1.4dB	_	Sound
_	Optional 407001 Software (see p. 106)	_	PC Interface
Yes	Yes	Yes	CE approved
6.1x2.4x1.3" (156x60x33mm)/ 5oz (160g)	6.1x2.4x1.3" (156x60x33mm)/ 5oz (160g)	7.5x1.6x1.3" (190x40x32mm)/ 6.3oz (181g)	Dimensions/Weight
Vane: 1.2" (30.5mm)D	Vane: 1.2" (30.5mm)D	Vane: 2.9" (70mm)D	
2 year	2 year	2 year	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.









#### 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 builtin IR Thermometer

SPECIFICATIONS	■ AN100 🖎 I 🛦 AN200 🔃	
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 year	





## 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 Anemometer

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

- Air velocity measurements as low as 40ft/min
- Telescoping probe extends up to 3ft (940mm) long
- Measures air volume in CFM (ft³/ min) and CMM (m³/min) plus Temperature simultaneously
- Air Flow displayed in 2 modes as an instantaneous value or up to 20 point average
- Record and Recall MIN/MAX
- Data Hold plus Auto power off
- Optional Data Acquisition software 407001 and Datalogger 380340 - see details on p. 83
- Complete with telescoping probe with 5.5ft (167.6cm) cable, and four AA batteries

HD300 N	407119 🕦	SPECIFICATIONS
		Air Velocity (Max Res.)
80 to 5900 (1)	40 to 3346 (1)	ft/min
0.4 to 30.00 (0.01)	0.2 to 17 (0.1)	m/sec
1.4 to 108.0 (0.1)	0.7 to 61.2 (0.1)	km/h
0.9 to 67 (0.1)	0.9 to 38.0 (0.1)	MPH
0.8 to 58.0 (0.1)	0.4 to 33.0 (0.1)	knots
14 to 140°F/-10 to 60°C (0.1°)	32 to 122°F (0.1°)/ 0 to 50°C (0.1°)	Temperature (°F/°C)
-58 to 932°F/-50 to 500°C (0.1°/1°)	-	Temperature (IR)
0 to 999,900CFM (0.001)	0 to 999,900CFM (0.001)	Air Flow (CFM = ft <sup>3</sup> /min)
0 to 999,900CMM (0.001)	0 to 999,900CFM (0.001)	Air Flow (CMM = m <sup>3</sup> /min)
±3%rdg; ±4°F (2°C)	±2%rdg; ±1.5°F (±0.8°C)	Basic Accuracy
Yes	Optional 407001 Software (see p. 106)	PC Interface
Directly to PC using software	Optional 380340 Datalogger (see p. 106)	Datalogger
Yes	Yes	CE approved
8x3x1.9" (203x75x50mm)/12.2oz (350g)	7x2.9x1.3" (178x74x32mm)/1.1lbs (482g)	Dimensions/Weight
3 years	3 years	Warranty



## **Datalogging Made Easy**

Extech is fast becoming the go-to source for compact datalogging test equipment. Now, Extech introduces the new SDL series of HVAC datalogging meters. For accurately measuring airflow and temperature, the SDL series offers flexible options including a high temperature metal vane propeller or a compact hot-wire probe. And for powerful datalogging, readings are stored directly on an SD card in Excel® format, making it easier than ever to track trends and perform extended diagnostics.







ACCESSORIES (FOR SDL300, SDL310, & SDL350)

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

## **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.

SPECIFICATIONS
ft/min
m/sec
km/h
MPH
knots
Air Flow (CFM = ft <sup>3</sup> /min)
Air Flow (CMM = m <sup>3</sup> /min)
Temperature (air)
Temperature (Type J/K)
Basic Accuracy
PC Interface
Datalogging
CE approved
Dimensions/Weight

Warranty





## SDL300 Metal Vane Thermo-Anemometer/ Datalogger

Metal Vane withstands temperatures to 158°F (70°C) and air velocity to 6900ft/min

- 2% velocity accuracy via low friction ball bearing vane wheel on 39" (1m) cable
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate:
   1 to 3600 seconds (1 hour)
- Manually store/recall up to 99 readings
- Type K/J Thermocouple input for high temperature measurements
- Large (9999 count) LCD displays Air
   Velocity and Temperature simultaneously
- Record/Recall MIN, MAX readings
- Data Hold plus Auto power off with disable function
- Built-in PC interface
- Complete with 6 x AA batteries, SD card, metal vane sensor with 3.9ft (120cm) cable, and hard carrying case



## SDL310 Vane Thermo-Anemometer/ Datalogger

Measures Air Temperature to 122°F (50°C) and air velocity to 4930ft/min

- 2% velocity accuracy via low friction ball bearing vane wheel on 39" (1m) cable
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate:
   1 to 3600 seconds (1 hour)
- Manually store/recall up to 99 readings
- Type K/J Thermocouple input for high temperature measurements
- Large (9999 count) LCD displays Air Velocity and Temperature simultaneously
- Record/Recall MIN, MAX readings
- Data Hold plus Auto power off with disable function
- Built-in PC interface
- Complete with 6 x AA batteries, SD card, vane sensor with 3.9ft (120cm) cable, and hard carrying case



## SDL350 Hot Wire CFM Thermo-Anemometer/ Datalogger

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 4.9ft (150cm) maximum length with cable
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate:
   1 to 3600 seconds (1 hour)
- Manually store/recall up to 99 readings
- Type K/J Thermocouple input for high temperature measurements
- Large (9999 count) LCD displays Air
   Velocity and Temperature simultaneously
- Record/Recall MIN, MAX readings
- Data Hold plus Auto power off with disable function
- Built-in PC interface
- Complete with 6 x AA batteries, SD card, telescoping probe with cable, and hard case

SDL300 N	SDL310 N	SDL350 N
60 to 6900ft/min	80 to 4930ft/min	40 to 3940ft/min
0.3 to 35m/s	0.4 to 25m/s	0.2 to 25m/s
1.0 to 1265km/h	1.4 to 90.0km/h	0.7 to 72km/h
0.7 to 78.2MPH	0.9 to 55.9MPH	0.5 to 45MPH
0.6 to 68knots	0.8 to 48.6knots	1 to 31knots
-	_	0 to 1,907,000CFM
_	_	0 to 54,000CMM
32 to 175°F (0 to 80°C)	32 to 122°F (0 to 50°C)	32 to 122°F (0 to 50°C)
J: -148 to 2192°F (-100 to 1200°C) K: -148 to 2372°F (-100 to 1300°C)	J: -148 to 2192°F (-100 to 1200°C) K: -148 to 2372°F (-100 to 1300°C)	J: -148 to 2192°F (-100 to 1200°C) K: -148 to 2372°F (-100 to 1300°C)
2%rdg	2%rdg	5%rdg
Optional 407001 Software	Optional 407001 Software	Optional 407001 Software
20M readings using 2G SD memory card	20M readings using 2G SD memory card	20M readings using 2G SD memory card
Yes	Yes	Yes
7.2x2.9x1.9" (182X73X48mm)/17.2oz (487g)	7.2x2.9x1.9" (182X73X48mm)/16.9oz (480g)	7.2x2.9x1.9" (182X73X48mm)/23.1oz (655g)
3 years	3 years	3 years



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## **CO100** Desktop Indoor Air Quality CO<sub>2</sub> Monitor



Measures Carbon Dioxide (C0<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 CO2 value recall function
- Automatic Baseline Calibration (minimum CO<sub>2</sub> level over 7.5 days) or manual calibration in fresh air
- 2 year warranty
- · Complete with Universal AC adaptor

ORDERING		
CO100	Desktop Indoor Air Quality CO <sub>2</sub> Monitor	

## CO200/CO210 Desktop Indoor Air Quality CO, Monitor



Model CO210 - Datalogger

## 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, 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)
- 2 year warranty
- Complete with Universal AC adaptor; Model CO210 also includes software and cable
- 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® compatible software

ORDERING	
CO200	Desktop Indoor Air Quality CO <sub>2</sub> Monitor
CO210	Desktop Indoor Air Quality CO. Monitor/Datalogger

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



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

## Measures Carbon Dioxide (C0<sub>2</sub>), Temperature, Humidity, Dew Point, and Wet Bulb and calculates statistical 8 hour and 15 minute time weighted averages

- Checks for Carbon Dioxide (CO<sub>2</sub>) concentrations, measures Temperature and Relative Humidity, and displays calculated Dew Point and Wet Bulb
- Calculates statistical weighted averages of TWA (8 hour time weighted average) and STEL (15 minute short term exposure limit)
- Maintenance free NDIR (non-dispersive infrared) CO<sub>2</sub> sensor
- Backlit triple LCD display and user programmable audible alarm
- RS-232 interface, software and cable included to analyze data on a PC
- Optional 33% and 75% RH calibration bottles (RH300-CAL)
- 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	Calculated		
Dimensions	7.9x2.7x2.3" (200x70x57mm)		
Weight	6.7 oz. (190g)		

ORDERING	
CO250	Portable Indoor Air Quality CO <sub>2</sub> Meter
RH300-CAL	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) CO2 sensor
- Triple LCD simultaneously displays CO2, Temperature and Relative Humidity
- Selectable data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto

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 software (see p. 106)		
Dimensions/ Weight	5.2 x 3.1 x 1.3" (132 x 80 x 32mn	n)/ 9.9oz (282g)	
ORDERING			

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

### **475055** High Capacity Force Gauge with PC Interface





Complete with tension and compression adaptors, six AA 1.5V batteries, and case; Optional AC Adaptors available 153117 or UA100-240, see below for ordering; 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)

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 Digital Force Gauges



#### 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

SPECIFICATIONS	MODEL 475040	MODEL 475044 (HIGH CAPACITY)	
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	Meter: 8.9x3.3x1.5" (227x83x39mm)/ 1.	2lbs (551g)	

ORDERING	
475040 N	Digital Force Gauge
475044 N	High Capacity Force Gauge
479097	Accessory Kit (2ea hook, flat, cone, & chisel head adaptors)
153117	117V AC Adaptor
UA100-240	100-240V AC Adaptor with 3 plugs (US, EU, UK)



## **VB500** 4-Channel Vibration Meter/Datalogger



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#### Simultaneously displays four channels

- Selectable data sampling rate: 5 to 600 seconds
- Remote vibration sensor with magnetic adapter on 39" (1m) cable
- Wide frequency range of 10Hz to 1kHz
- Basic accuracy of ±5%
- RMS or Peak Value measurement modes
- Datalogger date/time stamps and stores readings on an SD card in Excel® format for easy transfer to a PC
- · Data Hold freezes the reading in the display
- · Auto power off saves battery life
- Meets ISO2954 standard
- 2 year warranty
- Complete with 4 remote sensors, magnetic mounts, 8 x AA batteries, SD card, 100-240V Universal AC Adaptor and durable hard carrying case

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%
Memory	20M data records using 2G SD card
Dimensions	Meter: 8 x 3 x 1.5" (203 x 76 x 38mm)
Weight	Meter: 1.13lbs (515g)
ORDERING	
VB500 N	4-Channel Vibration Meter/Datalogger

## **SDL800** Vibration Meter/Datalogger



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

- Manually datalog up to 99 readings and continuous datalogging of 20M readings via 2G SD card
- Selectable data sampling rate: 1 to 3600 second (1 hour)
- Remote vibration sensor with magnetic adapter on 47.2" (1.2m) cable

- Wide frequency range of 10Hz to 1kHz
- Basic accuracy of ±5%
- RMS, Peak Value or Max Hold measurement modes
- · Data Hold freezes the reading in the display
- Min/Max and Zero function
- Auto power off saves battery life
- Meets ISO2954 standard
- 3 year warranty
- Complete with remote sensor, magnetic mount, 6 x AA batteries, SD card, and hard carrying case; Optional AC Adaptor

SPECIFICATIONS	
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%
Memory	20M data records using 2G SD card
PC Interface	Optional 407001 software (see p. 106)
Dimensions	Meter: 7.2x2.9x1.9" (182X73X48mm)/16.8oz (475g)
Weight	Meter: 1.3lbs (599g)

ORDERING	
SDL800	Vibration Meter/Datalogger
UA100-240	100-240V AC Adaptor with 3 plugs (US, EU, UK)

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#### 461880 Vibration Meter + Laser Combination Tachometer







#### Measures Acceleration, Velocity, Displacement, RPM and Surface Speed

- Unique large LCD displays characters on reverse direction depending on function
- Windows® compatible software (included) to analyze data on your PC
- Basic accuracy: Tachometer: ±(0.05% rdg), Vibration: ±(5% rdg)
- Dimensions/Weight with Probe: 7.4x3x1.8" (188x75.5x46.8mm)/ 1.12lbs (507g)
- Complete with vibration sensor with 39" (1m) cable, magnetic mount, wheels (cone & flat tips), reflective tape, 4 AA batteries, software with cable, and hard carrying case

#### **Vibration Meter Functions and Features:**

- Velocity (max res.): 7.87in/s (0.01in/s), 200mm/s (0.1mm/s), 19.99cm/s (0.01cm/s); Acceleration (max res.): 656ft/s² (1ft/s²), 200m/s² (0.1m/s²), 20.39g (0.01g) Displacement: 0.078in (0.001in), 2mm (0.001mm); Frequency: 10Hz to 1kHz
- RMS or Peak Value measurement modes
- Manual/Auto store/recall up to 1000 readings, Data Hold and Auto power off features

#### **Tachometer Functions and Features:**

- RPM ranges Photo: 10 to 99,999rpm / Contact: 0.5 to 19,999rpm; Surface Speed: 0.2 to 6,560ft/min (0.05 to 1,999.9m/min)
- Uses a laser for greater distance non-contact measurements up to 4.9ft (1.5m)
- Stores Last, Max, and Min readings

#### **ORDERING**

461880 N

Vibration Meter + Laser Combination Tachometer

#### **VB400** Pen Vibration Meter



#### Measures RMS Acceleration and Velocity with metric and imperial units

- Ranges Acceleration (RMS): 656ft/s², 20.39g, 200m/s²; 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 vear warranty
- Complete with test pin tip, magnetic base, 4 x AAA batteries, and pouch case

-	0	R	D	E	R	II	V	C

VB400 Pen Vibration Meter

## **VB300** 3-Axis G-Force Datalogger



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Magnetized/Bolt-on USB connector easily Mounting Base plugs into a computer for data analysis

#### Built-in 3-axis accelerometers record the shock and time when it occurs

- Measure and compute real-time spectral data using FFT
- Acceleration Sampling Rate: 200Hz, Range: ±18g, Resolution: 0.00625g, Accuracy: ±0.5g; Bandwidth: 0 to 60Hz
- Record storage, transport or operational data over time
- · Record and time 3-axis shock and peaks
- Datalogs 85,764 peak acceleration and 210 freefall samples with the time
- Choose X-, Y-, Z-axis or any combination (via software)
- · Programmable data sampling rate: 1 second to 24 hours
- Manual/Programmable start modes and user-programmable alarm threshold
- Dimensions/ Weight: 3.7 x 1.1 x 0.8" (95 x 28 x 21mm)/ 1oz (20g)
- Complete with Magnetized/Bolt-on Mounting Base, 3.6V Lithium battery and Windows® compatible analysis software; 2 years warranty

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



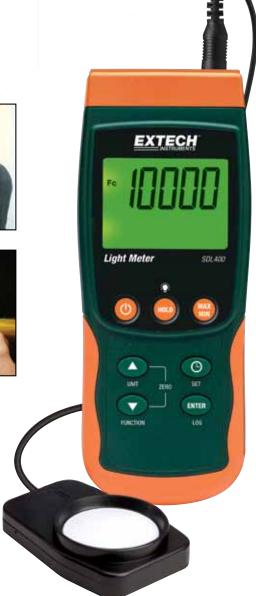
## Reliable, Easy to Use, and Accurate

"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		
380340	Datalogger (stores 8000 readings)		
156119	117V AC Adaptor		
156221	220V AC Adaptor		
153117	117V AC Adaptor		
UA100-240	100-240V AC Adaptor with 3 plugs (US, EU, UK)		



## 407001 Data Acquisition Software

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

#### SPECIFICATIONS

Fc Range

Lux Range

Max. Resolution

Basic Accuracy

Temperature (Type J/K)

Cosine & Color Corrected

Analog output

PC Interface Datalogging

CE approved

Dimensions/ Weight

Warranty



## **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
- Built-in PC interface
- Complete with 6 x AA batteries, SD card, hard case & light sensor with protective cover; Optional AC Adaptor 153117 or UA100-240, also see p. 33, 34, and 57 for optional Type K and J Thermocouple probes



## **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



## 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 407001 and Datalogger 380340
- Complete with 9V battery, light sensor, and protective cover with 46" (1.2m) cable, and protective holster with stand.
   Optional 117V (156119) or 220V (156221) AC adaptors.

SDL400 №	LT300 N	407026 N	SPECIFICATIONS
200, 2000, 10kFc	20,000Fc	200, 2000, 5000Fc	Fc Range
2000, 20k, 100kLux	200,000Lux	2000, 20000, 50000Lux	Lux Range
0.1Fc/1Lux	0.01Fc/Lux	0.1Fc/1Lux	Max. Resolution
±4%rdg	±5% rdg	±4%FS	Basic Accuracy
J: -148 to 2192°F (-100 to 1200°C) K: -148 to 2372°F (-100 to 1300°C)	-	_	Temperature (Type J/K)
Yes	Yes	Yes	Cosine & Color Corrected
_	_	_	Analog output
Optional 407001 software (see p. 83)	_	Optional 407001 Software (see p. 83)	PC Interface
Manual: 99 readings Continuous: 20M readings with 2G SD card	-		Datalogging
Yes	Yes	Yes	CE approved
7.2x2.9x1.9" (182X73X48mm)/16.8oz (475g)	5.9x2.95x1.57" (150x75x40mm/ 7oz (200g))	7x2.9x1.3" (178x74x33mm)/ 1.6lbs (726g)	Dimensions/ Weight
3 years	2 vear	3 years	Warrantv



# **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 and datalogging capabilities.





## **EA31** EasyView® Big Digit Light Meter

Measures light intensity up to 20,000Fc/ Lux

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







NIST traceable certificate with data is available when you order your meter with Certificate Traceable to NIST.

