MAJOR TECH

AMTEC TECHNIQUIP
Focused on a Better Future
Suppliers of Educational Equipment

2019 INSTRUMENTS CATALOGUE



INNOVATION
QUALITY
EXCELLENCE







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ESTABLISHED 1995

Major Tech was founded in July 1992 with its focus on developing its own brand of Test & Measuring instruments, a first for South Africa. From its humble beginnings Major Tech has become synonymous with innovation and quality throughout its product range. Major Tech is heavily committed to product research and allocates significant resources to an ongoing research program.

This type of investment ensures that Major Tech is constantly at the forefront of technologic development and those new ideas and concepts can rapidly be brought to market. The success of Major Tech and their experience in developing unique products assisted the company in developing meters and test tools for South African electricians, but in recent years we now attract customers from all over the globe. Our focus is to ensure that we meet the latest IEC safety standards while still delivering testers with unique features and functions. Major Tech was one of the first companies worldwide to introduce double injection housings for test meters in the early 2000's, and have now included this durable housing wherever possible throughout our range.

Our ever popular MT1800 Series multimeters were developed with IP67 waterproof housings especially for mining applications and arduous areas. New to the range is the MT1005 and MT1003 which offers DMM + Graph with Data Logging and Trend Capture function. The MT1005 offers the added features of 50 000 count and Bluetooth.

Infrared (IR) thermometers has been the focus for Major Tech for many years, but as technology changes we have found the need to introduce Infrared Thermal Imaging. We have in recent years developed a range of Thermal Imagers to meet the needs of our customers. Today we are pleased to offer a low cost MTi11 Thermal Imager which meets the needs of the independent electrician, helping solve possible problems in DB boards or connections. Our advancement in Thermal Imaging and DMM technology has allowed us to introduce two types of combined DMM + Thermal Imagers, the MT2005 for professionals and the MT2001 as an entry level option for electricians, both including Bluetooth image transfer.

Software has become an integral part of measuring tools for users, and recently we introduced Bluetooth to many of our meters with the App as a free download. This integration can be used for logging or instant monitoring on mobile phones or PC's. The Bluetooth function is available on some DMM's, Laser Distance Meters, Clamp Meters , Thermal Imagers and Environmental Meters.

The K-Series is the premium range of electrical meters that Major Tech offers and includes Insulation Testers up to 12kV, Power Quality & Harmonic Analysers, Clamp Meters, Phase Rotation meters and Loggers. In fact the K-Series was the first to introduce CAT IV 600V Clamp Meters into the market. Other products include Loop & PSC testers for domestic and industrial applications, Industrial ELCB, Earth Resistance and Resistivity meters and Multifunction Testers for completing COC certificates.

We look forward to you experiencing Major Tech's quality, enthusiasm and service.





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NEW PRODUCTS



MTi11
This compact Thermal Imager has a 80 x 80 pixel imaging system displayed on a bright easy-to-read graphical TFT display. Capable of instant share and save via Bluetooth to iOS or Android smart devices - see page M72.



MT478
The MT478 is a 2-Pole voltage, continuity and phase tester with rapid LED indication of voltage levels. When AC/DC Voltage is detected the meter has three ways to indicate the voltage, visual display (LED and LCD), sound and vibration when the load buttons are pressed. Perfect tester for electricians - see page M57.



MT941
This 5-in-1 digital Multifunction Environment Meter has been designed to combine a Sound Level meter, Light Meter, Humidity Meter, Temperature meter and Thermo-Anemometer into one housing. Perfect all in one meter for factory maintenance, schools, shopping centers, acoustic studios design and home use - see page M86.



MT96
The MT96 is a compact Particle Counter that displays fast, easy and accurate readings for particle counter and particle mass concentration with air temperature and relative humidity measurements. Ideal for environmental protection and energy saving - see page M85.



MT900
The MT900 is a precision cable length meter that uses TDR technology to measure cable length. It has an automatic internal matching network to allow testing with an automatic selection range, which correspond to power, telephone, CAT 5 and Coax cables. Internal library with 20 standard cable types, plus 99 internal memory locations - see page M91.

K6024PV
The K6024PV can measure insulation resistance of PV systems with open voltages of 1000V or less and of low voltage installations of 600V or less - see page M97



NEW PRODUCTS



MT2005
The MT2005 is a professional True RMS 6000 count multimeter combined with a 80 x 80 Thermal Imager offering a temperature range from -20°C to +260 °C. The Thermal Images of potential hot spots can be transferred by Bluetooth to a Smartphone for analysis - see page M8.



MT1005
The MT1005 is a heavy duty True RMS 50,000 count multimeter with a 320 x 240 TFT color LCD screen. The meter offers a logging function and TrendCapture for easy review of logged data. The user can select a digital display of readings or a graphical display. Menu function allows the user to select a different color display of the digital readout - see page M10.



MT785
The new MT785 is a True RMS AC and DC watt clamp on meter with noninvasive measurements up to 240kW. This meter measures the most common requirements ACV, DCV, ACA, DCA, Resistance, Active Power and Total Harmonic distortion required for trouble shooting small commercial electrical systems - see page M27.

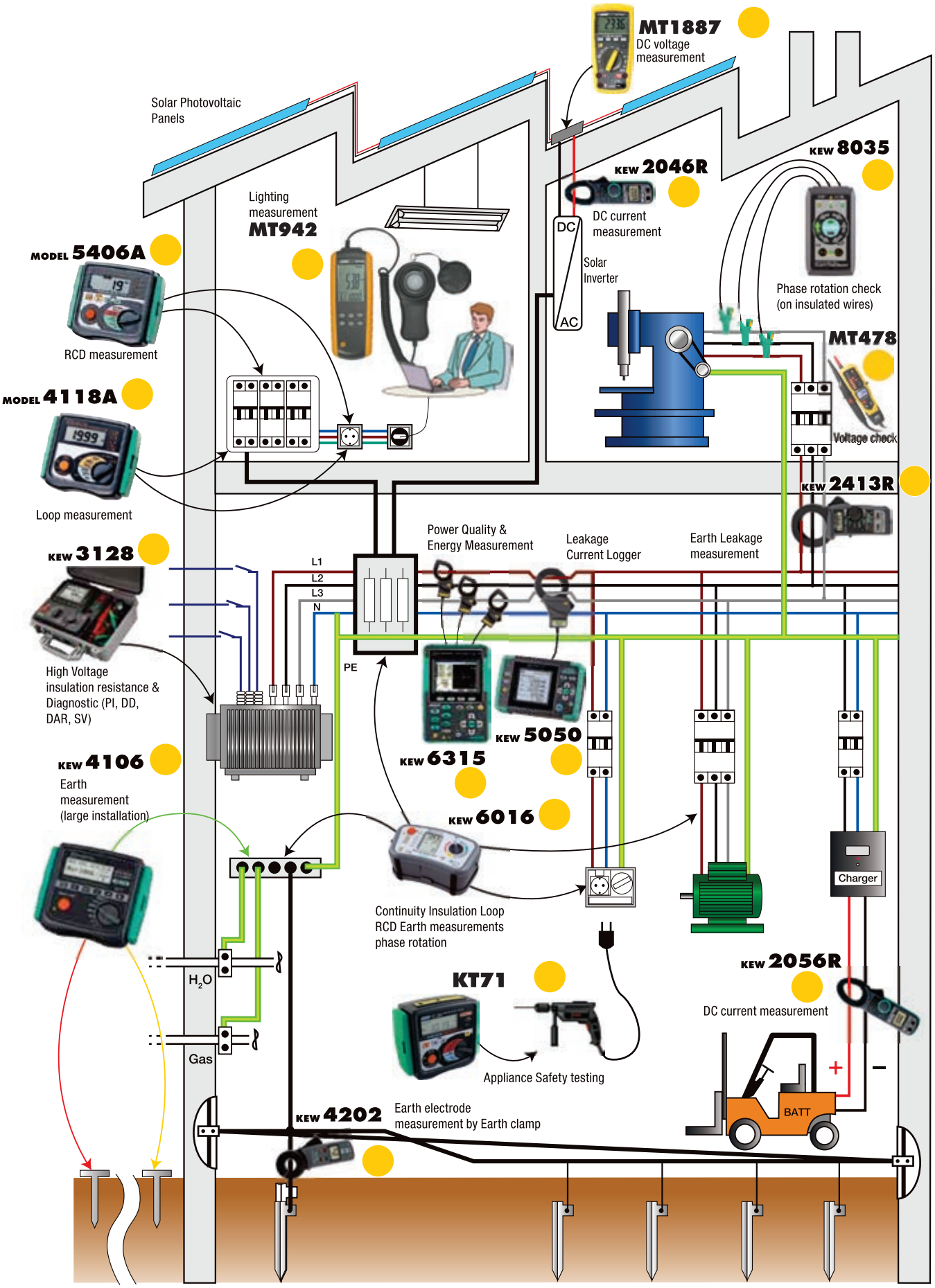


MT745
The MT745 measures AC current up to 3000A using a flexible clamp. The measurements can be stored in with Data Logging and the readings can be sent to a Smartphone using Bluetooth technology - see page M25.

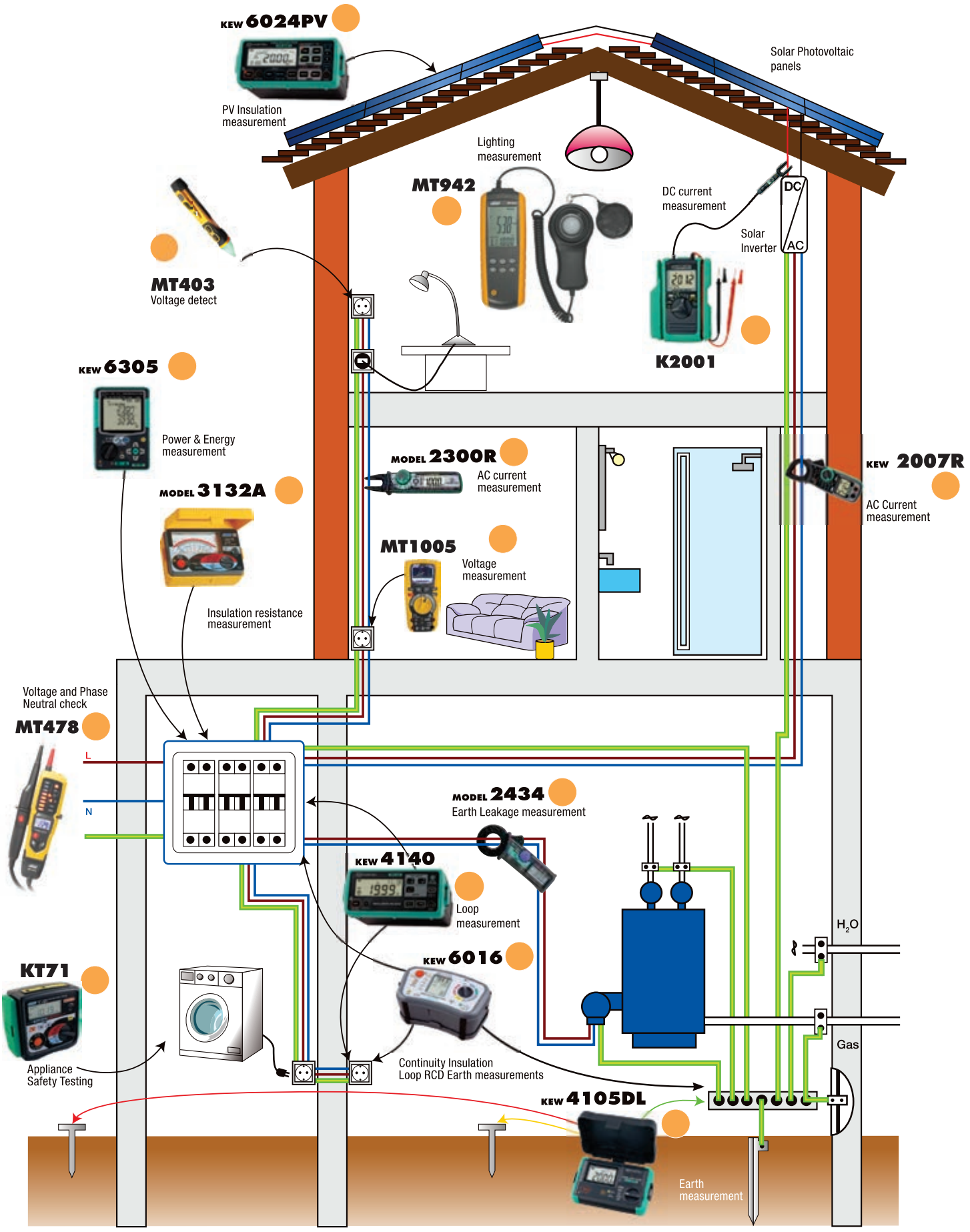


K2007R
The lightweight K2007R is a True RMS clamp meter measuring AC current up to 600A, AC/DC voltage to 600V and resistance to 6kΩ. Ergonomically overmould case gives convenient one hand operation - see page M22.

INDUSTRIAL APPLICATIONS



RESIDENTIAL APPLICATIONS



Meterbox Pro

METERBOX SOFTWARE

The Meterbox-iMM software supports a range of instruments offered by Major Tech by transferring the measured data to the users smartphone. The easy to use software allows the user to check, export and share recordings and charts via the Cloud



Meterbox-iMM Software permits/functions:

- Measuring data transferred to Cloud
- Edit, analyze & Store the data
- Connecting with iPhone/iPod/iPad
- Android Phone/Android Pad
- Sharing the data with others by
- E-mail, facebook & twitter
- Trend capture
- Cloud backup

4.0 Bluetooth Interface

MAJOR TECH

DIGITAL MULTIMETERS



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THERMAL MULTIMETERS

THERMAL MULTIMETER

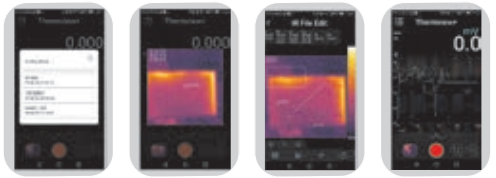
MT2005



The MT2005 Professional True RMS Industrial Digital Multimeter with built-in 80 x 80 Thermal Imager, and TFT color LCD display, provides fast A/D converting sampling time, high accuracy. It is a fast and easy solution to find and solve problems with production equipment, providing Bluetooth technology BLE. It is a safe instrument with double molded plastic housing and has a IP65 waterproof rating

Features

- 6000 count 2.8" TFT Color LCD display
- Built-in Thermal imager with MIN/MAX
- Temperature Range -20°C to 260°C
- 50Hz fast Thermal image frame rate
- DC Voltage
- AC, AC+DC TRMS Voltage
- DC current
- AC, AC+DC TRMS current
- Resistance and Continuity test
- Diode test
- Capacity
- Frequency
- Duty Cycle
- Temperature with K-type probe
- Flexible coil current



Built-in Infrared Thermal Imager offers you non invasive measurements of potential hot spots. These images can be transferred via Bluetooth to a Smartphone for analysis.
Simply turn on the bluetooth of the smartphone. Press the Thermview+ icon and enter into the home interface, then press the Connect Device icon and the bluetooth device name will appear. Touch the device name listed in Bluetooth devices list to connect to the device.

Function	Range	Accuracy
Imaging and Optical Data		
Field of View	21° x 21°/0.5m	
Spartial resolution (IFOV)	4.53mrad	
Thermal sensitivity/NETD	<0.1°C @ +30°C/100mK	
Image Range	50Hz	
IR Resolution	80 x 80 pixels	
Image Presentation		
Display	2.8" LCD, 240 x 320 pixels	
Measurement		
Temperature range	-20°C - 260°C	±(3°C or ± 3%)
Measurement analysis		
Spot	Center spot	
Automatic hot/cold detection	Hot or cold markers	
Emmisivity correction	Variable 0.01 to 0.99	
Measurement corrections	Emissivity, reflected temperature	
Data Communications Interfaces	Bluetooth BLE	
Multimeter		
DC Voltage	600.0mV - 1000V	±(0.09% +5)
AC Voltage	600.0mV - 1000V	±(0.8% +5)
AC + DC TRMS Voltage	6.000V - 1000V	±(2.4% +20)
DC Current	600.0µA - 10A	±(0.9% +5)
AC Current	600.0µA - 10A	±(01.2% + 5)
Flexi Coil AC Current	30.00A - 3000A	±(0.8% + 5)
Duty Cycle	5.0% to 95.0%	±(1.2% +2)
Resistance	600.0Ω - 60MΩ	±(0.5% + 5)
Frequency	40.00Hz -10MHz	±(0.09% +5)
Capacitance	60.00nF - 6mF	±(1.2% + 8)
Temperature	-40 - 600°C	±(1.5% + 3)
Digital Display	6000 count 2,8" TFT	
Input impedance	>10MΩ VDC & >10MΩ VAC	
Size (L x W x D)	195 x 88 x 58mm	
Weight	540g	
Optional Accessory	MT740	

COMPACT THERMAL MULTIMETER

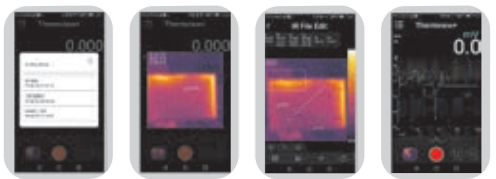
MT2001



The MT2001 True RMS compact Multimeter with built-in 80 x 60 pixel Thermal imager, has a 2.4" TFT colour LCD display. The meter provides fast A/D converting sampling time and high accuracy in a compact robust housing. Ideal for problem solving on production equipment. Provides data via Bluetooth BLE (Thermview+) to Android and IOS smart phones for quick and easy analysis.

Features

- 4000 count 2.4" TFT Colour LCD display
- Built-in Thermal imager with Max.Min and Center crosshair targeting
- Temperature Range -20°C to 260°C
- 50Hz fast Thermal image frame rate
- DC Voltage
- AC, AC + DC TRMS Voltage
- DC Current
- AC, AC + DC TRMS Current
- Resistance and Continuity Test
- Diode test
- Capacitance
- Frequency
- Duty Cycle



Built-in Infrared Thermal Imager offers you non invasive measurements of potential hot spots. These images can be transferred via Bluetooth to a Smartphone for analysis.
Simply turn on the bluetooth of the smartphone. Press the Thermview+ icon and enter into the home interface, then press the Connect Device icon and the bluetooth device name will appear. Touch the device name listed in Bluetooth devices list to connect to the device.

Function	Range	Accuracy
Imaging and Optical Data		
Field of View	21° x 21°/0.5m	
Spartial resolution (IFOV)	4.53mrad	
Thermal sensitivity/NETD	<0.1°C @ 30°C	
Focal Length	7.5mm	
Focal Plane Array (FPA) / Spectral range	uncooled microbolometer / 8-14µm	
IR Resolution	80 x 60 pixels	
Image Presentation		
Display	240 x 320 2.4" TFT Colour display	
Image Modes	IR Image	
Colour Palletes	Iron, rainbow, raindow HC, grey, grey inverted	
Measurement		
Temperature range	-20°C - 260°C	±(3°C or ± 3% of reading)
Measurement analysis		
Spot	Center spot	
Automatic hot/cold detection	Hot or cold markers	
Emmisivity correction	Variable 0.01 to 0.99	
Measurement corrections	Emissivity, reflected temperature	
Multimeter		
DC Voltage	400.0mV - 600V	±(0.8% +5)
AC Voltage	4.000V - 600V	±(1.0% +5)
AC + DC TRMS Voltage	4.000V - 600V	±(2.5% +20)
DC Current	400.0µA - 10A	±(1.5% +8)
AC Current	400.0µA - 10A	±(2.0% +5)
Duty Cycle	10.0% to 90.0%	±(3.0% +8)
Resistance	400.0Ω - 40.00MΩ	±(1.0% + 5)
Frequency	40.00Hz -10MHz	±(0.5% +5)
Capacitance	60.00nF - 6mF	±(1.2% + 8)
Temperature	-40 - 600°C	±(1.5% + 3)
Size (L x W x D)	148 x 68 x 48mm	
Weight	348g	



IP67 INDUSTRIAL MULTIMETERS

This high accuracy True-RMS multimeter has a fast sampling time, built-in data logging and Trend Capture features, plus it includes a 10MHz oscilloscope displayed on a colour screen. Using Bluetooth technology the captured data can be transferred to a computer for analysis of the datasheets. The oscilloscope function has a 10MHz bandwidth with a 50MS/s Real Time sample rate and cursors to assist the user with zoom in measurements - all displayed on a colour TFT display! With TFT colour display, this meter enables the user to trace and identify problems on equipment, and with the data logging & Trend Capture functions, it can be utilied as a standalone unit to log events! The meter is housed in a double moulded rubber casing with an IP67 waterproof design.



Function	Range	Accuracy
DC Voltage	50mV - 1000V	±(0.05% +20)
AC Voltage	50mV - 1000V	±(0.3% +25)
AC + DC TRMS Voltage	50mV - 1000V	±(3.5% +25)
AC Current	500µA - 10A	±(0.6% + 25)
AC + DC Current	500µA - 10A	±(1.0% + 25)
Resistance	50Ω - 50MΩ	±(0.5% +20)
Frequency	50Hz- 10MHz	±(0.01% +10)
Size (L x W x D)	220 x 96 x 60mm	
Weight	631g	

Features

- Large 50,000 Count 320 x 240 TFT colour LCD display/ Low pass filter/ IP67 Rating
- 10MHz / 50MS/s Bandwidth/ Real time sample rate
- Logging function with TrendCapture for easy review of logged data
- Bluetooth PC interface for easy data transfer & accuracy calibration
- 100kHz Bandwidth (voltage/current)
- AC, AC+ DC, True RMS measurements
- Peak capture (records transients as fast as 250µs)
- Min/Max/Average with Time stamp (records signal fluctuations)
- Motor winding and low ohm (500) measurement range
- The Meterbox software supports bluetooth products transferring the measured data to the customers' smart phone



MT1009

The MT1007 is a professional True RMS Industrial Multimeter accurately measuring AC/DC voltage and current on complex signals or non-linear loads providing fast A/D converting sample time. This meter gives you 50 000 count resolution with full graphics LCD display with built-in datalogging and Trend Capture features. The MT1007 has an Auto Zero and Peak Hold function with calibration mode and measures resistance, continuity, diode, frequency, duty cycle, min/max and average recordings with Time Stamp function to record signal fluctuations.
The MT1007 professional True RMS Industrial Multimeter can trace any interrupted problems of equipment without supervision. This meter plots measurements as a single line to help detect signal anomalies over time and can store up to 10 000 recorded events. The MT1007 can log multiple sessions or log data continuously for over 200 hours. Enabling the user to save and name the measurements so it can be recalled at any time.



Function	Range	Accuracy
DC Voltage	50mV - 1000V	±(0.05% +20)
AC Voltage	50mV - 1000V	±(0.3% +25)
AC + DC TRMS voltage	50mV - 1000V	±(1.0% +25)
DC Current	500µA - 10A	±(0.1% +20)
AC Current	500µA - 10A	±(0.6% + 25)
AC + DC Current	500µA - 10A	±(1.0% + 25)
Resistance	50Ω - 50MΩ	±(0.5% +20)
Frequency	50Hz - 10MHz	±(0.01% +10)
Capacitance	5nF - 10mF	±(2.0% +40)
Temperature	-50 to 1000°C	±(1.0%+2.5)
Size (L x W x D)	220 x 96 x 60mm	
Weight	631g	

Features

- True RMS AC/DC voltage and AC/DC Current measurements
- 50 000 Counts, full graphics LCD display with white backlight
- Measures resistor, diode, capacitance, frequency and duty cycle
- Trend Capture and Bluetooth Interface
- Log multiple sessions or log data continuously for over 200 hours
- Real time clock for automatic time stamping of saved readings
- Min/Max/Average with Time Stamp to record signal fluctuations
- Temperature measurement with K-type temperature probe
- Peak hold function with calibration mode / Auto Zero function
- IP67 waterproof with double moulded plastic housing



MT1007



MT827

Features

- Optional carrying case for most Digital Multimeters
- Adds extra protection for the meter
- Size - 220mm(H) x 110mm(W) x 60mm(D)



Registered Design

MTKBAG

Features

- Optional carrying case to house a range of meters the user needs to carry at any one time
- Specially designed by Major Tech to be compact with a shoulder strap
- Adjustable compartments for bigger instruments or tools
- Pocket for instruction manuals or documentation
- Size - 220mm (H) x 450mm (W) x 200mm (D)





INSULATION TESTER/MULTIMETERS

INDUSTRIAL DMM

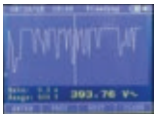


MT1005

The MT1005 Heavy duty True RMS Industrial Digital Multimeter with TFT color LCD display, provides fast A/D converting sampling time, high accuracy, built-in datalogging and Trend Capture features. It can trace any interruptions of the equipment and record events automatically unattended. It is easy to find and solve the problems with the Bluetooth technology and memory the datasheets whilst providing safer measurements with the double moulded plastic housing design.

Features

- Large 50,000 count 320 x 240 TFT color LCD display
- Logging function with TrendCapture for easy review of logged data
- Graph 100 Data review
- Bluetooth interface for easy data transfer & accuracy calibration
- 10kHz bandwidth (voltage/current)
- AC, ACV+DCV True-RMS measurements
- Records events and trends
- Saves measurements
- A/D convert fast sampling time
- Peak capture (records transients as fast as 250µs)
- Min/Max/Average with Time stamp (records signal fluctuations)
- 4-20mA process loop measurements with % reading
- Battery capacity indication
- Date indication
- Meterbox iMM & cloud service



Function	Range	Accuracy
DC Voltage	500mV - 1000V	±(0.05% +5)
AC Voltage	500mV - 1000V	±(0.05% +5)
DC Current	500µA - 10A	±(0.2% +5)
AC Current	500µA - 10A	±(0.8% + 5)
Resistance	500Ω - 50MΩ	±(0.2% +5)
Temperature	-200 to 1350°C	±(1.0%+3)
Capacitance	5nF - 10mF	± (3.5% + 4)
Frequency	0.001Hz ~ 40MHz	±(0.01% +5)
Size (L x W x D)	170 x 79 x 50mm	
Weight	360g	

INDUSTRIAL DMM

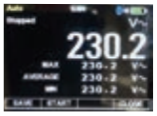


MT1003

The MT1003 Heavy duty True RMS Industrial Digital Multimeter with TFT color LCD display, provides fast A/D converting sampling time, high accuracy, built-in datalogging and Trend Capture features. It can trace any interruptions of the equipment and record events automatically unattended. It is easy to find and solve the problems and memorise the datasheets whilst providing safer measurements with the double moulded plastic housing design.

Features

- Large 6000 count 320 x 240 TFT color LCD display
- Logging function with Trend Capture for easy review of logged data
- Graph 100 Data review
- 10kHz bandwidth (voltage/current)
- AC True-RMS measurements
- Setup function & Saves measurements
- A/D convert fast sampling time
- Peak capture (records transients as fast as 500µs)
- Min/Max/Average with Time stamp (records signal fluctuations)
- 4-20mA process loop measurements with % reading



Function	Range	Accuracy
DC Voltage	600mV - 1000V	±(0.1% +5)
AC Voltage	600mV - 1000V	±(0.9% +5)
DC Current	600µA - 10A	±(0.9% +5)
AC Current	600µA - 10A	±(1.2% + 5)
Resistance	600Ω - 60MΩ	±(0.8% +5)
Temperature	-40 to 1350°C	±(1.2%+3)
Capacitance	60nF - 10mF	±(1.5% +8)
Frequency	60Hz - 1MHz	±(0.09% +5)
Size (L x W x D)	170 x 79 x 50mm	
Weight	360g	

INSULATION TESTER/DMM



MT565

The MT565 Insulation Multimeter combines a digital insulation tester with the full features of a True RMS digital multimeter in a single, compact handheld unit, which provides a maximum versatility for both trouble shooting and preventative maintenance. The MT565 measures AC/DC voltage, AC/DC current, resistance, capacitance, frequency (electrical and electronic), duty cycle, Temperature, Duty Cycle plus a 4-20mA% range. The insulation tester offers 125V, 250V, 500V and 1000V with an insulation resistance up to 4000MΩ. The MT565 is a 40 000 count LCD display with full range annunciations, and can store and recall captured data. The insulation mode displays the actual output voltage and insulation resistance on the display. Whether you work on motors, generators, cables or switch gear, the MT565 insulation multimeter is ideally suited to help you with your tasks. The MT565 is encased in an IP67 waterproof and rugged housing specially designed for heavy duty use.

Features

- 4 Insulation test ranges 125V, 250V, 500V, 1000V
- Insulation test 4000MΩ
- Auto discharge
- AC / DC V to 1000V; Amps 10A
- Resistance 40MΩ
- Temperature -50 - 1000°C
- Capacitance 40mF
- Frequency 100MHz
- Relative mode; Duty Cycle; Diode Check
- Continuity; Min / Max
- Wireless USB Interface
- 4-20mA% Process loop

Function	Range	Accuracy
DC Voltage	400mV - 1000V	±(0.06% +4)
AC Voltage	400mV - 1000V	±(1.0% +5)
DC Current	400.0µA - 10A	±(0.1% +3)
AC Current	400.0µA - 10A	±(1.5% +7)
Resistance	0.1Ω - 40MΩ	± (0.3% + 4)
Temperature	-50 to 1000°C	±(1.0%+2.5°C)
Capacitance	40.00nF - 40mF	±(3.5% +10)
Frequency	40Hz - 100MHz	±(0.01% +10)
Size (L x W x D)	220 x 96 x 60mm	
Weight	631g	

DIGITAL MULTIMETER



IP67 INDUSTRIAL MULTIMETERS

INDUSTRIAL DMM

The MT1887 measures true-rms AC voltage and current readings, that yields accurate results on sine waves as well as non-sinusoidal waveforms using a frequency range of 50Hz to 1kHz. The MT1887 has a large LCD display screen where the accuracy is stated in 40,000 high resolution counts, supported with a 41 segment analogue bargraph and white back light, ideal for use in dimly lit areas. The MT1887 is an ideal tool for troubleshooting power distribution, industrial automations and for electronic and electrical field applications. This popular meter is also available in an intrinsically safe version.



Function	Range	Accuracy
DC Voltage	400mV - 1000V	±(0.06% +20)
AC Voltage	400mV - 1000V	±(1% +2)
DC Current	400µA - 10A	±(0.1% +3)
AC Currrent	400µA - 10A	±(1.5% +3)
Resistance	400Ω - 40MΩ	±(0.3% +4)
Temperature	-50°C - 1000°C	±(1.0% +2.5)
Frequency	40 Hz - 100MHz	±(0.01% +1)
Capacitance	40nF - 40mF	±(3.5% +10)
4-20mA Loop Process	-25 to 125%	± (50)
Size (L x W x D)	187 x 81 x 50mm	
Weight	342g	

Features

- Measures True RMS , AC Voltage and Current readings
- NCV detection
- IP67 Overmould Dust & Waterproof casing w
- Auto Range with Manual Override
- Measures Frequency on Electronic and Electrical Circuits
- >1ms Peak Hold function
- Temperature between -50 to 1000 °C
- 4~20mA % Process loop measurements
- Capacitance to 40mF
- Relative Mode
- Data Hold Function
- Min/Max Recordings
- 0.06% Basic accuracy
- Diode Test and Continuity Buzzer
- Auto Power Off
- 40,000 Count LCD with 41 segment analogue bargraph
- Integrated Test Lead Holder
- Back Light for dimly lit areas
- **MT1887IS Intrinsically safe version available**



MT1887
MT1887IS

INDUSTRIAL DMM

The MT1885 has a large 6000 count LCD display Industrial multimeter. The meter set the standard with a combination of precision, features, easy-to-use functions, with safety and reliability and boasts a 0.09% basic accuracy. This meter enjoys the feature of having the rotary switch be turned in any direction without damaging the meter whilst signals less than 1 0O0V AC/DC are input into the meter. This meter is protected against measuring voltage whilst the knob is set on the ohms range accidentally. The large LCD display with analogue bargraph and backlit ensure that readings are easy to read under all circumstances.



Function	Range	Accuracy
DC Voltage	600.0mV - 1000V	±(0.1% +2)
AC Voltage	6.000mV - 1000V	±(0.8% +2)
DC Current	600.0µA - 10A	±(0.8% +3)
AC Current	600.0µA - 10A	±(1.0% +3)
Resistance	600.0Ω - 60.00MΩ	±(0.5% +2)
Temperature	-20 to 1000°C±(3.0%+5)	
Capacitance	40.00nF - 4000µF	±(3.0% +3)
Frequency	9.999Hz - 10MHz	±(1.2% +3)
Size (L x W x D)	187 x 81 x 51mm	
Weight	342g	

Features

- Measures True RMS AC voltage and current readings
- When AC voltage measured, LCD turns red to indicate presence of voltage Non contact voltage detector, LCD turns red
- IP67 Overmould Dust & waterproof
- Auto range with Manual override
- Temperature between -20 to 750 °C
- Measures frequency range of 50Hz to 1kHz on electronic and electrical circuits Measures AC and DC voltage to 1000V
- Capacitance to 1000µF / Relative mode/ Data hold NCV detection above 110V AC
- MIN/MAX recording mode Measures resistance up to 60MΩ
- 6000 Count LCD display and equipped with a 61 segment analogue bargraph Full ranges protection
- Auto power off



MT1885

INDUSTRIAL DMM

This 6000 count Industrial multimeter DMM sets the standard with a combination of precision, features, easy-to-use functions, with safety and reliability and boasts a 0.09% basic accuracy. This meter enjoys the feature of having the rotary switch be turned in any direction without damaging the meter whilst signals less than 1000V AC/DC are input into the meter. This meter is protected against measuring voltage whilst the knob is set on the ohms range accidentally. The large LCD display with analogue bargraph and backlit ensure that readings are easy to read under all circumstances.



Function	Range	Accuracy
DC Voltage	600.0mV - 1000V	±(0.1% +2)
AC Voltage	6.000V - 1000V	±(0.8% +4)
DC Current	600.0µA - 10A	±(0.8% +3)
AC Current	600.0µA - 10A	± (1.5% + 3)
Resistance	600Ω - 60.00MΩ	±(0.5% +2)
Temperature	20 to 1000°C	±(3.0%+5)
Capacitance	40.00nF - 4000µF	±(3.0% +5)
Frequency	9.999Hz - 9.999MHz	±(1.2% +3)
Size (L x W x D)	187 x 81 x 51mm	
Weight	342g	

Features

- Non contact voltage detector, LCD turns red
- IP67 Overmould Dust & waterproof
- Auto range with manual override
- Temperature between -20 to 750 °C
- Measures frequency range of 50Hz to 1Hz on electronic and electrical circuits
- Measures AC and DC voltage to 1000V
- Capacitance to 1000µF / Relative mode / Data hold
- NCV detection above 110V AC, LCD turns red to indicate presence of voltage
- MIN/MAX recording mode
- Measures resistance up to 60MΩ
- 6000 Count LCD display with a 61 segment analogue bargraph
- Full ranges protection & Auto power off
- Integrated test lead holder
- Blue backlight for dimly lit areas



MT1882





IP67 INDUSTRIAL MULTIMETERS

INDUSTRIAL DMM



MT1881
MT1881IS

This meter is a 6000 count Industrial multimeter. This DMM sets the standard with a combination of precision, features, easy-to-use functions, with safety and reliability and boasts a 0.09% basic accuracy. This meter enjoys the feature of having the rotary switch be turned in any direction without damaging the meter whilst signals less than 1000V AC/DC are input into the meter. It is protected against measuring voltage if the knob is set on the ohms range accidentally. The large LCD display with analogue bargraph and backlight ensure that readings are easy to read under all circumstances

Features

- When AC voltage measured, LCD turns red to indicate presence of voltage
- Non contact voltage detector above 110V, LCD turns red
- IP67 Dust & waterproof with O-ring sealed casing
- Auto range with manual override
- Measures frequency range of 50Hz to 1Hz on electronic and electrical circuits
- Measures AC and DC voltage to 1000V
- Capacitance to 400µF / Relative mode / Data hold
- MIN/MAX recording mode
- 6000 Count LCD display and equipped with a 61 segment analogue bargraph
- Full ranges protection & Auto power off
- Overmould rubber housing & Integrated test lead holder
- Blue backlight for dimly lit areas
- **MT1881IS Intrinsically safe version available**

Function	Range	Accuracy
DC Voltage	600.0mV - 1000V	±(0.1% +2)
AC Voltage	6.000V - 1000V	±(0.8% +4)
DC Current	600.0µA - 10A	±(0.8% +3)
AC Current	600.0µA - 10A	±(1.0% +3)
Resistance	600.0Ω - 60.00MΩ	±(0.5% +2)
Frequency	9.999Hz - 9.999MHz	±(1.2% +3)
Capacitance	40.00nF - 4000µF	±(3.0% +5)
Size (L x W x D)	187 x 81 x 51mm	
Weight	342g	

INDUSTRIAL DMM



MT1880

For professional technicians worldwide there is one preferred solution: precision, reliability and ease of use they find in Major Tech DMM Series. The MT1880 DMM gives you voltage and current measurements, 6000 count resolution, manual and automatic ranging and provide frequency, capacitance, resistance, continuity diode measurements. Major Tech DMM series multimeters are independently tested for safe use in CAT IV 600V / CATIII 1000V environments.
The advanced features of the MT1880 help you get the job done, quickly and safely. Integrated non-contact voltage detection helps you identify energized circuits. The MT1880 measures VGB, AC/DC voltage, AC/DC current, resistance, capacitance, frequency (electrical & electronic), diode test and continuity plus. A new feature is NCV where if an AC voltage above 110V is detected, a red LCD backlight will be lit. The MT1880 is capable of measuring ghost voltage.

Features

- When AC voltage measured, LCD turns red to indicate presence of voltage
- Non contact voltage detector, LCD turns red
- IP67 dust and waterproof with O-Ring sealed casing
- Auto range with manual override
- Measures AC & DC voltage to 1000V & Capacitance to 400µF
- Relative mode / data hold
- NCV detection above 110V AC
- MIN/MAX recording
- Measures resistance up to 40M
- 4000 Count LCD with 61 segment bargraph
- Full ranges protection / Auto power off
- Overmould rubber housing & Integrated test lead holder
- Backlight for dimly lit areas
- Measures ghost voltage

Function	Range	Accuracy
DC Voltage	400.0mV - 1000V	±(0.1% +4)
AC Voltage	4.000V - 750V	±(1.2% +6)
DC Current	400.0µA - 10A	±(1.0% +5)
AC Current	400.0µA - 10A	±(1.2% +6)
Resistance	400.0Ω - 40.00MΩ	±(1.2% +2)
Frequency	9.999Hz - 9.999Hz	±(1.2% +3)
Capacitance	40.00nF - 4000µF	±(3.0% +5)
Diode Test	1mV	± (10% + 5)
Size (L x W x D)	187x 81 x 50mm	
Weight	342g	

INDUSTRIAL DMM



MT1879

The MT1879 DMM is a 4000 count auto ranging multimeter, with manual override. This meters offers a great feature of measuring frequency on AC voltage and current with the range of 50Hz to 400Hz. The large LCD display with clear range annunciations and backlight ensure that readings are easy to read under all circumstances. This meter ensures that if the rotary switch is turned in any direction whilst signals less than 1000V AC/DC are input into the meter, the meter will not be damaged. It is even protected against measuring voltage if the knob is set on the ohms range accidentally. This meter is perfect for technicians in maintenance, facility maintenance, installation and production equipment maintenance.