SPECIFICATIONS	EA31 🕦
Display counts	2000 count LCD
Fc Range	20, 200, 2000, 20,000Fc
Lux Range	20, 200, 2000, 20,000Lux
Max. Resolution	0.01Fc/Lux
Basic Accuracy	±3%rdg + 0.5%FS
Cosine & Color Corrected	Yes
PC Interface	_
Datalogging	-
CE approved	Yes
Dimensions	5.9x2.8x1.4" (150x72x33mm)
Weight	8.3oz (235g)
Warranty	2 year



## EA33 EasyView® Light Meter with Memory

Advanced illuminance functions and features

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



### **HD400** Light Meter

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

- Wide range to 40,000Fc or 400,000Lux
- Cosine and color corrected measurements
- Utilizes precision silicon photo diode and spectral response filter
- Peak mode (10ms) captures highest reading
- Relative mode indicates change in light levels
- Heavy duty, rugged double molded housing
- Built-in USB port
- Includes light sensor and cover with 39" (1m) cable, Windows® compatible software with USB cable, built-in stand, hard carrying case, and 9V battery



## **HD450** Light Meter Datalogger

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

- Records in a continuous mode up to 16,000 readings
- Wide range to 40,000Fc or 400,000Lux
- Cosine and color corrected measurements
- Utilizes precision silicon photo diode and spectral response filter
- Peak mode (10ms) captures highest reading
- Relative mode indicates change in light levels
- Heavy duty, rugged double molded housing
- Built-in USB port
- Includes light sensor and cover with 39" (1m) cable, Windows® compatible software, USB cable, built-in stand, case, and 9V battery

EA33 N	HD400 🔼	HD450 N	SPECIFICATIONS
999,999 count LCD	4000 count backlit LCD	4000 count backlit LCD	Display counts
9.999, 99.99, 999.9, 99,990Fc	40, 400, 4000, 40kFc	40, 400, 4000, 40kFc	Fc Range
99.99, 999.9, 9999, 99,990, 999,900Lux	400, 4000, 40k, 400kLux	400, 4000, 40k, 400kLux	Lux Range
0.001Fc/0.01Lux	0.01Fc/0.1Lux	0.01Fc/0.1Lux	Max. Resolution
±3%	±5%	±5%	Basic Accuracy
Yes	Yes	Yes	Cosine & Color Corrected
_	USB with software included	USB with software included	PC Interface
_	Directly to PC using software	16,000 data (continuous)/ 99 data (manual)	Datalogging
Yes	Yes	Yes	CE approved
5.9x2.8x1.4" (150x72x33mm)	6.7x 3.1x1.6" (170x80x40mm)	6.7x 3.1x1.6" (170x80x40mm)	Dimensions
11.29oz (320g)	13.7oz (390g)	13.7oz (390g)	Weight
2 vear	3 vears	3 years	Warrantv



## 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."







EXTECH

ACCESSORIES		
407744 N	94dB Sound Calibrator (0.5", 1" microphones)	
407766 N	94/114dB Sound Calibrator (0.5", 1" microphones)	
TR100	Tripod (for meters with Tripod mount feature)	
40705X	AC/DC Recorder Output Cable (3ft/0.9m)	
407764-EXT	15ft (4.7m) Microphone Extension Cable	
USB100	RS-232 to USB adaptor	
AC Adaptors for 407764, 407780, 407790		
144118	110V AC Adaptor	
144220	220V AC adaptor	
144240	240V AC adaptor	
UA100-240	100-240V AC Adaptor with 3 plugs (US, EU, UK)	



## 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® 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
- Built-in PC interface
- Complete with SD Card, wind screen, 6 AA batteries, and hard carrying case; Optional AC Adaptor UA100-240

Range         30 to 130dB         30 to 130dB (3 ranges)           Basic Accuracy         ±1.4dB         ±1.4dB           Weighting (A & C)         Yes         Yes           Response Time (Fast/Slow)         Yes         Yes           Condenser Microphone         0.5" (12.7mm)         0.5" (12.7mm)           Analog Output         AC/DC         AC           PC Interface         Yes         Yes           Datalogging         20,000 Records         20M Records on 2G Memory Card           CE approved         Yes         Yes           Dimensions/Weight         10.9x3x2" (278x76x50mm)/12.3oz (350g)         9.8x2.9x1.9" (250X73X48mm)/18.3oz (520g)           Warranty         3 years         3 years	SPECIFICATIONS	HD600 №	SDL600 N
Weighting (A & C)         Yes         Yes           Response Time (Fast/Slow)         Yes         Yes           Condenser Microphone         0.5" (12.7mm)         0.5" (12.7mm)           Analog Output         AC/DC         AC           PC Interface         Yes         Yes           Datalogging         20,000 Records         20M Records on 2G Memory Card           CE approved         Yes         Yes           Dimensions/Weight         10.9x3x2" (278x76x50mm)/12.3oz (350g)         9.8x2.9x1.9" (250X73X48mm)/18.3oz (520g)	Range	30 to 130dB	30 to 130dB (3 ranges)
Response Time (Fast/Slow)         Yes         Yes           Condenser Microphone         0.5" (12.7mm)         0.5" (12.7mm)           Analog Output         AC/DC         AC           PC Interface         Yes         Yes           Datalogging         20,000 Records         20M Records on 2G Memory Card           CE approved         Yes         Yes           Dimensions/Weight         10.9x3x2" (278x76x50mm)/12.3oz (350g)         9.8x2.9x1.9" (250X73X48mm)/18.3oz (520g)	Basic Accuracy	±1.4dB	±1.4dB
Condenser Microphone         0.5" (12.7mm)         0.5" (12.7mm)           Analog Output         AC/DC         AC           PC Interface         Yes         Yes           Datalogging         20,000 Records         20M Records on 2G Memory Card           CE approved         Yes         Yes           Dimensions/Weight         10.9x3x2" (278x76x50mm)/12.3oz (350g)         9.8x2.9x1.9" (250X73X48mm)/18.3oz (520g)	Weighting (A & C)	Yes	Yes
Analog Output         AC/DC         AC           PC Interface         Yes         Yes           Datalogging         20,000 Records         20M Records on 2G Memory Card           CE approved         Yes         Yes           Dimensions/Weight         10.9x3x2" (278x76x50mm)/12.3oz (350g)         9.8x2.9x1.9" (250X73X48mm)/18.3oz (520g)	Response Time (Fast/Slow)	Yes	Yes
PC Interface         Yes         Yes           Datalogging         20,000 Records         20M Records on 2G Memory Card           CE approved         Yes         Yes           Dimensions/Weight         10.9x3x2" (278x76x50mm)/12.3oz (350g)         9.8x2.9x1.9" (250X73X48mm)/18.3oz (520g)	Condenser Microphone	0.5" (12.7mm)	0.5" (12.7mm)
Datalogging         20,000 Records         20M Records on 2G Memory Card           CE approved         Yes         Yes           Dimensions/Weight         10.9x3x2" (278x76x50mm)/12.3oz (350g)         9.8x2.9x1.9" (250X73X48mm)/18.3oz (520g)	Analog Output	AC/DC	AC
CE approved         Yes         Yes           Dimensions/Weight         10.9x3x2" (278x76x50mm)/12.3oz (350g)         9.8x2.9x1.9" (250X73X48mm)/18.3oz (520g)	PC Interface	Yes	Yes
Dimensions/Weight 10.9x3x2" (278x76x50mm)/12.3oz (350g) 9.8x2.9x1.9" (250X73X48mm)/18.3oz (520g)	Datalogging	20,000 Records	20M Records on 2G Memory Card
	CE approved	Yes	Yes
Warranty 3 years 3 years	Dimensions/Weight	10.9x3x2" (278x76x50mm)/12.3oz (350g)	9.8x2.9x1.9" (250X73X48mm)/18.3oz (520g)
	Warranty	3 years	3 years





# **407780** Integrating Sound Level Datalogger

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, SEL, Lmax/Lmin, Leq
- Impulse/Fast/Slow response time
- Tripod mount ideal for field use (optional TR100 Tripod — sold separately)
- Complete with cable, 9 to 25
   pin gender changer, Windows®
   compatible software, microphone
   wind screen, 4 AA batteries
   and carrying case; (Optional
   AC Adaptor see p. 87)



## 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





## **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
- Model 407732-KIT includes 407732 Sound Meter, 407722 94dB Sound Calibrator, and protective hard carrying case (Optional NIST traceable certificate available for kit: 407732-KIT-NIST includes 407732-NISTL and 407722-NIST)

407780 🕦	407730 🔃	■ 407732 N   ▲ 407732-KIT N
30 to 130dB	40 to 130dB	Low: 35 to 100dB, High: 65 to 130dB
±1.5dB	±2dB	±1.5dB (Type 2)
Yes	Yes	Yes
Yes	Yes	Yes
Detachable 0.5" (12.7mm)	0.5" (12.7mm)	0.5" (12.7mm)
AC/DC	AC	_
Yes	No	No
32,000 Records	-	-
Yes	Yes	Yes
10.4x2.8x0.8" (265x72x21mm)/10.9oz (310g)	9x2.2x1.7" (230x57x44mm) 5.6oz (160g)	Meter: 8.2x2.1x1.25" (210x55x32mm) 8.1oz (230g)
2 year	2 year	2 year