Features

- IP67 Dust & waterproof with O-ring sealed casing
- When AC voltage measured, LCD turns red to indicate presence of voltage
- Non contact voltage detector, LCD turns red
- Auto range with manual override
- Temperature between 20 °C to 760 °C
- Measures frequency range on electronic and electrical circuits
- Capacitance to 100µF
- Measures AC and DC voltage to 1000V
- Relative mode & Data hold
- NCV detection above 110V AC
- Duty cycle
- 4000 Count LCD
- Full ranges protection
- Auto power off
- Overmould rubber housing & Integrated test lead holder
- Blue backlight for dimly lit areas

Function	Range	Accuracy
DC Voltage	400.0mV - 1000V	±(0.8% +2)
AC Voltage	400.0mV - 1000V	±(1.0% +3)
DC Current	400.0µA - 10A	±(1.2%+3)
AC Current	400.0µA - 10A	±(1.5% +5)
Resistance	400.0Ω - 40.00MΩ	±(0.8% +2)
Frequency	4.000Hz - 5.00MHz	±(1.0% +3)
Capacitance	40.00nF - 100.0µF	±(3.0% +5)
Temperature	-20 to 760°C	±(3.0%+5)
Diode Test	1mV	± (10% + 5)
Size (L x W x D)	187x 81 x 50mm	
Weight	375g	



IP67 INDUSTRIAL MULTIMETERS

The MT1877 DMM is a 4000 count auto ranging multimeter, with manual override. This meters offers a great feature of measuring frequency on AC voltage and current with the range of 50Hz to 400Hz. The large LCD display with clear range annunciations and backlight ensure that readings are easy to read under all circumstances. This meter ensures that if the rotary switch is turned in any direction whilst signals less than 1000V AC/DC are input into the meter, the meter will not be damaged. It is even protected against measuring voltage if the knob is set on the ohms range accidentally. This meter is perfect for technicians in maintenance, facility maintenance, installation and production equipment maintenance.



Function	Range	Accuracy
DC Voltage	400.0mV - 1000V	±(0.8% +2)
AC Voltage	400.0mV - 1000V	±(1.0% +3)
DC Current	400.0µA - 10A	±(1.2%+3)
AC Current	400.0µA - 10A	±(1.5% +5)
Resistance	400.0Ω - 40.00MΩ	±(0.8% +2)
Frequency	4.000Hz - 5.00MHz	±(1.0% +3)
Capacitance	40.00nF - 100.0µF	±(3.0% +5)
Size (L x W x D)	187 x 81 x 50mm	
Weight	375g	

Features

- IP67 Dust & Waterproof with O-Ring sealed casing
- When AC voltage measured, LCD turns red to indicate presence of voltage
- Non contact voltage detector, LCD turns red
- Auto Range with Manual Override
- Measures Frequency range on Electronic and Electrical Circuits
- Capacitance to 100µF
- Measures AC and DC Voltage to 1000V
- Relative Mode
- Data Hold / Duty Cycle
- NCV detection above 110V AC
- 4000 Count LCD
- Full Ranges Protection
- Auto Power Off
- Overmould rubber housing
- Integrated Test Lead Holder
- Blue backlight for dimly lit areas



MT1877

The MT1875 is a 6-in-1 Digital Multimeter with Environmental Measurement. It has been designed to combine the functions of Sound Level, Light Meter, Humidity, Temperature and non contact voltage detector all in one meter. Sound level can be used in factories, schools, offices and homes, checking acoustics of studios, auditoriums and hi-fi installations. Light meter is fully cosine corrected for the angular incidence of light. Temperature is measured via a K-Type thermocouple. The DMM function includes AC volt, DC volt, AC current, DC current, Resistance, Capacitance, Frequency and Duty Cycle.

Function	Range	Accuracy
DC Voltage	400.0mV - 600V	±(1.0% +4)
AC Voltage	400.0mV - 600V	±(1.0% +4)
DC Current	400.0µA - 10A	±(1.0%+2)
AC Current	400.0µA - 10A	±(2.0% +5)
Resistance	400.0Ω - 40.00MΩ	±(1.5% +2)
Frequency	5.000Hz - 10.00MHz	±(1.2% +3)
Capacitance	50.00nF - 100.0µF	±(3.0% +5)
Temperature	-20°C to750°C	±(3.0%+5)
Humidity	33%-99%	±(3.0%+5)
Lux	4000-40,000Lux	±(5.0%+10)
Decibel	35 - 110 db	±(5.0%+10)
AC Bandwidth	50Hz to 400Hz	
Duty Cycle	99.90%	± 1.2%
Size(LxWxD)	187 x 81 x 50mm	
Weight	355g	



Features

- 6-in-1 multifunction meter with environment measurement
- Fully functional DMM with ACV, DCV, ACA, DCA, Ohms, frequency,
- Capacitance and Duty Cycle
- Continuity Buzzer and Diode Test
- Non-contact voltage detector
- LUX Meter measurement to 40,000 lux
- Indoor: Humidity range from 25% to 95% RH (0.1%)
- Indoor: Temperature from – 20°C to 50°C
- Sound level measurement to 110dB
- Meets CAT III 300V and CAT II 600V safety designs
- 4000 Count digital display with backlight
- Data hold and relative function



MT1875

The MT1883 is an average responding 2000 count DMM and has a large backlit LCD display. The meter measures AC voltage up to 700V and DC voltage up to 1000V, fused AC and DC current up to 10 Amps, temperature measurement in °C or °F, resistance, frequency measurement and capacitance measurement, plus a diode test function and continuity buzzer. The meter measures AC voltage and current for the frequency range of 50Hz to 400Hz. The MT1883 is the first choice for electronic technicians and electricians, including students studying electronics.



Function	Range	Accuracy
DC Voltage	200mV - 1000V	±(0.5% +2)
AC Voltage	2.000V - 700V	±(1.0% +3)
DC Current	10A	± (1.5% + 3)
AC Current	10A	± (2.5% + 10)
Resistance	200.0Ω - 20.00MΩ	±(1.2% +2)
Temperature	-20°C to 760°C	±(3.0%+5)
Capacitance	2.000nF - 200.0µF	±(4.0% +3)
Frequency	2000Hz	±(1.5% +5)
Size (L x W x D)	182 x 81 x 50mm	
Weight	375g	

Features

- IP67 Dust & Waterproof with O-Ring sealed casing
- Manual Range
- Measures Frequency 1Hz to 2000KHz on Electronic and Electrical Circuits
- Temperature between 20 °C to 760 °C
- Capacitance to 200µF
- Measures ACV to 700V and DCV to 1000V, fused AC and DC current up to 10 Amps
- Measures Resistance up to 20MΩ
- 2000 Count LCD
- Full Ranges Protection
- Overmould rubber housing
- Integrated Test Lead Holder
- Backlight for dimly lit areas



MT1883





COMPACT MULTIMETERS

COMPACT MULTIMETER



MT25

The MT25 Digital Multimeter is a compact handheld unit that provides fast and accurate measurements with oversized high contrast LCD display and double molded plastic housing for safety & durability. With multiple functions that include AC/DC voltage, AC/DC current, resistance, continuity, capacitance, frequency, duty cycle, temperature and diode test. The MT25 also offers the added convenience of a built-in LED flashlight and tilt stand.

Features

- 41 Segment Bargraph
- Measures AC and DC voltage up to 600V
- Temperature measurement from -20°C to 760°C
- 4 000 Count LCD display
- LED Flashlight
- IP67 Dust & Waterproof
- Capacitance to 4000µF
- LCD Back Light
- Min, MAx & Data Hold
- Auto Power Off
- Auto Range and Manual Range Control
- Duty Cycle

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT II 1000V | IP67 Dust & Waterproof

Function	Range	Accuracy
DC Voltage	400.0mV -600V	±(1.2% +2)
AC Voltage	4.000V - 600V	±(1.5% +10)
DC Current	4.000A - 10A	±(3.0% +5)
AC Current	4.000A - 10A	±(3.0% +5)
Duty Cycle	0.1 to 99.90%	±(1.2% +2)
Resistance	400.0Ω - 40.00MΩ	±(1.2% +5)
Frequency	9.999Hz - 9.999MHz	±(1.2% +2)
Capacitance	40.00nF - 4000µF	±(3.0% +5)
Temperature	-20 to 760°C	±(3.0%+5°C)
Size (L x W x D)	147 x 68 x 50mm	
Weight	318g	

GENERAL PURPOSE DMM

TRUE RMS



MT873

The MT873 is a True RMS multimeter and can be used to measure AC/DC voltage, AC/DC current, resistance, capacitor, frequency, duty cycle, Non Contact AC Voltage (NCV) detection, diode test and audible continuity. It also features a data hold & relative mode functions. This multimeter is a slim sized, portable, robust drop proof digital multimeter has a 6000 count digit LCD monitor with large 25mm digits that offer clear and easy reading. The circuitry design is centred on large-scale IC A/D converters in conjunction with an over-load protection circuit, the meter offers excellent performance and is ideal for a versatile digital multimeter.

Features

- 6000 Count Display
- Double Insulation
- Fuse Protection
- Auto Power Off
- Non Contact AC Voltage (NCV) detection
- Diode & Audible Continuity Test
- Auto Range & Manual Range Control
- Auto Backlight

IEC 61010-1 CAT III 300V | IEC 61010-1 CAT II 600V

Function	Range	Accuracy
DC Voltage	600.0mV - 600V	±(0.5% +2)
AC Voltage	6V - 600V	±(1.0% +3)
DC Current	600µA- 10A	±(1.2%+2)
AC Current	600µA- 10A	±(1.2%+2)
Duty Cycle	0.1 to 99.9%	±(2% +2)
Resistance	600Ω - 60MΩ	±(1.0% +2)
Frequency	9.999Hz - 9.999MHz	±(0.1% +5)
Capacitance	9.999nF - 99.99mF	±(3.0% +10)
Temperature	-20 to 1000°C	±(3.0%+1)
Size (L x W x D)	150 x 100 x 36mm	
Weight	250g	

GENERAL PURPOSE DMM

TRUE RMS



MT870

The MT870 multimeter is a True RMS slim sized, portable, robust drop proof digital multimeter. This multimeter has a 2000 count digit LCD with large 25mm digits that offer clear and easy reading. The meter offers excellent performance and is ideal as a handy digital multimeter.

Features

- 2000 Count Display
- Double Insulation
- Fuse Protection
- Auto Power Off
- Diode & Audible Continuity Test
- Auto Range & Manual Range
- Battery Test for 1.5V and 9V Batteries

IEC 61010-1 CAT III 300V | IEC 61010-1 CAT II 600V

Function	Range	Accuracy
DC Voltage	200mV - 600V	±(0.5% +2)
AC Voltage	2V - 600V	±(0.8% +3)
DC Current	200µA- 10A	±(1.2%+2)
AC Current	200µA- 10A	±(1.5%+3)
Resistance	200Ω - 20MΩ	±(1.0% +2)
Size (L x W x D)	150 x 100 x 36mm	
Weight	250g	



COMPACT MULTIMETERS

MT24

The MT24 is a compact meter with double moulded rubber housing and meets the International Standard IEC-61010-1 CAT III 600V. The large LCD display screen has a white backlight for use in arduous areas. This meter is a very economical tester ideally suited for everyday use by electricians, electronic technicians as well as the air conditioning industry. The MT24 is an autoranging multimeter with the option of manual override, and has a 6000 count LCD display with a 61 segment analogue bargraph. This meter offers features of MIN/MAX recordings, Data Hold, Frequency measurement with Duty Cycle, Capacitance measurement of up to 4000µF and resistance of 60MΩ. It has the added function of temperature measurement in either °C or °F, with a range from -20°C up to 760°C. An adaptor is supplied which converts the ⁴mm input to accept K-Type thermocouples.

IEC 61010-1 CAT III 600V

IEC 61010-1 CAT II 1000V

Function	Range	Accuracy
DC Voltage	600.0mV - 1000V	±(1.2% +2)
AC Voltage	6.000V - 1000V	±(1.5% +3)
DC Current	6A - 10A	±(2.5%+5)
AC Current	6A - 10A	±(3.0% +5)
Resistance	600.0Ω - 60.00MΩ	±(2.0% +2)
Frequency	9.999Hz - 10MHz	±(1.2% +3)
Capacitance	40.00nF - 4000µF	±(3.0% +5)
Temperature	-20 to 760°C	±(3.0%+5)
SIZE (L x W x D)	150 x 70 x 48mm	
Weight	255g	

Features

- Measures AC and DC Voltage to 1000V
- MIN/MAX Recordings
- Auto Range with Manual Override
- Frequency measurement to 10MHz
- Capacitance to 4000µF
- Data Hold
- Duty Cycle
- 6000 Count LCD with bargraph
- Auto Power Off
- Overmould rubber housing
- Integrated Test Lead Holder
- Backlight for dimly lit areas
- Temperature measurement



MT24

MT23

The MT23 is a compact meter with double moulded rubber housing and meets the International Standard IEC-61010-1 CAT III 600V. The large LCD display screen has a white backlight for use in arduous areas. This meter is a very economical tester ideally suited for everyday use by electricians, electronic technicians as well as the air conditioning industry. MT23 is an autoranging multimeter with the option of manual override, and has a 6000 count LCD display with a 61 segment analogue bargraph. This meter offers features of MIN/MAX recordings, Data Hold, Frequency measurement with Duty Cycle, Capacitance measurement of up to 4000µF and resistance of 60MΩ. It has a "Clamp-On Adaptor" range which allows the user to use an optional AC and DC clamp adaptor on the meter to increase the current measuring capabilities up to 600 Amps.

IEC 61010-1 CAT III 600V

IEC 61010-1 CAT II 1000V

Function	Range	Accuracy
DC Voltage	600.0mV - 1000V	±(1.2% +2)
AC Voltage	6.000V - 1000V	±(1.5% +3)
DC Current	6A - 10A	±(2.5%+5)
AC Current	6A - 10A	±(3.0% +5)
Resistance	600.0Ω - 60.00MΩ	±(2.0% +2)
Frequency	9.999Hz - 10MHz	±(1.2% +3)
Capacitance	40.00nF - 4000µF	±(3.0% +5)
Size (L x W x D)	150 x 70 x 48mm	
Weight	255g	

Features

- Measures AC and DC Voltage to 1000V
- MIN/MAX Recordings
- Auto Range with Manual Override
- Frequency measurement to 10MHz
- Capacitance to 4000µF
- Data Hold
- Duty Cycle
- 6000 Count LCD with bargraph
- Auto Power Off
- Overmould rubber housing
- Integrated Test Lead Holder
- Backlight for dimly lit areas
- Clamp-on Adaptor range



MT23

MT22

The MT22 is a compact meter with double moulded rubber housing and meets the International Standard IEC-61010-1 CAT III 600V. The large LCD display screen has a white backlight for use in arduous areas. It is a very economical tester ideally suited for everyday use by electricians, electronic technicians as well as the air conditioning industry. This compact auto ranging mulitmeter has a large 2000 count LCD and measures AC and DC voltage up to 1000 volts, AC and DC Current up to 10 Amps, Temperature measurement in °C or °F and resistance,plus a diode test function and continuity buzzer. The meter has a "Clamp-On Adaptor" range which allows the user to use an optional AC and DC clamp adaptor on the meter to increase the current measuring capabilities up to 2000 Amps. Other features include auto power off.

IEC 61010-1 CAT III 600V

IEC 61010-1 CAT II 1000V

Function	Range	Accuracy
DC Voltage	200.0mV - 1000V	±(1.2% +2)
AC Voltage	200.0mV - 1000V	±(1.5% +3)
DC Current	200.0µA - 10A	±(2.5%+5)
AC Current	200.0µA - 10A	±(3.0% +7)
Resistance	200.0Ω - 20.00MΩ	±(1.2% +2)
Frequency	10MHz	±(1.2% +3)
Temperature	-50 to 1000°C	±(3.0%+5)
Size (L x W x D)	150 x 70 x 48mm	
Weight	255g	

Features

- Measures ACV and DCV to 1000V
- MIN/MAX Recordings
- Temperature between 50 °C to 1000 °C
- Fused 10A Range
- Diode Test & Continuity buzzer
- Data Hold
- Duty Cycle
- Resistance measurement
- 2000 Count LCD
- Full Ranges Protection
- Overmould rubber housing
- Integrated test lead holder
- Clamp-on Adaptor range



MT22





MULTIMETERS

DIGITAL MULTIMETER

COMPACT MULTIMETER



MT21

The MT21 is a compact meter with double moulded rubber housing and meets the International Standard IEC-61010-1 CAT III 600V. The large LCD display screen has a white backlight for use in arduous areas. It is a very economical tester ideally suited for everyday use by electricians, electronic technicians as well as the air conditioning industry.
The MT21 is a basic 2000 count multimeter and is designed to efficiently support the first level electronic and electrical trouble shooting. The meter measures AC and DC voltage to 600V, resistance to 2000 ohms, and DC current to 10A, plus has a diode test function and a continuity buzzer. An added function of the MT21 is the battery test ranges, which test 1,5V and 9V batteries with a load.

Features

- CATIII 600V, CATII 1000V
- 600V AC/DC
- 10A DC
- Battery test 1.5V & 9V batteries
- 2 000 Count LCD display
- Overmould Rubber Housing
- Integrated Test Lead holder

IEC 61010-1 CAT III 600V

IEC 61010-1 CAT II 1000V

Function	Range	Accuracy
DC Voltage	200mV - 600V	±(0.8% +2)
AC Voltage	200V - 600V	±(1.2% +10)
DC Current	2000µA - 10A	±(2.5%+5)
Resistance	200Ω - 2000kΩ	±(1.0% +2)
Size (L x W x D)	187 x 81 x 51mm	
Weight	342g	

2-IN-1 LAN TESTER DMM



MTC50

The MTC50 is a 2-in-1 LAN tester as well as an auto ranging multimeter . This meter is a newly designed and very practical tester that can easily read the correct pin configuration of 10/100 Base-T cable (Category 5), 10Base-2 cable (coax), RJ45/ RJ11 modular cables, AT&T 258A, 356A, TIA-568A/568B and Token Ring cable by comparing one transmitting end to the corresponding receiving end. With the remote kit test cables can be installed over long distances either on wall plates or patch panels. It is easy to verify the cable continuity, open, short and cross-connect. The auto range digital multimeter allows the user to measure AC and DC voltage, AC and DC current, Resistance, Continuity and Diode test.

Features

- 2-in-1 LAN Tester and Digital Multimeter
- LED displays the actual pin configuration of Can test the correct pin configuration of 100Base-T, 10Base-T, 10Base-2 Thin Ethernet cable, RJ45/RJ11 modular cables 356A, TIA-568A/568B and Token Ring cable etc
- With remote kit it can remotely test cables up to 300m away either on wall plate or patch panel
- Can test the grounding
- Provides easy to read continuity and fault status display
- Measures ACV and DCV up to 600V, ACA and DCA up to 200mA,
- Locked Status wiring function
- LAN Testing
- Tests CAT 5 Installations

IEC 61010-1 CAT III 300V

IEC 61010-1 CAT II 600V

Function	Range	Accuracy
DC Voltage	200mV - 600V	±(1.0% +3
AC Voltage	200mV - 600V	±(1.0% +5
DC Current	200.0µ A - 200.0mA	±(1.5% +3
AC Current	200.0µ A - 200.0mA	±(1.8% +8)
Resistance	200.0Ω - 20MΩ	±(1.2% +3
Continuity	Beep is less than 100Ω	
Test Pin Configuration	10 Base-T; 10 Base-2 Twin Ethernet Cable 100 Base-T, RJ45/RJ11 Modular 258A, tia-568a/568d, Token Ring Cables	
Battery	9V Battery, 2 x AA Battery	
Size (L x W x D)	162 x 75 x 43mm	
Weight	308g	

2-IN-1 TONE & PROBE DMM



MTC45

The MTC45 is a 2-in-1 Tone and Probe generator as well as an auto ranging multimeter. The meter tests include wire trace, continuity test, clear/busy/ringing, line test and tip/ring identification. The unit is supplied with crocodile clips for non terminated cables and modular connectors for direct connections to telephone and internet wiring. The auto range digital multimeter can measure AC/DC volts, AC/DC current, Resistance Diode and has a continuity buzzer.

Features

- 2-in-1 Tone and Probe Generator and Digital Multimeter
- Tests include 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 or internet wiring
- Built-in speaker on probe with sensitivity control
- Selectable continuous or variable tone generation
- Insulated inductive probe tip prevents shorting conductors
- Measures ACV and DCV up to 600V, ACA and DCA up to 200mA, Resistance to 20MΩ, Diode and Continuity
- RJ11 modular connectors

IEC 61010-1 CAT III 300V

IEC 61010-1 CAT II 600V

Function	Range	Accuracy
DC Voltage	200mV - 600V	±(1.0% +3)
AC Voltage	200mV - 600V	±(1.0% +5)
DC Current	200.0µ A - 200.0mA	±(1.5% +3)
AC Current	200.0µ A - 200.0mA	±(1.8% +8)
Resistance	200.0Ω - 20MΩ	±(1.2% +3
Tone Output	Beep is less than 100Ω Continuity: 800 ~ 860Hz Wobble: 800 ~ 1050HzRJ45 and RJ11	
Battery	Generator: 9V Battery, 2 x AA	
	Batteries,Probe: 9V Battery	
Size (L x W x D)	162 x 75 x 44mm (Generator)	
	228 x 57 x 25mm (PROBE)	
Weight	308g	



MULTIMETERS

SOLAR POWER METER/DMM

The MT922 is a Solar Power Meter and Digital Multimeter in one instrument. It sets the standard with a combination of precision, features, easy-to-use, safety and reliability.

Features

- Sunlight measurement up to 1999w/m2 or 634BTU/(ft2*h)
- High accuracy and rapid response
- Data HOLD function to hold measurement values
- Unit and sign display for easy reading
- Measuring unit selection among w/m2 and BTU/(ft2*h)
- Manual scale selection
- Direct reading with no adjustments needed
- Maximum and minimum values
- Low battery indication
- Measure ACV and DCV up to 600V, ACA and DCA up to 200mA, Resistance to 20MΩ, Diode and Continuity

IEC 61010-1 CAT III 600V

IEC 61010-1 CAT II 1000V

Function	Range	Accuracy
DC Voltage	200mV - 600V	±(1.0% +3)
AC Voltage	2.000V - 600V	±(1.0% +5)
DC Current	200.0µ A - 200.0mA	±(1.5% +3)
AC Current	200.0µ A - 200.0mA	±(1.8% +8)
Resistance	200.0Ω - 20MΩ	±(1.2% +3)
Solar Range	1999 w/m², 634BTU/(ft2*h)	
Resolution	1 w/m², 1BTU/(ft2*h)	
Size (L x W x D)	162 x 74 x 43mm	
Weight	280g	



MT922

SATELLITE FINDER/DMM

The MT920 is a well designed satellite finder with scale display and digital multimeter, making it easy to measure DC/AC voltage, DC/AC current, Resistance, continuity & diode as well. Connect a coaxial cable from the LNB/LNBF to the "TOLNB" connection on Satellite Finder. Connect the cable from your satallite receiver to the "TOREC" input on the Satellite Finder.

IEC 61010-1 CAT III 600V

IEC 61010-1 CAT II 1000V

Function	Range	Accuracy
DC Voltage	200mV - 600V	±(1.0% +3)
AC Voltage	2.000V - 600V	±(1.0% +5)
DC Current	200.0µ A - 200.0mA	±(1.5% +3)
AC Current	200.0µ A - 200.0mA	±(1.8% +8)
Resistance	200.0Ω - 20MΩ	±(1.2% +3)
Satellite Frequency range	0.95 - 2.3GHz	
Power Supply	DC13 - 18V	
Size(LxWxD)	162 x 74 x 43mm	
Weight	308g	

Features

- Measure ACV and DCV up to 600V, ACA and DCA up to 200mA, Resistance to 20MΩ, Diode and Continuity
- Continuity Buzzer
- Diode Test



MT920

2-IN-1 CABLE FINDER/DMM

The MT915 is an amazing tracing system which will save hours instead of "Ring-Out" any circuit. The MT915 consists of a transmitter & receiver device which enables one person to instantly match up ends of individual cores at either end of a multi-core cable. With the remote kit the meter can test cables installed over long distances either on wall plates or patch panels. The DMM function makes it easy to measure AC Volts, DC Volts, AC and DC Current, Resistance, Continuity and Diode Test.

IEC 61010-1 CAT III 300V

IEC 61010-1 CAT II 600V

Included

- Transmitter
- Receiver



Function	Range	Accuracy
DC Voltage	200mV - 600V	±(1.0% +3)
AC Voltage	200mV - 600V	±(1.0% +5)
DC Current	200.0mA	±(1.5% +3)
Resistance	200Ω - 20MΩ	±(1.2% +3)
Digital Display	2000	
AC Current	200.0µA - 200.0mA	±(1.8% +8)
Cable Resistance	30K Ω Max	
Size (L x W x D)	162 x 74 x 43 mm	
Weight	308g	

Features

- Measure ACV and DCV up to 600V, ACA and DCA up to 200mA, Resistance to 20MΩ, Diode and Continuity
- Identifies up to 16 cables
- Cuts out "Bell-Out" time
- Transmitter and Receiver included
- Displays the cable number on the large LED display



MT915



DIY MULTIMETERS

DIGITAL MULTIMETER



MTD33

The MTD33 2000 Count Digital Multimeter measures DCV, ACV, DCA, Resistance, Diode and Audible continuity test. Includes test lead probe. This DIY compact meter is ideal for use on cars, boats & caravans when used by hobbyists and home owners

Features

- LCD with a max. reading of 1999
- 500V DC / AC
- 10A DC
- Resistance 2000kΩ
- Diode and Audible continuity test
- Manual range control
- Automatic negative polarity indication
- Zero adjustment
- Includes Test Lead Probe

IEC 61010-1 CAT III 300V | IEC 61010-1 CAT II 500V | DIY METER

FUNCTION	RANGE
DC Voltage	200mV - 500V
AC Voltage	200V - 500V
DC Current	200µA - 10A
Resistance	200Ω - 2000kΩ
Size (L x W x D)	118 x 65 x 30mm
Weight	100g (including battery)

DIGITAL MULTIMETER



MTD30

The MTD30 2000 Count Digital Multimeter measures DCV, ACV, DCA, Resistance, Diode and Audible continuity test. This DIY Meter is ideal for the hobbyists and home owner.

Features

- LCD with a max. reading of 1999
- 500V DC / AC
- 10A DC
- Resistance 2000kΩ
- Diode and Audible continuity test
- Manual range control
- Automatic negative polarity indication
- Zero adjustment
- Battery test 1.5, 9V
- Comes with fixed test leads

IEC 61010-1 CAT III 300V | IEC 61010-1 CAT II 500V | DIY METER

FUNCTION	RANGE
DC Voltage	200mV - 500V
AC Voltage	200V - 500V
DC Current	2000µA - 200mA
Resistance	200Ω - 2000kΩ
Size (L x W x D)	118 x 65 x 30mm
Weight	100g (including battery)

ANALOGUE



MT832

The MT832 is an ideal meter for general purpose site applications. The MT832 has a mirrored scale for accurate measurements and is supplied standard with a protective rubber holster. This meter is ideal for students, hobbyist and the homeowner.

Features

- DC Current to 10 Amps
- Measures Resistance up to 20MΩ
- Measures AC and DC Voltage to 1000V
- Large Mirror Scale
- Continuity Buzzer
- Transistor test
- 20kΩ/V Sensitivity

IEC 61010-1 CAT III 300V | IEC 61010-1 CAT II 500V | DIY METER

FUNCTION	RANGE
DC Voltage	0.1V - 1000V
AC Voltage	10V - 1000V
DC Current	50µA - 10A
Resistance	2Ω - 20MΩ
Size (L x W x D)	170 x 110 x 50mm
Weight	280g

POCKET



MT800

MT800 is a cost effective analogue multimeter for hobbyist and home owner for shop, office, home, boats and cars.

Features

- 5 Functions & 19 versatile ranges
- Measures AC / DC V 500V, DC A 250mA
- Resistance 2kΩ -200kΩ FS
- 1.5V - 9V Battery Test
- Mirror scale for accurate reading
- Recessed input terminals for safe use
- Overload Protection
- Battery and test leads included

DIY METER

FUNCTION	RANGE
DC Voltage	2.5V - 500V
AC Voltage	10V - 500V
DC Current	500µA - 250mA
Resistance	2Ω - 200kΩ FS
Size (L x W x D)	100 x 64 x 35mm
Weight	125g



DIY MULTIMETERS

The MTD84 is a compact auto ranging multimeter with high contrast LCD display, backlight and detailed display icons. The Multimeter is CAT III rated for 600V and provide 0.8% basic DC accuracy. It automatically selects the best range for the measurements with AC/DC Voltage, Resistance and Diode & Continuity Measurement Functions. With a convenient automatic off function to save on battery life. The MTD84 also has a tilt stand for your convenience.

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT II 1000V | DIY METER

FUNCTION	RANGE
DC Voltage	200mV - 600V
AC Voltage	200mV - 600V
DC Current	200µA - 10A
AC Current	200µA - 10A
Resistance	200Ω - 20MΩ
Size (L x W x D)	120 x 67 x 46mm
Weight	200g (including battery)

Features

- ACV bandwidth 50Hz to 400Hz
- Operating temp 0°C to 50°C
- Audible signal resistance less than 100Ω
- Measurement rate is 2 times per second
- Over range indication
- Tilt stand



MTD84

The MTD81 is a compact manual range multimeter with high contrast LCD display, back light and detailed display icons. The Multimeter is CAT III rated for 600V and provide 0.5% basic DC accuracy. It has a wide range of measurement settings like AC Voltage, DC Current, Resistance and Diode, Continuity Check & Battery Check Measurement Functions. The MTD81 also has a tilt stand for your convenience.

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT II 1000V | DIY METER

FUNCTION	RANGE
DC Voltage	200mV - 600V
AC Voltage	200.0V -600V
DC Current	200µA - 10A
Resistance	200Ω - 2MΩ
Size (L x W x D)	120 x 67 x 46mm
Weight	200g (including battery)

Features

- ACV bandwidth 50Hz to 400Hz
- Operating temp 0°C to 50°C
- Audible signal resistance less than 100Ω
- Measurement rate is 2 times per second
- Over range indication
- Tilt stand



MTD81

The MT855 has a 4000 count LCD display and is a versatile and compact pocket-sized meter with integral test leads enables rapid tests for inspection and maintenance. Other features include Data Hold, Relative Mode, Continuity Buzzer and Diode test, Low Battery annunciator as well as an Auto off function.

IEC 61010-1 CAT III 300V | IEC 61010-1 CAT II 600V | DIY METER

Function	Range	Accuracy
DC Voltage	400.0mV - 500V	±(1.3% +3)
AC Voltage	4.000V - 500V	±(2.3% +5)
Resistance	400.0Ω - 40.00MΩ	±(2.0% +5)
Frequency	5.000Hz - 10MHz	±(2.0% +5)
Capacitance	40.00nF - 100uF	±(5.0% +30)
Size(LxWxD)	110.5 x 60 x 11.5mm	
Weight	90g	

Features

- Auto Ranging DMM with 10MΩ Input Impedance
- Measures AC and DC Voltage to 500V
- Measures Resistance up to 40MΩ
- Capacitance with Continuity Buzzer
- Hz measurement and % Duty Cycle
- Thin body thickness of 9.8mm
- 40 000 Count LCD display
- Auto Power Off after 30 minutes, with override facility
- Relative Mode and Data Hold functions
- Safety integral test leads
- Supplied with a protective rubber holster and hard plastic carrying case



MT855

The MTD10 DIY Digital Multimeter is a completely portable 3 ½ digital multimeter designed for use by a student and hobbyist. Equipped with 8 functions and 21 ranges, each test position is quickly and easily selected with a simple turn of the single selector switch.

IEC 61010-1 CAT III 300V | IEC 61010-1 CAT II 600V | DIY METER

FUNCTION	RANGE
DC Voltage	200mV - 600V
AC Voltage	200.0V -600V
DC Current	200µA - 10A
Resistance	200Ω - 2MΩ
Size (L x W x D)	140 x 70.6 x 31mm
Weight	170g (including battery)

Features

- 8 Functions & 21 Versatile ranges
- 3 Inch Digital LCD screen
- DC V: 200mV-2V-20V-200V-500V
- AC V: 200V-500V
- DC A: 200µA-2mA-20mA-200mA-10A
- Resistance: 200Ω-2kΩ-20kΩ-200kΩ-2MΩ
- Transistor Test for NPN and PNP transistors
- Diode Check, Continuity, Data Hold
- 1.5V Battery Test
- Backlight
- Overload Protection
- Includes rubber holster & test leads



MTD10

CLAMP METERS

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PROCESS CURRENT CLAMP

The K2500 Process Current clamp measures 4-20mA process current used for instrumentation with its compact ϕ6mm jaw without breaking the loop. It is easy to handle and is equipped with a LED torch and backlit display for use in dark environments. The K2500 also comes with an analogue output which allows the user to connect to a multimeter or recorder for logging. The large display accurately displays % value and mA measured.

IEC 61010-1 CAT II 300V

Function	Range	Accuracy
DC Current	0,01mA - 120mA	
Digital Display	Dual display mA/%	
Jaw size	6mm	
DC Current resolution	0.01mA	±(0.2% +5)
Size (L x W x D)	111 x 61 x 40mm	
Weight	290g	

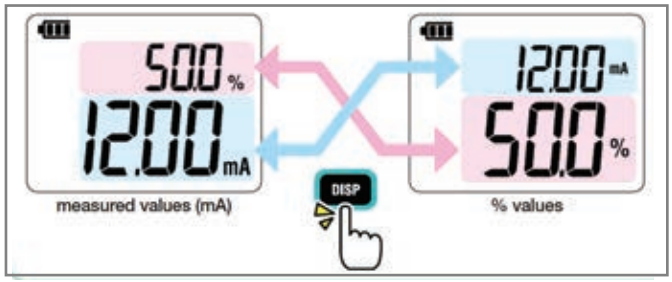
Features

- DC Milliamp Process Clamp Meter
- CATII 300V
- Jaw Ø6mm
- 0.01mA to 120mA
- 0.01mA Resolution
- Dual display mA and % of 4 - 20mA span



K2500

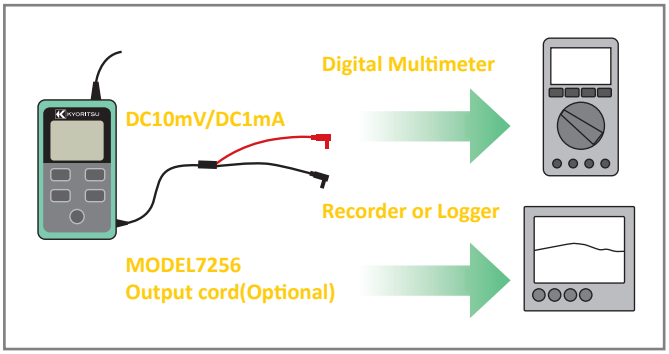
Dual display gives simultaneous readout of 1% values and measured values(mA)



Diameter of measurable conductor : ϕ6mm max



Analog output terminal for recorder connection



Note: The Auto-power OFF can be disabled for long recording



Applicable to signal measurement on process and building instrumentation



Spotlight LED & Backlight Display



Flourescent buttons to increase operating in low light places





AC CLAMP METERS

PROFESSIONAL CLAMP METER

2000A AC



K2002PA

The K2002PA is a valuable tool for electrical engineers and electrical contractors as it has a wide frequency response and features peak hold that allows the user to measure peak values of current. The teardrop 55mm shaped jaws have been designed to easily access crowded cable ways

Features

- Measures current variation as short as 10mSec with Peak Hold function
- Jaw Ø55mm
- 40Hz - 1 kHz Bandwidth
- 2000A AC / 750V AC
- Measures AC and DC voltage
- Measures Resistance up to 400kΩ
- Continuity Buzzer and Diode Test
- Auto Power Off
- Data Hold
- Output Voltage Terminal

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT II 1000V | LIFETIME WARRANTY

FUNCTION	RANGE	ACCURACY
Jaw size	55mm	
AC Current	0A - 2000A	±(1.0% +3
DC Voltage	40V - 1000V	±(1.0% +2)
AC Voltage	40V - 1000V	±(1.0% +2)
Resistance	400Ω - 400KΩ	±(1.5% +2)
Size (L x W x D)	247 x 105 x49mm	
Weight	470g	

600A AC



K2040

The K2040 clamp meter has a rubberized double moulding giving the user a comfortable grip in the palm. The K2040 has a 6039 count display with a bargraph, and is capable of measuring AC Current up to 600 Amps on a maximum conductor size of 33mm. The meter measures AC and DC voltage, Resistance to 60MΩ, Frequency measurement with Duty Cycle, a Diode Test and Continuity Buzzer and a Non-Contact Voltage detector. Other features include a MAX/MIN recording and Data Hold function. The K2040 clamp meter is designed to meet the latest international standard IEC 61010-1 CAT IV 600V and CAT III 1000V

Features

- Non-Contact Voltage indication
- Jaw Ø33mm
- Large backlight 6039 Count LCD display with a 61 segment Bargraph
- Measures Duty Cycle and Frequency
- Measures Resistance up to 60MΩ
- Continuity Buzzer and Diode Test
- 600V input Protection
- Auto Power Off
- Double molded housing provides comfortable palm grip
- Data Hold
- Relative Mode

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V | LIFETIME WARRANTY

FUNCTION	RANGE	ACCURACY
Jaw size	33mm	
AC Current	0A - 600A	±(1.5% +5)
DC Voltage	600mV - 600V	±(1.0% +3)
AC Voltage	6V - 600V	±(1.3% +4)
Resistance	600Ω - 60MΩ	±(1.0% +5)
Frequency	1KHz - 10kHz	±(0.5% +5)
Duty Cycle	0.1 TO 99.9%	±(2.5% +5)
Size (L x W x D)	243 x 77 x 36mm	
Weight	310g	

600A AC



K2007R

The lightweight, compact K2007R features three functions in one unit; True-RMS AC current, True RMS AC voltage and resistance. It can measure AC current to 600A and AC/DC voltage up to 600V. It measures 6kΩ resistance, an audible continuity test with continuity buzzer for rapid circuit fault diagnosis. The K2007R also offers frequency response from 40Hz to 400Hz on AC current and voltage ranges.

Features

- CAT IV 300V / CAT III 600V
- Jaw Ø33mm
- Safety tear drop jaw
- Ergonomically over molded body gives convenient one-hand operation
- Large easy-to-read display with 0.1A resolution
- Accurate reading with True RMS 600/1000A auto-ranging
- Full covered Ø33mm Tear Drop shaped jaw
- Measures AC and DC Voltage to 600V
- Data Hold
- Continuity Buzzer

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT IV 300V | LIFETIME WARRANTY

FUNCTION	RANGE	ACCURACY
Jaw size	33mm	
AC Current	600A - 1000A	±(1.5% +5)
DC Voltage	0.0V - 600V	±(1.0% +3)
AC Voltage	0.0V - 600V	±(1.3% +4)
Resistance	0Ω - 6KΩ	±(1.0% +5)
Size (L x W x D)	204 x 81 x 36mm	
Weight	220g	



AC CLAMP METERS

The MT775 is a True RMS 1000A AC clamp meter that has a rugged and robust overmould technology for the housing. This double mould rubber injection enables the meters to withstand more shocks and drops than conventional casings of clamp meters. The features of this meter offer the electrician and engineer a wide range of measuring capabilities. The MT775 has a large 4000 count LCD display with a bargraph and features Peak Capture for voltage and current. The clamp meter is auto ranging with manual override and now offers AC and DC voltage, AC current, Resistance to 40MΩ, Capacitance, Temperature and Frequency. The MT775 is now the ideal choice for the electrician or Electrical Engineer.

IEC 61010-1 CAT III 600V
IEC 61010-1 CAT II 1000V

Function	Range	Accuracy
Jaw size	30mm	
AC Current	40A - 1000A	±(2.8% +10)
DC Voltage	400mV - 600V	±(0.8% +2)
AC Voltage	400mV - 600V	±(1.0% +10)
Resistance	400Ω - 40MΩ	±(1.0% +4)
Frequency	0Hz - 4kHz	±(1.5% +2)
Capacitance	4nF - 40mF	±(5.0% +30)
Temperature	-40 to 1000°C	±(2.5°C +3)
Duty Cycle	0.5 TO 99.0%	±(1.2% +2)
Size (L x W x D)	229 x 80 x 49mm	
Weight	303g	

Features
- Current measurement from 0.01 Amp
- Jaw Ø30mm
- Measures AC and DC voltage to 600V
- Resistance to 40MΩ
- Large LCD display with bright white LED backlight
- Rubber Overmould housing which disperses various shock over more of the case
- Temperature measurement to -40 - 1000°C
- Capacitance Measurement to 40mF
- Frequency Measurement to 4kHz
- Peak Hold
- Auto Power Off
- Diode Test and Continuity Buzzer

TRUE RMS



MT775

The MT770 is a rugged and robust meter that is one of the first clamp meters in the world to have overmould technology for the housing. This double mould rubber injection enables the meter to withstand more shocks and drops than conventional casings of clamp meters. The new design of this clamp meter was to offer the electrician one meter that had a number of measuring ranges, this is an ideal meter when checking electrical circuits or HVAC maintenance. The MT770 is auto ranging with manual override and now offers AC and DC voltage, AC current, Resistance to 40MΩ, Capacitance, Temperature from -50°C to 1000°C, Frequency and Duty Cycle.

IEC 61010-1 CAT III 600V
IEC 61010-1 CAT II 1000V

Function	Range	Accuracy
Jaw size	30mm	
AC Current	40A - 1000A	±(2.5% +10)
DC Voltage	400mV - 600V	±(0.8% +3)
AC Voltage	400mV - 600V	±(0.8% +10)
Resistance	400Ω - 40MΩ	±(1.0% +4)
Frequency	5Hz - 10MHz	±(1.5% +5)
Capacitance	40nF - 100µF	±(5.0% +20)
Temperature	-20 to 1000°C	±(3.0°C +5)
Duty Cycle	0.5 TO 99.0%	±(1.2% +2)
Size (L x W x D)	229 x 80 x 49mm	
Weight	303g	

Features
- Current measurement from 0.01 Amp
- Jaw Ø30mm
- Measures AC and DC voltage to 600V
- Resistance to 40MΩ
- Large LCD display with bright white LED backlight
- Rubber Overmould housing which disperses various shock over more of the case
- Temperature measurement to -20 - 1000°C
- Capacitance Measurement to 40mF
- Frequency Measurement to 10MHz
- Duty Cycle
- Auto Power Off
- Diode Test and Continuity Buzzer



MT770

The MT750 is a compact, ultra slim AC Clamp Meter that measures AC current to 1000A including measurements such as ACV, DCV, resistance, and continuity buzzer. Uniquely designed with teardrop-shaped extra thin jaws for easy attachment onto different conductors and inside distribution boards, the Major Tech MT750 is a multifunctional clamp meter that includes integrated digital multimeter functions. It's also one of the only clamp meters on the market to have jaws 10mm thick, making it easier than ever to make a connection. The MT750 is able to measure current up to a high threshold of 1000 with resolution as fine as 0.01A. This meter can also perform AC/DC voltage measurements with buzzer and uses fuseless electronics protection on continuity up to 600V.

IEC 61010-1 CAT II 600V
IEC 61010-1 CAT III 300V

Function	Range	Accuracy
Jaw size	33mm	
AC Current	40A - 1000A	±(1.4% +6)
DC Voltage	400mV - 600V	±(1.0% +3)
AC Voltage	4V - 600V	±(1.8% +7)
Resistance	400Ω - 40MΩ	±(2.0% +4)
Size (L x W x D)	190 x 68 x 20mm	
Weight	120g	

Features
- Ultra slim and lightweight design
- Current ranges - 40/400/1000A AC
- 10mm jaws - extremely thin for easy access into difficult measurement points
- 33mm Tear drop jaw easy to use in tight places
- DMM function ACV, DCV and Resistance
- Fuseless electronic protection on up to 600V
- Unique teardrop - shaped jaws for access into distribution boards
- AC/DC voltage measurements up to 600V
- Continuity measurements with integrated buzzer

10mm



MT750



AC CLAMP METERS

3000A AC

TRUE RMS

The K2210R clamp meter is a True RMS, flexible and light weight 3000A AC Clamp Meter suitable for hard-to-clamp and crowded wiring places. Other features include a MAX/MIN function with backlight LCD display



K2210R

Features

- Flexible and lightweight clamp sensor
- Wide reading range up to 3000A
- True RMS
- MIN /MAX function
- Backlight LCD display
- IEC 61010-1 (CAT IV 600V / CAT III 1000V)
- Data hold
- Flexible Clamp up to 150mm conductor

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V | Lifetime Warranty

FUNCTION	RANGE	ACCURACY
AC Current	0.1A ~ 3000A	± (3.0% +5d)
Crest Factor	Full scale CF<1.6	
	Half scale CF3.2	
Conductor Size	Ø150mm	
Influence of conductor size	± 3.0% (max)	
Overload protection	5000A AC for 10 seconds	
Operating temperature & humidity	-0 - ± 50°C (80% RH)	
Storage temperature & humidity	-10 - ± 60°C (70% RH)	
Power	R03 / LR03 (AAA) (1.5V) x 2	
Size (L x W x D)	120 x 70 x 26mm	
Conductor Size	55mm	
Weight	470g	

3000A AC

TRUE RMS

The MT745 Flexible AC Current Clamp Meter with Data Logger is perfectly designed for hand help and tight space testing. The MT745 has a large backlit LCD display making it easier to read measurements. Data can be kept on screen using the data hold function. The Log Key will reload the current changes with the known period of time and data and store it in the instrument. Send data stored to the mobile app using the Bluetooth communication app.



MT745

Features

- AC current True RMS measurements
- 3000 count Backlight LCD
- Analogue Bar graph
- Bluetooth interface
- 3000A AC flexible clamp
- Data Hold
- Inrush Current
- Frequency Measurement

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V | Bluetooth Interface | LOG Datalogger

Function	Range	Accuracy
Conductor Size	Ø150mm	
Influence of conductor size	± 2.0% (max)	
AC Current	0.5A to 3000A AC	±(3% ± 5 digits)
Frequency	50Hz – 400Hz	
Operation Temperature	5 to 40°C	
Resistance	200Ω - 20MΩ ±(1.0% +4)	
Size (L x W x D)	230 x 76 x 40mm	
Weight	315g	

3000A AC

The MT740 is a 3000A True RMS AC Flex Clamp adaptor that supplies voltage output to universal voltage meters. With a 7.5mm coil diameter to accommodate ease of measurement in a tight space and is ergonomically designed for one handed operation. The MT740 Flex Clamp Adaptor is CAT IV rated 600V and CAT III rated for 1000V.



MT740

Features

- 457mm (18") head cable length
- 3000A AC current measurement
- 7.5mm coil diameter
- Slide switch range change
- Low battery LED indicator
- Ergonomically designed

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V

Function	Range	Accuracy
Jaw size	185mm	
AC Current	30A- 3000A	±(3.0% + 5mV)
AC Bandwidth	50Hz to 60Hz	
Size (L x W x D)	180 x 106 x 28mm	
Weight	210g	





AC CLAMP METERS

200A AC

The K2031 is the ideal pocket sized dedicated clamp meter for AC measurements up to 200A with a resolution of 10mA. Features include a one handed operation rotary range selector and power switch, data hold, a 24mm conductor size and auto power off for extended battery life.

IEC 61010-1 CAT II 300V | IEC 61010-1 CAT II 1000V | LIFETIME WARRANTY

FUNCTION	RANGE	ACCURACY
Jaw size	24mm	
AC Current	200A	±(2.0% +5)
Digital Display	4000	
AC Bandwidth	40Hz to 1KHz	
Size (L x W x D)	147 x 59 x 25mm	
Weight	100g	

Features

- Measures AC current up to 200 Amps
- Ø24mm Cable
- AC current resolution 0.01A
- Frequency response from 40Hz to 1kHz on AC current
- Data Hold



K2031

600A AC

The MT730 is a rugged and robust meter with overmould technology for housing. This double moulded rubber injection enables the meter to withstand more shocks and drops than conventional casings of clamp meters. The MT730 is a low cost 600A digital clamp-on meter with 0.01A resolution and offers features such as the measurement of AC and DC Voltage up to 600V, Duty Cycle Test and Resistance to 20 MΩ. Other features include a continuity buzzer, Data Hold and a bright white LED backlight. The MT730 can be used in most industrial and commercial applications where non-linear loads distort the current or voltage waveform.

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT II 1000V

Function	Range	Accuracy
Jaw size	30mm	
AC Current	20A - 600A ±(2.5% +10)	
DC Voltage	2000mV - 600V ±(0.8% +5)	
AC Voltage	2000mV - 600V ±(1.5% +30)	
Resistance	200Ω - 20MΩ ±(1.0% +4)	
Size (L x W x D)	229 x 80 x 49mm	
Weight	303g	

Features

- Current measurement from 0.01 Amp
- Measures AC and DC voltage to 600V
- Conductor size Ø30mm
- Resistance to 20MΩ
- Max Hold displays highest reading for volts and current
- Large LCD with bright white backlight
- Diode Test and Continuity Buzzer
- Rubber Overmould housing which disperses various shock over more of the case
- Data Hold
- Auto Power Off



MT730

400A AC

The MT720 clamp meter offers features one needs to fit the requirements or manner in which one works. The small body and jaws fit perfectly in your hand and into tight places. The meter controls are positioned so that current measurements can be done with one hand. The large display is easy to read and the handy Display Hold keeps the measurements on the display. The MT720 is a 400A AC current digital clamp-on meter with a fantastic resolution of 0.001A. This meter is capable of measuring AC and DC voltage up to 600V and Resistance. The bright white LED backlight is ideal when working in arduous and dark areas. Other feature include a continuity buzzer, diode test, max hold and data hold. The MT720 also has double injection rubber housing

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V

Function	Range	Accuracy
Jaw size	30mm	
AC Current	2.000A - 400.0A	±(2.5% +10)
DC Voltage	200mV - 600.0V	±(0.8% +2)
AC Voltage	200mV - 600.0V	±(1.0% +35)
Resistance	200Ω - 20MΩ	±(1.0% +4)
Size (L x W x D)	197 x 70 x 40mm	
Weight	183g	

Features

- Current measurement from 0.001 Amp NCV
- Measures AC and DC voltage to 600V
- Conductor size Ø30mm
- Resistance to 20MΩ
- 2000 Count LCD display
- Max Hold
- Diode Test and Continuity Buzzer
- Data Hold
- Auto Power Off
- Bright white LED backlit LCD
- NVC



MT720

PROFESSIONAL CLAMP METER



AC CLAMP METERS

120A AC ADAPTOR



K8112

The K8112 clamp adaptor with a small conductor size of 8mm is designed to be an AC current/voltage conversion probe capable of measuring AC current form 0,1mA to 120A in conjunction with high sensitivity AC voltmeters, especially useful with digital multimeters. Simple to operate, the unit has range switch position at 200mA, 2A and 20A. currents. The adaptor has a wide frequency range from DC to 1kHz.

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V

Features

- Jaw Ø8mm
- 0,1A -120AC
- Easy to use
- Range switch position at
- 200mA, 2A and 20A

FUNCTION	RANGE	ACCURACY
AC Current	200mA - 120A	±(1.5% + 0.2mA)
AC current resolution	0.1mA	
Jaw size	8mm	
AC Bandwidth	40Hz to 10kHz	
Size (L x W x D)	147 x 58 x 26mm	
Weight	100g	

400A AC



MT702

The MT702 is a compact clamp meter offers features one needs to fit the requirements or manner in which one works. The small body and jaws fit perfectly in your hand and into tight places. The meter controls are positioned so that current measurements can be done with one hand. The large display is easy to read and the handy Display Hold keeps the measurements on the display. The MT702 is a low cost 400A digital clamp-on meter offering superb features such as the measurement of AC and DC Voltage up to 600V and resistance to 4K Ohm. Other features include a continuity buzzer, as well as 0,01A resolution.

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V

Features

- Current measurement from 0.01 Amp
- Measures AC and DC voltage to 600V
- Resistance to 4kΩ
- 2000 Count LCD display
- Data Hold function

Function	Range	Accuracy
Jaw size	30mm	
AC Current	40A - 400A	±(2.0% +6)
DC Voltage	400V - 600V	±(1.5% +6)
AC Voltage	400V - 600V	±(2.0% +5)
Resistance	400Ω - 4000Ω	±(2.0% +5)
Size (L x W x D)	184 x 46 x 27mm	
Weight	190g	

400A AC



MTD15

The MTD15 is a cost effective 400A AC Clamp Meter which has been developed for commercial, light, industrial, HVAC, residential and DIY applications. The MTD15 is a useful tool that allows you to safely test for electrical problems, motor condition and current on appliances. Equipped to test any electrical circuit without disconnecting any wires this meter measures 0.001A to 400A AC, DC Volt, Resistance and has a continuity buzzer, 23mm jaw opening and is supplied in a carrying case.

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT II 1000V

Features

- 5 Functions & 19 versatile ranges
- 2000 Count LCD display with backlight
- Conductor size Ø30mm
- AC V / DC V 600V
- AC A 400A
- Resistance to 20MΩ
- Continuity and buzzer test
- Diode Check/Data Hold
- Low battery indicator
- Conductor size Ø23mm
- Auto power off
- Current measurement 0.001Amp

FUNCTION	RANGE	ACCURACY
Jaw size	23mm	
AC Current	2A - 400A	± 5% of FS
DC Voltage	200mV - 600V	± 5% +1d
AC Voltage	200mV - 600V	± 5% +2d
Resistance	200Ω - 20MΩ	
Size (L x W x D)	200 x 70 x 37mm	
Weight	200g	



AC/DC CLAMP METERS

1000A AC POWER CLAMP

The MT790 is a Single and 3-Phase 1000 Amp True RMS AC Power Clamp Meter. This power Clamp meter operates as a True RMS Clamp Meter, Power Meter, Multimeter and AC Voltage Detector. Measuring ranges include AC Current, Voltage, Frequency and Power including True Power, Apparent Power, Reactive Power and Active Power. Measures 1-Phase and balanced 3-Phase True Power (kW), Apparent Power (kVA), Reactive Power (kVAR) and Active Power (kWh), plus Power Factor and Phase Angle. Manually stores and recalls of up to 99 data logs. USB interface for connection to a PC for data logging function with included software

TRUE RMS

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V | LOG Datalogger

Function	Range	Accuracy
Jaw size	55mm	
AC Current	40A - 1000A	±(2.0% +5)
AC Voltage	100 - 750V	±(1.2% +5)
Frequency	50Hz - 200HZ	±(0.5% +5)
Temperature	-50 to 1300°C	±(5.0°C +3)
Active Energy	1-9999kWh	±(3.0% +2)
Active Power	0,01kW - 750,0kW	±(3.0% +5)
AC Bandwidth	50Hz to 60Hz	
Apparent Power	0.01KVA-750.0KVA	±(3.0% +5)
Reactive Power	0.01KVA-750.0KVA	
Power Factor	0,3-1	±(2% +20)
Size (L x W x D)	335 x 70 x 21mm	
Weight	631g	

Features

- True RMS Clamp Meter, Power Meter and DMM
- Ø55mm Cable
- Measures AC current up to 1000 Amps
- Measures AC voltage to 750V
- USB interface for PC connection for Data Log Function
- Analysis for single phase and balanced three phase system
- Manual data memory
- KW/KVA/KVAC/Pf
- MIN/MAX and Data Hold
- Auto Power Off
- Complete with Colour Coded Test Leads
- Manually Store/Recall up to 99 Data Logs
- Large Dual LCD Display with 9999 Count and Bargraph



MT790

1000A AC/DC WATT METER

The MT785 is a True RMS AC and DC watt clamp on meter with Bluetooth. This meter provides save, noninvasive measurements of up to 240kW. The light weight, portable, battery powered clamp meter measures the most common ACV, DCV, ACA, DCA and Resistance needed to trouble shoot residential and small commercial electrical systems. The readings are displayed on a 4000 count LCD display and the meter has a back light ideal for use in dimly lit areas. The MT785 is housed in a double injection rubber casing.

TRUE RMS

Function	Range	Accuracy
AC True RMS Current	60A - 1000A	±[2.5% +8d)
DC Current	60A - 1000A	±[2.5% +0.2A)
AC True RMS Current	6.000V - 1000V	±[1.0% +5d)
DC Voltage	600mV - 1000V	±[0.8% +20d)
Resolution	0.1m	
Resistance	600.0Ω - 60MΩ	±[1.% +4d)
Capacitance	6.000nF - 6000uF	±[5% +30d)
Frequency	6.000Hz - 10MHz	±[1.0% +5d)
Duty Cycle	0.5%- 99.9%	±[1.2% +10d)
Temperature	-50C - +1000C	±[3% +5C)
Total Harmonic Distortion	99.9%	±[3% +10d)
Active Power	999.9KW	
Power Factor	-1.0 ~ 0, 0 ~ 1.0	±[3% +1d)
Diode Test	Forward DCA is approx. 1mA, open circuit Voltage MAX . 3V	
Continuity Check	Buzzer sounds at 50Ω	
Size (L x W x D)	230 x 76 x 40mm	
Weight	315g	

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V | Bluetooth Interface | LOG Datalogger

Features

- True RMS
- Ø30mm Cable
- Measures AC and DC current up to 1000 Amps
- Measures AC/DC voltage to 600V
- AC/DC Power to 240kW
- Resistance to 40MΩ
- Frequency measurement to 50kHz
- Duty cycle test
- Bluetooth BLE
- Data Hold
- Microprocessor DC zero
- Large LCD display with white LED back light
- Diode Test and Continuity Buzzer
- Auto Power Off



MT785

POCKET DMM CLAMP

The K2001 auto range with manual override meter has a 3400 count display and incorporates a 33 segment bargraph that comes complete with a rubber holster. It is capable of measuring resistance up to 34MΩ The pocket size of the K2001 becomes handy for Electrical Engineers, Inspectors and Maintenance Electricians to carry around with them, as it is always readily available for quick tests.

Function	Range	Accuracy
DC voltage	340mV - 600V	
DC voltage resolution	0.1mV	±(1.5% +4)
AC voltage	3.4V - 600V	
AC voltage resolution	1mV	±(1.5% +5)
DC Current	0A - 100A	
DC Current resolution	0.1A	±(2.0% +5)
AC Current	0A - 100A	
AC Current resolution	0.1A	±(2.0% +5)
Resistance	340Ω - 34MΩ	
Resistance resolution	0.1Ω	±(1.0% +3)
Frequency	0Hz - 300Khz	
Frequency resolution	0.001kHz	±(0.1% +1)
Size (L x W x D)	128 x 87 x 24mm	
Weight	220g	

Features

- Open Clamp Jaw Ø10mm
- 100A AC/DC and 600V AC/DC
- Resistance 34MΩ
- Frequency 10kHz - Current
- Auto range / 300kHz - Voltage

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V | LIFETIME WARRANTY



K2001



AC/DC CLAMP METERS

PROFESSIONAL CLAMP METER

2000A AC/DC

TRUE RMS



K2009R

The K2009R is designed for superior performance, value and has been redesigned to meet the IEC 61010 Safety Regulations. The new custom designed LCD has a maximum of 4000 counts, and has microprocessor controlled annunciators and the decimal point. The K2009R is a True RMS clamp meter and offers a unique feature with the LoHz mode which automatically selects a lower sample rate in low frequency measurement to reduce the fluctuations of display readings. The average mode allows easy reading of fluctuating voltages and currents.

Features

- Peak Hold
- Ø55mm Cable allow for easy access
- Current measurement from 0.1 Amp to 2000 Amps
- Measures ACV to 750V and DCV to 1000V
- Resistance to 4000Ω
- 4000 Count LCD display
- Frequency response from 30Hz to 1kHz on ACV and ACA
- Microprocessor DCA zero adjustment
- Frequency measurement
- Terminal cover avoids use of incorrect terminal for voltage
- Provides Recorder Output for long hour monitoring
- Continuity Buzzer
- Auto Power Off

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V | LIFETIME WARRANTY

FUNCTION	RANGE	ACCURACY
Jaw size	55mm	
DC Current	400A - 2000A	±(1.3% +2)
AC Current	400A - 2000A	±(1.3% +3)
DC Voltage	40V - 1000V	±(1.0% +2)
AC Voltage	40V - 750V	±(1.0% +2)
Resistance	400Ω - 4000Ω	±(1.5% +2)
Frequency	1000 Hz - 4000Hz	±(1.5% +5)
Duty Cycle	0.5 TO 99.0%	±(1.2% +2)
Size (L x W x D)	250 x 105 x 49mm	
Weight	540g	

2000A AC/DC



K2003A

The K2003A is designed for superior performance, value and has been redesigned to meet the IEC 61010 Safety Regulations. The new custom designed LCD has a maximum of 4000 counts, and has microprocessor controlled annunciators and the decimal point. The K2003A is an average sensing clamp meter ideally suited for load monitoring and trouble shooting on electrical systems containing linear loads. The CAT IV 600V safety standard ensures the meter can be used in industrial environments.

Features

- Max Hold
- Ø55mm Cable allow for easy access
- Current measurement from 0.1 Amp to 2000 Amps
- Measures ACV to 750V and DCV to 1000V
- Resistance to 4000Ω
- 4000 Count LCD display
- Frequency response from 30Hz to 1kHz on ACV and ACA
- Microprocessor DCA zero adjustment
- CAT IV 600V Safety standard ensures meter can be used in industrial environments
- Terminal cover avoids use of incorrect terminal for voltage Provides Recorder Output for long hour monitoring
- Continuity Buzzer
- Auto Power Off

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V | LIFETIME WARRANTY

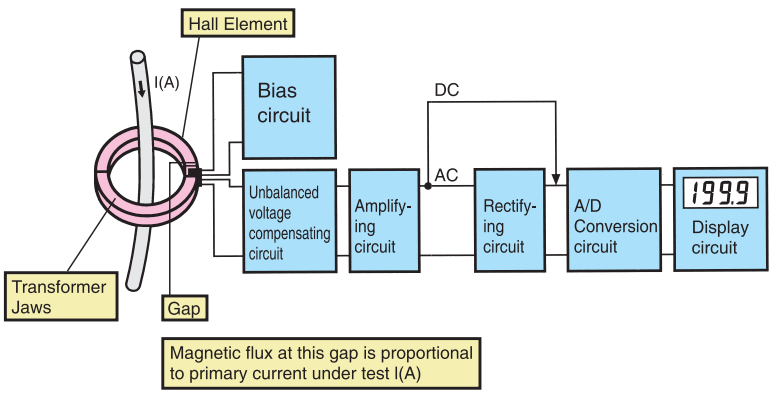
FUNCTION	RANGE	ACCURACY
Jaw size	55mm	
DC Current	400A - 2000A	±(1.5% +2)
AC Current	400A - 2000A	±(1.5% +2)
DC Voltage	400V - 1000V	±(1.0% +2)
AC Voltage	400V - 750V	±(1.5% +2)
Resistance	400Ω - 4000Ω	±(1.5% +2)
Size (L x W x D)	250 x 105 x 49mm	
Weight	540g	

USEFUL INFORMATION

Measurement Principle of AC/DC Clamp Meter

In general hall elements are used a sensor to detect DC current because it is not possible to employ and electromagnetic induction method as used for dedicated AC Clamp Meters. As shown in the figure below, a hall element is placed across a gap created by cutting off part of the transformer jaws. When there occurs a flow of magnetic flux proportional to both AC and DC primary currents in the transformer jaws this hall element detects the magnetic flux and takes it out as an output voltage.

Hall element: This is a semiconductor to generate a voltage proportional to the product of bias current and magnetic field on the output terminal when bias current is applied to the input terminal.





AC/DC CLAMP METERS

1000A AC/DC

The K2056R is one of the first meters designed to meet international safety standard IEC 61010-1 CAT IV 600V to meet the demands for measuring voltage and current spikes. As electrical distribution systems become more complex, the chances of voltage spikes are always increasing, and these spikes are superimposed to normal mains voltage waveform. The instrument is not purposely designed to withstand these high voltage spikes, it will blow and a potential arc blast can create a life threatening situation for the end user. The K2056R is a digital clamp meter with the capability to read current up to 1000A AC/DC. The K2056R model features the ability to utilize True RMS measurements, providing greater accuracy on non-sinusoidal waveforms, thus useful for power distribution companies, power utilities and maintenance fields.

TRUE RMS



K2056R

Function	Range	Accuracy
Jaw size	40mm	
DC Current	600A - 1000A	±(1.5% +5)
AC Current	600A - 1000A	±(2.0% +5)
DC Voltage	600mV - 600V	±(1.0% +3)
AC Voltage	6V - 600V	±(1.5% +4)
Resistance	600Ω - 60MΩ	±(1.5% +5)
Frequency	1Hz - 10kHz	±(0.5% +5)
Capacitance	40nF - 4000µF	±(2.5% +20)
Temperature	-50 to 700°C	±(5.0°C +3)
Duty Cycle	0.1 TO 99.9%	±(2.5% +5)
Size (L x W x D)	254 x 82 x 36mm	
Weight	310g	

Features

- Peak Hold
- Measures AC and DC Voltage to 600V
- Capacitance to 4mF
- Temperature measurement in °C or °F
- Continuity Buzzer and Diode Test
- Relative Mode
- Data Hold
- MIN/MAX recording mode
- 6039 Count LCD with 61 segment bargraph
- Conductor size Ø40mm
- 600V Input protection
- Auto Power Off
- Overmould rubber housing
- Backlight for dimly lit areas
- Double Moulded housing provides comfortable palm grip

1000A AC/DC

The K2055 is a CAT IV rated clamp meter with 40mm jaw size that can measure voltage and current in both low and high-powered circuits and has the ability to read up to 1000A AC/DC and 600V AC/DC. Included is a Non-Contact voltage detector giving the user warning of the presence of AC Voltage. Part of the K2056R family, this meter is one of the first meters designed to meet international safety standard IEC 61010-1 CAT IV 600V to meet the demands for measuring voltage and current spikes.



K2055

Function	Range	Accuracy
Jaw size	40mm	
DC Current	600A - 1000A	±(1.5% +5)
AC Current	600A - 1000A	±(2.0% +5)
DC Voltage	600mV - 600V	±(1.0% +3)
AC Voltage	6v - 600V	±(1.3% +4)
Resistance	600Ω - 60MΩ	±(1.0% +5)
Frequency	1Hz - 10kHz	±(0.5% +5)
Duty Cycle	0.1 TO 99.9%	±(2.5% +5)
Size (L x W x D)	254 x 82 x 36mm	
Weight	310g	

Features

- Measures AC and DC Voltage to 600V
- Continuity Buzzer and Diode Test
- Relative Mode
- Data Hold
- MIN/MAX recording mode
- 6039 Count LCD with 61 segment bargraph
- Conductor size Ø40mm
- 600V Input protection
- Auto Power Off
- Overmould rubber housing
- Backlight for dimly lit areas
- Double Moulded housing provides comfortable palm grip

600A AC/DC

The K2046R digital clamp-meter is a True RMS sensing, auto-ranging multimeter for measuring current, voltage, capacitance, frequency, and resistance in electrical testing applications. It has a clamp that measures ACA and DCA to 600A. The Red LED indicates the presence of AC voltage, this NCV is a safety function for the user. This meter is of the same family as the K2056R being one of the first meters designed to meet international safety standard IEC 61010-1 CAT IV 600V to meet the demands for measuring voltage and current spikes. Ideally suited for power distribution companies, power utilities and maintenance fields.

TRUE RMS



K2046R

Function	Range	Accuracy
Jaw size	33mm	
DC Current	0A - 600A	±(1.5% +5)
AC Current	0A - 600A	±(2.0% +5)
DC Voltage	600mV - 600V	±(1.0% +3)
AC Voltage	6v - 600V	±(1.5% +4)
Resistance	600Ω - 60MΩ	±(1.5% +5)
Frequency	1Hz - 10kHz	±(0.5% +5)
Capacitance	40nF - 4000µF	±(2.5% +20)
Temperature	-50 to 700°C	±(5.0°C +3)
Duty Cycle	0.1 TO 99.9%	±(2.5% +5)
Size (L x W x D)	243 x 77 x 36mm	
Weight	300g	

Features

- Peak Hold
- Measures AC and DC Voltage to 600V
- Capacitance to 4mF
- Temperature measurement in °C or °F
- Continuity Buzzer and Diode Test
- Relative Mode
- Data Hold
- MIN/MAX recording mode
- 6039 Count LCD with 61 segment bargraph
- Conductor size Ø33mm
- 600V Input protection
- Auto Power Off
- Overmould rubber housing
- Backlight for dimly lit areas
- Double Moulded housing provides comfortable palm grip



AC/DC CLAMP METERS

100A AC/DC



K2300R

The K2300R is the first of its kind in the world with open jaw technology to measure AC or DC amperage. This innovative meter is designed to assist in the ease of use when measuring AC or DC current "OPEN CLAMP SENSOR" in crowded or tight cable areas, as the jaws need only be pushed over the cable in order to obtain an accurate reading.

Features

- True RMS clamp meter
- Measures AC and DC current up to 100 Amps
- Open Jaw Sensor
- Ø10mm Cable
- Non-Contact voltage indication
- Microprocessor DCA Zero
- Data Hold
- Auto Power Off

Function	Range	Accuracy
Jaw size	10mm Open Jaw	
DC Current	0A - 100A	±(2.0% +5)
AC Current	0A - 100A	±(2.0% +5)
Size (L x W x D)	161.3 x 40.2 x 30.3mm	
Weight	110g	

300A AC/DC



K2033

The ultra slim and pocket size K2033 is a dedicated mini clamp meter designed to measure AC and DC current only to 300A. The teardrop shaped jaws are ideal for taking measurements in hard to reach locations.

Features

- Ø24mm Cable
- Measures AC and DC current up to 300 Amps
- Data Hold
- Auto Power Off
- Microprocessor DCA Zero

Function	Range	Accuracy
Jaw size	24mm	
DC Current	0A - 300A	±(1.0% +4)
AC Current	0A - 300A	±(1.0% +4)
Size (L x W x D)	147 x 59 x 25mm	
Weight	100g	

200A AC/DC



MT760

The MT760 is an accurate True RMS mini digital clamp meter able to measure AC and DC current with a high resolution of 0.1A. The meter is now supplied with a large LCD which updates 8 times per second and analogue bargraph, which updates 40 times per second. A new feature is the Peak Hold which is ideally used when measuring inrush currents. Other features include a built-in flashlight, Non-Contact voltage indication for the range 100V AC to 600V AC, Data Hold and Min/Max display. The MT760 is an ideal low cost meter for the Automotive Maintenance Industry.

Features

- True RMS
- Current measurement from 0.1 Amp
- Measures AC and DC current up to 200Amps
- Ø18mm Cable
- Microprocessor DC current zero adjustment
- Peak Hold to measure inrush currents
- Non-Contact Voltage detector
- Min/Max Hold function
- Data Hold & Auto Power Off
- Large LCD with bargraph and backlight
- 2000 count LCD display

Function	Range	Accuracy
Jaw size	18mm	
DC Current	0A - 200.0A ±(2.0% +5)	
AC Current	0A - 200.0A ±(2.5% +8)	
DC Voltage	0V -600.0V ±(1.0% +2)	
AC Voltage	0V - 600.0V ±(1.5% +8)	
Resistance	0Ω - 999.9Ω ±(1.5% +8)	
Size (L x W x D)	164 x 65 x 32mm	
Weight	175g	

130A AC / 180A DC



K8115

The K8115 permits extension of the AC and DC current ranges of almost any Digital Multimeter without breaking the circuit under test.

Features

- Jaw Ø12mm
- 130A AC RMS
- 180A DC
- Permits extension of AC /
- DC current ranges of almost any Digital Multimeter without breaking the circuit under test
- 4mm Banana Plugs

Function	Range	Accuracy
Jaw size	12mm	
DC Current	0A - 180A	±(1.2% + 4mV)
AC Current	0.1A - 130A	±(1.2% + 4mV)
Size (L x W x D)	147 x 42 x 22mm	
Weight	140g	





AC/DC CLAMP METERS

1000A AC/DC

The MT777 is a True RMS 1000A AC and DC clamp meter that has a rugged and robust overmould technology for the housing. This double mould rubber injection enables the meters to withstand more shocks and drops than conventional casings of clamp meters. The features of this meter offer the electrician and engineer a wide range of measuring capabilities. The MT777 has a large 4000 count LCD display with a bargraph and features Peak Capture for voltage and current. The clamp meter is auto ranging with manual override and now offers AC and DC voltage, AC current, Resistance to 40MΩ, Capacitance, Temperature and Frequency. The MT777 is now the ideal choice for the electrician or Electrical Engineer.

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT II 1000V

Function	Range	Accuracy
Jaw size	30mm	
DC Current	40A - 1000A	±(2.8% +10)
AC Current	40A - 1000A	±(2.8% +10)
DC Voltage	400mV - 600V	±(0.8% +2)
AC Voltage	400mV - 600V	±(1.0% +10)
Resistance	400Ω - 40MΩ	±(1.0% +2)
Frequency	0Hz - 4kHz	±(1.5% +2)
Capacitance	4nF - 40mF	±(5.0% +40)
Temperature	-40 to 1000°C	±(2.5°C +3)
Duty Cycle	0.5 TO 99.0%	±(1.2% +2)
Size (L x W x D)	229 x 80 x 49mm	
Weight	303g	

Features

- True RMS
- Current measurement from 0.01 Amp
- Measures AC and DC current up to 1000 Amps
- Measures AC and DC voltage to 600V
- Ø30mm Cable
- Resistance to 40MΩ
- Large LCD display with bright white LED backlight
- Rubber overmould housing which disperses various shock over more of the case
- Temperature Measurement to 1000ºC
- Capacitance Measurement to 40mF
- Frequency Measurement to 4kHz
- Peak Hold
- Auto Power Off
- Diode Test and Continuity Buzzer



MT777

400A AC/DC

The MT723 clamp meter offers features one needs to fit the requirements or manner in which one works. The small body and jaws fit perfectly in your hand and into tight places. The meter controls are positioned so that current measurements can be done with one hand. The large display is easy to read and the handy Display Hold keeps the measurements on the display. The MT723 is a 400A AC/DC current digital clamp-on meter with a fantastic resolution of 0.01A. This meter is capable of measuring AC and DC voltage up to 600V and Resistance. The bright white LED backlight is ideal when working in arduous and dark areas. Other features include a continuity buzzer, diode test, max hold and data hold. The MT723 also has double injection rubber housing.

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT II 1000V

Function	Range	Accuracy
Jaw size	30mm	
DC Current	40.00A - 400.0A	±(2.5% +8)
AC Current	40.00A - 400.0A	±(2.5% +5)
DC Voltage	400mV - 600.0V	±(0.8% +2)
AC Voltage	400mV - 600.0V	±(1.0% +30)
Resistance	400.0Ω - 40.00MΩ	±(1.0% +4)
Frequency	10Hz - 10kHz	±(1.5% +2)
Capacitance	40.00nF - 100,0µF	±(4.0% +20)
Temperature	-20 to 760°C	±(3% +5°C)
Duty Cycle	0.5 TO 99.0%	±(1.2% +2)
Size (L x W x D)	197 x 70 x 40mm	
Weight	183g	

Features

- Current measurement 0.01 Amp
- Measures AC and DC voltage to 600V
- Measures AC and DC current up to 400Amps
- Non-Contact Voltage detector
- Ø30mm Cable
- Temperature measurement to 760ºC
- Resistance to 40MΩ
- 4000 Count LCD display
- Capacitance measurement to 100µF
- Relative mode
- Diode Test and Continuity Buzzer
- Data Hold
- Auto Power Off
- Bright white LED backlit LCD



MT723

200A AC/DC

The MT763 is an accurate mini digital clamp meter able to measure AC and DC current with a high resolution of 0.01A, plus Frequency measurement up to 1kHz. Two new features include a built-in LED flashlight which is useful in dimly lit areas, as well as a red neon Non-Contact voltage indication for between 100V AC and 600V AC. Other features include data hold, a microprocessor DC current zero adjustment and auto power off.

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT II 1000V

Function	Range	Accuracy
Jaw size	18mm	
DC Current	0A - 200.0A	±(2.8% +8)
AC Current	0A - 200.0A	±(3.0% +8)
Frequency	40Hz - 1kHz	±(1.2% +5)
Size (L x W x D)	164 x 65 x 32mm	
Weight	151g	

Features

- Built-in LED flashlight
- Current measurement from 0.01 Amp
- Measures AC and DC current up to 200 Amps
- Ø18mm Cable
- Microprocessor DC current zero adjustment
- Data Hold
- Large LCD with backlight
- Non-Contact Voltage detector
- Measures the frequency by clamping the meter over the conductor



MT763



LEAKAGE CLAMP METERS

100A AC LEAKAGE CLAMP



K2434

The K2434 is a low cost Leakage Clamp Meter and has a measuring range from 0.1mA to 100A. Other features include a frequency filter switch to eliminate the effect of harmonics and data hold. This is the ideal meter to be used when checking Insulation Resistance on live circuits.

Features

- Ø28mm Cable
- Measures AC current up to 100 Amps
- Frequency Response from 40Hz to 400Hz
- Provides filtering function to remove high frequency generated by such equipment as inverters
- Data Hold Function
- Sleep mode prevents unnecessary power consumption
- Meter can perform the function of an Insulation Tester without breaking the circuit

IEC 61010-1 CAT II 600V · IEC 61010-1 CAT III 300V · LIFETIME WARRANTY

Function	Range	Accuracy
Jaw size	28mm	
AC Current	400mA - 100A	±(2.0% + 4)
Size (L x W x D)	169 x 75 x 40mm	
Weight	220g	

1000A AC LEAKAGE CLAMP



K2413R

The K2413R is a True RMS sensing leakage clamp meter, with the wide 68mm transformer jaws. The K2413R is best suited for clamping on all three or four wires together on three phase systems for leakage current measurements. The Peak Hold facility has a selectable response time of 10ms or 100ms and features a frequency filter switch which permits AC leakage current of 50/60Hz fundamental frequency only or including harmonics.