### **407760 USB Sound Level Datalogger**









Features Record and Alarm LEDs, tripod, and USB connectivity

#### High accuracy datalogging of up to 129,920 records

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

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)

ORDERING		
407760 N	USB Sound Level Datalogger	
42299	3.6V Lithium Battery (pk of 2)	

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



ORDERING	
SL130G N	Sound Level Alert
SL123	AC Alarm Relay Module 9 foot cable (3m)
SL124	DC Alarm Relay Module 9 foot cable (3m)
SL125	Remote Microphone cable 15' (5m)
TR100	Tripod (for meters with Tripod mount feature)
407766 N	Sound Level Calibrator, 94/114dB

## 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
- $\bullet$  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 external relay module (Optional SL123 & SL124 relay modules)
- Microphone rotates 180° for desired placement. Optional 15ft (5m) microphone extension cable (SL125) for remote monitoring
- 2 years warranty
- Complete with universal AC adaptor and microphone wind screen

SPECIFICATIONS	
Display	4.6 x 3.125" (117x79mm) multifunction LCD
Frequency bandwidth	31.5 Hz to 8 kHz
Microphone	0.5" Electret Condenser Microphone (detachable)
Measurement ranges	30 to 80dB, 60 to 110dB, 80 to 130dB
Frequency weighting	'A' and 'C'
Response time	Fast: 125ms / Slow: 1s
Resolution	0.1dB
Alarm output	3.5mm Mono Phone Plug, Maximum: 3.4mA @ 5 VDC
Minimum Output	Voltage: 2.5 VDC
Power	AC/DC Adaptor for full functions; 8xAA batteries for monitoring function only without LED alert
Dimensions/Weight	8.75x7.1x1.25" / 0.63 lbs. (22x18x3.2cm / 285g)



## **407355** Personal Noise Dosimeter Datalogger and Kit



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#### 407355-KIT-5

Dosimeter Kit includes five 407355 Dosimeters, 407766 Sound level calibrator, and carrying case

Complete with belt clip, clip-on 0.5" microphone with 2.6ft (0.8m) cable, software, 4 AAA batteries, mini screwdriver and carrying case; 2 year warranty

#### Measure total sound exposure over an 8-hour period

- Perform OSHA and IEC Noise accumulation surveys
- Adjustable Criterion Level, Exchange Rate, and Threshold
- Optional 94/114dB calibrator to perform "before" and "after" calibration checks
- Ideal for personal/workplace accumulated noise exposure
- Bi-directional RS-232 with Windows® compatible software to control setup and retrieve stored events or analyze real time measurements. Software lists and graphs functions. Complete with 9 pin to 25 pin adaptor and RS-232 cable
- Datalogs up to 4500 readings when used as a sound level meter
- Stores up to 5 dosimeter surveys (Kit 407355-KIT-5 available). Data includes Start/Stop Time, %Dose, TWA, Peak flags, when used in the Dosimeter mode

SPECIFICATIONS	
Standards	Meets ANSI S1.25 (1991) Type 2, ISO-1999, BS 402 (1983)
Range/Resolution	70 to 140dBA / 0.1dB (Frequency A Weighting)
Digital Display	LCD 0.01-9999%
Criterion/Threshold Level	80, 84, 85 or 90dB/ 70-90 (1db steps)
Response Rate/Exchange Rate	Fast or Slow/ 3, 4, 5 or 6 dB
High Level Detector/Peak Flag	115dB / 140dB
Battery Life	34 hrs
Event Storage	5 surveys
Dimensions/Weight	4.2x2.5x1.3" (106x64x34mm)/ 8oz (227g) incl. batteries

ORDERING	
407355 N	Noise Dosimeter/Datalogger
407355-KIT-5	Noise Dosimeter/Datalogger Kit
407744 N	94dB Sound Level Calibrator (see p. 110)
407766 N	94/114dB Sound Level Calibrator (see p. 110)
USB100	PC to USB Adaptor





## **Rev Up Your Diagnostics**

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







#### ACCESSORIES 461937

Reflective Tape -Ten reflective tape strips: 23x0.25" (584x6mm) ea. strip

461990 Contact Wheels - 2 sets of cone tip, flat tip, and

## 461895 Combination **Contact/Photo Tachometer**

Combines both contact and non-contact models for use in all applications

- Characters on display reverse direction depending on contact or photo mode
- Uses visible light to read up to 6" (150mm) from target
- · Memory/readings button holds last reading for 5 min and recalls min/max readings
- · Complete with wheels for linear surface speed or rpm measurements, four 1.5V AA batteries, 23" (0.6m) reflective tape, and carrying case

SPECIFICATIONS	461895 🕦
rpm	Photo: 5 to 99,999 / Contact: 0.5 to 19,999
ft/min	0.2 to 6560
m/min	0.05 to 1999.9
Basic Accuracy	±0.05%rdg
Max rpm Resolution	0.1rpm
Laser	-
Temperature (IR)	_
CE approved	Yes
Dimensions	8.5x2.6x1.5" (216x66x38mm)
Weight	10.6oz (300g)
Warranty	2 year





# 461995 Combination Contact/Laser Photo Tachometer

Combines both contact and non-contact models for use in all applications

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

461995 🕦	RPM10 ₪	SPECIFICATIONS
Photo: 10 to 99,999 / Contact: 0.5 to 19,999	Photo: 10 to 99,999 / Contact: 0.5 to 20,000	rpm
0.2 to 6560	0.2 to 6560	ft/min
0.05 to 1999.9	0.05 to 1999.9	m/min
±0.05%rdg	±0.05%rdg	Basic Accuracy
0.1rpm	0.1rpm	Max. rpm Resolution
Yes	Yes	Laser
_	-4 to 600°F (-20 to 315°C)	Temperature (IR)
Yes	Yes	CE approved
8.5x2.6x1.5" (216x66x38mm)	8.5x2.6x1.5" (216x66x38mm)	Dimensions
10.6oz (300g)	10.6oz (300g)	Weight
2 year	2 year	Warranty



#### **461920** Mini Laser Photo Tachometer Counter



 $\epsilon$ 



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 years 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)

OF	SΠ	FI	RΙ	N	C

461920 N 461937

Mini Laser Photo Tachometer Counter Spare reflective tape (23" each strip), 10pk



#### **HD350** Pitot Tube Anemometer + Differential Manometer



- 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
$inH_2O$	20.07inH <sub>2</sub> O	0.01inH <sub>2</sub> O	±0.3%FS
mmH <sub>2</sub> O	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 Pitot Tube: 15.4 x 7.7" (390 x		

Pitot Tube Anemometer + Differential Manometer



 $\epsilon$ 

EXTECH	
99.36 39.36	
Pitot Tube Anemometer & Manometer	Includes Windows compatible softwa with cable, 9V battery, pitot tube

are with two 33.5" (85cm) connection hoses, 100V-240V universal AC Adaptor, and hard carrying case; 3 year warranty

ORDERING HD350



## **SDL700** Pressure Meter/Datalogger





Includes 6 x AA batteries, SD memory card, and hard carrying case; 3 year warranty. Optional AC adaptors.

## 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; Built-in PC interface
- Large backlit dual LCD
- MIN/MAX, Data Hold, and Auto power functions

SPECIFICATIONS	30psi	150psi	300psi
bar	0.002 to 2	0.01 to 10	0.02 to 20
psi	0.02 to 29	0.2 to 145	0.2 to 290
kg/cm <sup>2</sup>	0.002 to 2.040	0.01 to 10.19	0.02 to 20.40
mmHg	2 to 1500	10 to 7500	20 to 15000
inHg	0.05 to 59.05	0.2 to 295.2	0.5 to 590.5
mH <sub>2</sub> O	0.02 to 20.40	0.1 to 101.9	0.2 to 204.0
inH <sub>2</sub> O	1 to 802	5 to 4010	10 to 8020
atm	0.002 to 1.974	0.01 to 9.87	0.02 to 19.74
hPA	2 to 2000	10 to 10000	20 to 20000
kPA	0.2 to 200.0	1 to 1000	2 to 2000
Dimensions/Weight	Meter: 7.2x2.9x1.9" (182X73)	(48mm)/ 17.3oz (490g)	

ORDERING	
SDL700 N	Pressure Meter/Datalogger
PT30	30psi Pressure Transducer
PT150	150psi Pressure Transducer
PT300	300psi Pressure Transducer
153117	117V AC Adaptor
UA100-240	100-240V AC Adaptor with 3 plugs (US, EU, UK)