Features

- True RMS
- Ø68mm Cable
- Measures AC current up to 1000 Amps
- 0.1mA Resolution
- Extra wide transformer jaws for clamping on all wires
- AC output terminal for waveform viewing on oscilloscopes
- Output terminal for recording current input
- Dual frequency response of fundamental 50/60Hz only or from 20Hz to
- 1kHz
- Shielded transformer jaws minimize the effect of external or stray magnetic fields
- Auto Power Off

IEC 61010-1 CAT II 600V · IEC 61010-1 CAT III 300V · LIFETIME WARRANTY

Function	Range	Accuracy
Jaw size	68mm	
AC Current	200mA - 1000A	±(2.8% +10)
Size (L x W x D)	250 x 130 x 50mm	
Weight	600g	

USEFUL INFORMATION

Method of leakage current measurement

Broadly speaking, there are two methods of leakage current measurement. One is designed to measure leakage current by directly clamping on an earthing conductor and the other is intended to measure leakage current by clamping on two-way wires together. Please refer to the figure below for respective measurement methods. The principle of measurement involving the clamping of two-way wires together is meant to find out the difference of current flowing between the incoming wire and out-going wire and display the result. If there is no leakage on the load side, the instrument display reads zero. If the leakage occurs on the load side, the leakage current will flow back into the power supply through the earth, resulting in the difference of current flowing between the two-way wires which will then be displayed on the instrument as a value of leakage current.

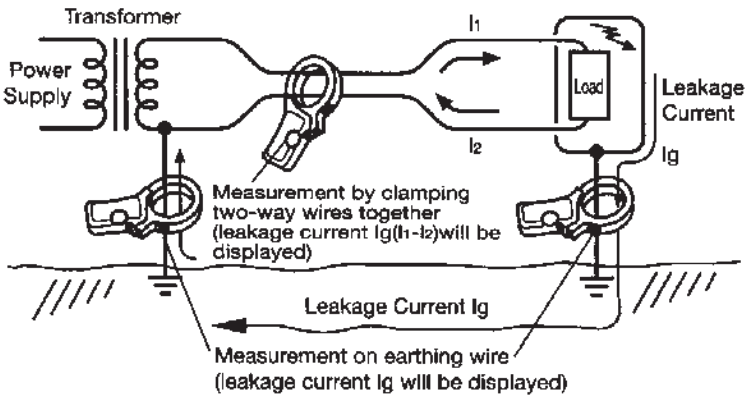


fig. Method of leakage current measurement

INSULATION TESTERS

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INSULATION TESTERS

DIGITAL INSULATION TESTER

1000V INSULATION



K3007
K3007IS

The top of the range K3007 is equipped with Trac Lok Circuits that improve battery life considerably, thus saving the user money. The K3007 has three test voltage ranges: 250V, 500V and 1000V and is equipped with a unique bargraph display that illustrates to the user that the insulation under test meets the minimum voltage required by the regulations. An advanced feature included in this model is Auto Null mode, this unique function subtracts the test lead resistance during continuity tests, ensuring repeatable accuracy. Another great feature is the EL Backlight on the display which enables readings to be taken in dimly lit areas. This meter offers an intrisically safe model on request.

Features

- Three test ranges 250V-500V-1000V
- Auto null function
- Trac-Lok mode to extend battery life by up to 400%
- Automatic discharge after test
- Main bargraph indication of insulation resistance, sub bargraph indicates output voltage
- Displays the value of external AC voltage along with flashing symbol and buzzer
- Lock down Test Button for continuous use
- 1mA output current on insulation test
- 200mA short circuit on continuity range
- EL Backlight for dimly lit areas
- **K3007IS Intrinsically safe version available**

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V | LIFETIME WARRANTY

Function	Range	Accuracy
Insulation resistance	250V -20MΩ	±(1.5% +5)
Insulation resistance	500V -200MΩ	±(1.5% +5)
Insulation resistance	1000V -2000MΩ	±(10% +3)
Short circuit current	1.5mA	
Measuring Current	200mA	
AC voltage	0V - 600V	±(5.0% +3)
Resistance	20Ω - 2000Ω	±(1.5%+5)
Size (L x W x D)	185 x 167 x 89mm	
Weight	900g	

1000V INSULATION



K3005

The K3005 has three test voltage ranges: 250V, 500V and 1000V and is equipped with a unique bargraph display that illustrates to the user that the insulation under test meets the minimum voltage required by the regulations. An advanced feature included in this model is Auto Null mode, this unique function subtracts the test lead resistance during continuity tests, ensuring repeatable accuracy. Another great feature is the EL Backlight on the display which enables readings to be taken in dimly lit areas.

Features

- Three test ranges 250V-500V-1000V
- Auto null function
- Automatic discharge after test
- Main bargraph indication of insulation resistance, sub bargraph indicates output voltage
- Displays the value of external AC voltage along with flashing symbol and buzzer
- Lock down Test Button for continuous use
- 1mA output current on insulation test
- 200mA short circuit on continuity range
- EL Backlight for dimly lit areas

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V | LIFETIME WARRANTY

Function	Range	Accuracy
Insulation resistance	250V -20MΩ	±(1.5% +5)
Insulation resistance	500V -200MΩ	±(1.5% +5)
Insulation resistance	1000V -2000MΩ	±(10% +3)
Short circuit current	1.5mA	
Measuring Current	200mA	
AC voltage	0V - 600V	±(5.0% +3)
Resistance	20Ω - 2000Ω	±(1.5%+5)
Size (L x W x D)	185 x 167 x 89mm	
Weight	900g	

USEFUL INFORMATION

Why insulation test is necessary?

All live conductors of electrical appliances and installations must be insulated to prevent electric shock hazards from inadvertent content, fire hazards from short circuit and equipment damage. In addition, a low insulation resistance in installation will result in a leakage current, and hence causes a waste of energy which would increase the running costs of the installation.

Insulation resistance must be checked by applying appliances or installation a higher voltage than its normal working voltage, because an insulation resistance is lower at higher voltage than at lower voltage. Major Tech's insulation resistance testers provide measurement at high level of voltages.
Periodical test if also important to ensure that insulation of installations or appliances is not deteriorating. Foreign matter and mechanical factors like wear or breakage may reduce insulation resistance. Regular test and data logs can detect fault in insulation.

Minimum value in sunsulation resistance by IEC60364-6-61 TABLE 61A

Nominal circuit voltage (V)	Test Voltage V DC	Insulation resistance (Mohms)
SELV and functional extra-low voltage, when the circuit is supplied from a safety isolating transformer (SELV: Safety Extra-Low Voltage)	250	≥ 0.25
Up to and including 500V with the exception of the above cases	500	≥ 0.5
Above 500V	1000	≥ 1.0



INSULATION TESTERS

The MT565 Insulation Multimeter combines a digital insulation tester with the full features of a True RMS digital multimeter in a single, compact handheld unit, which provides a maximum versatility for both trouble shooting and preventative maintenance. The MT565 measures AC/DC voltage, AC/DC current, resistance, capacitance, frequency (electrical and electronic), duty cycle, Temperature, Duty Cycle plus a 4-20mA% range. The insulation tester offers 125V, 250V, 500V and 1000V with an insulation resistance up to 4000MΩ.
The MT565 is a 40 000 count LCD display with full range annunciations, and can store and recall captured data. The insulation mode displays the actual output voltage and insulation resistance on the display. Whether you work on motors, generators, cables or switch gear, the MT565 insulation multimeter is ideally suited to help you with your tasks. The MT565 is encased in an IP67 waterproof and rugged housing specially designed for heavy duty use.



MT565

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V | IP67 Dust & Waterproof | LOG Datalogger

Function	Range	Accuracy
Insulation resistance	125V - 4,000MΩ	±(2% +10)
Insulation resistance	250V - 40,00MΩ	±(2% +10)
Insulation resistance	5000V - 400,0MΩ	±(2% +5)
Insulation resistance	1000V - 4000MΩ	±(4% +5)
DC voltage	400mV - 1000V	±(0.06% +4)
AC voltage	400mV - 1000V	±(1.0% +5)
AC/DC voltage	400mV - 1000V	±(1.0% +7)
DC Current	400.0µA - 10A	±(0.1% +3)
AC Current	400.0µA - 10A	±(1.5% +7)
Resistance	400Ω - 40MΩ	±(0.3% +4)
Frequency	40Hz - 100MHz	±(0.01% +10)
Capacitance	40.00nF - 40mF	±(3.5% +10)
Temperature	-50 to 1000°C	±(1.0%+2.5°C)
Size (L x W x D)	220 x 96 x 60mm	
Weight	631g	

Features

- 4 Insulation test ranges 125V, 250V, 500V, 1000V
- Insulation test 4000MΩ
- Auto discharge
- AC / DC V measurement to 1000V
- Resistance up to 40MΩ
- Temperature 50°C to 1000°C
- Capacitance 40mF
- Frequency 100MHz
- Features include Relative mode, Duty Cycle, Diode Check, Continuity, Min/Max, Data Hold and Peak Hold
- Wireless USB Interface
- 4-20mA% Process loop
- Rubber Overmould Casing
- Store & recall data up to 2000 events
- Parameter setting for upper and lower level readings with buzzer
- Large Dual LCD display with bargraph
- 1mA output current on insulation test

The new MT560 has a large dual display with a bargraph indicating the insulation resistance. This compact handheld meter has four test ranges: 125V, 250V, 500V and 1000V source for the test and under each range it can supply more than 1mA current to feed the capacitance load. The tester features AC and DC voltage ranges as well as a battery indication. Should AC voltage be present, the LCD display will indicate to the operator the AC voltage value, regardless of what range the meter is on except in the Off position. Other features include a Data Hold function, a bright white LED back light and a continuity buzzer.



MT560

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V

Function	Range	Accuracy
Insulation resistance	125V - 4MΩ	±(2.0% +10)
Insulation resistance	250V - 40MΩ	±(2.0% +10)
Insulation resistance	500V - 400MΩ	±(2.0% +10)
Insulation resistance	1000V - 4000MΩ	±(3.0% +10)
Short circuit current	1.0mA	
Measuring Current	200mA	
DC voltage	0 - 1000V	±(0.8% +3)
AC voltage	0 - 750V	±(1.2% +10)
Resistance	40Ω - 400Ω	±(1.2%+3)
Size (L x W x D)	200 x 92 x 50mm	
Weight	700g	

Features

- Four test ranges 125V-250V-500V-1000V
- MIN/MAX Record mode
- Measures AC Voltage to 750V and DV Voltage to 1000V
- Large Dual LCD display with bargraph
- Live Circuit detection prevents insulation tests if voltage >30V
- Auto Null of test lead resistance
- 1mA output current on insulation test
- 200mA short circuit on continuity range
- Continuity Buzzer
- Automatic discharge of capacitive voltage after test for added protection
- Data Hold function
- Lock down Test Button for continuous use
- Hands free strap and magnet supplied as standard accessories
- Rubber overmould housing
- Illuminated display

The MT550 is an easy-to-use handheld meter and has three test voltage ranges 250V, 500V and 1000V together with two continuity ranges. Whilst doing the insulation test, the large LCD will indicate the insulation resistance together with the actual output voltage. Once the test is complete the circuit under test will be automatically discharged. The MT550 features an AC and DC voltage ranges, battery voltage indication, resistance and a continuity buzzer. If AC voltage is detected, the LCD will display the actual voltage to the user except in the off position.



MT550

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V

Function	Range	Accuracy
Insulation resistance	250V - 200MΩ	±(3.0% +5)
Insulation resistance	500V - 200MΩ	±(3.0% +5)
Insulation resistance	1000V - 2000MΩ	±(5.0% +5)
Short circuit current	1.0mA	
Measuring Current	200mA	
DC voltage	0 - 1000V	±(0.8% +3)
AC voltage	0 - 750V	±(1.2% +10)
Resistance	200Ω - 200KΩ	±(1.0%+2)
Size (L x W x D)	200 x 92 x 50mm	
Weight	700g	

Features

- Three test ranges 250V-500V-1000V
- 750V AC voltage and 1000V DC voltage ranges
- Live Circuit warning and buzzer
- Data Hold function
- 1mA output current on insulation test
- 200mA short circuit on continuity range
- Continuity Buzzer
- Automatic discharge after test
- Lock down Test Button for continuous use
- Hands free strap and magnet supplied as standard accessories
- Rubber overmould housing
- Illuminated display



INSULATION TESTERS

1000V INSULATION

The K3131 is Major Tech's premier analogue Insulation and Continuity tester, designed to meet international standards of performance and safety. This model is a high powered, high quality instrument used by professionals to obtain accurate values of insulation and continuity resistance in accordance with SABS 0142 requirements. The K3131 offers three insulation test ranges: 250V, 500V and 1000V and two continuity ranges, and is equipped with a clear, easy to read illuminated scale. This instrument is available in an intrinsically safe version on request.



K3131
K3131IS

Features

- Three test ranges 250V-500V-1000V
- Auto discharge after test
- Housed in IP54 Casing
- Live circuit warning
- Lock down Test Button for continuous use
- 1mA output current on insulation test
- 200mA short circuit on continuity range
- Backlight facility for dimly lit areas
- **K3131IS Intrinsically safe version available**

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V | LIFETIME WARRANTY

Function	Range	Accuracy
Insulation resistance	250V - 100MΩ	±(0.1MΩ-10MΩ)
Insulation resistance	500V - 200MΩ	±(0.2MΩ-20MΩ)
Insulation resistance	1000V - 400MΩ	±(0.4MΩ-40MΩ)
Short circuit current	1.3mA	
Measuring Current	200mA	
Resistance	0 - 20Ω	±(3%)
Size (L x W x D)	167 x 1185x 89mm	
Weight	860g	

1000V INSULATION

The K3132 is a highly compact and easy to use Insulation and Continuity Tester. Designed to have an IP protection rating of IP54 and is ideally suited to more arduous environments. The instrument offers three insulation test ranges: 250V, 500V and 1000V, 3Ω and 500Ω Continuity range. This meter is not only equipped with a "Live Circuit Warning" but also displays the actual AC voltage measurements of the mains supply.



K3132A

Features

- Three test ranges 250V-500V-1000V
- Auto null function
- AC voltage measurements to 600V
- Live circuit warning
- Lock down Test Button for continuous use
- 1-2mA output current on insulation test
- 200mA short measuring current on continuity range

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V | LIFETIME WARRANTY

Function	Range	Accuracy
Insulation resistance	250V - 100MΩ	±(0.1MΩ-10MΩ)
Insulation resistance	500V - 200MΩ	±(0.2MΩ-20MΩ)
Insulation resistance	1000V - 400MΩ	±(0.4MΩ-40MΩ)
Short circuit current	1-2mA	
Measuring Current	210mA	
AC voltage	0 - 600V	±(5%)
Resistance	0 - 500Ω	±(5%)
Size (L x W x D)	106 x 160 x 72mm	
Weight	560g	

1000V INSULATION

The MT500 is a rugged, compact and easy to use Insulation and Continuity Tester. The instrument offers three insulation test ranges: 250V, 500V and 1000V, a 3Ω continuity range and a 500Ω resistance range. This meter is not only equipped with a "Live Circuit Warning" but also displays the actual AC voltage measurements of the mains supply. The scale has a backlight which is ideal when working in dimly lit environment.



MT500

Features

- Three test ranges 250V-500V-1000V
- 600V AC voltage range
- Live Circuit warning and buzzer
- Data Hold function
- 1mA output current on insulation test
- 200mA short circuit on continuity range
- Automatic discharge after test
- Front panel zero adjustment for test lead resistance
- Lock down Test Button for continuous use
- Hands free strap and magnet supplied as standard accessories
- Rubber overmould housing
- Illuminated display

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V

Function	Range	Accuracy
Insulation resistance	250V - 100MΩ	±(5.0%)
Insulation resistance	500V - 200MΩ	±(5.0%)
Insulation resistance	1000V - 400MΩ	±(5.0%)
Short circuit current	1.3mA	
Measuring Current	200mA	
AC voltage	0 - 600V	±(3.0%)
Resistance	3Ω - 500Ω	±(3.0%)
Size (L x W x D)	200 x 92 x 50mm	
Weight	700g	

HIGH VOLTAGE INSULATION TESTERS



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12kV Diagnostic Insulation Tester	M38
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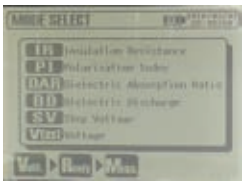


INSULATION TESTERS

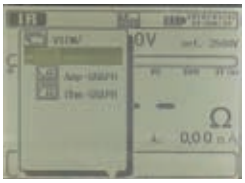
HIGH VOLTAGE INSULATION TESTER

12KV DIAGNOSTIC INSULATION TESTER 35TΩ











K3128

The K3128 is a Digital High Voltage Insulation Tester with 6 ranges, 500, 1000, 2500, 5000, 10000 and 12000V with a fine adjustment setting (5V to 100V steps) with an insulation resistance up to 35TΩ. The microprocessor controlled K3128 is ideal for analyzing the insulation characteristics of cables, transformers, motors, generators, high pressure switches, insulators and large wiring installations. It is housed in robust IP64 (lid closed) case, ideal for extended field usage, powered by rechargeable batteries and an AC input which can be operated while under charge. After a completion of an insulation test, the K3128 automatic discharge and display the test voltage. Data storage of test is available in 3 types of data: logging Data (REC File), Measured Data (Save File), and Print Screen (BMP File), this captures and saves the screen images.

Features

- Insulation Resistance (IR) & Leak Current with a wide range of measurement from 500V-1000V-2500V-5000V-10000V-12000V
- Insulation resistance up to 35TΩ
- Variable test voltage of 5V to 100V steps
- Voltage & elapsed time are displayed
- Polarization Index (PI)
- Dielectric Absorption Ratio (DAR)
- Step Voltage (SV)
- Dielectric Discharge Index (DD)
- Capacitance measurement
- Auto discharge function and voltage output warning function
- Internal Memory– max 40,000 data
- Built-in Print Screen Function enables to record display screen, records 32 screens max
- Downloading to PC – using the USB cord and the PC software included as standard accessories, the memory data or the measuring data can be transmitted to a PC at real time
- Mains and battery powered – internal battery can be charged during normal operation
- Robust design for field use with weatherproof protection in IP64 Casing with lid closed
- Large backlit LCD graphic display with bargraph

IEC 61010-1 CAT III 1000V

IEC 61010-1 CAT IV 600V

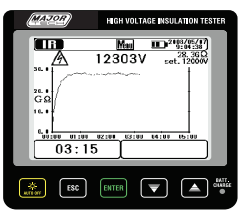
LOG Datalogger

Function	Range	Accuracy
Insulation resistance	500V - 500GΩ	±(5.0% +3)
Insulation resistance	1000V - 1TΩ	±(5.0% +3)
Insulation resistance	2500V - 2,5TΩ	±(5.0% +3)
Insulation resistance	5000V - 5TΩ	±(5.0% +3)
Insulation resistance	10000V - 35TΩ	±(5.0% +3)
Insulation resistance	12000V - 35TΩ	±(20.0%)
Short circuit current	Max 5mA	±(5.0% +5)
Capacitance measurement	5.0nF - 50.0µF	±(5.0% +5)
DC voltage	30V - 600V	±(2.0% +3)
AC voltage	30V - 600V	±(2.0% +3)
Frequency	45.0Hz - 65.0Hz	±(0.2%)
Size (L x W x D)	330 x 410 x 180mm	
Weight	9kg	

DIAGNOSTIC INSULATION TESTS

Large Display

Graphic representation of the insulation resistance and leakage current versus time on large display with bar graph and backlight.







INSULATION TESTERS

5KV INSULATION TESTER 10 TΩ

The K3127 is microprocessor controlled and is capable of performing tests from 500V up to 5000V, and will automatically discharge the circuit after the test has been completed. The meter is a battery powered instrument and operates on a simple and clear basis. Other features include Insulation Resistance 10TΩ, Short-Circuit Current 5mA, IR, PI, DAR, DD, SV, RAMP.
The K3127 has the capabilities of being a diagnostic tool and is intended for testing insulation on Rotating Machines, Transformers, Cables, High Voltage Generators, Electrical Circuits and Surge Arresters. These readings are displayed on the large LCD display with a bargraph together with the actual output voltage thus making it easy for the user to read the results. Once the meter test is completed it will automatically discharge the apparatus under test and indicate the discharge voltage on the display while the meter is still on.



Features

- Insulation Resistance up to 10TΩ
- Short-Circuit Current up to 5mA
- Wide Test Voltage from 250V to 5000V
- Diagnostic Insulation Tests: IR, PI, DAR, DD, SV, RAMP.
- Wireless communication by Bluetooth for transferring and showing real-time data to PC and Android device.
- Memory and Logging functions.
- Filter function reduces noise interference.
- Robust design for field use with IP65 (lid closed).
- Powered by rechargeable battery.

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V | Bluetooth Interface | LOG Datalogger | LIFETIME WARRANTY

Function	Range	Accuracy
Insulation resistance	250V 10GΩ	±(5.0% +3)
Insulation resistance	500V 100GΩ	±(5.0% +3)
Insulation resistance	1000V 200GΩ	±(5.0% +3)
Insulation resistance	2500V 1000GΩ	±(5.0% +3)
Insulation resistance	5000V 10TΩ	±(5.0% +3)
Short circuit current	5mA	±(10%)
Capacitance measurement	5.0nF - 50.0µF	±(5.0% +5)
DC voltage	30V - 600V	±(2.0% +3)
AC voltage	30V - 600V	±(2.0% +3)
Size (L x W x D)	208 x 225 x 130mm	
Case Size (L x W x D)	380 x 430 x 154mm	
Weight	8kg	

Data Communication Function - android only

- Transferring and showing real-time data to PC and Android tablet
- Recorded data can be transferred (PC only)
- Analyzing of the saved data (PC only)



5KV INSULATION TESTER

HIGH VOLTAGE INSULATION TESTER

The K3125 is microprocessor controlled and is capable of performing tests from 500V up to 5000V, and will automatically discharge the circuit after the test has been completed. The meter is a battery powered instrument and operates on a simple and clear basis. The K3125 has the capabilities of being a diagnostic tool and is intended for testing insulation on Rotating Machines, Transformers, Cables, High Voltage Generators, Electrical Circuits and Surge Arresters. These readings are displayed on the large LCD display with a bargraph together with the actual output voltage thus making it easy for the user to read the results. Once the meter test is completed it will automatically discharge the apparatus under test and indicate the discharge voltage on the display while the meter is still on.

Features

- Measures DC Voltage in 500V, 1000V, 2500V and 5000V
- Large LCD Display with bargraph and backlight
- Polarization index measurement (PI)
- Indication of output voltage and discharge voltage
- Insulation resistance up to 1000GΩ
- Withstand Voltage test up to 5320V
- Auto discharge function and voltage output warning
- Measuring time up to 10 Hours
- Live circuit warning symbols plus audible warning
- 2 Built-In Timers
- Auto power off and battery check

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT IV 300V | LIFETIME WARRANTY

Function	Range	Accuracy
Insulation resistance	500V 100MΩ	±(5.0% +3)
Insulation resistance	1000V 2GΩ	±(5.0% +3)
Insulation resistance	2500V 100GΩ	±(5.0% +3)
Insulation resistance	5000V 1TΩ	±(5.0% +3)
Short circuit current	1.5mA	±(10%)
Capacitance measurement	5.0nF - 50.0µF	±(5.0% +5)
DC voltage	30V - 600V	±(2.0% +3)
AC voltage	30V - 600V	±(2.0% +3)
Size (L x W x D)	177 x 226 x 100mm	
Weight	1,9kg	



K3125



INSULATION TESTERS

10KV INSULATION



K3123

The K3123 is a High Voltage Insulation tester that is a tough, rugged meter designed and manufactured to read accurate measurements in harsh environments. This model is gasket sealed to prevent ingress of liquids and dust and is supplied with a water resistant, heavy duty case. This Major Tech HV insulation tester is ideal for heavy duty maintenance and servicing of industrial installations, cables, transformers, generators and switchgear. It is supplied with the appropriate leads for connecting to the earthed and conducting points of the circuit under test. The rated output voltage is maintained down to 0,1% of the tester's full scale resistance, permitting accurate measurements of even low insulation resistance.

Features

- Insulation Resistance 5000V and 10000V
- Large analogue display
- Colour scale with LED Indication
- Automatic discharge after test
- Low power consumption
- Battery test function
- Guard terminal supplied
- Supplied in a drip proof rubber sealed casing
- Lock down test button for continuous use

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V | LIFETIME WARRANTY

Function	Range	Accuracy
Insulation resistance	5000V 200GΩ	±(5.0%)
Insulation resistance	10000V 400GΩ	±(5.0%)
Short Circuit Current	0,08mA	
Size	200 x 140 x 80mm	
Weight	1Kg	

5KV INSULATION



K3122

The K3122 is a High Voltage Insulation tester that is a tough, rugged meter designed and manufactured to read accurate measurements in harsh environments. This model is gasket sealed to prevent ingress of liquids and dust and is supplied with a water resistant, heavy duty case. This Major Tech HV insulation tester is ideal for heavy duty maintenance and servicing of industrial installations, cables, transformers, generators and switchgear. It is supplied with the appropriate leads for connecting to the earthed and conducting points of the circuit under test. The rated output voltage is maintained down to 0,1% of the tester's full scale resistance, permitting accurate measurements of even low insulation resistance.

Features

- Insulation Resistance 5000V
- Large analogue display
- Colour scale with LED Indication
- Automatic discharge after test
- Low power consumption
- Battery test function
- Guard terminal supplied
- Supplied in a drip proof rubber sealed casing
- Lock down test button for continuous use

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT IV 300V | LIFETIME WARRANTY

Function	Range	Accuracy
Insulation resistance	5000V 5GΩ	±(5.0%)
Short Circuit Current	82mA	
Size	177 x 226 x 100mm	
Weight	1,7Kg	

2.5KV INSULATION



K3121

The K3121 is a High Voltage Insulation tester that is a tough, rugged meter designed and manufactured to read accurate measurements in harsh environments. This model is gasket sealed to prevent ingress of liquids and dust and is supplied with a water resistant, heavy duty case. This Major Tech HV insulation tester is ideal for heavy duty maintenance and servicing of industrial installations, cables, transformers, generators and switchgear. It is supplied with the appropriate leads for connecting to the earthed and conducting points of the circuit under test. The rated output voltage is maintained down to 0,1% of the tester's full scale resistance, permitting accurate measurements of even low insulation resistance.

Features

- Insulation Resistance 2500V
- Large analogue display
- Colour scale with LED Indication
- Automatic discharge after test
- Low power consumption
- Battery test function
- Guard terminal supplied
- Supplied in a drip proof rubber sealed casing
- Lock down test button for continuous use

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT IV 300V | LIFETIME WARRANTY

Function	Range	Accuracy
Insulation resistance	2500V 2GΩ	±(5.0%)
Short Circuit Current	65mA	
Size	177 x 226 x 100mm	
Weight	1,6Kg	





INSULATION TESTERS

The MT575 is microprocessor controlled and from switch on, the procedures and safety tests are menu driven on the large LCD display, thus eliminating wrong connections. The MT575 has four insulation tester ranges 1kV, 2.5kV, 5kV and 10kV and where a bargraph displays the actual voltage output during the test period, and once the test is completed, the bargraph will indicate the voltage decay of the circuit automatically being discharged.



MT575

Function	Range	Accuracy
Insulation resistance	1000V 50GΩ	±(5.0% +2)
Insulation resistance	2500V 125GΩ	±(5.0% +2)
Insulation resistance	5000V 250GΩ	±(5.0% +2)
Insulation resistance	10000V 500GΩ	±(5.0% +2)
Short Circuit Current	<1mA	
Size (L x W x D)	170 x 120 x 95mm	
Weight	1kg	

Features

- Insulation Resistance 1000V to 5000V
- 10KV Insulation
- Built-in 100 second timer
- Auto Discharge
- Bargraph indicates test voltage and discharge
- Large 2 line by 16 character LCD display
- ENERGY-SAVE™ mode saves battery life
- Live warning buzzer and display of voltage present
- Overload protection
- Low battery indicator
- Compact and lightweight

The MT570 is a microprocessor controlled High Voltage Tester, with a 4 range functionality of Insulation resistance 500 up to 5000V, AC/DC voltage measurement, resistance and continuity. Polarization Index can be measured by the automatic measurement function of the ratio of resistance in 1 min to 10 min, (Pass/Fail).

IEC 61010-1 CAT III 1000V

IEC 61010-1 CAT IV 600V



MT570

Function	Range	Accuracy
Insulation resistance	500V 6MΩ	±(2.5% +15)
Insulation resistance	1000V 6000MΩ	±(3.0% +15)
Insulation resistance	2500V 6GΩ	±(4.0% +15)
Insulation resistance	5000V 60GΩ	±(4.0% +15)
DC voltage	0.5V - 600.0V	±(1.0% +5)
AC voltage	0.5V - 600.0V	±(1.5% +15)
Resistance	0.1 - 6.000KΩ	±(1.5% +10)
Short Circuit Current	1,2mA	
Size (L x W x D)	198 x 148 x 86mm	
Weight	1.44kg	

Features

- DC test Voltage in 500V, 1000V, 2500V and 5000V
- Bargraph display with Back Light
- Polarization Index and DAR
- Indication of output voltage and auto discharge function
- AC Power adaptor recommended at 5000V
- Built in Timer
- Live circuit warning symbols with audio warning

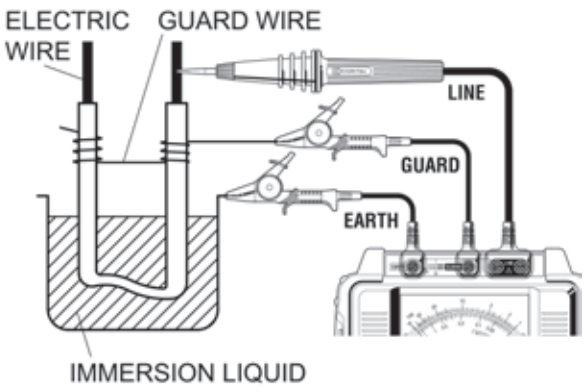
Use of Guard Terminal

Illustrated in this Fig. is an example of the insulation resistance measurement of an electric wire.

If the line probe is simply connected to the wire conductor and the earth lead to the immersion liquid container as shown, a measurement error will be introduced as this results in the measurement of the combined resistance of insulation resistance and the surface leakage resistance at the cut end of the electric wire.

In order to remove this surface leakage current, wind a guard wire around the cut end of the conductor and connect it to the guard terminal of the instrument using the guard lead.

Then, the surface leakage current will bypass the indicating meter of the insulation resistance tester.



LOOP / PSC TESTERS

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LOOP/PSC TESTERS

K4140

The K4140 incorporates Anti-Trip Technology (ATT) which electronically bypasses RCDs when performing loop impedance tests. This saves time and money by not having to take the RCD out of the circuit when testing and is a safer procedure to follow. With the ATT function enabled, a test current of 15mA or less is applied between Line & Earth. It enables resolution loop impedance measurements (up to 0.01 ohm), without tripping RCDs rated at 30mA and above. A full set of new safety test leads are included, they have an overmould for maximum grip and are extremely robust. The instrument also comes in a soft carry case, a quick reference guide locates on the instrument body, a soft strap belt and is supplied with a calibration certificate.





IEC 61010-1 CAT II 1000V | IEC 61010-1 CAT III 300V | LIFETIME WARRANTY

Function	Range	Accuracy
Loop Impedance	0.01Ω - 2000Ω	± (3%+4)
AC Test Current	6A/40mS	± (2.0% + 4)
Phase Rotation	50-500V	
Voltage Measurement	0-500V	
Size(L x W x D)	84 x 184 x 133mm	
Weight	860g	

Features

- Anti-Trip Technology for complete trip free Loop testing on all RCD's rated 30mA and above
- Dual display allows simultaneous measurements like Loop & PFC/PSC.
- Two wire connections for Loop L-L, L-N and PSC testing is possible.
- Phase rotation, voltage and frequency measurements.
- Lock-down test button for "hands free" testing with auto-start operation.
- Display and front panel keyboards with backlight to be visible in dark places.
- Water and dustproof (IP54)
- PSC/PFC 2000A/20KA

K4118

The K4118 is microprocessor controlled and includes useful features such as mains voltage measurements, neon indication of current wiring status and a lock down test button for hands-free operation. An added feature is a 200 ohm earth electrode resistance test range to check that the earth electrodes comply with the IEC wiring regulations. The K4118 Digital Earth Loop Impedance Testers is the most technologically advanced meter of such instruments available and is designed to comply with IEC 61557-1 regulations. This instrument offers convenient and accurate measurements of Earth Loop Impedance at the origin (Ze) and at various points throughout the electrical installation (Zs).



K4118

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V | LIFETIME WARRANTY

Function	Range	Accuracy
Loop Impedance	0.01Ω - 2000Ω	± (2.0% + 4)
AC Test Current	20Ω - 25A	± (2.0% + 4)
	200Ω - 2.3A	
	2000Ω - 15mA	
Size(L x W x D)	185 x 167 x 89mm	
Weight	750g	

Features

- Microprocessor controlled for accuracy and reliability
- Automatic Lock-Out if Test Resistor Overheats
- Direct readout of Prospective Short Circuit Current and Earth Fault Current
- Lock Down Test Button for Continuous use
- Measures low loop impedance of 0.01Ω
- 3 LED's for checking correct wiring status
- Safe voltage measurement function
- Visual indication of reversed phase and neutral wiring at socket
- External earth probe option
- Displays mains voltage
- Supplied with distribution board test leads
- IP54 Casing

MT350

The MT350 is a handheld microprocessor controlled Loop Impedance and PSC Tester, which includes 3 loop impedance measuring ranges capable of measurements from any point in the installation for comprehensive testing of distribution systems. The MT350 gives a direct readout of PSC and earth fault current to a maximum of 20kA in 3 measuring ranges. Other features include 3 LED's for checking the correct wiring status of the circuit under test and the automatic lockout if the resistors overheat. The meter is supplied in double injection rubber housing.



MT350

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V

Function	Range	Accuracy
Loop Impedance	0.01Ω - 2000Ω	± (2.0% + 5)
AC test current	20Ω - 25A	± (2.0% + 5)
	200Ω - 2.3A	
	2000Ω - 15mA	
PSC Range	0.1A - 200A (2.3A 40mS)	± (2.5% + 4)
	1A - 2000A (25A 20mS)	
	10A - 20KA (25A 20mS)	
AC Voltage	50V - 250V	± (2.0% + 5)
Size(L x W x D)	200 x 92 x 50mm	
Weight	700g	

Features

- Custom microprocessor controlled for highest accuracy and reliability
- Loop impedance of 2000Ω range measurement is carried out with low test current (15mA)
- Automatic Lock-Out if Test Resistor Overheats
- Direct readout of Prospective Short Circuit Current and Earth Fault Current
- Measures low loop impedance of 0.01Ω
- 3 LED's for checking correct wiring status
- Safe voltage measurement function
- Visual indication of reversed phase and neutral at wiring socket
- Double injection rubber housing

EARTH LOOP IMPEDANCE & PSC TESTING METHODS

Why Earth Fault Loop Impedance Test is necessary

Earth Fault Loop Impedance is the path followed by fault current as a result of a low impedance fault occurring between the phase conductor and earth, this is called earth fault loop. Fault current is driven round the loop by the supply voltage, the amount of current depending on the voltage of the supply and on the impedance of the loop. The higher the impedance, the lower the fault current will be and the longer it will take for the circuit protection (fuse or circuit breaker) to operate and interrupt the fault.

To make sure that fuses will blow or that circuit breakers will operate quickly enough in the event of a fault, the loop impedance must be low, the actual maximum value depending on the characteristics of the fuse or the circuit breaker concerned. Every circuit must be tested to make sure that the actual loop impedance does not exceed that specified for the protective device concerned. It is recommended that the Ze test be done first, this test is done at the distribution board, and gives the loop impedance of the circuit excluding the installation. Thereafter the Zs test must be done and this now includes the circuit tested in the Ze test as well as including the installation resistance.

In the buildings mainly used for private residence where low voltage power is supplied from electric utilities the fundamental protection against electric shock hazards is provided by appropriately coordinating the function of an earthing circuit with automatic switches placed at the latter stage of indoor wiring circuits. This is intended to quickly cut off the supply to an earthing circuit where a fault occurs following touch voltage exceeding an acceptable limit. Proper protection against electric shock hazards is given when the TT wiring system satisfies the requirements as expressed by the formula : Ra x Ia < 50, where Ra is the sum of the resistances of earth bars and protective conductors and Ia is the maximum current of a protection system provided for installations, indicating that the value obtained by multiplying Ra with Ia is not more than 50V. This means a maximum voltage one can touch shall not exceed 50V in the event of an earth fault.

Earth Fault Loop Impedance Testing

The value of the earth fault loop impedance measured represents the sum of transformer coil winding resistance, phase conductor (L1) resistance and the protective conductor (PE) resistance as well as the source earth resistance and installation resistance.

The Ze earth fault loop impedance measurement as per the diagram below is made on the supply side of the Distribution Board and the main means of earthing with the main switch open and with all the circuits isolated. The means of earthing will be isolated from the installations earthing system (Earth Rods) bonding for the duration of the test. The Ze measurement will confirm the earth fault loop impedance value of the sum of the transformer coil winding resistance, phase conductor of supply side resistance and protective conductor resistance excluding the installation earth resistance.

The Zs earth fault loop impedance as per the diagram below should be determined at the furthest point of each circuit including socket outlets, lighting points, sub-main cables and any other fixed equipment. In most cases the earht leakage/RCCB needs to be bridged out. The total earth fault loop impedance can be measured by plugging a loop tester into a socket outlet, or with in some cases an external earth probe. The value of the earth fault loop impedance measured represents the sum of the transformer coil winding resistance, phase conductor (L1) resistance and protective conductor (PE) resistance as well as source earth resistance and installation earth resistance.

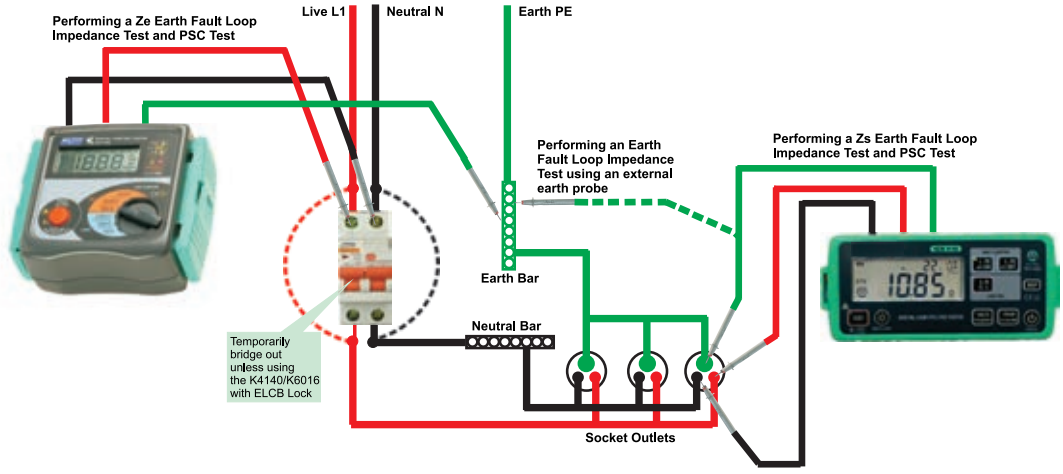
When utilising an external earth probe, the earth fault loop impedance can be measured by touching an external probe directly to an earth bar, collector and connection point of an earth bar. The same measurement can be performed by touching the earth probe to the exposed, conductive parts of user's equipment installed in the indoor wiring circuits and its exposed metal parts.

Care should be taken to avoid any shock hazard to the testing personnel and other persons on the site whilst both establishing contact, and performing the test. When purchasing a loop tester it is recommended that one obtains distribution board test leads so that Ze and Zs measurements can be performed.

Prospective Short Circuit Current (PSC) Testing

The Prospective Short Circuit or Fault Current at any point within an electrical installation is the current that would flow in the circuit if no circuit protection operated and a complete (very low impedance) short circuit occurred. The value of this fault current is determined by the supply voltage and the impedance of the path taken by the fault current. Measurement of Prospective Short Circuit Current (PSC) can be used to check that protective devices within the system will operate within safety limits and in accordance with the safe design of the installation.

As per the diagram below PSC is normally measured at the distribution board between the phase and neutral, or at a socket outlet between phase and neutral





EARTH TESTERS

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EARTH RESISTIVITY TESTER



K4106

The K4106 is a 2/3/4-wire Digital Earth resistance/Earth Resistivity Tester equipped with a microcomputer and can measure earth resistances and calculate earth resistivity's (ρ), using the "Wenner " 4 pole method. This instrument is ideal for Earth measurements also in large Earthing systems because it uses a considerable test current of 80mA(max) yielding a high resolution of 1mΩ on 2Ω range. The Earth Resistivity measurement is useful for soil surveys to establish the optimum earth electrode system design and site, to avoid extra cost of re-working electrode installations. It can also be suitable for geological investigations.

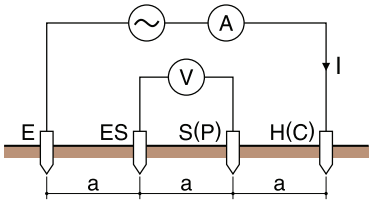
Features

- High test current up to 80mA yielding resolution of 0.001Ω on 2Ω range.
- Advanced Filtering method (based on FFT Fast Fourier Transform) reduces noise interference for obtaining stable measurements.
- Earth resistance measurement with 4, 3 and 2 wires
- Earth resistivity tester (ρ) using 4 pole Wenner method
- 800 Data storage points
- Test current frequency in four bands of 94 / 105 / 111 / 128Hz
- Earth (Ground) Resistance 200kΩ
- Earth Soil Resistivity 200kΩ
- "Zero adjust" the Residual Resistance (Rk)
- Soil Earth Resistivity is automatically calculated
- Distance set within a range of 1.0 to 30.0m at 0.1m steps
- Several sub-results and parameters can be shown on the display: Resistance of the Auxiliary Earth Spikes, Frequency of Test Current, Voltage and Frequency of Interference (noise), Residual Resistance Rk, etc.
- Memory, recall and download - results via USB adaptor
- Warning indication of noise & high resistance of auxiliary earth spikes
- Robust design with IP54 protection.

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V | LOG Datalogger

Principle of Earth Resistivity (ρ) Measurements

According to the Wenner 4-pole method, apply AC current "I" between the "E" (earth electrode) and "H(C)" (current electrode) to find out the potential difference "V" between the two potential electrodes "S(P)" and "ES".
To obtain the earth resistance "Rg (Ω)", devide the potential difference "V" by AC current "I"; where the distance between electrodes is "a" (m).
Then use the formula: $\rho = 2 \cdot \pi \cdot a \cdot Rg\ (\Omega \cdot m)$.









Function	Range	Display	Range	Accuracy
Earth (Ground) Resistance	2Ω	0.001Ω	2.099Ω	±2%rdg. ±0.03Ω
	20Ω	0.01Ω	20.99Ω	
	200Ω	0.1Ω	209.9Ω	
Re (2/3/4 Wires)	2000Ω	1Ω	2099Ω	±2%rdg. ±5dgt
	20kΩ	10Ω	20.99kΩ	
RG (at Resistivity ρ Only)	200kΩ	100Ω	209.9Ω	
Auxiliary Earth Spikes Resistance Rh, Rs				(Re+Rh+Rs)*8%
Soil Resistivity	2Ω		395.6Ω	-accuracy depends
	20Ω	0.1Ω"m	3956Ω	on measurement of Rg
	200Ω	1Ω"m	39.56Ω	=2TT*a*Rg
	20000Ω		395.6Ω	"a" is distance of auxilairy
	20kΩ	Auto-Ranging	1999kΩ	earth spikes:
	200Ω		1.0 - 30.0m(0.1m steps)	
Size (L x W x D)	167 x 185 x 89mm			
Weight	900g			

General	
Display	Backlight, Dot-matrix Display
Power Source	Power source
(Number Of Measurement)	400 times or more (Measure 1Ω on 2Ω range every 30 seconds)
Dimensions	167(L)*185(W)*89(D) mm
Weight	Approx. 900g (including batteries)
Operating/Storage	Operating:-10°C - 50°C, relative humidity 75% or less (no condensation)
Temperature And Humidity	Storage:-20°C - 60°C, relative humidity 75% or less (no condensation)





EARTH RESISTANCE TESTERS

The K4105 is a digital ultra-compact earth resistance tester housed in a shock resistant IP54 rated dust and drip proof case. The K4105 has a large, easy to read 3½ digit LCD display and is supplied with a carrying case containing all the equipment needed to perform measurements. There is an automatic warning when resistance of auxiliary earth spikes is in excess of tolerance. 2mA Measuring current permits earth resistance tests without tripping the earth leakage current breakers in the circuit under test.



K4105A

Features

- Direct earth resistance to 2000Ω
- Measures earth voltage to 200V
- Indicates if resistance of auxiliary spikes is within tolerance
- 3½ Digit LCD display / IP54 protection
- 3mA Measuring current / Overload protection
- Low power consumption for extended battery life
- Direct readout of the earth resistance on the LCD display

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V | LIFETIME WARRANTY

Function	Range	Accuracy
Earth Resistance	0.01Ω - 2000Ω	± (2.0% + 3)
Test Frequency	840Hz	
Measuring Current	20Ω RANGE 3mA	
Earth Voltage	0.1V - 200V	± (1.0% + 4)
Size (L x W x D)	105 x 158 x 70mm	
Weight	550g	

The MT330 is an ideal earth resistance tester for the measurement of earth rods and lighting conductors. Other ranges have been included such as AC voltage measurement up to 750V and DC voltage up to 1000V, plus a 200kΩ resistance range. The large backlit dual display LCD indicates the range measured as well as the battery voltage. The advanced circuit design permits the instrument to operate with minimum influence from earth voltage and earth resistance of auxiliary spikes. The double mould rubber injection housing ensures that the meter can handle the rough terrain when used in the field while performing earth tests.



MT330

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V

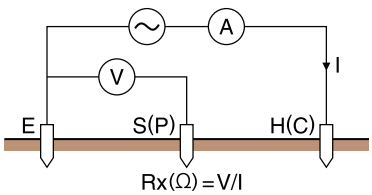
Function	Range	Accuracy
Earth Resistance	0.01Ω ~ 2000Ω	± (2.0% + 3)
Measuring Current	20Ω RANGE 3mA	
Earth Voltage	0.1V - 200V	± (1.0% + 4)
Resistance	0.1KΩ - 200KΩ	± (1.0% + 2)
DC Voltage	1V - 1000V	± (0.8% + 3)
AC Voltage	1V - 750V	± (1.2% + 1)
Size (L x W x D)	200 x 92 x 50mm	
Weight	582g	

Features

- Earth Resistance 200Ω
- Earth voltage to 200V
- Indicates if resistance of auxiliary spikes is within tolerance
- Direct readout of the earth resistance on the LCD display
- 750V AC, 1000V DC
- Overrange indicator
- Zero adjustment of leads
- Data Hold
- Overmould casing
- Dual LCD with backlight
- Ideal for earth rods and lightning conductors

Principle of Earth Resistance Measurements

This instrument makes earth resistance measurements with fall-of-potential method, which is a method to obtain earth resistance value "Rx" by applying AC constant current "I" between the measurement object "E" (earth electrode) and "H(C)" (current electrode), and finding out the potential difference "V" between "E" (earth electrode) and "S(P)" (potential electrode).





EARTH RESISTANCE TESTER

TRUE RMS

The K4202 measures earth resistance from 0.05 to 1500Ω and can be measured without the auxiliary earth spikes in multi-earthing systems. True RMS leakage or phase current readings from 0.1mA to 30.0A provides vital additional information in earthing networks. The filter function offers increased immunity to electrical noise and a noise mark appears in excessively high noisy environments.
The K4202 stores up to 100 measurements and real time measurements can be transferred, shown and saved on an Android device using Bluetooth communication. Saved data includes measurement, GPS location, date and time.

IEC 61010-1 CAT IV 300V



K4202

Features

- Easy Earth / Ground resistance measurement
- True RMS readings
- Jaw Ø32mm
- Earth / Ground Resistance 0.05Ω to 1500Ω resolution
- AC A 0.1mA to 30A Resolution
- Noise check function
- 100 Data storage points
- Bluetooth Function

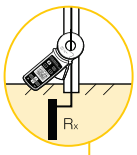
Function	Range	Accuracy
Earth resistance Auto range	20.00/200.0/1500Ω	±1.5%±0.05Ω(0.00 - 20.99Ω)* ±2%±0.5Ω(16.0 - 99.9Ω) ±3%±2Ω(100.0 - 209.9Ω) ±5%±5Ω(160 - 399Ω) ±10%±10Ω(400 - 599Ω)
AC current	Values are displayed, but accuracy isn't guaranteed(600 - 1580Ω)	
(50Hz/60Hz) Auto range	100.0/1000mA/10.00/30.0A	±2%±0.7mA(0.0 - 104.9mA) ±2%(80mA - 31.5A)
Operating indication	Earth resistance function :	Constant voltage injection Current detection (Frequency : Approx.2400Hz) Dual Integration
	AC current function : Successive approximation	
Response time	Approx. 7 seconds (Earth resistance)	
Sample rate	Approx. 2 seconds (AC current)	
	Approx. 1 times per second	
Communication Interface	Bluetooth Ver2.1 + EDR Class2	
Conductor size	Approx. ϕ32mm	
Size (L x W x D)	246 x 120x 54mm	
Weight	780g	

Bluetooth Interface

Android App Only

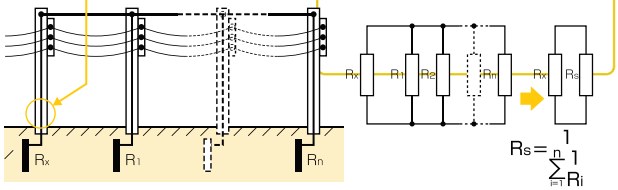
LOG Datalogger

Why earth measurements can be found by only clamping it?



Rx, is defined as earth resistance under test, and R1, R2...Rn are defined as earth resistance of other measuring objects.

These earth resistances, R1, R2,... Rn can be considered that they are connected in parallel.
And They can be regarded as a combined resistance Rs. The Rs can be regarded small enough against Rx since a combined resistance consists of several resistances. Following is an equivalent circuit diagram of this circuit.

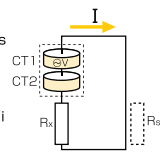


A known Voltage V is applied to the object (Resistance Rx) measured from the voltage injection transformer CT1, and the current I corresponding to the earth resistance is flowed.
The current I is detected with detection transformer CT2, and object (Resistance Rx) measured can be put out by the calculation. (refer to the right diagram)

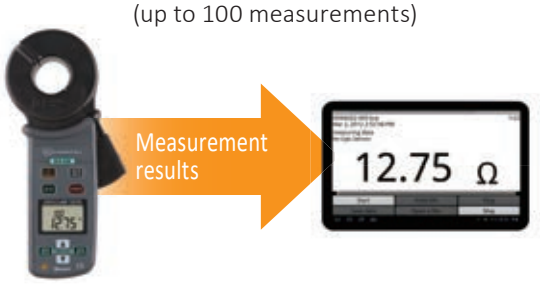
$\frac{V}{I} = R = Rx + Rs$

$Rx \gg Rs = \frac{1}{\sum_{i=1}^{n} \frac{1}{Ri}}$

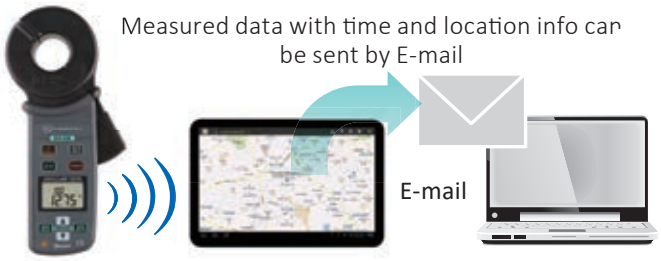
$\frac{V}{I} = Rx$



Recorded data can be transferred (up to 100 measurements)



Measured data with time and location info can be sent by E-mail



GPS data collection may be lost since the GPS signal differs depending on the location of satellites.
To access GPS data and send emails, an Internet connection is required. Communication charges may be incurred separately for using these functions.

Comparator function informs when the measured value is lower/higher than the preset value



MULTIFUNCTION TESTERS

contents

Multifunction Testers M50/M51







MULTIFUNCTION TESTER

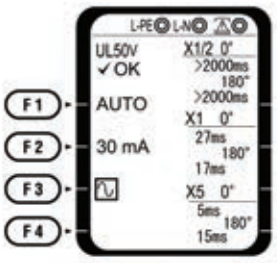
The K6016 is an advanced multifunction tester that can perform ten separate test functions and provide all the test functions generally required in full compliance of SANS 0142 and IEC 60364-4. Functions include insulation, continuity, earth loop impedance, prospective short circuit, earth resistance, phase rotation and RCD trip testing. It can store a maximum of 1000 measured results in its on-board memory and can be downloaded via the USB adaptor. The K6016 is software driven and guides the user on the graphic LCD through the test functions displayed, making the instrument very easy to use. The K6016 has a slim remote probe with a test button as well as a lockdown option on the instrument for the most convenient hands free testing. The K6016 incorporates Anti Trip Technology (ATT) which electronically bypasses RCD's when performing loop impedance tests.



K6016















RCD (ELCB)-Auto Test

Auto test enables complete testing of RCD (6 tests) while the operator simply stands by and resets the RCD. All the results re displayed on one screen - no need to scroll.

Features

- 10 Test functions
- Slim remote probe with test button for hands free testing.
- Microprocessor Controlled for Accuracy and Reliability
- 250V, 500V and 1000V Insulation test ranges
- Auto ramp and auto test for RCD ranges
- Auto power off
- Tests of a large kind of RCD's including DC tests for DC sensitive breakers
- Anti Trip Technology (ATT) on loop test ranges
- Mains Voltage and Frequency measurements
- Continuity with Auto-null
- Loop impedance test with 0.01Ω resolution
- On-board memory to stores 1000 test results
- Live circuit warning and visual indication of correct wiring status on LED's
- Direct readout of PSC and Earth Fault Current (PFC)
- UL contact voltage limit of 25V or 50V
- 0° and 180° Phase angle selection
- Phase rotation tester
- Earth Resistance testing
- IP54 dust and water resistant casing

Function	Range	Accuracy
Continuity Testing Range	0.01Ω - 2000Ω	(0.2% - 2000Ω) ± 2%rdg + 8dgt
Open Circuit Range	>5V	
Open Circuit Current	>200mA	
Insulation Testing Range	250V, 500V, 1000V	
Measuring Range	0.01MΩ - 2000MΩ	± (2.0% +6dgt)
Rated Current	1mA or greater	
Loop Impedance Range	0.01Ω - 2000Ω	
Voltage Measuring Range	25V ~ 500V (45 - 65Hz)	± (2.0% + 4dgt)
Nominal Test Current	6A (20Ω), 2A (200Ω), 15A (2000Ω)	
Test Period	20ms (20Ω/200Ω), 500ms/2000Ω	
PSC Testing Range	1A ~ 20KA	Derived from Loop specification & measurement voltage
Trip Duration	X 1/2: 10/30/100/300/500/1000mA X 1: 10/30/100/300/500/1000mA X 5: 10/30/100mA Auto Ramp 10/30/100/300/500mA	
Trip Current Duration	RCD x 1/2 2000mS RCD x 1 G: 550mS / S: 1000mS RCD x 5: 410mS	- 8% ~ -2 +2% ~ +8 +2% ~ +8
PFC	2000A/20KA	PFC Accuracy is derived from Loop Specification & Measured Voltage
Nominal Test Current	6A/20ms, 2A(20ms),15mA(500ms)	
Earth Resistance	0.01Ω - 2000Ω	± (2.0% + 3)
Rated Voltage	100 - 260V (50/60Hz)	± 10% (50Hz)
Phase Rotation	50 - 500V, 50/60Hz	
Size (L x W x D)	136 x 235 x 114mm	
Weight	1.350kg	



MULTIFUNCTION TESTERS

Major Tech's range of Multifunction Testers offer convenient and fast test on any installation. These meters are easy-to-use and perform all tests required to verify compliance.
The MT390 is a rugged multifunction tester with 3.5 TFT colour LCD display and provides insulation resistance, earth resistance, loop impedance, voltage, RCD, PFG and PSC testing. It is designed with software and ensures the safety of electrical installations in domestic, commercial and industrial applications. This meter is able to ensure that fixed wiring is safe and correctly installed with it's fast sampling, dual display, clear symbols and
wide viewing angle.

IEC 61010-1 CAT IV 400V | Bluetooth Interface | Datalogger

Function	Range	Accuracy
Continuity	4 - 400.0Ω	
Short Circuit Current	less than 200mA	
Insulation resistance	125/250/500/1000V	
Insulation Resistance Range	0.125 -4000MΩ	±(2%+10)
Rated Current	1mA	
Loop Impedance Range	0 to 999Ω	±(4%+6)
Continuity Range	0.001Ω	±(1.5%+30)
Voltage Measurement	80 to 500V	
PSC/PFC	0.23A to 23000A	
Test Current	8.0A to 25.0A	±(2%+2)
Frequency Response	45-65Hz	
Phase Rotation	50-500V	
Measuring Range	2000ms	
Earth resistance	99.99/2000Ω	
Earth resistance resolution	0.01Ω	±(2%+30)
Frequency resolution	1Hz	±(2Hz)
PC interface	USB/Bluetooth±(1%+3)	
Voltage resolution	1V	
Size (L x W x D)	220 x 94.6 x 60.5mm	
Weight	631g	



MT390

Features

- 3.5" TFT colour LCD display 320 x 240 pixels
- Insulation, Continuity, Earth Resistance
- Variable RCD test with Pass/Fail indication
- Line Voltage with Frequency
- Loop and PSC test, Phase Rotation
- Transmit recorded data via Bluetooth / SD Card / USB
- Voltage recording with Graph
- Combined readings on the images
- Safety design with sliding shield plate to avoid electric shock
- **Optional accessories** available seperately are Earth Resistance Spikes and Leads



File Transfer via Bluetooth to free iOS or Android app *(phone not included)*

MULTIFUNCTION TESTER

The K6011 is a highly portable meter that provides the solution to testing electrical installations to the requirements of SANS 0142 and can perform five separate test functions which include insulation, continuity, earth loop impedance, prospective short circuit and RCD trip testing. The K6011 features Phase Angle selection, auto null of test leads for continuity, correct wiring status, testing of DC RCD's, and auto power off.

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V | LIFETIME WARRANTY

Function	Range	Accuracy
Continuity Testing Range	0.01Ω - 2000Ω	± (0.5% + 3)
Open Circuit Range	>6V	
Open Circuit Current	200mA	
Insulation Testing Range	250V, 500V, 1000V	
Measuring Range	0.01MΩ - 200MΩ	± (1.5% +3)
Rated Current	1mA	
Loop Impedance Range	0.01Ω - 2000Ω	
Voltage Measuring Range	25V - 500V (45 - 65Hz)	± (3.0% + 4)
Nominal Test Current	25A(20Ω), 15mA(200Ω & 2000Ω)	
Test Period	1/2 CYCLE (10ms)	
PSC Testing Range	1A - 20KA	± (10% + 5)
Trip Duration	X 1/2: 10/30/100/300/500/1000mA	
	X 1: 10/30/100/300/500/1000mA	
	X 5: 10/30/100/300mA	
Trip Current Duration	DC (6mA): 10/30/100/300/500mA	
	RCD x 1/2, x 1: 2000mS	± (1.0% + 3)
	RCD x 5: 50mS	± (1.0% + 3)
Phase Rotation	230V AC	
Size (L x W x D)	130 x 183 x 100m	
Weight	1.080kg	



K6011

Features

- 5 Test functions
- Microprocessor Controlled for Accuracy and Reliability
- Direct readout of PSC and Earth Fault Current
- Auto power off
- 0 and 180 phase angle selection
- Tests of a large range of RCD's
- DC tests for DC sensitive breakers
- Polarity switch for continuity tests Auto-null facility for continuity tests
- Earth probe for loop impedance testing on extraneous metalwork
- Contact voltage measurement
- Loop impedance test with 0.01Ω resolution
- Live circuit warning and visual indication of correct wiring status
- 250V, 500V and 1000V insulation ranges
- IP54 dust and water resistant casing
- **Optional accessories** K7133 Distribution Board Leads

MULTIFUNCTION TESTER

ELECTRICAL TESTERS

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Magnetic Solenoid Detector	M59
Contractor Test Kits	M60







INDUSTRIAL RCD/ELCB TESTERS

The K5410 is a Microprocessor controlled Industrial Earth Leakage tester designed to operate on 550V, 380V and 220V systems, or circuits with a maximum of 450V AC (L-E). The K5410 measures trip current by varying the current automatically. A great feature is remote testing which enables the user to hold the test leads with both hands by locking the test button; measurement will automatically start when the main voltage is detected. The K5410 detects the voltage to Earth electrodes or Protective conductors during RCD test, when applying test currents, at measurement using Earth in order to prevent electrical shocks cause by the damaged earth. Measurement will cease at 50V AC or more. Ideally suited for Mining and Industrial use.



K5410
K5410IS

Function	Range	Accuracy
Rated trip current	10 - 30 - 50 - 100 - 200 - 500mA	± (1.0% + 3)
Other Test Settings	X½ - 5/15/25/50/100/250mA	± (1.0% + 3)
	X 1 - 10/30/50/100/200/500mA	± (1.0% + 3)
	X 5 - 10/30/50/100mA	± (1.0% + 3)
	Auto Ramp - 10/30/100/200/500mA	± (1.0% + 3
Operating Voltage	80V - 450V (L - E)	
Fault Trip Time	2000ms (200ms FOR X5)	
Phase Angle Setting	0° OR 180°	
AC Voltage Range	80V - 450V	
Size (L x W x D)	186 x 167 x 89mm	
Weight	965g	

Features

- Microprocessor controlled
- Operating voltage 80V - 450V L-E
- Auto Ramp
- 0° or 180° Phase angle selection
- Rated current 10mA - 500mA
- Automatically measures trip current
- Remote testing
- IP54
- **K5410IS Intrinsically Safe Version Available**

The MT328 is a Microprocessor controlled Industrial Earth Leakage tester designed to operate on 550V, 380V and 220V systems, or circuits with a maximum of 450V AC (L-E). The MT328 has been designed for ease of operation while still maintaining safety, reliability and accuracy thus providing consistent results throughout all operating ranges. The MT328 offers both the Trip Time and the Sensitivity at which the ELCB tripped.
The Trip can be timed to a maximum of 100 Seconds, while the sensitivity can either be set at a certain milliamp rating or the operator can simply let the instrument ramp to 1000mA. The MT328 is ideally suited for Mining and Industrial applications.



MT328

Features

- Microprocessor Controlled for accuracy and reliability
- Direct readout of disconnection time
- Display mA Sensitivity
- Current Setting from 5mA to 1000mA
- Indicates tripping phase angle
- 0° or 180° Phase angle selection
- Operating voltage 100V to 450V L-E
- Checks ELCB trip time and trip point sensitivity
- Auto Off
- Built-in 100s Timer
- MT319 is an optional 3-Phase adaptor

Function	Range	Accuracy
Rated trip current	5mA - 1000mA	± (1.0% + 1mA)
Other Test Settings	0 ~ 1000mA IN 1mA STEPS or Preset	
Operating Voltage	100V - 450V (L - E)	
Fault Trip Time	0 Seconds ~ 100 Seconds	
Phase Angle Setting	0° OR 180°	
Trip Polarity	Displays If ELCB Tripped On + Or - Edge Of Waveform	
AC Voltage Range	100V ~ 450V	
Size (L x W x D)	170 x 120 x 95mm	
Weight	800g	



ELCB TESTERS/PHASE ROTATION METERS

ELCB TESTER



MT325

The compact MT325 is lightweight and easy to use and operates on 230V AC circuits while offering high accuracy measurement and good performance. Features include pre-programmed tripping current ranges for speed of use, with direct readout of disconnection time with a resolution of 1ms, neon indication of correct wiring status. Consistent results are obtained with the 0° and 180° phase angle select switch, thus eliminating the need for repeat tests.

Features

- Double injection housing
- Correct wiring indication
- 2000ms Direct readout of disconnection time
- Fully programmed test current settings
- Accurate readout of tripping time with a resolution of 1ms
- Two LED lamps give quick check for correct wiring
- Compact, lightweight and simple to use
- 0° or 180° Phase angle selection
- Current setting from 5mA to 500mA
- Operating voltage 230V AC
- Data Hold function to freeze the digital trip time on the LCD

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT IV 300V

Function	Range	Accuracy
Rated trip current	5mA - 10mA - 30mA - 100mA - 300mA - 500mA	± (3.0%)
Other Test Settings	No Trip - 50% Range Selected Trip Test - 5/10/30/100/300/500mA Fast Trip - 250mA	± (5.0%)
Operating Voltage	230V ± 10% 50/60Hz	
Fault Trip Time	2000ms for Trip and No Trip Tests	
	40ms for Fast Trip	
Phase Angle Setting	0° OR 180°	
Size (L x W x D)	130 x 69 x 32mm	
Weight	130g	

ELCB & POLARITY TESTER



MT310

The popular MT310 has been upgraded and is compact, lightweight and easy to use. The meter is now supplied in a durable double injection moulded rubber housing, that takes the knocks and bangs of everyday use. The meter operates on 230V circuits and ensures the electrician of correct wiring and that the ELCB's trip in accordance with SANS 0142. The bright neon indication lamps and colour coded wiring status assist the user in confirming the wiring status of the circuit under test.

Features

- 230V AC
- Correct wiring indication
- Fixed current settings 10mA -35mA
- Separate test button

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT IV 300V

Function	Range	Accuracy
ELCB Trip Ratings	10mA - 15mA - 20mA - 25mA - 30mA - 35mA	± 1.75mA AT 220V AC
Wiring Identification		
● ● ●	●●● Wiring Correct	
Neon On	●●● No Earth	
● ● ●	●●● Live and Neutral Reversed	
Neon Off	●●● No Neutral	
	●●● Live And Earth Reversed	
	●●● No Live	
Size (L x W x D)	130 x 69 x 32mm	
Weight	130g	

PHASE ROTATION METER



K8031F

The K8031F has a rotary disc indication and is designed to check phase sequence on 3-phase systems, with a wide range from 110V to 600V AC. Neon lamps provided on the unit confirms whether a phase is open or to ensure the correct connection. The K8031F is small, lightweight and portable, designed for maximum ease of operation and ruggedness throughout. The large alligator clips are ideal for holding onto terminals of switchboards.

Features

- Rotary disc indication
- Fused test leads included
- 3-Phase neon indication
- Checks phase sequence and open phase simultaneously
- Sealed against dust, the unit ensures reliable performance
- Small lightweight and portable
- Can check a wide range of 3-phase power source from 110V to 600V AC
- Large size fused crocodile clips

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V | LIFETIME WARRANTY

Function	Range
Voltage Range	110V - 600V
Frequency Range	50/60Hz
Phase Display	110V - 600V
Operating Time	5 Minutes AT 500V
3 Phase Indication	Rotary Disc
Size (L x W x D)	106 x 75 x 40mm
Weight	350g



PHASE ROTATION METERS

The K8035's new technology and the first non-contact phase rotation tester permits safe testing of phase rotation without the need to expose live contacts. The unit requires no metal contact ideal for safer and faster testing. Super bright mode gives clear indication even in bright sunlight.
K8035 uses a combination of LED and audible tones to indicate phase direction. Green LEDs are used for clockwise direction with an intermittent tone. Red LEDs are used for anti-clockwise direction with a continuous tone. The tester is suitable for a wide range of 3 phase installations from 70V to 1000V AC. It comes with a magnetised back for attachment to a metallic surface for hands-free testing.



K8035

IEC 61010-1 CAT III 1000V | IEC 61010-1 CAT IV 600V

Function	Range
AC Voltage	70V - 1000V
Clamp diameter range	Ø2.5 - 30mm
Detection Method	Electrostatic Induction
Mesuring Frequency	45 - 66Hz
Phase rotation	Clock or Anti clock
Visual Indication	Super Bright LED's, audio
Colours	Red White Blue
Size (L x W x D)	122 x 61 x 36mm
Weight	380g

Features

- The insulated crocodile clips can clip insulated cables from Φ2.4 to 30mm
- Phase rotation is indicated by the rotary illumination of LED's and logical
- Audible tones
- Can be fixed to a metal panel via the magnet on the back side
- Wide measuring range for 3 phase installations from 70V to 1000V AC
- Super bright LED's allows clear indication even in sunlight

The MT935 is a compact handheld Motor and Phase Rotation indicator, which is battery operated. The unit can be utilized on a 3 Phase powered system or on a 3 Phase unpowered motor without having to worry about damage to the tester. When used on a 3 Phase powered system the meter is a field indication instrument which displays all three phases by lighting up its corresponding lamp. It then displays the rotation for clockwise or anti-clockwise on an LED. In 3 Phase motors it is possible to determine the motor connections U, V and W without mains voltage present, thus avoiding damage to pumps with reversed motor rotation. It operates from 1VAC to 400VAC.



MT935

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT IV 300V

Function	Range
Voltage Range	1V - 400V
Frequency Range	2Hz - 400Hz
Phase Display	120V - 400V
Operating Time	Continuous
3 Phase Indication	LED
Size (L x W x D)	130 x 69 x 32mm
Weight	130g

Features

- LED Indication
- Rotary field direction
- 3-Phase neon Indication
- Determines Motor Connection and magnetic Field Detection
- Double injection rubber housing
- Small lightweight and portable
- Voltage range from 1VAC to 400VAC
- Large size crocodile clips

The MT930 is a compact handheld Phase Rotation indicator that has a large LCD to indicate the phase presence and rotation. Once connected to a 3 Phase power system, the meter indicates the phase sequence by displaying its corresponding phase symbol on the LCD, as well as the rotation by arrows indicating a clockwise or anti-clockwise direction. The MT930 operates from 40VAC to 690VAC.



MT930

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT IV 300V

Function	Range
Voltage Range	40V - 690V
Frequency Range	15Hz - 400Hz
Operating Time	Continuous
3 Phase Indication	LCD
Size (L x W x D)	130 x 69 x 32mm
Weight	130g

Features

- Large LCD Display
- Phase rotation indication
- 3-Phase Indication
- Checks phase sequence and open phase simultaneously
- Double injection rubber housing
- Small lightweight and portable
- Can check a wide range of 3-phase power source from 40V to 690V AC
- Large size crocodile clips





VOLTAGE TESTERS

VOLTAGE TESTER



MT476

The MT476 is IP64 and is a useful voltage tester designed to meet the Electrician's requirements for a multitude of applications. This tester enables the user to determine whether or not a voltage is within the range required. The MT476 voltage tester incorporates a Low Impedance Test, which induces a basic load of approximately 2.1W at 690 volts. The MT476 meets the International Safety Standard IEC61010-1 CAT III 1000V and CATIV 600V. This voltage tester operates without a switch, and by simply placing the probes of the MT476 onto the circuit under test, the meter is automatically turned on and can measure the voltage, continuity or polarity test. This safety design ensures that if the user incorrectly handles the meter, danger is eliminated.

IEC 61010-1 CAT III 1000V

IEC 61010-1 CAT IV 600V

Features

- AC & DC Voltage detection from 6V to 690V AC and DC
- Phase Rotation
- 2000 Count LCD display
- Double Injection IP64 housing
- Low Impedance test
- Built-in Flashlight
- Polarity Detection
- Rotary Field indication
- Continuity test to 200Ω

Function	Range
DC Voltage	6V - 690V
AC Voltage	6V - 690V
Continuity	0 - 200KΩ
Frequency	50/60Hz
Internal Importance	≤ 1MΩ
Response Time	0.1S
Display	2000 COUNT LCD
Size (L x W x D)	240 x 78 x 40mm
Weight	237g

VOLTAGE TESTER



MT474

The MT474 is IP64 and is a useful voltage tester designed to meet the Electrician's requirements for a multitude of applications. This tester enables the user to determine whether or not a voltage is within the range required. The MT474 voltage tester incorporates a Low Impedance Test, which induces a basic load of approximately 2.1W at 690 volts. The MT474 meets the International Safety Standard IEC61010-1 CAT III 1000V and CAT IV 600V. This voltage tester operates without a switch, and by simply placing the probes of the MT474 onto the circuit under test, the meter is automatically turned on and can measure the voltage, continuity or polarity test. This safety design ensures that if the user incorrectly handles the meter, danger is eliminated.

IEC 61010-1 CAT III 1000V

IEC 61010-1 CAT IV 600V

Features

- AC & DC Voltage detection from 12V to 690V AC and DC
- Phase Rotation
- LED display
- Single pole phase test set
- Double Injection IP64 housing
- Low Impedance test
- Built-in Flashlight
- Polarity Detection
- Rotary Field indication
- Continuity test to 200Ω

Function	Range
DC Voltage	12V - 690V
AC Voltage	12V - 690V
Continuity	0 - 400KΩ
Frequency	50/60Hz
Internal Importance	< 200KΩ
Response Time	0.1S
Display	14 LED
Size (L x W x D)	240 x 78 x 40mm
Weight	237g

VOLTAGE TESTER



MT472

The MT472 is IP64 and is a useful voltage tester designed to meet the Electrician's requirements for a multitude of applications. This tester enables the user to determine whether or not a voltage is within the range required. The MT472 voltage tester incorporates a Low Impedance Test, which induces a basic load of approximately 2.1W at 690 volts. The MT472 meets the International Safety Standard IEC61010-1 CAT III 1000V and CAT IV 600V.

IEC 61010-1 CAT III 1000V

IEC 61010-1 CAT IV 600V

Features

- AC & DC Voltage detection from 12V to 690V AC and DC
- LED Indication
- Double Injection IP64 housing
- Low Impedance test
- Built-in Flashlight
- Polarity Detection
- Voltage function operates without battery

Function	Range
DC Voltage	12V - 690V
AC Voltage	12V - 690V
Frequency	50/60Hz
Internal Importance	< 200KΩ
Response Time	0.1S
Display	11 LED
Size (L x W x D)	240 x 78 x 40mm
Weight	237g



VOLTAGE TESTERS

The MT478 is a 2-Pole voltage, continuity and phase tester with rapid LED indication of voltage levels. The backlit LCD display offers the user accurate voltage measurements. The voltage range is from 12V to 1000V AC/DC on LED indication and 6V to 1000V AC/DC on LCD display. When AC/DC Voltage is detected the meter has three ways to indicate the voltage, visual display (LED and LCD), sound and vibration when the load buttons are pressed. The vibration operates similar to traditional solenoid type voltage testers and meets IEC1010-1 CAT IV 600V safety requirements. The MT478 has a rotary field detection for testing 3-Phase systems as well as a single pole Phase Test. Other features include a built-in flashlight, Continuity Buzzer. Diode Test. High Quality heavy duty molded IP64 case, a thicker cord with wear indicator and well fitted and durable probe protector.

IEC 61010-1 CAT III 1000V

IEC 61010-1 CAT IV 600V

Function	Range	Accuracy
DC Voltage	6V to 1000V	±(3.0% +5)
AC Voltage	6V to 1000V	±(3.0% +5)
Rotary field	100V to 400V	
RCD Test	30mA@230V	
Resistance	0-1999Ω	
Continuity resolution	≤400kΩ	
AC Bandwidth	50/60Hz	
Digital Display	2000 LCD	
Low Input impedance	<6kΩ	
Size (L x W x D)	240 x 78 x 30mm	
Weight	237g	

Features

- 2000 Count LCD display
- LED Indication to 12V to 1000V AC/DC
- Fixed impedance -200kΩ (≤ 3,5mA@1000V)
- Switchable load by 2 push buttons (30mA@230V)
- Vibration during load
- Rotary field direction
- Flash light
- 4mm probe tip thickness



MT478

The MT473 is a 2-Pole voltage, continuity and phase tester with rapid LED indication of voltage levels. The voltage range is from 12V to 1000V AC/DC on LED indication. When AC/DC Voltage is detected the meter has three ways to indicate the voltage, by LED visual display, sound and vibration when the load buttons are pressed. The vibration operates similar to traditional solenoid type voltage testers and meets IEC1010-1 CAT IV 600V safety requirements. The MT473 has a rotary field detection for testing 3-Phase systems as well as a single pole Phase Test. Other features include a built-in flashlight, Continuity Buzzer. Diode Test. High Quality heavy duty molded IP64 case, a thicker cord with wear indicator and well fitted and durable probe protector.

IEC 61010-1 CAT III 1000V

IEC 61010-1 CAT IV 600V

Function	Range	Accuracy
DC Voltage	12V to 1000V	±(3.0% +5)
AC Voltage	12V to 1000V	±(3.0% +5)
Rotary field	100V - 400V	
RCD Test	30mA@230V	
Resistance	0-1999Ω	
Continuity resolution	≤400kΩ	
AC Bandwidth	50/60Hz	
Low Input impedance	<6kΩ	
Size (L x W x D)	240 x 78 x 30mm	
Weight	237g	

Features

- LED Indication to 12V to 1000V AC/DC
- Fixed impedance -200kΩ (≤ 3,5mA@1000V)
- Switchable load by 2 pushbuttons (30mA@230V)
- Vibration during load
- Rotary field direction
- Flash light
- 4mm probe tip thickness



MT473

The MT470 is a combined two-pole tester for Continuity and Voltage measurements. The instrument automatically will turn on when the probes are placed across a complete circuit, it then selects between Continuity or AC/DC Voltage and has an LED indication for AC and DC voltage levels. Supplied with a rubber holster to handle everyday knocks and drops. The holster ensures that the tips of both probes are correctly spaced to measure the voltage from plug sockets for South African plugs, UK plugs and European plugs.

IEC 61010-1 CAT III 600V

IEC 61010-1 CAT II 1000V

Function	Range
DC Voltage	6V - 220V
AC Voltage	12V - 690V
Continuity	0 to 85KΩ
Frequency	50/60Hz
Internal Importance	< 200KΩ
Response Time	0.1S
Display	11 LED
Size (L x W x D)	240 x 78 x 40mm
Weight	237g

Features

- Automatically selects ACV, DCV or Continuity test
- Measures DCV from 6V to 220V
- Measures ACV from 12V to 690V
- LED Indication
- Continuity buzzer
- Auto Power Off
- 400kΩ input impedance
- Polarity Detection



MT470



VOLTAGE DETECTORS

NCV DETECTOR



MT405EX

The MT405EX is an intrinsically safe NCV Voltage Detector for use in potential explosive environment. The MT405EX is certified in accordance with the ATEX directive EX II 2 G EX ib IIB T4 Gb in Zones 1 and 2. The NCV voltage detector has a dual range, a low measuring range down to 12 volts and a high measuring range from 12V to 1000V. Suitable for outlets or against wire insulation testing, this non-contact AC Voltage Detector has a switch to turn the unit on and a Green LED indicates it is working. There is a Red LED, an audible sound as well as a vibration to indicate the presence of voltage. It has a rugged double moulded IP67 waterproof housing that can withstand a 2m drop. There is a bright built-in LED flashlight ideal for use in dimly lit areas.