## **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	55.40inH <sub>2</sub> O (0.01inH <sub>2</sub> O)	138.3inH <sub>2</sub> O (0.1inH <sub>2</sub> O)	13.85inH <sub>2</sub> O (0.01inH <sub>2</sub> O)
mbar	137.8mbar (0.1mbar)	344.7mbar (0.1mbar)	34.47mbar (0.01mbar)
kPa	13.78kPa (0.01kPa)	34.47kPa (0.01kPa)	3.447kPa (0.001kPa)
inHg	4.072inHg (0.001inHg)	10.18inHg (0.01inHg)	1.018inHg (0.001inHg)
mmHg	103.4mmHg (0.1mmHg)	258.5mmHg (0.1mmHg)	25.85mmHg (0.01mmHg)
ozin²	32ozin² (0.01ozin²)	80ozin² (0.01ozin²)	8.00ozin² (0.01ozin²)
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>	0.140kgcm² (0.001kgcm²)	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)



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



## Narrow diameter cameras with 5.7" High Definition Color LCD Monitor deliver high image and video resolution on large color display

- The HDV600 Series VideoScope has various camera probes to fit your application needs. Choose from a range of sizes with articulating or wireless features.
- 5.7" color LCD TFT high definition 640x480 pixels resolution
- Waterproof (IP67) meter and camera head (IP57) with cable
- Bright white LED lamps with dimmer to illuminate viewed object
- Glare-free close-up field of view and 6" (15.2cm) minimum focus distance
- 2G SD memory card included to store >14,600 images
- Video recording (up to 4 hours) with Voice annotation
- Video and images can be transferred via the SD card, USB output or AV out
- An optional wireless transmitter (HDV-WTX) connects to your camera cable and allows you to transmit video up to 100ft (30m)
- 1 year warranty on camera probes, 2 years warranty on monitor
- Complete with SD memory card, 3.7V rechargeable Li-Polymer battery, AC adaptor, USB and AV cables, camera with cable, and case



Camera Tip features built-in LED lights.



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

#### 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.
- 320° camera probe rotation (from straight position, 160° left and 160° right)

#### **MODEL HDV640W**

• Built-in wireless transmitter in camera cable controller allows you to transmit video up to 32ft (10m) from the measurement point to your monitor





Articulating (6mm diameter) camera tip adjusts up to 320° viewing angle.





- A. USB input
- B. Microphone
- C. SD card slot
- D. AV out
- E. Reset switch
- F. Power adaptor input



Features a 5.7" (144mm) high definition color LCD monitor



HDV640 High Definition Articulating VideoScope (6mm diameter camera/1m semi-rigid cable)



Drop proof and Waterproof housing meets IP67 standards

ORDERING		
Video Inspectio	on Camera Kits	Т
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)	

Video Inspection Monitor (order camera head separately from accessories list below)

High Definition VideoScope (meter only)

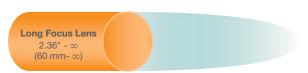
night Definition videoScope (fileter only)		
Optional Camera Heads		
6mm Articulating VideoScope Camera Head (1m Semi-Rigid Cable)		
6mm Wireless Articulating VideoScope Camera Head (1m Semi-Rigid Cable)		
6mm Articulating VideoScope Camera Head (2m Semi-Rigid Cable)		
6mm Wireless Articulating VideoScope Camera Head (2m Semi-Rigid Cable)		
4mm VideoScope Camera Head with Macro lens (1m Flexible Cable)		
5.5mm VideoScope Camera Head with Macro lens (1m Flexible Cable)		
5.5mm VideoScope Camera Head with long depth of field (3m Flexible Cable)		
5.5mm VideoScope Camera Head with Macro lens (3m Flexible Cable)		
5.5mm VideoScope Camera Head with long depth of field (10m Flexible Cable)		
5.8mm VideoScope Camera Head with Macro lens (1m Rigid Cable)		
5.8mm VideoScope Camera Head with long depth of field (3m Rigid Cable)		
5.8mm VideoScope Camera Head with Macro lens (3m Rigid Cable)		
25mm VideoScope Camera Head (10m Fiberglass Cable)		
25mm VideoScope Camera Head (30m Fiberglass Cable)		
Wireless Transmitter		
Spare Patch Cable for HDV Series		

#### **Optics for Every Application**

Learn how different optical camera tips available with the HDV600 videoscopes satisfy varying job requirements. Decide if one or both is right for your job knowing the HDV600 Series offers different optics mated to a range of probes.



HDV600



Macro (Short Focal Length) Lenses permit you to examine features and attributes that are up-close to the optical camera tip as illustrated above. For detail-intensive applications, such as turbine blade or boiler tube inspections, where up-close viewing is essential, select a macro tip with a diameter that is compatible with the width of access points or orifices available.

Long Focus Lenses permit you to see further in confined areas. These are ideal for viewing concealed areas or large, otherwise inaccessible locations where areas needing inspection may not be immediately adjacent to the optical tip.

#### **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...



#### **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 years 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

SPECIFICATIONS	
Camera Pixels	BR200: 712x486 (NTSC) / BR250: 640 x 480 (NTSC)
Transmission Frequency/ Range	2468MHz/ 32ft (10m) unobstructed view
Camera Viewing direction	BR200: Viewing Angle 50° / BR250: Viewing Angle 45°
Camera Viewing distance	5.9 to 9.8" (15 to 25cm)
LCD Screen Type/ Pixels	3.5" TFT/ 320 x 240
Monitor Video Output Level	0.9 to 1.3V@75 $\Omega$
Monitor Video/Image Resolution	960 x 240 (AVI format)/640 x 480 (JPEG format)
Operating/Charge Time	1.5hrs/3hrs
Dimensions/Weight	Camera: 7.3x5.7x1.6" (186x145x41mm)/18.7oz (530g) Monitor: 3.9x2.7x1" (100x70x25mm)/4.9oz (140g)

ORDERING	
BR200	Flexible Video Borescope (17mm diameter/1m cable)
BR250	Flexible Video Borescope (9mm diameter/1m cable)
BRD10	Wireless USB Video Receiver
BR200-EXT	Borescope Extension Cable for BR250 (19mm diameter/0.9m cable)
BR-4CAM	4.5mm Borescope Camera Head with 1m Cable
BR-5CAM	5.5mm 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 BR200 and BR250 to maintain resolution

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









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

- 17mm diameter camera head with 39" (1m) flexible gooseneck cable retains configured shape
- 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
- 2 years warranty
- Complete with rechargeable Lithium battery and Universal AC adapter/charger with USB cable

ORDERING	
BR50	Video Borescope/Camera Tester
BRC-17CAM	17mm Borescope Camera Head with Cable

#### **412400 Multifunction Process Calibrator**



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

- Source 0 to 24mA with 0.01mA resolution
- Measure 0 to 50mA (0.1mA resolution)
- Select Type K, J, or T thermocouple for precision calibrations in °F/°C or mV
- Output 0 to 1999mV or 0 to 10.00V
- Measure 0 to 19.99V
- Single/continuous step function for Voltage and Current
- Self-contained 24V loop power supply drives current loads up to  $1000\Omega$
- Memory for 5 user programmable output values of each type for fast calibrations
- · 2 years warranty
- Complete with 6 AA batteries, test leads, detachable alligator clips, temperature calibration cable with spade lug connector, carrying case, neckstrap, and Universal AC adaptor

SPECIFICATIONS	DC SOURCE	DC MEASURE	BASIC ACCURACY
Current	0 to 24mA, -25% to +125%	0 to 50mA, -25% to +230%	±(0.075%+1d)
Voltage	0 to 10V	0 to 19.99V	±(0.075% + 1d)
Type J	-58 to 1830°F (-50 to 1000°C)	-58 to 1830°F (-50 to 1000°C)	±(0.15% + 1.8°F or 1°C)
Type K	-58 to 2498°F (-50 to 1370°C)	-58 to 2498°F (-50 to 1370°C)	±(0.15% + 1.8°F or 1°C)
Type T	-184 to 752°F (-120 to 400°C)	-184 to 752°F (-120 to 400°C)	±(0.15% + 1.8°F or 1°C)
Loop Power	24V		±(10µV ± 1d)
Max. Load Dimensions/Weight	1000Ω @ 24mA 3.8 x 4.7 x 2.0" (96 x 118 x 45m	m)/12oz (340g)	

ORDERING	
412400 N	Multifunction Process Calibrator

### **433201** Multi-Type Calibrator Thermometer



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

- Five stored calibration values for fast calibrations
- · Large LCD display built into adjustable cover

RANGE

- Versatile thermometer measures over a wide temperature range
- Displays output in terms of mV or °F/°C temperature based on built-in thermocouple tables
- 2 years warranty

SPECIFICATIONS

 Complete with Type K Thermocouple Calibration Cable, Copper calibration cable, 9V NiCad rechargeable battery, neckstrap, Universal AC adaptor/recharger, and case

RESOLUTION

BASIC ACCURACY

Type J	-58 to 1830°F (-50 to 1000°C)	0.1°/1°	0.15% rdg ±1°
Type K	-58 to 2498°F (-50 to 1370°C)	0.1°/1°	0.15% rdg ±1°
Type T	-184 to 752°F (-270 to 400°C)	0.1°/1°	0.15% rdg ±1°
Voltage	-5.00mV to +55.00mV		10μV ±2d ັ
Dimensions/Weight	3.5x6.6x1" (88x168x26mm)/ 11.6d	oz (330g)	
ORDERING			