Features

- 12V to 1000V detection
- Thinner probe tip for working with socket outlets
- Green LED means Power on, flashing red LED with beeper and Motor vibration, means Voltage detected
- Two modes, green indicates high voltage mode, Yellow LED 12V Mode
- Flash and beep rate increases as the detector gets closer to the voltage.
- Power On/Off with silent mode
- IP67 waterproof and withstand a 2m drop-proof

Function	Range
AC Voltage	12V - 1000V
Frequency	50/60Hz
Voltage Detector	100V -1000V Red LED audible beep
Voltage Detector	12V -1000V Yellow then Red LED audible beep
Size (L x W x D)	160 x 23 x 25mm
Weight	55g

NCV DETECTOR



MT403

The MT403 is a Non-Contact AC Voltage detector with dual ranges, a low measuring range down to 12 volts and a high measuring range from 12V to 1000V. Suitable for outlets or against wire insulation testing, this non-contact AC Voltage Detector has a switch to turn the unit on and a Green LED indicates it is working. There is a Red LED and an audible sound to indicate the presence of voltage. It has a rugged double moulded IP67 waterproof housing that can withstand a 2m drop. There is a bright built-in LED flashlight ideal for use in dimly lit areas.

Features

- 12V to 1000V detection
- Thinner probe tip for working with socket outlets
- Green LED means Power on, flashing red LED with beeper means Voltage detected
- Two modes, green indicates high voltage mode, Yellow LED 12V Mode
- Flash and beep rate increases as the detector gets closer to the voltage.
- Power On/Off with silent mode
- IP67 waterproof and withstand a 2m drop-proof

Function	Range
AC Voltage	12V - 1000V
Frequency	50/60Hz
Voltage Detector	100V -1000V Red LED audible beep
Voltage Detector	12V -1000V Yellow then Red LED audible beep
Size (L x W x D)	160 x 23 x 25mm
Weight	55g

NCV DETECTOR



MT402

The MT402 is ideal for checking the presence of voltage from 50V to 1000V. Suitable for outlets or against wire insulation testing, this non-contact AC Voltage Detector has a switch to turn the unit on and a Green LED indicates there is power and the batteries are ok. The Red LED and an audible sound indicates the presence of voltage. A great feature is the built-in flashlight.

Features

- 50V - 1000V AC
- Easy to use just touch the tip to an outlet or cord, when it glows red the tip will indicate there is voltage in the line
- Audible green light that indicates voltage detection is on
- Detects voltage without metallic contact
- All outer surfaces are non-conductive for safety
- Built-in LED flashlight
- Pocket size

Function	Range
AC Voltage	50V - 1000V
Frequency	50/60Hz
Voltage Detector Visual	Red LED
Voltage Detector Audible	Continuous Beep
Power On Indicator	High Intensity Green LED
Size (L x W x D)	158 x 21 x 25mm
Weight	34g

NCV DETECTOR



MT401

The MT401 is capable of detecting the presence of live wires before testing, this pocket-size AC voltage detector features a low-profile tip that can be inserted into outlet receptacles or used to trace along wire insulation to locate breaks. This detector measures from 200 to 1000 VAC with a visual flashing red LED. It has a rugged double moulded housing, and a bright built-in LED flashlight ideal for use in dimly lit areas.

Features

- 200V - 1000V AC
- Easy-to-use just touch the tip to an outlet or cord, when it glows red, it indicates there is voltage in the line
- Detects voltage without metallic contact
- 3-Phase Indication
- All outer surfaces are non-conductive for safety
- Built-in LED flashlight
- Fits into shirt pocket for convenience

Function	Range
AC Voltage	200V - 1000V
Frequency	50/60Hz
Voltage Detector Visual	Red LED
Size (L x W x D)	176 x 26 x 25mm
Weight	48g

NCV DETECTOR



MT400

Use MT400 to quickly check for the presence of live wires before performing any electrical testing. Suitable for outlets or against wire insulation testing, this AC Voltage Detector for non-contact detection of AC Voltage from 50 to 600V (50/60Hz). The Red LED in the tip indicates the presence of voltage.

Features

- 50V - 600V AC
- Indicates if voltage is present at plug sockets and light switches
- Ideal for industrial uses such as checking voltage on earth leakages, breakers, fuses and contactors
- Ideal for checking breaks in wires and cables
- Ideal for checking that plug sockets and light switches are earthed
- Indicates exactly where the "LIVE" phase has broken

Function	Range
AC Voltage	50V to 600V
Frequency	50/60Hz
Voltage Detector Visual	Red LED
Size (L x W x D)	158 x 21 x 25mm
Weight	48g



FUSE FINDER / HV NCV / SOLENOID

FUSE FINDER

The FFCB100 is a fuse finder system that consists of a Transmitter, which plugs into a socket outlet on the circuit you wish to be isolated and a Receiver Scanner. The Transmitter sends pulse signals along a cable to the distribution board, the operator simply runs the Receiver Scanner along the fuses or circuit breakers, and the scanner will automatically identify the correct breaker by means of a green LED and a continuous tone.

Function	Range
MCB/Fuse finding	Find MCB or fuse on dead circuit
Transmitter functions	Connect to mains automatically starts
Receiver functions	Three function, On/Reset/Off
Beeper	Steady beep-testing red LED, continuous beep-strong signal Green LED
Tracing Depth	Depends on medium and application
Cable Locator Mode	0-2meters (single-pole application)
Voltage detection	0-0.4meter
Low battery indication	Flashing
Size (L x W x D)	TX 110 x 75 x 30mm, REC 210 x 50 x 40mm
Weight	320g

Features

- Automatic scanning technology
- Identifies Circuit Breaker &
- Fuse Finder
- 230VAC 50Hz
- Current <20mA
- Microprocessor is self calibrating



FFCB100

CONTINUITY & BELL

The MT100 is a continuity bell tester that allows a single user to quickly identify and label two wires even when the wire ends are located in different rooms. The meter is simple to operate and with proper use will provide years of reliable service. Ideal instrument for electricians, alarm technicians, HVAC installers and many other applications.

Function	Range
Display	Remote continuity, red/green bi coloured LED
Green	Power on indicator
RED	Local Continuity Flashing Red
Continuity	Visual and Audio
Low battery indication	Yes
Size (L x W x D)	130 x 69 x 32mm
Weight	130g

Features

- Remotely identify and label two wires using flashing remote probes
- Distance 3000m (26 Gauge min)
- Lightweight and pocket size



MT100

HV NCV DETECTOR

The MT273 Non-Contact Voltage Detector tests for energized circuits and defective grounds, for an electrician on the factory floor or power utility comparing. The MT273 Non-Contact Voltage Detector's voltage sensor will flash blue and sound intermittently when in contact with high voltage or within close proximity of an outlet, terminal strip, or power cord.

Function	Range
AC Voltage	50V -1.5kV/1.5kV-132kV
Duty Cycle	Continuous
Non Contact Voltage (NCV)	Yes
Response time	Instantaneous
Voltage Detector Visual	Bright Blue LED
Voltage Detector Audible	Continuous Beep
Power On Indicator	Flashing Blue LED
Size (L x W x D)	245 x 80 x 37 mm
Weight	175g

Features

- Check and detect live high voltage cables
- Non-contact detection of live voltage
- Two ranges of selection : High / Low
- Power consumption :20mA
- High & Low voltage detection mode
- Light weight, robust and compact
- Duty Cycle continuous



MT273

SOLENOID TESTER

The MT123 Tests the operating solenoid valves in pneumatic and hydraulic control equipment, plus the test of relays with coils and electrically controlled solenoid valves in all types of vehicles and machineries. Useful for testing solenoid valves when servicing oil burners, the test lamp lights immediately and without metallic contact where there is a magnetic field, e.g. an activated coil in a solenoid valve. The test lamp responds to all kind of magnetic fields -from alternating current to direct current and to permanent magnets

Function	Range
Non Contact Magnetic field detector	Yes
Magnetic Field	63, 98, 401, 810
Maximun working current	32mA
Magnetic Detector Visual	Red LED
Flash Light	Yes
Size (L x W x D)	158 x 21 x 25mm
Weight	48g

Features

- Easy-to-use
- Detects AC current without metallic contact
- Built-in LED flashlight
- Red LED light with audible beeper indicator
- Test magnetic field (H): 63, 98, 401, 810



MT123

VOLTAGE TESTER



CONTRACTORS TEST KITS

CONTRACTORS TEST KIT



MTK45

Kit Includes:



MT1881
IP67 Industrial
Multimeter - Pg 12



K2007R
1000A AC TRMS
Clamp Meter - Pg 22



MT310
ELCB Tester
- Pg 54



K3005
Digital Insulation Tester
- Pg 34



K4118
Loop/PSC Impedance
Tester - Pg 43



K4105
Digital Earth Resistance
Tester - Pg 47



MTKBAG
Heavy Duty
Meter Case - Pg 9

CONTRACTORS TEST KIT



MTK35

Kit Includes:



MT1881
IP67 Industrial
Multimeter- Pg 12



K2007R
1000A AC TRMS
Clamp Meter - Pg 22



MT310
ELCB Tester
- Pg 54



K3132
Analogue Insulation
Tester - Pg 36



K4105
Digital Earth Resistance
Tester - Pg 47



K4118
Loop/PSC
Impedance Tester - Pg 43



MTKBAG
Heavy Duty
Meter Case - Pg 9

CONTRACTORS TEST KIT



MTK25

Kit Includes:



MT930
Phase Rotation Meter
- Pg 54



MT550
Digital Insulation Tester
- Pg 35



MT310
ELCB Tester
- Pg 54



MT330
Earth Resistance
Tester - Pg 47



MT1877
IP67 Industrial
Multimeter
- Pg 13



MT350
Loop/PSC
Impedance
Tester - Pg 43



MT720
400A AC
Clamp Meter
- Pg 25



MTKBAG
Heavy Duty
Meter Case - Pg 9

POWER ANALYSERS

contents

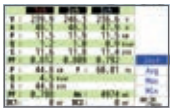
Power Quality Analyser	M62
Power Meter	M64
Leakage/Load Data Logger	M65
Voltage/Current Data Logger	M65

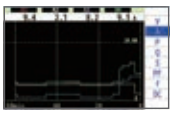


POWER QUALITY ANALYSER

Simultaneous Power & Power quality measurements

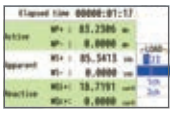
W/Wh Power & Energy





Instantaneous value

- Measures instantaneous / average / min / max for voltage, current, active / reactive / apparent power, PF (cosΘ) and line frequency all on one screen.
- Trend of all main parameters and customized Zoom functions.



Integration value

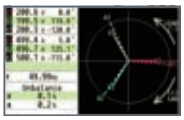
- The display will list the active / reactive / apparent energy in total and for each phase consumed (or generated in case of co-generation like solar panels, etc).



Demand

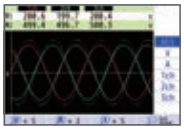
- To support demand control, present energy usage and estimated value are displayed on a graph while recording max demand value and the occurred time.

Vector



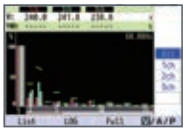
- Can display voltage and current by vector per Ch.

Waveform



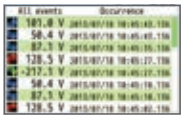
- Displays voltage and current on each Ch by waveform.

Harmonics Analysis



- Graphic display of harmonic components up to 50th order for voltage, current and power.

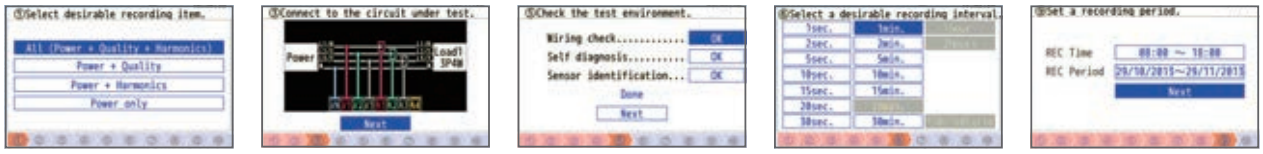
QUALITY Event



- Measures voltage swells / dips / interruptions / transients and inrush currents that may indicate a weak power distribution system. Such phenomena may damage or reset devices.
- All necessary data is displayed by pressing one key.

Quick Start Guide

One-Touch START/STOP Key for Quick Start Guide providing easy setup guides.



Guide start → Connect to the circuit → Wring check → Select interval → Set recording time → Start recording

Windows software for data analysis and setting via USB port

- Automatic creation of graph and list from recorded data.
- Uniform management of setting and recorded data acquired from multiple devices.
- Data can be expressed in crude oil and CO2 equivalent values in the report.
- EN50160 report can be generated after survey.





Can you close your distribution board door during surveys?

The K6315 facilitates safe testing by being extremely compact and with two clever option extras: a magnetic case(K9132) for attaching it to the sides of metal enclosures and a power supply adaptor(K8312) which takes the power for the instrument from the supply being measured.



Real time and Remote measurements



- Measurements can be graphically displayed on Android devices or PC in real-time via Bluetooth communication.

*Bluetooth is a registered trademark of the Bluetooth SIG, Inc.
*Android is a registered trademark of the Google Inc.

Optional Accessories

Load current clamp sensors



K8128
- Max 5A
- Ø24 mm



K8127
- Max 100A
- Ø24 mm



K8126
- Max 200A
- Ø40 mm



K8125
- Max 500A
- Ø24 mm



K8124
- Max 1000A
- Ø68 mm

K8130
- Max 1000A
- Ø110 mm





POWER QUALITY ANALYSER



K6315-03



K6315



K6315-03 is supplied as a set complete with the K8130 Flexible Load Current Clamp Sensors

Function	Range	Accuracy
Voltage (RMS)	600.0/1000V	±(0.2% ±0.2%)f.s.(sine wave,40-70Hz)
Allowable Input	1-120% of each range (rms). 200% of each range (peak)	
Display Range	0.15-130% of each range	
Crest Factor	3 or less	
Sampling Speed	2.4µs	
Current (RMS)	100mA-3000A depending on CT selection	
Current resolution	100mA	±(0.2% ±0.2%f.s. +accuracy of clamp sensor (sine wave,40-70Hz)
Allowable Input	1-110% of each range (rms). 200% of each range (peak)	
Display Range	0.15-130% of each range	
Crest Factor	3 or less	
Active Power accuracy	±1.0% reading at power factor 0.5 against power factor 1)	±(0.3% ±0.2% f.s. +accuracy of clamp sensor (power factor 1 sine wave, 40-70Hz)
Frequency Range	40-70Hz	
PC Communication	USB Ver2.0, Bluetooth Ver 2.1 EDR Class2	
Size	175 x 120 x 68mm	
Weight	900g	

Features

- The perfect tool for energy saving and power quality control
- Simultaneous Power & Power quality measurements
  Power/ Harmonics/ Waveform/ Power quality are recorded at all CHs. (Voltage: 3ch, Current 4ch)
- Helpful support functions - Quick Start Guide, Wiring check and Sensor detection for easy and reliable measurement
- Measurement with high accuracy
  Guaranteed accuracy: ±0.3%rdg (energy), ±0.2%rdg (voltage/ current) Complies with the International Standard IEC 61000-4-30 Class S and the European Standard EN50160
- Remote monitoring on PC and Android device
- Remote checking of measurement in real-time is possible via Bluetooth communication.
- Recorded data can be saved in the supplied SD card.
- EN50160 report can be generated after survey by PC software.
- Various Clamp Current Sensors - Various types of clamp and flexible sensors are available: from 1000mA Range up to 3000A Range and Earth leakage measurements
- Energy consumption check on site - Trend and demand graphs for easy recognition.
  TFT color display with high resolution.
- IEC 61010-1 CAT IV 300V, CAT III 600V, CAT II 1000V

SD card Interface

- SD cards up to 2GB can be used



Possible recording time when the 2GB of SD is used:

	REC item	
Interval	Power	+Harmonics
1 sec	13 days	3 days
1 min	1 year or more	3 months
30 min	10 years or more	7 years or more

- Data of power quality events are not considered to estimate the possible recording time. The max possible time will be shortened by recording such events.

Load current flexible clamp sensors



K8129-03
- Max 3000A
- Ø150 mm



K8129-01
- Max 3000A
- Ø150 mm

Optional Accessories



K8312
- Power Adaptor



K9132
- Magnetic Case



POWER METER

TRUE RMS



K6305

IEC 61010-1 CAT III 600V

IEC 61010-1 CAT II 1000V

Bluetooth Interface

Android App Only

Datalogger

As easy as 1 ...2 ...3 !

Starting from OFF position and rotating the Rotary switch clockwise, K6305 is ready to use in 3 simple steps

1. Set up

Rotate the Rotary switch to SET UP. All the instrument settings can be easily selected by using instrument buttons. All the settings can also be selected by connecting K6305 to a PC via USB or Bluetooth.

2. WIRING CHECK

Rotate the Rotary switch to WIRING CHECK. The Automatic Wiring check function will prevent incorrect connections, check the connections and display the results on the LCD. Error messages appear on display to indicate wrong orientation of Clamp sensors or incorrect connections.

Everything is OK



Shows "Good"

Error is found



Shows "Err" (Error) e.g.: Err PH A
Current phase (orientation of sensor) may be incorrect.

3. W/Wh/DEMAND Measurements

Rotate the Rotary switch to W/Wh/DEMAND. The instrument can perform Instantaneous, Integration and DEMAND measurements.
START / STOP button to start / stop recording

The perfect tool for energy saving and power quality control

Features

- Comprehensive real-time monitoring, recording and analysis of single and 3-phase systems
- Voltage, Current, Power Factor and Frequency measurements
- Power analysis (Active, Apparent and Reactive power)
- Energy analysis (Active, Apparent and Reactive energy)
- Active power accuracy: ±0.3%rdg±0.2%f.s.
- Automatic wiring check function to prevent incorrect connections
- Large memory capability (2 GB) using built-in SD card Interface
- Recording interval can be set between 1second and 1hour.
- Real time & remote measurements using Android application
- Windows software for data analysis and setting via USB port or Bluetooth
- Synchronous measurements between two units of K6305
- Wide selection of clamp sensors allow measurements from 0.1A to 3000A
- The instrument automatically recognizes what kind of clamp sensor is connected to it
- Double power supply system via AC line and batteries
- Complete with 3 X K8125 Clamp Sensors

Measurements & Parameters		Power factor (cosΘ), Neutral current
Voltage (RMS)	150.0/300.0/600.0V	±(0.2% ±0.2%)f.s.(sine wave,45-65Hz)
Allowable Input	1-110% of rating range (rms).	
Display Range	5-130% of each range	
Sampling Speed	2.4µs	
Current (RMS)	10.00/50.00/100.0/200.0/500.0/Auto with K8125	
Allowable Input	1-110% of rating range (rms).	
Display Range	1-130% of each range	
Crest Factor	3 or less	±(0.3% ±0.2%)f.s. +accuracy of clamp sensor +1%f.s. when the lowest
Active Power accuracy	current ranges is selected.	
Frequency Range	40-70Hz	
PC Communication	USB Ver2.0, Bluetooth Ver 2.1 EDR Class2	
Size	175 x 120 x 68mm	
Weight	800g	

Bluetooth communication with Android application

Free Android software "KEW Smart 6305" is available on download site



Download



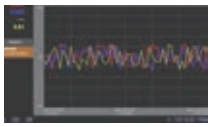
*communication charges may be incurred separately to download application

Real time & remote measurements using Android application

Measurement can be displayed in graphic or numeric forms on Android devices in real-time via Bluetooth communication. Remote checking of measurements is possible without accessing K6305.



Android device

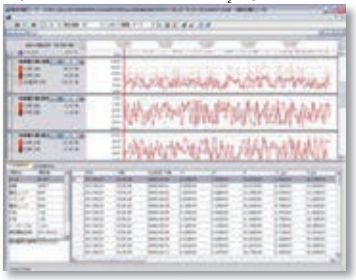


Real-time display

Max communication distance: 10m
Supporting Android ver. 2.2 - 4.4
Bluetooth is a registered trademark of the Bluetooth SIG, Inc.
Android is a registered trademark of the Google Inc.

Windows software

Automatic creation of graph and list from recorded data. Uniform management of setting and recorded data acquired from multiple devices. Data can be expressed in crude oil and CO_2 equivalent values in the report.





System requirements:
OS: Windows® Vista/7/8/10
Display: XGA(Resolution 1024×768 dots) or more
Hard-disk: space required 1Gbyte or more
Other: With CD-ROM drive and USB port
.NET Framework (3.5 or more)
* Windows® is a registered trademark of Microsoft in the United States.




POWER METERS

The K5020 is a 3 channel data logger for multiple parameters recording of voltage and or current. The clamp sensors and or voltage sensors can be connected to any of the 3 channels as the logger will automatically identify the sensors connected. The Power Quality analysis mode is for 1 Phase only: Reference Voltage, Swell, Dip and Short Power Interruptions. Variation of the measured voltage and current data can be confirmed simultaneously on the PC display monitor. Supplied with the user friendly software KEW LOG Soft 2, the recorded data can be transmitted to a PC directly by using the USB connection, whereby the data can then be edited for analysis and graphically displayed.

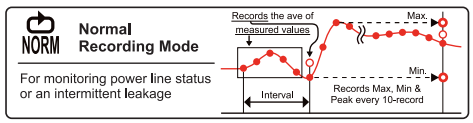


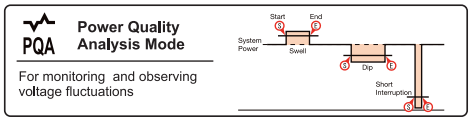
K5020

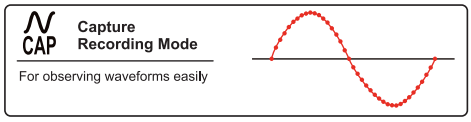
Features

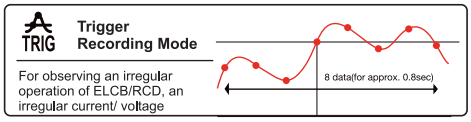
- Stores 60 000 data points
- 1Ø Power quality analysis
- LED flickers when the preset current/voltage value is exceeded
- Lowpass Filter will filter out the higher frequency harmonics
- Download data to PC via USB Interface cable

IEC 61010-1 CAT II 600V | IEC 61010-1 CAT III 300V | LOG Datalogger | LIFETIME WARRANTY









Optional Accesories

Load current clamp



K8121
- Max 100A
- Ø24 mm

K8122
- Max 500A
- Ø40 mm

K8123
- Max 1000A
- Ø55 mm

Voltage sensor



K8309
- Voltage Sensor

Leakage & Load current clamp



K8146
- Max 30A
- Ø24 mm

K8147
- Max 70A
- Ø40 mm

K8148
- Max 100A
- Ø68 mm

K8146/8147/8148 can measure up to 10A for use in K6315

Function	Range	Accuracy
Measurements & Parameters	Voltage, Current, Normal, Trigger, Capture, Power Quality Analysis.	
Voltage (RMS)	600.0V	
Allowable Input	50/60Hz, 10% or more of the range Ch1	
Display Range	0-105% of each range	
Crest Factor	2.5 or less:RMS (sine)	+2% +1%f.s. 95% or less of each range
Sampling Speed	100mS	
Current (RMS)	100mA-3000A depending on CT selection	
Current resolution	0.1mA	
Allowable Input	0-105% of each range	
Display Range	0-105% of each range	
Crest Factor	2.5 or less:RMS (sine)	+2% +1%f.s. 95% or less of each range
Active Power accuracy	±(0.3% ±0.2%)f.s. +accuracy of clamp sensor +1% f.s. when the lowest current range is selected	
PC Communication USB	Kew Log Soft 2	
Size	111 x 60 x 42mm	
Weight	265g	

LEAK/LOAD CURRENT LOGGER

POWER METER

The MT250 is designed for easy of use in recording AC Voltage and Current. The Logger can be programmed simply via USB interface from your PC. 1 second rapid sampling rate variable to 24 hours. LCD display of Voltage or Current for quick reference checks.

Features

- Magnetic back plate for easy of attachment to metal surfaces
- Each channel can record up to 50022 data
- Date and Time Stamp
- Graphical and Printed Text information
- Battery or AC power supply

Function	Range	Accuracy
Measurements & Parameters		Voltage, Current.
Voltage (RMS)	6 - 600.0V ±(2% ±1V)	
Allowable Input	50/60Hz, 10% or more of the range Ch1	
Display Range	0-105% of each range	
Crest Factor	2.5 or less:RMS (sine) 95% or less of each range	+2% +1%f.s.
Sampling Speed	1second to 24Hour	
Current (RMS)	2 - 200A	
Frequency Range	40 - 1KHz	
PC Communication	USB	
Size (L x W x D)	114 x 63 x 34mm	
Weight	248g	

IEC 61010-1 CAT III 600V | IEC 61010-1 CAT II 1000V | LOG Datalogger



MT250

DATA LOGGER

THERMAL IMAGERS

contents

Thermal Digital Multimeter	M67
Professional Thermal Imagers	M68
High Performance Thermal Imagers	M70
Compact Thermal Imager	M72






THERMAL MULTIMETERS

The MT2005 Professional True RMS Industrial Digital Multimeter with built-in 80 x 80 Thermal Imager, and TFT color LCD display, provides fast A/D converting sampling time, high accuracy. It is a fast and easy solution to find and solve problems with production equipment, providing Bluetooth technology BLE. It is a safe instrument with double molded plastic housing and has a IP65 waterproof rating

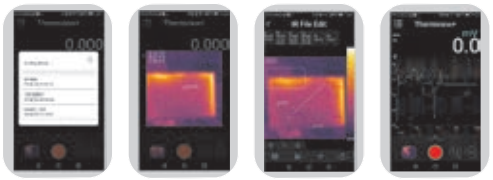
Function	Range	Accuracy
Imaging and Optical Data		
Field of View	21° x 21°/0.5m	
Spartial resolution (IFOV)	4.53mrad	
Thermal sensitivity/NETD	<0.1°C @ +30°C/100mK	
Image Range	50Hz	
IR Resolution	80 x 80 pixels	
Image Presentation		
Display	2.8" LCD, 240 x 320 pixels	
Measurement		
Temperature range	-20°C - 260°C	±(3°C or ± 3%)
Measurement analysis		
Spot	Center spot	
Automatic hot/cold detection	Hot or cold markers	
Emmisivity correction	Variable 0.01 to 0.99	
Measurement corrections	Emissivity, reflected temperature	
Data Communications Interfaces	Bluetooth BLE	
Multimeter		
DC Voltage	600.0mV - 1000V	±(0.09% +5)
AC Voltage	600.0mV - 1000V	±(0.8% +5)
AC + DC TRMS Voltage	6.000V - 1000V	±(2.4% +20)
DC Current	600.0µA - 10A	±(0.9% +5)
AC Current	600.0µA - 10A	±(01.2% + 5)
Flexi Coil AC Current	30.00A - 3000A	±(0.8% + 5)
Duty Cycle	5.0% to 95.0%	±(1.2% +2)
Resistance	600.0Ω - 60MΩ	±(0.5% + 5)
Frequency	40.00Hz -10MHz	±(0.09% +5)
Capacitance	60.00nF - 6mF	±(1.2% + 8)
Temperature	-40 - 600°C	±(1.5% + 3)
Digital Display	6000 count 2,8" TFT	
Input impedance	>10MΩ VDC & >10MΩ VAC	
Size (L x W x D)	195 x 88 x 58mm	
Weight	540g	

Features

- 6000 count 2.8" TFT Color LCD display
- Built-in Thermal imager with MIN/MAX
- Temperature Range -20°C to 260°C
- 50Hz fast Thermal image frame rate
- DC voltage
- AC, AC+DC TRMS Voltage
- DC current
- AC, AC+DC TRMS current
- Resistance and Continuity test
- Diode test
- Capacity
- Frequency
- Duty Cycle
- Temperature with K-type probe
- Flexible coil current



MT2005



Bluetooth Interface

Datalogger

IEC 61010-1 CAT III 1000V

IEC 61010-1 CAT IV 600V

Built-in Infrared Thermal Imager offers you non invasive measurements of potential hot spots. These images can be transferred via Bluetooth to a Smartphone for analysis.
Simply turn on the bluetooth of the smartphone. Press the Thermview+ icon and enter into the home interface, then press the Connect Device icon and the bluetooth device name will appear. Touch the device name listed in Bluetooth devices list to connect to the device.

The MT2001 true RMS compact Multimeter with built-in 80 x 60 pixel Thermal imager, has a 2.4" TFT colour LCD display. The meter provides fast A/D converting sampling time and high accuracy in a compact robust housing. Ideal for problem solving on production equipment. Provides data via Bluetooth BLE (Thermview+) to Android and IOS smart phones for quick and easy analysis.

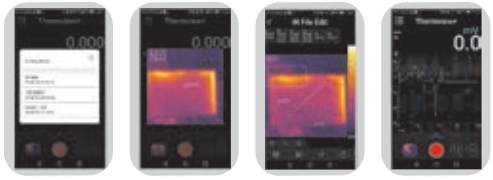
Function	Range	Accuracy
Imaging and Optical Data		
Field of View	21° x 21°/0.5m	
Spartial resolution (IFOV)	4.53mrad	
Thermal sensitivity/NETD	<0.1°C @ 30°C	
Focal Length	7.5mm	
Focal Plane Array (FPA) / Spectral range	uncooled microbolometer / 8-14µm	
IR Resolution	80 x 60 pixels	
Image Presentation		
Display	240 x 320 2.4" TFT Colour display	
Image Modes	IR Image	
Colour Palletes	Iron, rainbow, raindow HC, grey, grey inverted	
Measurement		
Temperature range	-20°C - 260°C	±(3°C or ± 3% of reading)
Measurement analysis		
Spot Center	spot	
Automatic hot/cold detection	Hot or cold markers	
Isotherm		
Emmisivity correction	Variable 0.01 to 0.99	
Measurement corrections	Emissivity, reflected temperature	
Multimeter		
DC Voltage	400.0mV - 600V	±(0.8% +5)
AC Voltage	4.000V - 600V	±(1.0% +5)
AC + DC TRMS Voltage	4.000V - 600V	±(2.5% +20)
DC Current	400.0µA - 10A	±(1.5% +8)
AC Current	400.0µA - 10A	±(2.0% +5)
Duty Cycle	10.0% to 90.0%	±(3.0% +8)
Resistance	400.0Ω - 40.00MΩ	±(1.0% + 5)
Frequency	40.00Hz -10MHz	±(0.5% +5)
Capacitance	60.00nF - 6mF	±(1.2% + 8)
Temperature -40 - 600°C	±(1.5% + 3)	
Size (L x W x D)	148 x 68 x 48mm	
Weight	348g	

Features

- 4000 count 2.4" TFT Colour LCD display
- Built-in Thermal imager with Max. Min and Center crosshair targeting
- 50Hz fast Thermal image frame rate
- DC Voltage
- AC, AC + DC TRMS Voltage
- DC Current
- AC, AC + DC TRMS Current
- Resistance and Continuity Test
- Diode test
- Capacitance
- Frequency
- Duty Cycle



MT2001



Bluetooth Interface

IEC 61010-1 CAT III 1000V

IEC 61010-1 CAT IV 600V

Built-in Infrared Thermal Imager offers you non invasive measurements of potential hot spots. These images can be transferred via Bluetooth to a Smartphone for analysis.
Simply turn on the bluetooth of the smartphone. Press the Thermview+ icon and enter into the home interface, then press the Connect Device icon and the bluetooth device name will appear. Touch the device name listed in Bluetooth devices list to connect to the device.



THERMAL IMAGER

THERMAL IMAGER

384 x 288 PIXELS



LOG
Datalogger

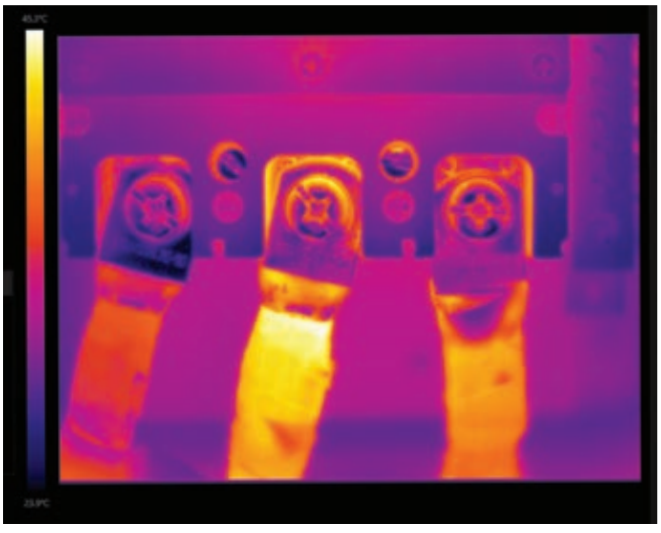
MTi60

This Thermal Imager is designed to make your work easier, more productive and effective. 384 x 288 resolution at 50 Hz for real-time capture; a big, bright touch screen with toolbar helps you to fine-tune and analyze images quickly. It features temperature ranges from -20°C to 400°C, 20X continuous zoom, picture-in-picture, voice comment recording and text annotation on images. A Hot/Cold spot marker automatically finds the hottest and coldest spots and includes a memory card, lithium polymer battery & power supply, and USB cable.

Features

- 384 x 288 IR Resolution
- S0Hz Resolution
- 3.5" Colour TFT LCD
- Touch screen
- Temperature -20°C - 150°C and 0° -400°C
- Video recording with voice MPEG 4
- Picture-in-picture
- 20 x Digital zoom
- Delta T-differential temperature
- 3 - Spotmeter
- Min/ Max/ Average
- Adjustable thermal fusion
- 8 Colour palettes
- 11mm, 22mm and 33mm Lenses (optional)
- The built-in laser and illuminating light
- MicroSD
- USB interfaces

Function	Range
Imaging and Optical Data	
Field of View	24.6° x 18.6°/0.3m
Spartial resolution	(IFOV) 2,28mrad
Thermal sensitivity/NETD	<0.06°C @ +30°C
Image Range	50Hz
Focus mode Manual	
Zoom	1 x 20 x continuous, digital zoom
Rotate	0°-360°, continuous increased by 1°
Focal Length	22mm
Focal Plane Array (FPA) / Spectral range	uncooled microbolometer / 8-14µm
IR Resolution	384 x 288 pixels
Image Presentation	
Display	Capacitive Touch screen, 3.5" LCD, 320 x 240 pixels
Image Modes	IR Image, Visual image, picture in picture, Image Fusion
Picture in Picture	IR area on visual image or visual image on IR
Colour Palletes	Iron/rainbow/grey/grey inverted/ sepia/blue_red/hot_cold/humidity
Measurement	
Temperature range	Low -20°C to 150°C, High 0°C to 400°C
Temperature accuracy	±(2°C or ± 2%)
Measurement analysis	
Spot	3
Line	2 lines (horizontal and vertical)
Area	3 x boxes with max/min/ave
Automatic hot/cold detection	Auto hot or cold markers I
sotherm	Detect high/low temperature/interval
Emmisivity correction	Variable 0.01 to 1.0
Measurement corrections	Emissivity, ambient temp, distance, relative humidity, offset temp
Storage	
Videos	4Gbytes Micro SD card
Videos format	Std MPEG-4, 640 x 480@30fps, on memory card> 60minutes
Videos storage mode	IR/Visual images: simultaneous storage of IR and visual images
Images format	Std JPEG, incl measurement data, on memory card >1000 pictures
Image storage mode	IR/Visual images: simultaneous storage of IR and visual images
Digital Camera	
Built-in	640 x 480 pixels
Built-in digital lens data	FOV 62.3°
Data Communications Interfaces	
Interfaces	USB-mini,audio, composite video, Micro SD slot
USB	Data transform between camera & PC
Video Out	Composite (PAL and NTSC)
Size (L x W x D)	243 x 130 x 160mm
Weight	920g



384 x 288 Pixel Image taken of main breaker with 22mm lens



THERMAL IMAGER

This Thermal Imager is designed to make your work easier, more productive and effective. 160 x 120 resolution at 50 Hz for real-time capture; a big, bright touch screen with toolbar helps you to fine-tune and analyze images quickly. It features Temperature ranges from -20°C to 400°C, 20X continuous zoom, picture-in-picture, voice comment recording and text annotation on images. A Hot/Cold spot marker automatically finds the hottest and coldest spots and includes a memory card, lithium polymer battery & power supply, and USB cable.

Features

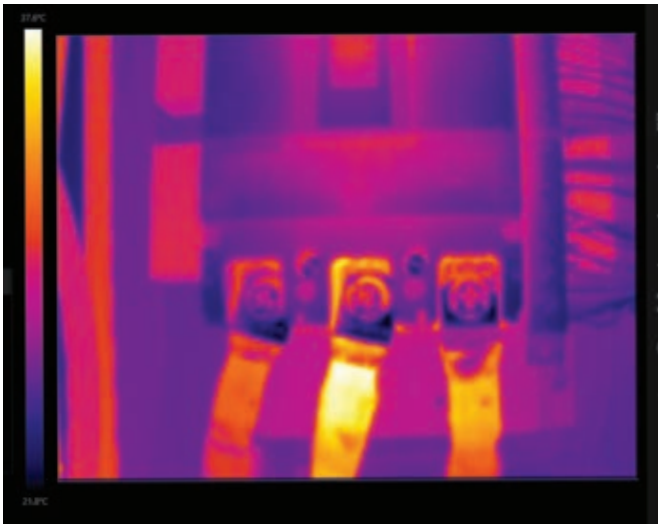
- 160 x 120 IR Resolution
- 50Hz Resolution
- 3.5" Colour TFT LCD
- Touch screen
- Temperature -20°C - 150°C and 0° - 400°C
- Video recording with voice MPEG 4
- Picture-in-picture
- 20 x Digital zoom
- Delta T-differential temperature
- 3 - Spotmeter
- Min / Max / Average
- Adjustable thermal fusion
- 8 Colour palettes
- 11mm, 22mm and 33mm Lenses (optional)
- The built-in laser and illuminating light
- MicroSD
- USB interface

Function	Range
Imaging and Optical Data	
Field of View	299,8° - 22,6°/0,2M
Spartial resolution (IFOV)	3,33mrad
Thermal sensitivity/NETD	<0.08°C/80mK
Image Range	50Hz
Focus mode Manual	
Focal Length	7.5mm
Focal Plane Array (FPA) / Spectral range	uncooled microbolometer / 8-14µm
IR Resolution	160 x 120 pixels
Image Presentation	
Display	Capacitive Touch screen, 3.5" LCD, 320 x 240 pixels
Image Modes	IR Image, Visual image, picture in picture, Image Fusion
Picture in Picture	IR area on visual image or visual image on IR
Colour Palletes	Iron/rainbow/grey/grey inverted/ sepia/blue_red/hot_cold/humidity
Measurement	
Temperature range Temperature accuracy	Low -20°C to 150°C, High 0°C to 400°C ±(2°C or ± 2%)
Measurement analysis	
Spot	3
Line	2 lines (horizontal and vertical)
Area	3 x boxes with max/min/ave
Automatic hot/cold detection	Auto hot or cold markers I
sotherm	Detect high/low temperature/interval
Emmisivity correction	Variable 0.01 to 1.0
Measurement corrections	Emissivity, ambient temp, distance, relative humidity, offset temp
Storage	
Videos	4Gbytes Micro SD card
Videos format	Std MPEG-4, 640 x 480@30fps, on memory card> 60 minutes
Videos storage mode	IR/Visual images: simultaneous storage of IR and visual images
Images format	Std JPEG, incl measurement data, on memory card >1000 pictures
Image storage mode	IR/Visual images: simultaneous storage of IR and visual images
Digital Camera	
Built-in	640 x 480 pixels
Built-in digital lens data	FOV 62.3°
Data Communications Interfaces	
Interfaces	USB-mini,audio, composite video, Micro SD slot
USB	Data transform between camera & PC
Video Out	Composite (PAL and NTSC)
Size (L x W x D)	175 x 58 x 70mm
Weight	260g



LOG
Datalogger

MTi50



160 x 120 Pixel Image taken of main breaker with 7,5 mm lens

160 X 120 PIXLES

THERMAL IMAGER



THERMAL IMAGER

THERMAL IMAGER

160 x 120 PIXELS

The MTi15 Thermal Imager is designed for non-contact detection and calculation of apparent surface temperature. This fully radiometric imager is ideal for troubleshooting electrical systems, electro-mechanical equipment, process equipment, HVAC/R equipemt and others.