ORDERING		
433202-220 N	Calibrator Thermometer (w/220V AC adaptor)	
433202-240 N	Calibrator Thermometer (w/240V AC adaptor)	
Order thermocouple p	robes from p. 33	

## 412300A/412355A Current & Voltage Calibrators/Meters



#### "Source" for calibrating process devices and measuring DC process signals

- LCD displays readings in mA, % of the 0 to 24mA range or as mV in voltage ranges
- Five stored calibration values for fast calibrations
- 2 years warranty
- Zyears warranty
   Complete with 9V battery, calibration cable with spade lug terminals, carrying case, neckstrap and 100V-240V AC Universal Adaptor (50/60Hz)
   Model 412355A Current + Voltage Calibrator provides
- Model 412355A Current + Voltage Calibrator provides adjustable 0 to 24mA and 0 to 20V calibration source
- Model 412300A Current Calibrator provides 0 to 24mA output displayed as mA or % and provides 24VDC power to measure a two-wire current loop

Source	Output 0 to 24mA current for loads up to 10	
Measure	0 to 50mA current signal; 0 to 19.99V (41235	
Power/Measure	Provides power (24VDC) to loop & measures	
Input/Output	Ranges and Display	Resolution
	-25.0 to 125.0% (representing 0 to 24mA)	0.1%
	0 to 19.99mA	0.01mA
	0 to 24.0mA	0.1mA
	0 to 1999mV	1mV
	0 to 20.00V	10mV
Accuracy	0.075% ±1 digit	
Dimensions/Weight	3.8x4.2x1.8" (96x108x45mm) folded/ 12oz (	340g)
ORDERING		
412300A N	Current Calibrator/Meter	
412355A 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 years warranty

ORDERING	
412440-S N	Calibration Source Checker

#### **PRC50 Multifunction Process Calibrator**



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

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

FUNCTIONS	RANGE	ACCURACY
Source		
Current	0.000 to 22.000mA, -25% to +125%	$\pm (0.02\% \text{ of reading } \pm 0.02\% FS)$
Voltage	-1000.000mV to 11.0000V	±(0.02% of reading ± 0.01%FS)
Frequency	1.00Hz to 11.0kHz	±0.2 digits
Pulse	1 to 100000 cycles	not specified
Loop power	24V	±10%
Max. Load	1000Ω @ 24mA	
Measure		
Current	-4 to 55.000mA, -25% to +230%	$\pm (0.02\% \text{ of reading } \pm 0.01\%FS)$
Voltage	-20.000mV to 55.000V	$\pm (0.02\% \text{ of reading } \pm 0.01\%FS)$
Frequency	3Hz to 50.000kHz	±0.2 digits
Continuity	<200Ω	ŭ
Dimensions/Wt	205 x 95 x 42mm / 500g	

#### **PRC70 Multifunction Process Calibrator**



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

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

FUNCTIONS	RANGE	ACCURACY
Source	'	
Current	0.000 to 22.000mA, -25% to +125%	$\pm (0.02\% \text{ of reading } \pm 0.02\% FS)$
Voltage	-1000.000mV to 11.0000V	±(0.02% of reading ± 0.01%FS)
Frequency	1.00Hz to 11.0kHz	±0.2 digits
Pulse	1 to 100000 cycles	not specified
Loop power	24V	±10%
Max. Load	1000Ω @ 24mA	
Measure		
Current	-4 to 55.000mA, -25% to +230%	$\pm (0.02\% \text{ of reading } \pm 0.01\%FS)$
Voltage	-20.000mV to 55.000V	$\pm (0.02\% \text{ of reading } \pm 0.01\%FS)$
Frequency	3Hz to 50.000kHz	±0.2 digits
Continuity	<200Ω	ŭ
Dimensions/Wt	205 x 95 x 42mm / 500g	





## HW30 Humidity/ Thermometer Stopwatch

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

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



## **365510** Stopwatch/Clock

Digital Stopwatch plus Calendar and Alarm

- Stopwatch/Chronograph mode with 1/100th second resolution
- 12 or 24 hour clock operation
- Programmable alarm with an hourly chime
- Split time and two competitor timer
- Calendar displays day, month, and date
- Water resistant housing is complete with LR44 battery and 39" (1m) neckstrap



## **365535** Decimal Stopwatch/Clock

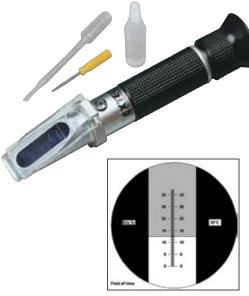
User-selectable resolution of 1/100th of a second, 1/1000th of a minute and 1/100,000th of an hour Large triple display with adjustable contrast

- 1/100th second precision
- 500 memory records of Split and Lap times
- Calendar displays day, month and date
- Time of day with daily alarm
- 12 or 24 hour clock format
- 3 Mode Countdown timer: count down stop, count down repeat, count down then count up
- Stroke measurement
- Pacer from 5 to 240 beeps per minute
- · Water resistant housing
- Complete with CR2032 lithium battery and 39" (1m) neckstrap

SPECIFICATIONS	HW30 N	365510 <b>№</b>	365535 N
Timing capacity	9hrs, 59mins, and 59secs	23hrs, 59mins and 59.99secs	19hrs, 59mins and 59.99secs
Accuracy	±5 seconds/day	±3 seconds/day	±5 seconds/day
Alarm	Yes	Yes	Yes
Countdown Timer	Yes	_	3 Modes
Lap Memory	30 laps	_	500 laps
Heat Index	70 to 122°F (22 to 50°C)	_	_
Temperature	14 to 122°F (-10 to 50°C)	_	_
Humidity	1 to 99%	_	-
CE approved	Yes	Yes	Yes
Dimensions	3.1x2.6x0.8" (79x66x21mm)	2.3x2.8x0.5" (57x70x15mm)	2.5x3.2x0.8" (64x81x20mm)
Weight	3oz (85g)	2oz (50g)	2.7oz (77g)
Warranty	2 years	2 years	2 years



#### **RF Series Portable Brix Refractometers**



Scale view through eyepiece

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

- Accurate, easy to operate refractometers with simple to read scales
- Automatic Temperature Compensation (RF11, RF12, RF15 and RF20 models)
- Requires only 2 or 3 drops of solution
- The prism and lens with a simple focus adjustment provide repeatable results
- Complete with case, calibration screwdriver, and calibration solution; 1 yr warranty Sucrose (RF10, RF11, RF15, RF16, and RF18)
- Measure the concentration of sugar in fruit juice and industrial fluids Brix (RF12 and RF18)
- Maintain proper lubricant cooling concentration to extend equipment life Salinity (RF20)
- Measures the concentration of dissolved salt in water

#### **General Purpose Brix (RF30)**

• Triple Range: 0 to 42% Brix, 42 to 71% Brix, 71 to 90% Brix

SPECIFICATIONS	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%

ORDER	ORDERING		
RF10	0 to 32% Brix Refractometer - Dims/Wt: 6.6x1.3x1.3" (168x32x32mm)/ 3.2oz (91g)		
RF11	0 to 10% Brix Refractometer with ATC - Dims/Wt: 7.5x1.6x1.2" (190x40x30mm)/ 6.5oz (185g)		
RF12	0 to 18% Brix Refractometer with ATC - Dims/Wt: 6.7x1.6x1.2" (170x41x31mm)/ 3.2oz (91g)		
RF15	0 to 32% Brix Refractometer with ATC - Dims/Wt: 6.3x1.4x1.4" (159x35x35mm)/7oz (200g)		
RF16	0 to 10% Brix Refractometer - Dims/Wt: 7.5x1.6x1.2" (190x40x30mm)/ 6.5oz (185g)		
RF18	0 to 18% Brix Refractometer - Dims/Wt: 6.7x1.6x1.2" (170x41x31mm)/ 3.2oz (91g)		
RF20	Salinity Refractometer with ATC - Dims/Wt: 7.6x1.5x1.5" (194x38x38mm)/ 8oz (227g)		
RF30	Triple Range General Service (0 to 90% Brix) Refractometer - Dims/Wt: 7.9x1.5x1.1" (200x38x28mm)/ 21.86oz (620g)		

## RF40/RF40C/RF41 Battery Coolant/ Glycol Refractometer



#### Measure the % of Ethylene Glycol and Propylene Glycol

- Measures the freezing point of automotive coolants plus battery charge condition
- Provide accurate and repeatable measurements of % Ethylene Glycol and Propylene Glycol and °F on easy to read scale
- Automatic Temperature Compensation
- Requires only 2 or 3 drops of solution
- · Complete with case, calibration screwdriver, and calibration solution; 1 yr warranty

SPECIFICATIONS	RANGE	RESOLUTION	BASIC ACCURACY
Propylene Glycol freeze point	RF40: -60°F (63%) to 32°F (12%) RF41: -50°C to 0°C	2°F (1%) 1°C	±5°F (2%)
Ethylene Glycol freeze point	RF40: -60°F (59%) to 25°F (16%) -51 to 0°C (-60 to 32°F) RF41: -50°C to 0°C	2°F (1%) 1°C/2°F 1°C	±5°F (2%)
Specific Gravity of Battery Acid	RF40/RF41: 1.15 to 1.30	0.01	
Dimensions/Weight	6.5x1.5x1.5" (165x38x38mm)/ 7oz	(200g)	

OR	DER	ING

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

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



#### **FHT200 Fruit Hardness Tester**



## Penetrometer measures fruit ripeness to improve fruit quality, harvest, storage, and product transportation time

- Four Penetrometer tips for large/hard and small/soft fruits
- Tension or Compression, Peak hold and Zero functions
- Measures in lbs, kg, and Newtons
- Positive/Reverse display for easy readability
- Large LCD with back light feature
- PC interface
- Optional software available (407001)
- 2 years warranty
- Complete with four (3mm, 5mm, 8mm, 11mm) Penetrometer Tips, six AA 1.5V batteries, and hard carrying case; Optional AC adaptor

SPECIFICATIONS	
Range	44.10lbs, 20kg, 196.10 Newtons
Accuracy	±(0.5%)
Resolution	0.01lbs, 0.01kg, 0.05 Newtons
Minimum Display	0.07lbs, 0.02kg, 0.3 Newtons
Display	5 digits, 0.63" (16mm) LCD display
Update Rate	Fast mode 0.2 secs; Slow mode 0.6 secs.
Full scale deflection	~0.4mm
Transducer type	Load cell
Peak Hold	Freezes Max reading on display
Dimensions	8.5 x 3.5 x 1.8" (215 x 90 x 45mm)
Weight	1.4 lbs (650g)

ORDERING	
FHT200	Fruit Hardness Tester
407001	Data Acquisition software and cable
407001-USB	USB adaptor for 407001
UA100-240	100-240V AC Adaptor with 3 plugs (US_FU_UK)

## **CG204** Coating Thickness Tester



#### 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 and Group)
- Memory stores 400 readings: 80 Direct and 320 Group
- User adjustable high/low alarms, Min/Max/Average, One or two point calibration
- USB interface includes software
- 2 years warranty
- Complete with two AAA batteries, USB cable, software, Calibration Iron, Calibration Aluminum, Reference Films, and carrying case

SPECIFICATIONS	FERROUS PROBE	NON-FERROUS PROBE
Working Principle	Magnetic Induction	Eddy Current
Measuring Range	0 to 1250µm; 0 to 49mils	0 to 1250µm; 0 to 49mils
Basic Accuracy	±3%	±3%
Resolution	0.1µm (0.004mils)	0.1µm (0.004mils)
Minimum Curvature Radius	1.5mm (59.06mils)	3mm (118.1mils)
Minimum Diameter	7mm (275.6mils)	5mm (196.9mils)
Minimum Thickness	0.5mm (19.69mils)	0.3mm (11.81mils)
Dimensions/Weight	17 × 2 1 × 1 25" (120 × 62 × 33	2mm)/ 6 170z (175a)

ORDERING	
CG204	Coating Thickness Tester
CG204-REF	Replacement Reference Films for CG204 (10 sets)



## **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.







ACCESSORIES	
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
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® II Fluoride Module for FL700
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



## 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
- · 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

← All models are CE approved

SPECIFICATIONS	PH100	RE300
pH	0.00 to 14.00pH	_
ORP (mV)	_	-999 to 999mV
Conductivity	_	_
TDS/Salinity/Fluoride	-	_
DO saturation/concentration	_	_
Temperature	23° to 194°F (-5 to 90°C)	_
Max. Resolution	0.01pH, 0.1°	1mV
Basic Accuracy	±0.01pH, ±1.8°F/1°C	±4mV
Dimensions	1.4x6.8x1.6" (35.6x172.7x40.6mm)	1.4x6.8x1.6" (35.6x172.7x40.6mm)
Weight	3.8oz (110g)	3.8oz (110g)
Warranty	2yr (meter)/6mo conditional warranty (electrode)	2yr (meter)/6mo conditional warranty (electrode)







## 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. 103.
- Model EC400 includes Conductivity/TDS cell
- Model EC500 includes combination pH/ Conductivity/TDS cell; RENEW feature tells user to replace electrode



## **D0600** ExStik® II Dissolved Oxygen Meter

Easy to replace screw-on membrane cap with optional extension cables

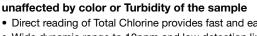
- Oxygen level displayed as % Saturation or Concentration (mg/L [ppm])
- Adjustable Altitude Compensation (0 to 20,000ft in 1,000ft increments)
- Adjustable Salinity Compensation from 0 to 50ppt
- · Analog bargraph display
- Self calibration on power up
- Memory stores 25 labeled data
- Waterproof to 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

■ EC400   ▲ EC500	■ D0600   ▲ D0600-K	SPECIFICATIONS
■ No   ▲ 0.00 to 14.00pH	_	рН
_	_	ORP
0 to 199.9 $\mu$ S, 200 to 1999 $\mu$ S, 2.00 to 19.99 $m$ S	_	Conductivity
TDS/Salinity: 0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)	-	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)	Temperature
0.1μS, 0.1ppm (mg/L), 0.01pH, 0.1°F/°C	0.1%, 0.01ppm (mg/L), 0.1°F/°C	Max. Resolution
±2%FS, ±0.01pH, ±1.8°F/1°C	±2.0% FS, 0.4ppm (mg/L), ±1.8°F/1°C	Basic Accuracy
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	Weight
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

- 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 years warranty (meter)/ 6 months conditional warranty (electrode)
- Complete with meter and flat surface Chlorine electrode, ExTab™ reagent tablets (50 tests), protective sensor cap, sample cup with cap, four 3V button batteries, and 48" (1.2m) neckstrap

SPECIFICATIONS	
ppm	0.01 to 10.00ppm
Temperature	23° to 194°F (-5 to 90°C)
Resolution	0.01ppm; 0.1°F/°C;
Basic accuracy	±10% of reading ±0.01ppm; ±1.8°F/±1°C
Dimensions/ Weight	1.4x6.8x1.6" (35.6x172.7x40.6mm)/ 3.85oz (110g)

ORDERING		
CL200	ExStik® Chlorine Meter	
CA895	Small vinyl carrying case with belt loop	
CL205	Spare Chlorine electrode	
CL207	Chlorine Standard (1ppm) - 3 ampules (20mL ea.)	

#### **CL200** 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)

	ORDERING	
Ī	CL203	ExTab™ Reagent tablets (10pk - 100 tests)
	CL204	ExTab™ Reagent tablets (100pk - 1000 tests)

#### **CL207 Chlorine Standard**

- 1ppm standard for chlorine meter calibration
- Complete with 3 ampules (20mL each) 1ppm calibration standards

ORDERIN	G	
CL207	Chlorine Standard (1ppm) -	
	3 ampules (20mL ea.)	

ORDERING	
EX006	EX006 Weighted Base and Solution Cups Kit
EX007	Spare Sample Solution Cups (24pk)



#### EX900 ExStik® 4-in-1 Kit



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

Kit Includes:

- CL200 Chlorine ExStik® meter, flat surface pH electrode, flat surface ORP electrode, ExTab™ reagent tablets (50 tests), pH 4, 7 & 10 buffer solutions (20mL) and rinse solution, weighted base with 6 sample plastic cups with caps, four 3V CR2032 button batteries, 48" (1.2m) neckstrap, and case
- Also available EX800 Kit includes all of the above except for ORP electrode.
- See p. 103 for specifications on the ExStik Meters

ORDERING	
EX900	ExStik® 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® 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. 104 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. 104 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® II meter with combination high accuracy multi-ranging Conductivity sensor for Conductivity, TDS, Salinity, pH and Temperature measurements
- DO600 Dissolved Oxygen ExStik® II meter with electrode, replacement membrane cap, electrolyte, and polishing paper

Accessories included:

- $\bullet\,$  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. 104 for more details on the EC500 and DO600 meters

ORDERING	
DO610	ExStik® II DO/pH/Conductivity Kit



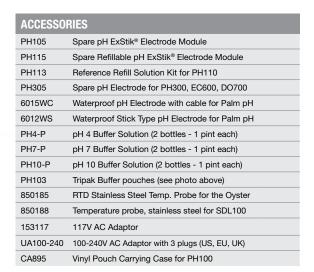
## For Rugged, Accurate Results

Extech field-tested lab instruments are fast-responding tools designed to deliver accurate and repeatable readings with waterproof and datalogging models available.













PH110

## 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

SPECIFICATIONS	■ PH100 I ▲ PH110	
Туре	■ Gel Filled   ▲ Refillable	
рН	0.00 to 14.00pH	
mV	-	
Temperature	23° to 194°F (-5 to 90°C)	
Max Resolution	0.01pH, 0.1°	
Basic Accuracy	±0.01pH, ±1.8°F/1°C	
Memory	15 readings	
PC Interface	_	
Dimensions/ Weight	1.4x6.8x1.6" (35.6x172.7x40.6mm)/3.8oz (110g)	
Warranty	1yr (meter)/6mo conditional warranty (electrode)	
NOTE: It is recommended that you calib	rate your conductivity meter to conductivity standards before use	

CE All models are CE approved.