The MTi15 Thermal Imager with 160 x 120 resolution at 50Hz offers real-time capture and a large touch screen with a toolbar that will assist you to fine-tune and analyze images quickly. Temperature range from -20°C to 350°C, 20X continuous zoom, picture-in-picture, Hot/Cold spot marker, voice comment recording and text annotation on images.



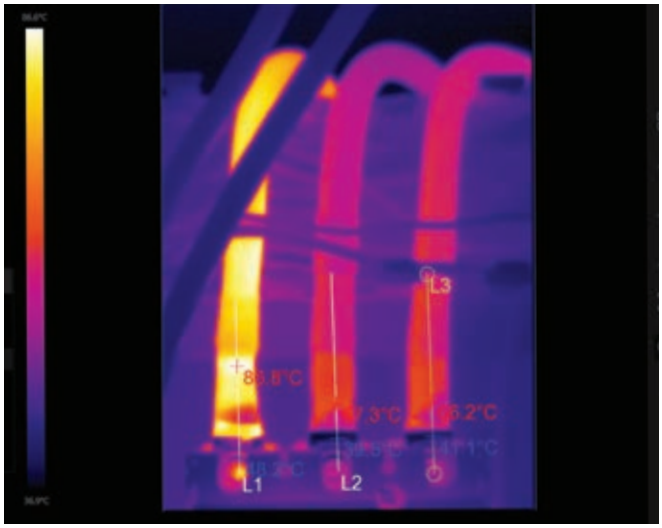
LOG
Datalogger

MTi15

Features

- 160 x120 Resolution
- Field of view 22.6 x 29.8°
- 50Hz Image Frequency
- Real time capture
- 2.8" LCD display with touch screen
- Focal length 9mm
- Minimum focus distance 0.5m
- Spatial resolution 3.33mrad
- Thermal sensitivity/NETD < 0.06°C /60mK
- Temperature -20°C - 350°C
- Picture-in-Picture
- Text annotation on images / Voice comments
- 32X Continuous Digital Zoom
- 5 Megapixels Digital Camera
- Area Min/Max with Auto Hot/Cold Spot Mark
- USB interface with 8GB Micro SD card

Function	Range
Imaging and Optical Data	
Field of View	22.6 x 29.8°
Spartial resolution (IFOV)	3.33mrad
Thermal sensitivity/NETD	<0.06°C /60mK
Image Range	50Hz
Focus mode Manual	
Focal Length	9mm
Focal Plane Array (FPA)/Spectral Range	Uncooled microbolometer/8-14µm
IR Resolution	160 x 120 pixels
Image Presentation	
Display	2.8" LCD, 240 x 320 pixels
Image Modes	IR Image, Visual image, Image Fusion
Colour Palletes	Iron, rainbow, grey, grey inverted
Measurement	
Temperature range	Low -20°C to 150°C, High 0°C to 350°C
Temperature accuracy	±(2°C or ± 2%)
Measurement analysis	
Spot	Center spot
Automatic hot/cold detection	Auto hot or cold markers
Isotherm	Detect high/low temperature/interval
Emmisivity correction	Variable 0.01 to 1.0
Measurement corrections	Emissivity, reflected temperature
Storage	
Videos	8Gbytes Micro SD card
Videos format	Std MPEG-4, 1280 x 960@30fps, on memory card> 60minutes
Videos storage mode	IR/Visual images: simultaneous storage of IR and visual images
Images format	Std JPEG, incl measurement data, on memory card >1000 pictures
Image storage mode	IR/Visual images: simultaneous storage of IR and visual images
Digital Camera	
Built-in	5 Megapixels
Built-in digital lens data	FOV 59°
Data Communications Interfaces	
Interfaces	USB-mini,audio, HDMI
USB	Data and Live Video transform between camera and PC
Video Out	HDMI
Size (L x W x D)	224 x 77 x 96mmmm
Weight	500g



160 x 120 Pixel Image taken of hot red phase supply



THERMAL IMAGER

The MTi13 Thermal Imager is designed for non-contact detection and calculation of apparent surface temperature. This fully radiometric imager is ideal for troubleshooting electrical systems, electro-mechanical equipment, process equipment, HVAC/R equipemt and others.

The MTi13 Thermal Imager with 80 x 80 resolution at 50Hz offers real-time capture and a large touch screen with a toolbar that will assist you to fine-tune and analyze images quickly. Temperature range from -20°C to 350°C, 20X continuous zoom, picture-in-picture, Hot/Cold spot marker, voice comment recording and text annotation on images.

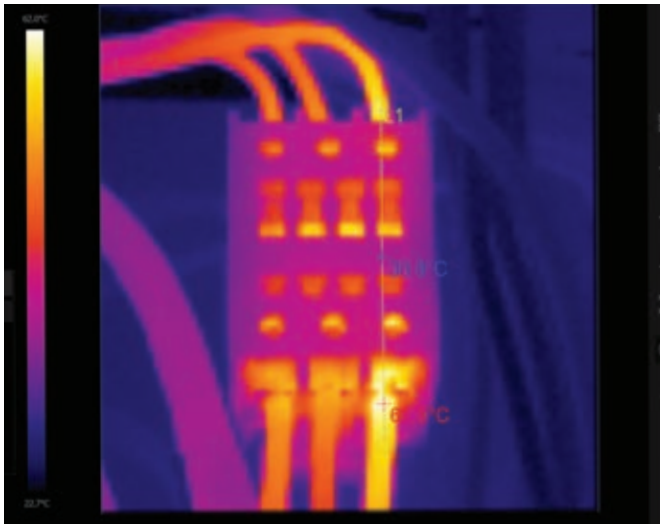
Features

- 80 x 80 Resolution
- Field of view 17 x 17°
- Temperature -20°C - 350°C
- Picture-in-Picture
- 5 Megapixels Digital Camera
- Laser Pointer
- Thermal Fusion
- Text and voice annotations
- USB interface
- 8GB Micro SD card
- IP65 Waterproof

Function	Range
Imaging and Optical Data	
Field of View	17° x 17°
Spartial resolution (IFOV)	3.78mrad
Thermal sensitivity/NETD	<0.08°C /80mK
Image Range	50Hz
Focus mode Manual	
Zoom	1 x 32 x continuous, digital zoom
Focal Length	9mm
Focal Plane Array (FPA)/Spectral Range	Uncooled microbolometer/8-14µm
IR Resolution	80 x 80 pixels
Image Presentation	
Display	2.8" LCD, 240 x 320 pixels
Image Modes	IR Image, Visual image, Image Fusion
Colour Palletes	Iron, rainbow, grey, grey inverted
Measurement	
Temperature range	Low -20°C to 150°C, High 0°C to 350°C
Temperature accuracy	±(2°C or ± 2%)
Measurement analysis	
Spot	Center spot
Automatic hot/cold detection	Auto hot or cold markers
Emmisivity correction	Variable 0.01 to 1.0
Measurement corrections	Emissivity, reflected temperature
Storage	
Videos	8Gbytes Micro SD card
Videos format	Std MPEG-4, 1280 x 960@30fps, on memory card> 60minutes
Videos storage mode	IR/Visual images: simultaneous storage of IR and visual images
Images format	Std JPEG, incl measurement data, on memory card >1000 pictures
Image storage mode	IR/Visual images: simultaneous storage of IR and visual images
Digital Camera	
Built-in	5 Megapixels
Built-in digital lens data	FOV 59°
Data Communications Interfaces	
Interfaces	USB-mini,audio, HDMI
USB	Data and Live Video transform between camera and PC
Video Out	HDMI
Size (L x W x D)	224 x 77 x 96mmmm
Weight	500g



MTi13



80 x 80 Pixel Image taken of lighting contactor

80 x 80 PIXLES

THERMAL IMAGER



THERMAL IMAGER

THERMAL IMAGER

80 x 80 PIXELS



MTi11

The MTi11 Thermal Imager is a compact handheld imaging camera used for predictive maintenance, equipment troubleshooting, and verification. Thermal images are displayed on the LCD and can be saved to internal memory. The MTi11 comes with a Bluetooth instant share function, thermal images can be transferred to a smart phone to be analyzed, shared and reported quickly. The MTi11 thermal imager is designed to make your work easier, more productive and effective. 80 x 60 resolution at 50Hz for real-time capture. Hot/cold spot marker automatically finds the hottest and coldest spots.

Features

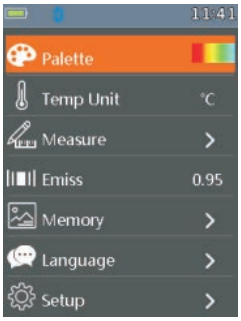
- 80 x 80 pixel thermal imaging system.
- 6400 points real temperature fast measurements
- Hot, Cold, Center Spot Temperature.
- 2" easy-to-read, bright graphical TFT display
- 50Hz frame rate
- Instant share & save via Bluetooth to iOS and Android smart devices
- Scene temperature range Lock function.
- LED flashlight
- Easy to use function menu
- Up to 8 hours running time with rechargeable batteries
- Smart and compact design
- Rugged and Industrial design casing



Function	Range
Imaging and Optical Data	
Field of View	21° x 21°
Spartial resolution (IFOV)	4.53mrad
Thermal sensitivity/NETD	<0.1°C @ +30°C
Image Range	50Hz
Focus mode Focus Free	
Focal Length	7.5mm
Focal Plane Array (FPA)/Spectral Range	Uncooled microbolometer/8-14µm
IR Resolution	80 x 80 pixels
Image Presentation	
Display	2 Colour TFT LCD Screen
Image Modes	IR Image, Visual image, Image Fusion
Colour Palletes	Iron, rainbow, grey, grey inverted
Measurement	
Temperature range	-20°C to 380°C
Temperature accuracy	±(2°C or ± 2%)
Measurement analysis	
Spot	Center spot
Automatic hot/cold detection	Auto hot or cold markers
Emmisivity correction	Variable 0.01 to 1.0
Measurement corrections	Emissivity, reflected temperature
Storage	
Videos format	Bitmap (.bmp) with 6400 points
Data Communications Interfaces	
Interfaces	Bluetooth BLE4.0
Size (L x W x D)	175 x 58 x 70mm
Weight	260g



File transfer via Bluetooth to free iOS or Android app *(phone not included)*



Easy to use Function menu



THERMOMETERS

contents

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K-Type Temperature Data Logger	M78
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THERMOMETERS

1000°C INFRARED 50:1



MT699

The MT699 is a sophisticated non-contact infrared thermometer and is ideal for use where high temperature measurements are required. The meter includes features such as Max, Min, Dif, Avg recordings, automatic data hold, high and low alarm and adjustable emissivity. The MT699 has a unique flat surface, modern housing design with built-in laser pointer that provides fast, easy and accurate readings for Most surface temperature measurements. Spot ration 50:1 measures smaller surface areas at greater distances. It also has a wide temperature range of -50°C to 1000°C.

Features

- Spot Ratio 50:1
- Temperature -50 to 1000 °C
- Built-in laser pointer
- Trigger Lock
- 0.1°C Resolution
- High and low alarm
- Adjustable emissivity
- Automatic data hold
- °C or °F
- Max / Min / DIF / AVG
- White backlight LCD display
- Overrange indication

Function	Range	Accuracy
Infra red temperature range	-50°C to 1000°C	
Infra red temperature resolution	0.1°C	±(1.5% ± 2°C)
Spot Ration	50:1	
Adjustable Emissivity	0.10 to 1.0	
Laser Targeting	Single Laser	
Response time	less than 1 second	
Min/Max/Diff/Ave	Yes	
Hi/Low ALarm	Yes	
Over range indication	LCD will show "-OL" "OL"	
Size (L x W x D)	230 x 56 x 100mm	
Weight	290g	

1600°C INFRARED 50:1 USB



MT698

The MT698 is a compact non-contact infrared thermometer with a response time of 150ms, providing fast, easy and accurate readings for most temperature measurements. The measured data can be interfaced with a computer via the USB cable which is supplied standard with the software.

The MT698 has a 50:1 spot ratio and a high temperature range from -50°C +1600°C. Features two laser pointers have also now been added, which converge to a single spot when the unit is at the optimum distance from the object being measured. Other features include a K-Type temperature input; High and Low alarm setting, MIN/MAX, DIF and AVG record.

Features

- Spot Ratio 50:1
- Temperature -50 to 1600 °C
- Adjustable emissivity
- 0.1°C Resolution
- 150ms Sample Time
- Dual laser targeting
- Trigger Lock
- Automatic data hold
- °C or °F
- High and Low alarm
- Max / Min / DIF / AVG
- K-Type Temperature input
- White backlit LCD display
- Overrange indication
- USB Interface
- 99 Data storage points



Function	Range	Accuracy
Infra red temperature range	-50°C to 1600°C	
Infra red temperature resolution	0.1°C	±(1.0% ± 1.0°C)
Spot Ration	50:1	
Adjustable Emissivity	0.10 to 1.0	
Laser Targeting	Dual Laser	
PC interface	USB Interface	
Data logging	100 Data points	
Response time	150ms	
Type K temperature range	-50°C to 1370°C	
Type K temperature resolution	0.1°C	±(1.5% ± 3°C
Size (L x W x D)	220 x 120 x 56mm	
Weight	320g	

1000°C INFRARED 30:1



MT697

The M697 is a sophisticated non-contact infrared thermometer and is ideal for use where high temperature measurements are required. The meter includes features such as Max, Min, Dif, Avg recordings, automatic data hold, high and low alarm and adjustable emissivity. The MT697 has a unique flat surface, modern housing design with built-in pointer that provides fast, easy and accurate readings for most surface temperature measurements. Spot ration 30:1 measures smaller surface areas at greater distance. Wide temperature range -50°C to 1000°C.

Features

- Spot Ratio 30:1
- Temperature -50 to 1000 °C
- Adjustable emissivity
- Built-in laser pointer
- Trigger Lock
- 0.1°C Resolution
- Automatic data hold
- °C or °F
- High and Low alarm
- Max / Min / DIF / AVG
- White backlight LCD display
- Overrange indication

Function	Range	Accuracy
Infra red temperature range	-50°C to 1000°C	
Infra red temperature resolution		0.1°C ±(1.5% ± 2°C)
Spot Ration	30:1	
Adjustable Emissivity	0.10 to 1.0	
Laser Targeting	Single Laser	
Response time	less than 1 second	
Min/Max/Diff/Ave	Yes	
Hi/Low ALarm	Yes	
Over range indication	LCD will show "-OL" "OL"	
Size (L x W x D)	230 x 56 x 100 mm	
Weight	290g	



THERMOMETERS

1000°C VIDEO INFRARED 50:1

The MT696 is the first non-contact IR Thermometer to offer video capture of temperature measurements all stored on a Micro SD card. This meter with a 50:1 Spot ratio combines the temperature measurement functions that industrial, electrical and HVAC/R professionals need, all in one tool. Added functions include Dew Point and Wet Bulb temperature measurements. The MT696 complies with international standards for safe industrial measurements, plus the software supplied makes it possible for the user to analyse the captured temperature measurements. The MT696 is a professional infrared thermometer with 2.2 colour TFT LCD display and a micro SD memory card for capturing images(JPEG) or video (.3GP format). Provide fast, easy and accurate readings for most surface temperature measurements.

Function	Range	Accuracy
Infra red temperature range	-50°C ~ 1000°C	
Infra red temperature resolution	0.1°C	±(1%)
Adjustable Emissivity	0.10 ~ 1.0	
Camera Pixels	3.2 Mega pixels	
Type K temperature range	-50°C to 1370°C	
Type K temperature resolution	0.1°C	±(0.5% ± 1°C)
Data logging	Micro SD Memory Card 8GB	
Air temperature resolution	0.1°C	±(0.5%), 10 to 40°C
Response time	150ms	
Humidity accuracy	±(2.5%RH)(20% to 80%RH)	
Humidity range	0-100RH	
Dew Point temperature range	0°C to 50°C	
Dew Point temperature resolution		0.1°C ±(0.5%), 10 to 40°C
Wet Bulb Temeperature Range	0°C to 50°C	
Software	Meterbox	
Size (L x W x D)	125 x 58 x 205 mm	
Weight	494g	

Datalogger

Features

- IR Temperature Measurements
- Spot Ratio 50:1
- 2.2" TFT 320 x 240 pixels colour LCD display
- MicroSD memory & Datalogger function
- Rechargable battery, AC Adaptor or USB
- USB Interface
- Dual laser targeting
- Air & type K probe temperature measurement
- Relative humidity measurements
- Wet bulb & dew point temperature measurements
- 640 x 480 image (JPEG) / 3GP video (AVI)



MT696

800°C INFRARED 20:1

The MT695 is a small and compact pistol grip type infrared thermometer which can provide fast and accurate readings for most surface temperature measurements due to its sampling rate of 150 milliseconds. The distance to spot ratio has been increased to 20:1 and the temperature range is from -50°C to 800°C.

Features two laser pointers, which converge to a single spot when the unit is at the optimum distance from the object being measured. Special feature include adjustable emissivity from 0.1 to 1.0. Max hold, large backlit LCD display, High and Low alarm and a trigger lock for continuous use.

Function	Range	Accuracy
Infra red temperature range	-50°C to 800°C	
Infra red temperature resolution	0.1°C	±(1% ± 1°C)
Spot Ration	20:1	
Adjustable Emissivity	0.10 to 1.0	
Laser Targeting	Dual laser	
Response time	150ms	
Min/Max/Diff/Ave	Max	
Size (L x W x D)	146 x 104 x 43 mm	
Weight	163g	

Features

- Spot Ratio 20:1
- Temperature -50 to 800 °C
- Adjustable emissivity
- 0.1°C Resolution
- 150ms Sample Time
- Built-in dual laser pointer
- Trigger lock
- Automatic data hold
- °C or °F
- High and Low alarm setting
- Max
- White backlight LCD display
- Overrange indication



MT695

550°C INFRARED 12:1

The MT694 is a small compact pistol grip type infrared thermometer and has a super fast sampling rate of 150 milliseconds. The distance to spot ratio has been increased to 12:1, and the temperature range is from -50°C to 550°C. The MT694 is small and a compact pistol grip type infrared thermometer which can provide much faster and accurate readings for most surface temperature measurements due to its super fast sampling rate of 150 milliseconds.

This meter features two laser pointers which converge a single spot when the unit is at the optimum distance from the object being measured. Special features include adjustable emissivity from 0.1 to 1.0. Max hold, large backlit LCD display, High and Low alarm and a trigger lock for continuous use.

Function	Range	Accuracy
Infra red temperature range	-50°C to 550°C	
Infra red temperature resolution	0.1°C	±(1% ± 1°C)
Spot Ration	12:1	
Adjustable Emissivity	0.10 to 1.0	
Laser Targeting	Dual laser	
Response time	150ms	
Min/Max/Diff/Ave	Max	
Size (L x W x D)	146 x 104 x 43 mm	
Weight	163g	

Features

- Spot Ratio 12:1
- Temperature -50 to 550°C
- Adjustable emissivity
- 0.1°C Resolution
- 150ms Sample Time
- Dual laser targeting
- Built-in dual laser pointer
- Trigger lock
- Automatic data hold
- °C or °F
- High and Low alarm
- Max
- Overrange indication
- White backlit LCD display



MT694



THERMOMETERS

260°C INFRARED 8:1



MT691

The MT691 is a non-contact thermometer for jobs requiring temperature measurement in hard-to-reach, hot, rotating, or dangerous situations. Get accurate readings over a broad range of temperatures -30°C to 260°C. The enhanced optics 8:1 allows you to measure smaller objects further away. All with a comfortable and easy to use handheld device.

A bright laser beam provides easy targeting and white backlit LCD illuminates the screen in dark areas and clearly supplies data at a glance. Also features an automatic data hold function for easy reference and MIN/MAX measurement calculations are instantly computed. The MT691 has an auto power off mode after several seconds that extends the battery life.

Features

- Spot Ratio 8:1
- Temperature -30 to 260°C
- Fixed emissivity at 0.95
- Built-in Laser pointer
- °C or °F and Min / Max
- White backlit LCD display
- Overrange Indication

Function	Range	Accuracy
Infra red temperature range	-30°C to 260°C	
Infra red temperature resolution	0.1°C	
Infra red temperature accuracy	±(2% ± 2°C)	
Spectral Response	6 to 14um	
Spot Ration	8:1	
Adjustable Emissivity	Fixed 0.95	
Laser Targeting	Single laser	
Response time	More than 1 sec	
Min/Max/Diff/Ave	Yes	
Hi/Low ALarm	Yes	
Size (L x W x D)	82 x 41.5 x 160mm	
Weight	130g	

230°C INFRARED 1:1



MT692

The MT692 is a compact and pocket size infrared thermometer with a 1:1 spot ratio. The temperature range is from -35°C to 230°C. This is an ideal meter that can be used for quick checks by HVAC technicians, electricians and even for DIY and home use.

Features

- Spot Ratio 1:1
- Temperature -35 to 230°C
- Fixed emissivity at 0.95
- Lock function
- Automatic data hold
- °C or °F
- Min / Max
- Large LCD screen

Function	Range	Accuracy
Infra red temperature range	-35°C to 230°C	
Infra red temperature resolution	0.1°C	
Infra red temperature accuracy	±(2% ± 2°C)	
Spot Ration	1:1	
Adjustable Emissivity	Fixed 0.95	
Laser Targeting	Single laser	
Response time	1sec	
Min/Max/Diff/Ave	Yes	
Size (L x W x D)	75 x 40 x 20mm	
Weight	33g	

SINGLE INPUT



MT630

The MT630 is a single input J/K-type general purpose thermometer with a wide measuring range from K-type -200°C to +1372°C and J- type -210°C to +1100°C with a selectable resolution of 0.1°C or 1°C that offers fast response and laboratory accuracy. The MT630 displays a number of temperature readings such as T1 plus MAX, MIN and AVG. Features include a relative time clock on MAX, MIN and AVG and provides a time reference for major events. Electronic offset function which allows compensation of thermocouple errors to maximise overall accuracy.

Features

- Single K-Type input
- Max / Min / AVG
- K-type -200°C to 1372°C
- J-type -210°C to 1100°C
- Resolution 0.1°C / 1°C
- Selectable units of °C, °F, K
- Data Hold
- Relative Time Clock on Max / Min / Average
- Electronic Offset function

Function	Range	Accuracy
Temperature Ranges	°C, °F or Kelvin (K)	
K Type	-200°C to 1372°C	
K Type resolution	0.1°C	±(0.15%+1°C)
J Type	-210°C to 1100°C	
J Type resolution	0.1°C	±(0.15%+1°C)
Data Hold	Yes	
Back Light	Yes	
Low battery indication	Yes	
Min Max Ave	Yes	
Channels	One	
Size (L x W x D)	160 x 58 x 27mm	
Weight	200g	





THERMOMETERS

4 INPUT DATA LOGGER

The MT645 is a professional data logger thermometer and is the most advanced microprocessor-based digital thermometer designed to use external J/K-Type temperature probes. The MT645 has four inputs and a fast response plus laboratory accuracy as well as having data logging and PC interface capabilities via the USB connection. The powerful Windows compatible software and USB cables are provided as a standard accessory.

The meter can measure temperature in various units °C, °F and Kelvin (K), and has a wide temperature range of K-type –200°C to +1372°C and J- type –210°C to +1100°C and provides differential temperature measurement readings of T1, T2, T1-T2, T3, T4, , T3-T4, plus MAX, MIN, AVG. The MT645 has many new features such as a real time clock that displays the time at which an event was logged as well as the time max, min or average reading obtained.

The Major Tech MT645 is a rugged, easy to use contact thermometer with 4 standard miniature connector inputs. A superb function of these meters are the electronic offset mode which allows compensation of thermocouple errors to maximise overall accuracy. MT645 is protected with a rugged rubber holster.

Function	Range	Accuracy
K Type	-200°C to 1372°C	
K Type resolution	0.1°C	±(0.5%+1°C)
J Type	-210°C to 1100°C	
J Type resolution	0.1°C	±(0.5%+1°C)
Data logging	18000 per channel	
Channels	Four	
Temperature Ranges	°C, °F or Kelvin (K)	
Size (L x W x D)	160 x 58 x 27mm	
Weight	350g	

Features

- 4 K-Type Inputs
- Max / Min / Average
- K-type -200°C to 1372°C
- J-type -210°C to 1100°C
- Resolution 0.1°C / 1°C
- Selectable units of °C, °F, K
- Data Hold
- Max
- Data Logger
- 18 000 Data storage points per channel
- USB, software and cable
- Relative Time Clock on Max / Min / Average
- Electronic Offset function



MT645

DUAL INPUT DATA LOGGER

The MT635 is a dual input K-Type general purpose thermometer with a wide measuring range from K-type -200°C to +1372°C and J-type -210°C to +1100°C, all displayed simultaneously on a large backlit LCD. The MT635 displays a number of temperature readings such as T1, T2 and T1-T2. Features include a max hold for maximum readings, and min hold for the minimum reading obtained, average record and data hold. The meter can measure temperature in various units °C, °F and Kelvin (K). Data logger that records 18 000 channels and PC interface capabilities via USB interface, USB to UART Bridge Controller.

The MT635 (dual inputs) is a microprocessor based digital thermometer designed to use external K thermocouples as temperature sensors. A superb function of this meter is the electronic offset mode which allows compensation of thermocouple errors to maximise overall accuracy. MT635 is protected with a rugged rubber holster.

Function	Range	Accuracy
K Type	-200°C to 1372°C	
K Type resolution	0.1°C	±(0.5%+1°C)
J Type	-210°C to 1100°C	
J Type resolution	0.1°C	±(0.5%+1°C)
Data logging	18000 per channel	
Min Max Ave	Yes	
Channels	Two	
Temperature Ranges	°C, °F or Kelvin (K)	
Size (L x W x D)	146 x 104 x 43 mm	
Weight	163g	

Features

- Dual K-Type inputs
- Max / Min / Average
- K-type -200°C to 1372°C
- J-type -210°C to 1100°C
- °C / °F
- Resolution 0.1°C / 1°C
- Selectable units of °C, °F, K
- Data Hold
- Max
- Data Logger
- 18 000 Data storage points per channel
- USB, software and cable
- Relative Time Clock on Max / Min / Average
- Electronic Offset function



MT635

DUAL INPUT

The MT632 is a dual input K-Type general purpose thermometer with a wide measuring range from K-type -200°C to +1372°C and J- type -210°C to +1100°C with a selectable resolution of 0.1°C or 1°C that offers fast response and laboratory accuracy. The MT632 displays a number of temperature readings such as T1, T2, T1-T2 plus MAX, MIN, AVG.

The MT632 features include a relative time clock on MAX, MIN and AVG and provides a time reference for major events. This thermometer works with K & J thermocouples and offers 0.1°C resolution

Function	Range	Accuracy
K Type	-200°C to 1372°C	
K Type resolution	0.1°C	±(0.15%+1°C)
J Type	-210°C to 1100°C	
J Type resolution	0.1°C	±(0.15%+1°C)
Channels	Two	
Temperature Ranges	°C, °F or Kelvin (K)	
Size (L x W x D)	146 x 104 x 43 mm	
Weight	163g	

Features

- Dual K-Type inputs
- Max / Min / Average
- K-type -200°C to 1372°C
- J-type -210°C to 1100°C
- Resolution 0.1°C / 1°C
- Selectable units of °C, °F, K
- Data Hold
- Relative Time Clock on Max / Min / Average
- Electronic Offset function



MT632

THERMOMETER



THERMOMETERS

POCKET THERMOMETER

The MT600 is a pocket size digital thermometer ideal for the air conditioning and HVAC industry. The meter comes with a 65mm stainless steel integral probe that can accurately measure air and liquid temperatures, and the Min/Max function records the minimum and maximum temperatures over a period of time.



MT600

Features

- Compact pocket size with carrying case
- Temperature -50°C to 200°C / Accuracy ±2°C / 0.1°C Resolution
- 110mm Stainless steel sensor probe
- Measurement rate: 1 time per second
- High and low alarms; Min/Max record mode; Low battery indication
- 3½ digital LCD display

Function	Range	Accuracy
Temperature	-50°C to 200°C	
Temperature resolution	0.1°C	±2°C
Min Max Ave	Yes	
Channels	Single fixed probe	
Temperature Ranges	°C or °F	
Size (L x W x D)	112 x 65 x 14mm	
Weight	35g	

PEN-TYPE



MT605

The pen type MT605 thermometer with its quick response has a temperature range of -40° to 250°C. Other features include a 115mm integral probe, a Min/Max record of temperature over a period of time, Data Hold button, and is able to withstand a 2m drop. The MT605 is supplied with a protective rubber holster.

Features

- -40° to 250°C
- 0.1°C Resolution
- Data Hold
- Min / Max
- Selectable °C or °F

Function	Range	Accuracy
Temperature	-40°C to 250°C	
Temperature resolution	0.1°C	±(1.5%+2°C)
Channels	Single fixed probe	
Temperature Ranges	°C or °F	
Size (L x W x D)	112 x 65 x 14mm	
Weight	35g	

K-TYPE DATA LOGGER



MT643

Monitor temperature efficiently and conveniently for periods by using the MT643 Datalogger. The readings are saved in the logger and simply read out by your PC with USB interface.

Features

- K-Type -200° to 1370°C
- 31 808 Data storage points
- Measurement 2sec. - 24 hours
- Battery life: more than 3 years
- USB interface
- Alarm display
- Software

Function	Range	Accuracy
K Type	-200°C to 1370°C	
K Type resolution	0.1°C	±(1%)
Data logging	31808 Readings	
Sample Rate	1,2,5,10s,1,5,10,30m,1,2,3,4,12hr	
Channels	Single	
Temperature Ranges	°C, °F	
Size (L x W x D)	101 x 24 x 21.5mm	
Weight	172g	



THERMOMETERS

The MT652 temperature kit is ideal for the professional who requires differential temperature measurement, the MT632 uses K-Type and J-Type probes has a temperature range -200°C to 13720°C. The MT690 is a unique temperature probe set where each of the probe sensors fit into the standard handle. Supplied in a hard durable plastic case this kit can be taken into many harsh environments.

Kit Includes:

- MT632 - Dual Input Digital Thermometer
- MT660 - General Purpose Bead Probe
- MT690 - Probe kit consisting of: Surface Probe, Air Probe, General Purpose Probe
- MT651 - Carrying Case



MT652

The MT650 temperature kit is ideal for the actories, offices, or any site where different types of areas need temperature measurement, the MT630 is a single input meter and uses K-Type and J-Type probes has a temperature range -200°C to 1372°C. The MT690 is a unique temperature probe set where each of the probe sensors fit into the standard handle. Supplied in a hard durable plastic case this kit can be taken into many harsh environments.

Kit Includes:

- MT630 - Single Input Digital Thermometer
- MT660 - General Purpose Bead Probe
- MT690 - Probe kit consisting of: Surface Probe, Air Probe, General Purpose Probe
- MT651 - Carrying Case



MT650

The MT684 probe is a non contact temperature measurement accessory for use with a test instrument capable of measuring DC volts in the milli volt range such as multimeters or clamp meters. The distance to spot ratio of the probe is 8:1 and the temperature range is from -30°C to 550°C. This is an ideal tool for extending the users existing meters as a dedicate thermometer need to be purchased

Features

- Non contact temperature accessory
- 8:1 Spot meter
- Max temperature display from -30°C ~ 550°C
- Output 1mV per 1°C
- Laser pointer
- 0.95 Fixed emissivity
- Compatible with multimeters, clamp meters, oscilloscopes and industrial applications
- Built-in analogue output of 1mV/°C or °F
- Provides instant and highly repeatable readings

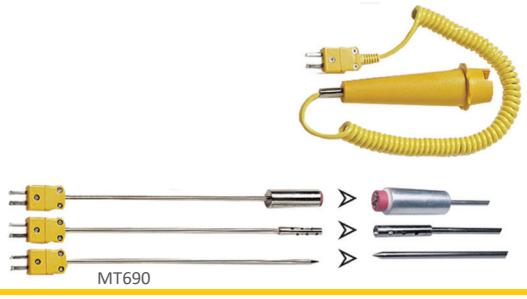


MT684



THERMOMETER PROBES

PROBE KIT



MT690

The MT690 complete probe kit consists of a handle which uses interchangeable surface, air and general purpose probes. This is a low cost but effective thermometer probe kit. Fits all Major Tech type K digital thermometers including Major Tech DMM's

Features
- Temperature Probe Kit
- Complete probe kit consists of a handle which uses interchangeable surface, air and general purpose probes
- Low cost and effective thermometer probe kit

GENERAL

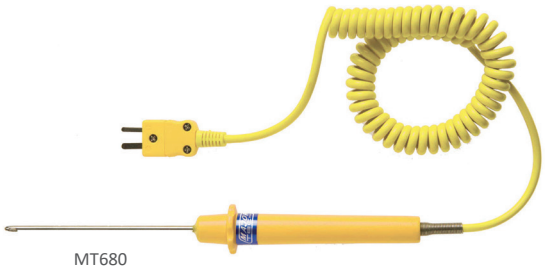


MT685

The MT685 General Purpose Probe can be used on all Major Tech type K digital thermometers including Major Tech DMM's. Range from -50°C to 649°C. Very strong for liquids, semi-solids, air and granular material.

Features
- General Purpose Probe
- Range -50°C to 649°C
- Very strong for liquids, semi-solids, air and granular material

AIR PROBE

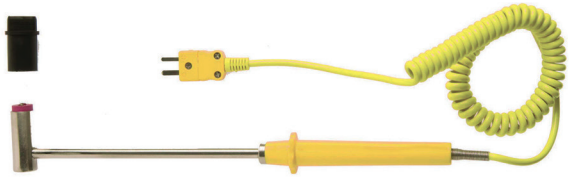


MT680

The MT680 Air Temperature Probe can be used on all Major Tech type K digital thermometers including Major Tech DMM's. Range from -50°C up to 300°C. Extremely fast response for gas and air temperatures for refrigeration, heating and ventilating engineers

Features
- Air Probe
- Range -50°C up to 300°C
- Extremely fast response for gas and air temperatures
- Refrigeration, heating and ventilating engineers

SURFACE



MT675

The MT675 is right angled Surface Probe and can be utilised with Major Tech type K digital thermometers including the Major Tech DMM's. Range from -50°C up to 500°C. Ideal for areas where minimal space is available.

Features
- Air Probe
- Range -50°C up to 300°C
- Extremely fast response for gas and air temperatures
- Refrigeration, heating and ventilating engineers

SURFACE



MT670

The MT670 Surface Probe can be utilised with Major Tech type K digital thermometers including Major Tech DMM's. Range from -50°C up to 500°C. Very fast response for surface temperature measurement for sheet metal, radiators, photocopier, rollers, etc.

Features
- Surface Probe
- Range -50°C - 500°C
- Very fast response for surface temperature measurement
- Ideal for Sheet metal, radiators, photocopier and rollers

GENERAL



MT660

The MT660 General Purpose Probe can be used on all Major Tech type K digital thermometers including Major Tech DMM's. Range from -30°C up to 250°C. Exposed thermocouple with PTFE Insulation for general purpose use in heating and refrigeration industries, including radiator fan, water and air temperatures.

Features
- General Purpose Probe
- Range -30°C - 250°C
- Exposed thermocouple with PTFE Insulation
- General purpose use in heating and refrigeration industries
- Ideal for Radiator fans, water and air temperatures

ENVIRONMENTAL METERS



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ANEMOMETERS

THERMO ANEMOMETER



MT948

The MT948 is an accurate Thermo-Anemometer that measures Air Velocity, Air Flow and Temperature. The meter is capable of measuring CMM (cubic meters/minute) or CFM (cubic feet/minute) by simply entering the area of the air source and can store 8 memory locations for both CMM and CFM for the most commonly used area sizes that the user can recall at anytime.

The remote vane has a built-in temperature sensor, which simultaneously displays the wind speed and temperature on the large easy to read backlit LCD. The MT948 is ideal for monitoring commercial and domestic air conditioning systems. The MT948 is useful as the sensor can be held in the duct and the operator can read the measurements.

Features

- Simultaneously displays air flow/air velocity plus ambient temperature
- CMM air flow from 0.001 to 999900m³/min (area)
- CFM air flow from 0.001 to 999900ft³/min (area)
- Temperature -10°C to 60°C
- Resolution 0.01m/s
- 20 Points average for air flow
- 16 Memory locations for commonly used area sizes
- Wind speed measure in mph, ft/min, km/h,m/s or knots
- Min / Max



Function	Range	Accuracy
Air velocity m/s	0.40 to 30.00 m/s	±(3%+0.20 m/s)
Air velocity ft/min	80 to 5900 ft/min	±(3%+40 ft/min)
Air velocity km/h	1.4 to 108.0 km/h	±(3%+0.8 km/hr)
Air velocity MPH	0.9 to 67.0 mph	±(3%+0.4 mph)
Air velocity knots	0.8 to 58.0 knots	±(3%+0.4 knots)
Air temperature	10 to 60°C	
Air temperature resolution	0.1°C	2.0°C
Air flow Cubic m/min	0 to 999900 m³/min	
Air flow Cubic m/min resolution	0.001 to 100	area 0.000 to 999.9m²
Air flow Cubic ft/min	1 to 999900ft³/min	
Air flow Cubic ft/min resolution	0.001 to 101	area 0.000 to 999.9ft²
Size (L x W x D)	203 x 75 x 50mm, sensor head 70mm Ø	
Weight	725g	

HOT WIRE ANEMOMETER



MT945

The MT945 is microprocessor designed for low air velocity and the slim probe makes it ideal for grilles and diffuses. The combination of hot wire and standard thermistor, delivers rapid and precise measurements even at low velocity values. The Telescopic probe is ideal for measuring HVAC ducts and other small vents.

Features

- Thermal anemometer, for low air velocity measurement
- Combination of hot wire and standard thermistor deliver rapid, precise measurements
- Temperature 0°C to 50°C
- Min / Max
- Displays air velocity and temperature simultaneously
- Air flow measure in mph, ft/min, km/h,m/s or knots
- Data Hold

Function	Range	Accuracy
Air velocity m/s	0.1 to 25.0 m/s	±(5%+1) or ±(1%+1) full scale
Air velocity ft/min	20 to 4925 ft/min	±(5%+1) or ±(1%+1) full scale
Air velocity km/h	0.3 to 90.0 km/h	±(5%+1) or ±(1%+1) full scale
Air velocity MPH	0.2 to 55.8 mph	±(5%+1) or ±(1%+1) full scale
Air velocity knots	0.2 to 48.5 knots	±(5%+1) or ±(1%+1) full scale
Air temperature	0 to 50°C	
Air temperature resolution	0.1°C	(1.0°C)
Air velocity m/s resolutioN	0.01m/s	
Size (L x W x D)	210 x 75 x 50mm	
Weight	280g	

MINI ANEMOMETER



MT90

The MT90 Mini Anemometer is designed to measure air speed to determine how fast the air is moving past a certain point. This may be an average over a given unit of time such as km/h, m/s or an instantaneous speed.