## 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 Compensation
- Memory stores up to 200 labeled readings
- Waterproof housing (meets IP57)
- Large blue backlit dual LCD displays both pH and Temperature readings
- Auto power off with disable function
- Complete with pH/mV/Temperature electrode, pH calibration solutions (4, 7, and 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® 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
- Built-in PC interface
- Complete with 6 x AA batteries, SD card, sample buffers, mini pH electrode (60120B), temperature probe (850188), and hard carrying case; Optional AC Adaptor 153117 or UA100-240

PH300	SDL100 N	SPECIFICATIONS
Cabled pH Electrode	Cabled pH Electrode	Туре
0 to 14pH	0 to 14pH	рН
-1999mV to 1999mV	-1999mV to 1999mV	mV
32 to 212°F (0 to 100°C)	32 to 149°F (0 to 65°C)	Temperature
0.01pH, 1mV, 0.1°	0.01pH, 1mV, 0.1°	Max Resolution
±0.02pH, ±0.15mV, ±1°F/0.5°C	±0.02pH, ±0.5% mV, ±1.8°F/1°C)	Basic Accuracy
200 readings	20M readings on 2G SD card	Memory
-	Optional 407001 Software (see p. 83)	PC Interface
4.7x2.6x1.2" (120x65x31mm)/6.3oz (180g)	7.2x2.9x1.9" (182X73X48mm)/16oz (455g)	Dimensions/ Weight
1yr (meter)/6mo conditional warranty (electrode)	3yr (meter)/6mo conditional warranty (electrode)	Warrantv



### PH150-C Concrete pH Kit



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

- 3ft (1m) extension cable with probe guard/weight attaches to the Concrete pH Meter for taking measurements on flat concrete surfaces
- Rust resistant metal weight probe guard helps keep electrode in contact with the wet concrete surface and protects the electrode
- RENEW indicator tells you when it's time to replace your electrode
- CAL alert tells you it's time to recalibrate
- Memory records and recalls 25 readings
- 1, 2 or 3 point calibration
- Data Hold, Auto power off, and Low battery indication
- Waterproof/dustproof design (IP57)
- Complete with flat surface concrete pH electrode, protective sensor cap, sample cup with cap, plastic stand, 1m extension cable with weighted probe guard, plastic bottle, four 3V CR2032 button batteries, 48" (1.2m) neckstrap, and carrying case

SPECIFICATIONS	
pH	0.00 to 14.00pH
Temperature	23 to 194°F (-5 to 90°C)
Resolution	0.01pH, 0.1°
Accuracy	±0.01pH, ±1.8°F/±1°C
Dimensions (Meter)	1.4 x 6.8 x 1.6" (35.6 x172.7 x 40.6mm)
Weight (Meter)	3.8oz (110g)
ORDERING	
PH150-C	Concrete pH Kit
PH155	Spare ExStik® Concrete pH Electrode Module

## PH50/PH60 pH Pens



#### Easy-to-use, low cost waterproof pH pens

- 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 with Low battery indicator
- Auto power off with disable feature
- 2 years warranty
- Complete with built in electrode, sensor cap, inner pH electrode protection cap, and four LR44 button batteries

SPECIFICATIONS		
pH	2.0 to 12.0pH	0.0 to 14.0pH
Temperature	_	32 to 122°F (0 to 50°C)
Resolution	0.1pH, 0.1°	0.1pH, 0.1°
Accuracy	±0.3pH	±0.2pH; ±1°F/±0.5°C
Dimensions	6x1.5x0.9" (152x37x24mm)	
Weight	2.3oz (65g)	

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



#### 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



Flat surface pH, Chlorine, and ORP electrode modules



PH113

Reference Refilling Solution Kit for PH115 Refillable pH electrode module Interchangeable pH, ORP, and Chlorine sensor modules for ExStik® series meters featured on (p. 103)

- 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. 104
- 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





## **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.







ACCESSOF	RIES
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® II Conductivity Cell Module for EC400
EC505*	Spare ExStik® II pH/Conductivity Cell Module for EC500
EC605	Spare Conductivity Cell for EC600 and DO700
804010A	Polymer Conductivity Cell for 341350A-P
PH305	Spare pH Electrode for PH300, EC600, DO700
60120B	Spare Mini pH Electrode for 341350A-P
CA895	Small vinyl case with belt loop for EC400, EC500
UA100-240	100-240V AC Adaptor with 3 plugs (US, EU, UK)
850190	Thermistor Probe (32 to 194°F/0 to 90°C) for 341350A-P



#### EC400/EC410

## ExStik® 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.106) includes EC400, 84μS, 1413μS, 12880μS calibration standards, weighted base, 3 sample cups with caps, and case

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

SPECIFICATIONS	■ EC400   ▲ EC410
Conductivity	0 to 199.9μS, 200 to 1999μS, 2.00 to 19.99mS
TDS/Salinity	0 to 99.9ppm (mg/L), 100 to 999ppm (mg/L), 1.00 to 9.99ppt (g/L)
pH	_
mV	-
Temperature	32° to 149°F (0 to 65°C)
Max. Resolution	0.1μS, 0.1ppm (mg/L), 0.1°F/°C
Basic Accuracy	±2%FS, ±1.8°F/1°C
Dimensions	■ Meter: 1.4x6.8x1.6" (36x173x41mm)/3.8oz (110g) ▲ Kit: 9.5x6.8x2.8" (241x173x71mm)/1.56lbs (708g)
Warranty	2yr (meter)/6mo conditional warranty (electrode)

 $\epsilon$ 

All models are CE approved

NOTE: It is recommended that you calibrate your conductivity meter to conductivity standards before use.









## ExStik® 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



### **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 (nonlinear 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

■ EC500   ▲ EC510	EC600
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 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)	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), 0.01pH, 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	±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)	4.7x2.6x1.2" (120x65x31mm)/6.3oz (180g)
2yr (meter)/6mo conditional warranty (electrode)	2yr (meter)/6mo conditional warranty (electrode)

For the name of your local distributor, visit www.extech.com



### SDL150 Dissolved Oxygen Meter/Datalogger



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 3 plugs (US, EU, UK)

## 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 Built-in PC interface
- 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 adaptors

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)	
PC Interface	Optional 407001 Software (s	see p. 84)	
Dimensions/Weight	Meter: 7.2x2.9x1.9" (182x73 Probe: Probe: 0.8Dx4.9"L	8x48mm)/ 25.6oz(725g)	

## **D0700** Waterproof Series Dissolved Oxygen Kit





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

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

## 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 years 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 100MΩ cm	0.1Ω	±1.5%FS
Temperature (for pH & mV)	32 to 212°F (0 to 100°C)	0.1°	±1°F/±0.5°C
Temperature (other)	32 to 122°F (0 to 50°C)	0.1°	±1°F/±0.5°C
Dimensions/Weight	4.7x2.6x1.2" (120x65x31mn	n)/ 6.3oz (180g)	

## **D0600** ExStik® II Dissolved Oxygen Meter







Bonded membrane cap for 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.

#### 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 years warranty (meter)/ 6 months conditional warranty (electrode)

SPECIFICATIONS	RANGE	MAX RESOLUTION	BASIC ACCURACY
DO (saturation mode)	0 to 200.0%	0.1%	±2% FS
DO (concentration 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/Weight	1.4x6.9x1.6" (36x176x41)	mm)/ 3.8oz (110g)	

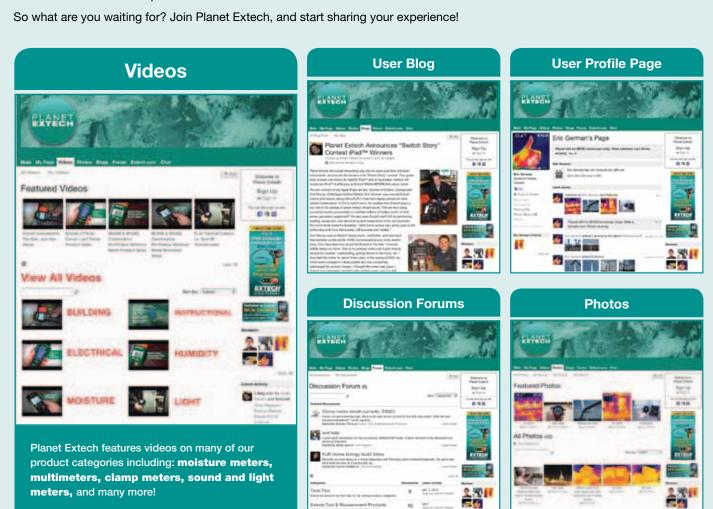
ORDERING	
DO600	ExStik® II Dissolved Oxygen Meter
DO605	Spare ExStik® II Dissolved Oxygen Electrode module
DO603	Membrane Kit for DO600 and DO605
EX010	Extension Cable 3ft (1m) with Probe Guard/Weight
EX050	Extension Cable 16ft (5m) with Probe Guard/Weight



#### What Is Planet Extech?

Planet Extech is a brand new community aimed at connecting users of Extech Test & Measurement equipment. Users can share stories, discuss their work, as well as connect with our Tech Support team in the forums.

Planet Extech is also the place to watch the latest product videos, as well as chat with our team of experts during live webcasts. Community members are able to participate in exclusive promotions and contests, learn about new products, and have a chance to win all sorts of prizes.



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