Features

- Dual Line 4 Digit LCD Display
- Air velocity in m/s, km/h, ft/min, mph, knots
- Measures air temperature
- Bluetooth BLE
- Auto power off





Function	Range	Accuracy
Air velocity m/s	1.10 - 25 m/s	
Air velocity m/s resolutiom	0.01m/s	±(3% + 0.30m/s)
Air velocity km/h	4.0 - 90.0 km/h	±(3% + 1.0km/hr)
Air velocity ft/min	220 - 4920 ft/min	±(3% + 40ft/min)
Air velocity mph	2.5 - 56.0 mph	±(3% + 0.4mph)
Air velocity knots	2.2 - 48.0 knots	±(3% + 0.4knots)
Air Temperature	0 - 60°C	(2.0°C)
Data Transfer	Bluetooth	
Size (L x W x D)	213 x 54 x 36mm	
Weight	172g	



LUX METERS & LAMP TESTER

LUX METER

The MT943 is a professional light meter providing quick light readings in Foot Candles or Lux up to 400,000 Lux. The meter has special relative efficiency and has a correction factor for non-standard light sources, thus eliminating the need for manual calculations. The Peak Hold function captures the readings within 10 micro seconds and displays either the minimum peak or maximum peak. The MT943 has data logging capabilities and can link up to a computer whereby the information is downloaded via the USB interface, a software CD and USB cable is included. Other features include the Min and Max record, a large LCD display with a quick bargraph and backlight.

Function	Range	Accuracy
K Type	-200°C to 1372°C	
K Type resolution	0.1°C	±(0.5%+1°C)
J Type	-210°C to 1100°C	
J Type resolution	0.1°C	±(0.5%+1°C)
Data logging	18000 per channel	
Channels	Four	
Temperature Ranges	°C, °F or Kelvin (K)	
Size (L x W x D)	160 x 58 x 27mm	
Weight	350g	

Features

- Professional light meter providing quick light readings in Lux
- 4000 Count LCD display with 41 segment bargraph
- Measures to 400 000 Lux
- 4 Measuring ranges
- Peak Hold
- Relative mode
- Min / Max
- Data Hold
- Short rise and fall time
- Data logging up to 99 Readings
- USB Interface



MT943

LED LUX METER

The MT942 measures light from visible luminaries equipped with white light LED fluorescent, metal halide, high-pressure sodium and incandescent sources. The MT942 is ideal for using in warehouses, factories, office buildings, restaurants, schools, hospitals, art galleries, photographic studios and stadiums

Function	Range	Accuracy
Range	40 to 400 000 Lux	
Sample Rate	2.5 times/sec	
Spectral Response	CIE luminous spectral efficiency	
Photo detector	Silicon photo diode with filter	
Cosine response accuracy	30° ±2%, 60° ±6%, 80° ±25%	
Size (L x W x D)	162 x 63 x 28mm	
Weight	250g	

Features

- Professional light meter providing quick
- light readings in Lux
- 4000 Count LCD display with 41 segment bargraph
- Measures to 400 000 Lux
- 4 Measuring ranges
- Peak Hold
- Relative mode
- Min / Max
- Data Hold
- Short rise and fall time
- Data logging up to 99 Readings
- USB Interface



MT942

LUX METER

The versatile MT940 is an essential tool for designers or Quality Assurance Managers to check lighting levels in a wide variety of situations, from office environments to sports venues. The MT940 is easy to use providing an accurate light level display in terms of Foot Candles (FC) or LUX over a wide range.

Function	Range	Accuracy
Range	200 to 50 000 Lux	
Sample Rate	1.5 times/sec	
Spectral Response	CIE Photopic (human eye response curve)	
Photo detector	Silicon photo diode with filter	
Size (L x W x D)	188 x 64.5 x 24.5mm	
Weight	160g	

Features

- Check lighting levels in a wide variety of situations
- 4 Measuring Ranges / 3½ digit 2000 Count LCD
- Measures FC / Lux / 50 000 Lux / Sealed Lux cell
- Measurement rate 1.5 times per second
- Max / Data / Peak Hold
- Overange indication



MT940

LAMP TESTER

The MT954 Lamp Tester tests HID and fluorescent lamps and has a live conductor sensing. This electrical lamp tester has a compact, rugged housing with carrying case.

Function	Range	Accuracy
Voltage Test	60 to 250V AC	
Lamp test Voltage	approx 3KV/160KHz/200µA	
Specifications	CATIII 300	
Continuity	0-5MΩ	
Back Light	Torch	
Frequency	40 to 60Hz	
Size (L x W x D)	189 x 26.5 x 2.6mm	
Weight	60g	

Features

- CATIII 300V
- For gas-filled lamps
- Continuity Tester
- Single Pole Voltage Tester
- Torch Light



MT954



THERMO-HYGROMETERS

THERMO-HYGROMETER



MT667

MT667 is a digital microprocessor controlled Thermo-Hygrometer with fast response and high accuracy with Dew point, Wet bulb and Temperature measurements. The Wet Bulb mode is effectively a Digital Sling Psychrometer. It is an ideal instrument for scores of practical applications for Laboratory, Industrial, Engineer and Professional use. This offers a wide variety of applications ranging from HVAC to laboratories, and is ideal in other industries such as computer rooms, hospitals, tobacco industry, factories and offices and general use.

Features

- Microprocessor controlled
- Humidity meter 0% - 100% Humidity
- Temperature Meter -30 0°C to 100 0°C
- Wet Bulb Temperature 0°C to 80°C
- Dew Point Temperature -30°C to 100°C
- Resolution 0.01% RH and 0.01°C
- Fast response
- High accuracy
- Data Hold
- Min / Max
- °C or °F
- Dual display and backlight

Function	Range	Accuracy
Temperature	-30°C to 100°C	±(0.8°C)
Temperature resolution	0.01°C	
Relative Humidity	0 to 100%RH	
Relative humidity resolution	0.01RH	±(2.5% RH)
Dew Point Temperature	-30°C to 100°C	
Wet Bulb Temperature	-30°C to 80°C	
Size (L x W x D)	225 x 45 x 34mm	
Weight	200g	

USB TEMP LOGGER



MT668

The MT668 is a small and compact data logger for temperature and humidity. This is the easiest to use and lowest cost electronic data logger available. The MT668 has a selectable measuring time intervals from 2 seconds to 24 hours and can store up to 16,000 readings for both temperature and humidity. The user can define the upper and lower measurement parameters for temperature and humidity, and if these readings go above or below these parameters, the alarm LED will flash. With its precision calibrated internal temperature sensor, all the user has to do is place the logger in the field and leave it. Once you have gathered the desired information, simply plug the logger into a computer using the USB port and download the logged information

Features

- 16 000 Readings for both temperature and humidity
- Temperature -40°C to 70°C
- Humidity range 0% to 100% RH
- Selectable measuring cycle- 2s, 5s,10s, 30s, 1m, 5m, 10m, 30m, 1hr, 2hr, 3hr, 6hr, 12hr, 24hr
- Multi-mode to begin logging
- Analysis software
- Wall bracket
- Alarm function activated when set values are exceeded

Function	Range	Accuracy
Temperature	-40°C to 70°C	±(1°C)
Temperature resolution	0.1°C	
Low battery indication	Yes	
Relative Humidity	0 to 100%RH	
Data logging	32000 Data points in total	
Min Max	Yes	
Sample Rate	2,5,10,30s,1,5,10,30m,1,2,3,6,12,24hr	
Relative humidity resolution	0.1RH	±(3.5% RH)
Size (L x W x D)	130 x 30 x 25mm	
Weight	20g	

DATA LOGGER



MT669

The MT669 is a temperature and humidity data logger designed with a high accuracy temperature and humidity sensor. This data logger provides fast response and stability. This logger gives clear readings on the large LCD display and the user can check at a quick glance the actual time of the minimum or maximum reading for temperature and humidity. The MT669 has a selectable measuring time intervals from 1 seconds to 24 hours and can store up to 16,350 readings for both temperature and humidity. The user can define the upper and lower measurement parameters for temperature and humidity and if these readings go above or below these parameters, the alarm LED will flash.

Features

- 32 700 Data storage points
- 16 000 Readings for both temperature and humidity
- Temperature -40°C to 70°C
- Humidity range 0% to 100% RH
- Selectable measuring cycle- 2s, 5s,10s, 30s, 1m, 5m, 10m, 30m, 1hr, 2hr, 3hr, 6hr, 12hr, 24hr
- Multi-mode to begin logging
- Analysis software
- Lockable wall bracket
- Alarm function activated when set values are exceeded

Function	Range	Accuracy
Temperature	-40°C to 70°C	±(1°C)
Temperature resolution	0.1°C	
Relative Humidity	0 to 100%RH	
Resolution	0.1 RH	±3,5%
Data	32700 Points	
Size (L x W x D)	101 x 24 x 21,5mm	
Weight	91g	

MINI HYGROMETER



MT91

The MT91 Mini Temperature and Humidity meter is designed to measure RH and Temperature. Relative humidity is normally expressed as a percentage, a higher percentage means the air-water is more humid. At 100% humidity, the air is saturated and at dewpoint.

Features

- Dual Digital LCD
- Measure ambient Temperature and Humidity
- Data hold function
- Min/Max reading
- Bluetooth BLE
- Auto power off

Function	Range	Accuracy
Temperature	-20° to 60°C	±(0.5°C)
Relative humidity	0 to 100%RH	±(3.5% RH)
Dew Point Temperature	-20°- 60°C	±(0.5°C)
Wet BulbTemperature	0°- 60°C	±(0.5°C)
Data Logging Bluetooth	BLE 4.0	
Size (L x W x D)	204 x 54 x 36mm	
Weight	172g	



THERMO-HYGROMETER / PARTICLE

DESKTOP

The MT662 is a triple display low cost combined clock/alarm, temperature and humidity meter with a temperature range from 0°C to 50°C, and humidity range from 10% to 90%. The MT662 offers a "Comfort Zone" indicator which is displayed when the temperature is between 18°C and 22°C and the Humidity is between 45% and 65%.
Other features include a MIN/MAX record mode, temperature and humidity trend mode. This meter is wall mountable or can stand on a desk top and is ideal for use in checking the climate in offices, shops, factories, home and green houses.

Function	Range	Accuracy
Temperature	0°C to 50°C	±(1.0°C)
Temperature resolution	0.1°C	
Relative Humidity	10 to 90%RH	
Relative humidity resolution	0.01RH	±(5% RH
Size (L x W x D)	108 x 60 x 15mm	
Weight	74g	

Features

- Triple display low cost combined clock / alarm, temperature and humidity meter
- Temperature range from 0°C to 50°C
- Humidity range from 10% to 90%.
- Min / Max
- °C or °F
- Highest / Lowest temperature
- Humidity memory function
- Wall mountable and can stand on a desk top



MT662

PARTICLE COUNTER

MT970 is a Particle Counter with 2.8 colour TFT LCD display that shows real scene and time display. Is supplied with a micro SD memory card for capturing images (JPEG) or video (3GP) for viewing on you PC, and providing fast, easy and accurate readings. Ideal combination instrument for measuring of particle concentration, gas (HCHO, CO) detectors, air temperature, relative humidity and wet bulb temperature measurements.
MT970 is the perfect instrument for industrial measurements and data analyzing.

Function	Range	Accuracy
Air temperature	10°C to 40°C	±(0.5°C)
Humidity	@ 40% to 80% RH	±(3%RH)
Channel	0.3, 0.5, 1.0, 2.5, 5.0, 10	
Air temperature range	0°C to 50°C	
Humidity range	0 to 100%RH	
Dew Point temperature range	0°C to 50°C	±(0.5°C) 10°C to 40°C
Images and Video	JPEG and 3GP	
Flow rate	0.1ft³ (2.83L/min) controlled by internal pump	
Counting Efficiency	50% @ 0.3µm; 100% for particles less than 0.45µm	
Coincidence Loss	5%, 2,000,000 particles per ft³	
Count modes	Cumulative, Differential, Concentration	
Storage	Micro SD max 8GByte	
Data	5000 sample records	
Size (L x W x D)	240 x 75 x 57mm	
Weight	570g	

Features

- Particle measurements
- Air measurements
- Dewpoint measurements
- Wet bulb temperature
- Air Humidity measurements
- 2.8: TFT 320 x 240 pixels colour LCD
- Images (JPEG) and Video (3GP)
- Simultaneously measure and display 6 channel of particle sizes
- Measure particle size down to 0.3µm
- Gas (HCHO, CO) detectors
- Min / Max / DIF / Average
- Date / Times / Alarm
- MicroSD (8GB) / Bluetooth / USB
- Selectable sample time, count data, programmable delay
- Memory 5000 readings
- Data logger



MT970

MINI PARTICLE COUNTER

The MT96 Particle Counter with a 2" colour TFT LCD display provides fast, easy and accurate readings for particles down to 2.5µm for particle counter and particle mass concentration with air temperature and relative humidity. The dew point temperature measurement will be very visible for wet and dry proof. It is the first measurements in global, and would be the ideal instrument for environment protection and energy saving.

Function	Range	Accuracy
Channel	2.5µm, 10µm	
Mass Concentration	PM2.5:0 to 2000ug/m³	
	PM10:0 to 2000ug/m³	
Resolution	1ug/m³s	
Air Temperature range	0°C - 50°C	±(1°C)
Humidity range	0 - 100%RH	±(3.5%RH) @ 20% - 80% RH
Humidity Resolution	0.1%RH	
Interface	Bluetooth	
Size (L x W x D)	185 x 55 x 38mm	
Weight	139g	

Features

- 2.0" TFT Colour LCD
- Measure particle in the air of
- Relative humidity and temperature
- Bluetooth BLE
- Auto power off



MT96





ENVIRONMENT METERS

5-IN-1 ENVIRONMENT METER



MT941

The 5-in-1 digital Multifunction Environment Meter has been designed to combine the functions of a Sound Level Meter, Light Meter, Humidity Meter, Temperature Meter and CFM/CMM Thermo-Anemometer. It is an ideal Multifunction Environment Meter with scores of practical applications for professional and home use.
The Sound level function can be used to measure noise in factories, schools, offices, home, etc, checking acoustics of studios, auditoriums and hi-fi installations. The Light function is used to measure luminance in the field. It is fully cosine corrected for the angular incidence of light. The light sensitive component used in the meter is a very stable, long life, silicon diode. The Humidity/Temperature uses a humidity/semiconductor sensor and K-type thermocouple. CFM/CMM Thermo-Anemometer is suitable for use in a wide variety of applications, including plant maintenance operations, environmental analysis, fume hood testing, and HVAC system assessments.

Features

- Large LCD display with backlight.
- MAX, MIN and AVG measurements.
- Display shows Sound, Light, K-Type Temperature, Humidity & Temperature as well as Air Velocity & Air Flow.
- Electronic Offset function allows compensation of thermocouple errors to maximize overall accuracy.
- The device measures air velocity, it features 5 selectable units of velocity measure: m/s, ft/min, km/h, MPH, knots, and it features 2 selectable units of flow measure: CFM, CMM.
- Easy to set Area dimension (up to 6 points) for air flow measurement.
- USB interface, USB to UART Bridge Controller.
- Low battery indication, Auto Power Off (Sleep mode) adjustable.

Function	Range
Sound Level	30dB-130dB
Light	20000Lux
Humidity and Air Temperature	5%-98%RH -30 - 99.9°C
K Type Temperature	-200°C - 1375°C
Air Velocity	(0.40~30)m/s (196~5900)ft/min (3.6~108.0)km/h (2.2~67.0)MPH (1.9~58.0)Knots
Air Flow	(0~999900)CFM (0~999900)CMM
Operating Conditions	0 to 50 °C
Size (L x W x D)	251 x 63.8 x 40mm
Weight	365g

6-IN-1 ENVIRONMENT METER



MT1875

The MT1875 has standard digital multimeter functions like the ability to measure voltage, current, continuity, resistance, temperature, frequency and diode test and can perform additional functions to solve environmental conditions. The 6-in-1 MT1875 has been designed to combine sound levels, Lux, humidity, Temperature, Non contact AV Voltage all in one versatile Digital Multimeter. Ideal for practical applications for professional and home use.

IEC 61010-1 CAT III 1000V

IEC 61010-1 CAT IV 600V

Features

- AC V / DC V 600V
- Fully functional DMM
- Sound Level Meter 100dB
- Light Meter 40 000 Lux
- Humidity Meter 95% RH
- Resistance 40MΩ
- Temperature 1300°C
- Capacitance 100µF
- Frequency 10MHz
- Duty Cycle
- 4000 Count LCD
- Diode Check
- Continuity

Function	Range	Accuracy
DC Voltage	600V	±(1.0% +4)
AC Voltage	600V	±(1.0% +4)
DC Current	10A	±(1.0% +2)
Resistance	40MΩ	±(1.5% +2)
AC Current	10A	±(2.0% +5)
Temperature	-20 to 1300°C	±(3.0%+5)
Temperature resolution	1°C	
Frequency	10MHz	±(1.2% +5)
Duty Cycle	0.1 to 99.90%	
Capacitance	100.0µF	±(3.0% +5)
AC Bandwidth	50Hz to 400Hz	
dB Measurements	35-110dB	
Humidity	33%-99%	±(3.0%+5)
Lux	4000-40 000Lux	±(5.0% +10)
Size (L x W x D)	170 x 79 x 50mm	
Weight	342g	



SOUND LEVEL METERS

The professional digital model MT975 offers A and C weighting measurements, maximum hold function and Slow and Fast response. The AC/DC outputs are ideal for connections to frequency analyser, level recorder, FFT analyser and graphic recorder or X-Y chart recorder.
The MT975 meter is ideal for all general purpose measurements and the Level Function is designed for noise project, quality control, illness prevention and cure, plus all kinds of environmental sound measurements. It can be used to measure noise in factories, schools, airports and home, etc. Other uses could be for checking acoustics of studios, auditoriums and Hi-Lo installations.
The MT975 is auto ranging and has a large backlit LCD with the benefit of a Quasi-Analogue bar indicator. Features include an analogue output, Min/Max record can be interfaced with a computer via the USB interface, software and cable are supplied as standard accessories



Function	Range	Accuracy
Level ranges low	30dB to 80dB	±(1.4dB)
Level ranges medium	50dB to 100dB	±(1.4dB)
Level ranges high	80dB to 130dB	±(1.4dB)
Level ranges auto	30dB to 130dB	±(1.4dB)
Dynamic range	50dB to 100dB	
Data logging	32700 readings	
Frequency Range	31.5Hz to 8KHz	
Frequency weighting	A/C	
Time weighting	Fast (125ms) Slow (1s)	
Microphone	½ Electret condenser	
Alarm function	over and under limit range	
Analogue output	AC/DC from earphone, AC equals 1Vrms, DC equals 10mV/db	
Size (L x W x D)	278 x 76 x 50mm	
Weight	350g	

Features

- A and C level weighting for checking in compliance with safety regulations IEC61672-1 class 2
- Level weighting 30dB to 130dB
- Min/Max measurements
- Background noise absorber
- 1.4dB accuracy
- Fast / slow response
- Analogue AC / DC outputs
- Datalogger function
- Memory for 32 700 readings



MT975

The MT95 Mini Sound Level Meter is professionally designed with a completely modern new compact housing. Equipped with Bluetooth it is easy to transfer the measured data to the users smart phone. The MT95 Sound Level Meter has a wide dynamic range from 35dB to 130dB. It has different frequency weighting A and C to respond to human sense or machine monitoring purposes. Perfect meter where measurements are required in noisy engineering, sound quality control, health, industrial safety offices in various environments, schools and traffic noise pollution.



Function	Range	Accuracy
Sound Level	35dB - 80dB	±(3.0dB)
Level ranges medium	50dB - 100dB	±(3.0dB)
Level ranges high	80dB - 130dB	±(3.0dB)
Level ranges auto	35dB - 130dB	±(3.0dB)
Frequency range	31.5Hz - 8KHz	
Frequency weighting	A/C	
Microphone	½" Electret condenser	
Digital Display resolution	0.1dB	
Sample rate	2 times per second	
Alarm function	"over" limit range	
Data output	Bluetooth	
Size (L x W x D)	185 x 54 x 36mm	
Weight	139g	

Features

- Digital Metric Cable Length Meter
- CATIII 300V / CATII 600V
- Measures up to 30,000m
- Pre-set size selection 0.15mm2 to 240mm2 cables
- Measures Al and Cu wires
- Automatic internal temperature compensation
- User calibration mode
- Measurements in meters (m) or feet (ft)
- 4 Digit display + annunciators
- Kelvin clip test leads included
- Sleep mode
- Bluetooth BLE



MT95



LEAK DETECTORS / CARBON METER

COMBUSTIBLE GAS



MT982

The MT982 is a new technological design for detecting combustible gases. The gooseneck allows the user to find the leaks in the most awkward of places, and is an ideal tool for a variety range of applications where gases need detection in hazardous areas. The MT982 is an easy to use combustible gas leak detector with one handed operation to detect presence of combustible gases. Audible and visual indicators help pinpoint leak source. Adjustable "tic" rate helps eliminate background gas concentration in contaminated environments.

Features

- New technological design for detecting combustible gases
- 50ppm Methane
- 400mm Gooseneck
- Highly sensitive & reliable
- Use in contaminated environments, eliminates
- gas concentration with fully adjustable tick rate
- Tick accelerates when sensor tip approaches leak
- Pin points small leaks
- Adjustable sensitivity
- Locating halogen based gases such as refrigerants

Function	Range	Accuracy
Sensor type	Low power semiconductor	
Warm up time	Approx 60 seconds	
Response time	Less than 2 sec (up to 40% lel)	
Sensitivity	50 ppm methane	
Probe length	406mm (16 inch)	
Alarm	Visable and audiable at 10% methane	
Size (L x W x D)	221 x 72 x 46mm	
Weight	520g	

REFRIGERANT LEAK DETECTOR



MT980

The refrigerant leak detector detects all CFC refrigerants such as R-22, R-124, R-11 and R-12. The ultra-sensitive long life sensor detects the more current and difficult and difficult-to-detect HFC refrigerants such as R-134, R-404A, and new R-22 replacements, R410A and R-407C.

The MT980 comes with a 16" long, slim gooseneck probe that is easy to use in hard-to-reach places. The detector is an easy to use one handed operation with thumb controlled tick adjustable knob. The tick sound accelerates when the sensor tip approaches the leak

Features

- Technological design for detecting current halogen based gases
- 100ppm of R - 134a / R - 22
- Detects CFC & HFC
- Flexible 40cm gooseneck
- Visual leak detection by LED indicators
- Adjustable tick rate to locate leaks quickly and easily
- Precision sensor detects event the smallest leaks
- Includes earphone Jack

Function	Range
Sensor type	Low power semiconductor
Warm up time	Approx 60 seconds
Response time	Less than 2 sec (up to 40% lel)
Sensitivity	100ppm of R134a/R-22
Probe length	16 inch (40cm)
Alarm	Visable and audiable at 10% Lel for all Choroflucarbons (CFC)
Size (L x W x D)	221 x 72 x 46mm
Weight	498g

CARBON MONOXIDE METER



MT180

The MT180 Carbon Monoxide meter makes it easy to take quick and accurate measurements of CO levels. A loud buzzer sounds when the level increases above 200 PPM. The Max hold function displays the maximum CO level.

Features

- Quick and accurate measurements of CO levels
- Loud buzzer sound above 200 PPM
- From 35PPM to 220PPM
- Fast sample time
- Large LCD dual display

Function	Range	Accuracy
Co Range	1Ppm ~ 1000Ppm ± 5%	
Warm Up Period	< 2 Seconds	
Sensor Type	Stabilized Electromecanical	
	Gas - Specific (Co)	
Sensor Life Typically	3 Years	
Size (L X W X D)	160 X 56 X 40mm	
Weight	180g	

MAJOR TECH

CABLE TESTERS

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CABLE METERS

CABLE LOCATOR



MT195



MT195T

The MT195 Cable locator consists of a transmitter and a receiver which is a light weight portable instrument and can be used to detect or trace conductors. The signal generated by the transmitter is made of a modulated current, generating an electro-magnetic field around a conductor. The electro-magnetic field induces a voltage within the receiving coil. The induced voltage is amplified, decoded and converted to the original signal by the receiver and finally displayed on the receivers screen. The connecting parameter for the transmitter during an application must be a closed current circuit.

Features

- Receiver indicates reception level, transmission code as well as mains voltage detection
- Transmitter measures V 12V - 400V AC / DC
- Detects metallic water piping
- Detects live or dead cables inside walls
- Detects interruptions and short circuits in under floor heating (using additional MT195T)
- Transmitter with LCD display included
- Acoustical receiving signal switchable
- Frequency 60Hz
- Output Signal 125 kHz

IEC 61010-1 CAT II 600V

IEC 61010-1 CAT III 300V

Function	Range
Voltage Range	12V to 400V
Frequency Range	0 to 60Hz
MCB/Fuse finding	Find MCB or fuse on dead circuit
Beeper	continuous tone-strongest signal, intermittent-weak signal
Tracing Depth	Depends on medium and application
Green	Everything is Good
RED	Hazard, Voltage on Circuit
Cable Locator Mode	0-2meters (single-pole application)
Voltage detection	0-0.4meters
Wire tracing	Traces wires through wall, floors and underground
Wire break detection	Locates break in cable Orange Short Circuit, red and green lead connect to same circuit
Bar graph	Peak tracking with bar graph
Interruptions	Detects interruptions and short-circuits in underfloor heating
Output Signal	125kHz
Size (L x W x D)	TX 130 x 69 x 32mm, REC 192 x 61 x 37mm
Weight	TX 130g, REC 180g

CABLE TESTER

METRIC CABLE LENGTH METER



MT933

The MT933 is a hand held battery operated Metric cable length meter that quickly measures any reeled wire up to 30 000m and with gauges ranging from 0,15mm2 to 240mm2. Within seconds cables can be measured and digitally displayed without the cumbersome task of unrolling cable reels. All is needed is accessibility to both cable ends. The MT933 can also be used as a precision milliohm meter.

The User Select Mode allows the user to save the resistance of a user wire for additional measurements of unknown lengths of the same wire gauge. In addition, it enables the user to accurately measure the length of standard gauge wire. In this mode, the user can measure the length of any metal wire, the resistance of which can be measured, as well as Copper or Aluminium wires. This instrument is very useful for Electrical Contractors, Utilities and Distributors for the control of inventories of wire.

Features

- Digital Metric Cable Length Meter
- CATIII 300V / CATII 600V
- Measures up to 30,000m
- Pre-set size selection 0.15mm2 to 240mm2 cables
- Measures Al and Cu wires
- Automatic internal temperature compensation
- User calibration mode
- Measurements in meters (m) or feet (ft)
- 4 Digit display + annunciators
- Kelvin clip test leads included
- Sleep mode

IEC 61010-1 CAT II 600V

IEC 61010-1 CAT III 300V

Function	Range	Accuracy
Maximum range km	0.1 to 30.00km	
Range km resolution	0.1m	±(1% +1m)
Range mm² accuracy	±(1% +1m	
Range selection	Manual as per wire guage	
Size (L x W x D)	203 x 100 x 47 mm	
Weight	587g	



CABLE METER

The MT900 is a precision cable length meter that uses TDR (Time domain reflectometer) technology to measure cable length. The meter can be used for any cable consisting of at least two insulated metallic elements, one of which may be the sheath or shield of the cable.

It has an automatic internal matching network to allow testing with an automatic selection range, which correspond to power, telephone, CAT 5 and Coax cables. The meter can be closely matched to the cable under test using the function selection keys. The Velocity of propagation (V.O.P.) value can be similar adjusted to match the cable under test, thus ensuring an accurate distance measurement.

The MT900 meter has a cable library for quick and easy access to 20 standard cable types, which enables accurate measurement without necessity of entering V.O.P. (Velocity of Propagation). This cable meter can also store up to 99 internal memory locations which can be used for future analysis. The V.O.P. can be calculated for the cable under test and added to this library.

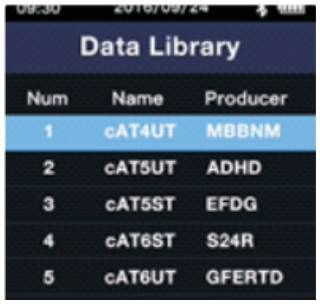
Features

- Measures copper cable up to 3.0km
- 20 Standard Cables Library
- 99 Internal memory locations store up to 99 traces for future analysis
- Measures VOP (Velocity Of Propagation) of a sample cables
- Automatic output impedance and range control
- Auto-Zero / Auto range
- 2.4 inch TFT Colour Screen
- High accuracy and fast reflection
- Auto-Sensitivity allows for closer matching to a wide range of cable under test, only V.O.P. settings required



MT900

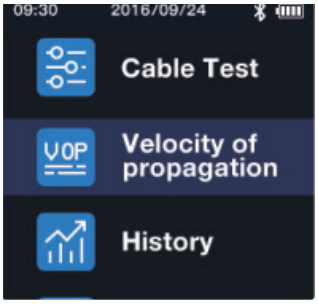
Function	Range	Accuracy
Maximum range @ V.O.P 99.9%	3.0 km @ VOP≤ 99.9%	±(2% +0.2m)
Maximum range @ V.O.P 80.0%	2.4 km @ VOP ≤ 80.0%	±(2% +0.2m)
Maximum range @ V.O.P 66.0%	2.0 km @ VOP ≤ 66.0%	±(2% +0.2m)
Maximum range @ V.O.P 50.0%	1.5 km @ VOP ≤ 50.0%	±(2% +0.2m)
Range selection	Automatic	
Output Impedance	25, 50, 75, 100, 125 or 150 ohms	
Impedance Selection	Automatic output impedance control	
Velocity factor	Adjustable from 1.0% to 99.9%	
Cable Library	20 standard cable types	
Memory location	99 for Custom cable types	
Connector	BNC/RJ45	
Line Volatge detection	6.5V	
Dead zone	5m pair cable or coaxial, 10m single cable	
Digital Display	2.4 inch TFT colour screen	
Size (L x W x D)	152 x 61 x 34mm	
Weight	227g	



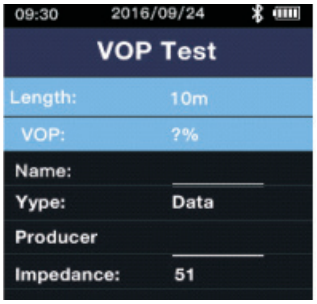
99 internal memory locations



TFT Full Colour Screen



Easy to use Function menu



Built-in 20 groups of standard cable V.O.P value

TDR CABLE LENGTH METER

CABLE TESTER



CABLE METERS

2-IN-1 LAN TESTER & DMM



MTC50



The MTC50 is a 2 in 1 LAN tester and multimeter and is a newly designed and very practical tester that can easily read the correct pin configuration of 10/100 Base-T cable (Category 5), 10Base-2 cable (coax), RJ45/RJ11 modular cables, AT&T 258A, 356A, TIA 568A/568B and Token Ring cable by comparing one transmitting end to the corresponding receiving end.

With the remote kit test cables can be installed over long distances either on wall plates or patch panels. It is easy to verify the cable continuity, open, short and cross-connect. The auto range digital multimeter allows the user to measure AC and DC voltage, AC and DC current,Resistance, Continuity and Diode test.

Features

- RJ45 and RJ11 modular connectors
- Tests CAT5 installations
- Remotely test cables 300m away
- Locked status wiring
- Digital Multimeter
- AC / DC V 600V
- Amps 200mA
- Resistance 20MΩ
- Diode Check
- Continuity
- 2000 Count LCD

IEC 61010-1 CAT III 600V

IEC 61010-1 CAT II 1000V

Function	Range	Accuracy
DC Voltage	600V	±(1.0% +3)
AC Voltage	600V	±(1.0% +5)
DC Current	200.0mA	±(1.5% +3)
Resistance	20MΩ	±(1.2% +3)
Digital Display	2000	
AC Current	200.0mA	±(1.8% +8)
Overrange indication res.	less than 7.5MΩ VDC & less than 7.5MΩ VAC	
Lan Tester	RJ45 and RJ11 + BNC	
Size (L x W x D)	162 x 74 x 43 mm	
Weight	308g	

ELECTRICAL TESTER

CABLE IDENTIFIER



MT915

The MT915 is an amazing tracing system which will save hours instead of Belling-Out any circuit. The MT915 consists of a transmitter & receiver device which enables one person to instantly match up ends of individual cores at either end of a multi-core cable. With the remote kit the meter can test cables installed over long distances either on wall plates or patch panels. The DMM function makes it easy to measure AC Volts, DC Volts, AC and DC Current, Resistance, Continuity and Diode Test

Features

- Identifies up to 16 cables
- Cuts out “Bell-Out” time
- Cable Resistance 30kΩ max
- Digital multimeter
- 600V AC/DC
- 200mA AC/DC
- Resistance 20MΩ
- Diode Check
- 2000 Count LCD
- Continuity

IEC 61010-1 CAT III 600V

IEC 61010-1 CAT II 1000V



MT915T

Included

- Transmitter
- Receiver

Function	Range	Accuracy
DC Voltage	600V	±(1.0% +3)
AC Voltage	600V	±(1.0% +5)
DC Current	200.0mA	±(1.5% +3)
Resistance	20MΩ	±(1.2% +3)
AC Current	200.0mA	±(1.8% +8)
Frequency	300Khz	
Size (L x W x D)	162 x 74 x 43 mm	
Weight	308g	





CABLE TESTERS

The MTC45 is a 2 in 1 Tone and Probe generator as well as an auto ranging multimeter. The meter tests include wire trace, continuity test, clear/busy ringing, line test and tip/ring identification. The unit is supplied with crocodile clips for non-terminated cables and modular connectors for direct connections to telephone and internet wiring. The DMM can measure AC/DC volts, AC/DC current, Resistance Diode and has a continuity buzzer.

IEC 61010-1 CAT III 600V

IEC 61010-1 CAT II 1000V

Features

- AC & DC Voltage detection from 12Vto 690V AC and DC
- LED display
- Single pole phase test set
- Double Injection IP64 housing
- Low Impedance test
- Built-in Flashlight
- Polarity Detection
- Rotary Field indication
- Continuity test to 200Ω

Function	Range	Accuracy
DC Voltage	600V	±(1.0% +3)
AC Voltage	600V	±(1.0% +5)
DC Current	200.0mA	±(1.5% +5)
Resistance	20MΩ	±(1.2% +3)
Digital Display	2000	
AC Current	200.0mA	±(1.8% +8)
Size (L x W x D)	162 x 74 x 43 mm	
Weight	328g	



MTC45

The MTC40 Tone and Probe generator traces cables using a tone generator connected on one side and at the other end the probe. This tests even when cables are in a bundle. It is easily used to verify cable continuity, pair condition, line polarity and voltage in networking cabling systems for CAT5, coax and modular telephone lines.

Features

- RJ11 modular connectors
- Built-in speaker on probe with sensitivity control
- Traces & identifies wires / cables in a bundle or group
- Insulated inductive probe tip prevents shorting conductors
- Tests include wire trace / continuity test clear / busy ringing line test and tip/ring identification

Function	Range
Tracing	Telephone, cable and wire
Size (L x W x D)	231 x 56 x 27 mm
Weight	270g



MTC40

SPECIALIST METERS

contents

Tachometers	M95
Coating Thickness Meter	M95
Differential Manometer	M96
Fluid Level Meter	M96
Vibration Meter	M96
Video Borescopes	M97
PV Insulation & Resistance Tester	M97
LCR Meter	M98
Capacitance Meter	M98
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Current Calibrator	M99
Moisture Meters	M99
Laser Distance Meters	M100





TACHOMETER / COATING THICKNESS

CONTACT/NON CONTACT

The MT952 is a combination non-contact and contact digital tachometer for convenient, fast and accurate measuring of high rotational speeds up to 100 000 rpm. The MT952 is supplied standard with an adaptor that converts the MT952 into a tachometer for measuring surface and axial speeds. The meter is capable of various measurements such as Rotation Speed, Total Revolutions, Frequency, Surface speed and length. The instrument is ideally suited for use with engines, process machinery, motors and machine tools.

Function	Range	Accuracy
Non contact test range	2 to 99 999RPM	
Non contact resolution	0.1RPM	±(0.05% +1)
Sampling time	0.5 seconds (over 120RPM)	
Detection distance	50mm to 500mm	
Time base	Quartz crystal	
Contact test range	2 to 20 000RPM	
Contact resolution	0.1RPM	±(0.05% +1)
Size (L x W x D)	162 x 74 x 43mm	
Weight	328g	

Features

- Combination non-contact and contact digital tachometer for convenient, fast and accurate measuring of high rotational speeds up to 100 000 RPM
- RPM Contact range 2 - 20 000RPM
- RPM Non-contact range 2 - 100 000RPM
- Detecting distance 50 - 500mm
- 5 Digit backlit LCD
- Auto Range
- Data Hold
- 40 Reading memories
- Min / Max / Avg
- Resolution 0.1 RPM
- Built-in laser spot



MT952

NON CONTACT

The MT950 provides fast and accurate non-contact RPM and TOT measurements of rotating objects. Using reflective tape on an object to be measured, simply point the laser at the object where the reflective tape is situated and the large backlit LCD will display the reading. The MT950 has a built-in memory that recalls the Max/Min and last value stored.
The MT950 provides fast and accurate non-contact revolution measurement of rotating objects. The count can range between 1 and 99 999 revolutions with an accuracy of ± 0.05% and a fast sampling time of 0.5 seconds. The MT950 is light weight and easy to operate.

Function	Range	Accuracy
Non contact test range	3 to 99 999RPM	
Non contact resolution	0.1RPM	±(0.05% +1)
Count range	1 to 99 999 REV	
Sampling time	0.5 seconds (over 120RPM)	
Detection distance	50mm to 500mm	
Time base	Quartz crystal	
Size (L x W x D)	160 x 58 x 39mm	
Weight	151g	

Features

- Fast and accurate non-contact RPM and TOT measurements of rotating objects
- RPM Non-contact range 2 - 100 000RPM
- TOT count mode range from 1 - 100 000RPM
- Detecting distance 50 - 500mm
- 5 Digit backlit LCD
- Auto Range
- Data Hold
- 40 Reading memories
- Min / Max
- Resolution 0.1RPM
- Built-in laser spot



MT950

COATING THICKNESS TESTER

The MT155 is a compact and handy gauge, designed for non-destructive, fast and precise coating thickness measurements. It is adaptable and can be used on special geometries or on materials with special properties. The coating thickness gauge works either on the magnetic induction principle or on the eddy current principle, depending on the type of probe used, the MT155 has 31 working modes. The MT155 display the measured values and user information on the LCD, the backlight ensures easy reading of screen data in dark conditions. The probe systems are spring-mounted in the probe sleeve this ensures safe and stable positioning of the probe and constant pressure. The hemispherical tip of the probe is made of hard and durable material.

Function	Range & Accuracy	
Sensor Probe	Fe	Non-Fe
Working principle	Magnetic Induction	Eddy current principle
Measuring range	0 ~ 1350µm, 0~53.1mils	0 ~ 1350µm, 0~53.1mils
Guaranteed tolerance (of reading)	0-1000µm ±(2.5%+2µm)	0-1000µm ±(2.5%+2µm)
	1000~1350µm ±(3.5%)	1000~1350µm ±(3.5%)
	0~39.3mils, ±(2%+0.08mils)	0~39.3mils, ±(2%+0.08mils)
	0~39.53.1mils, (±3.5)	0~39.53.1mils, (±3.5)
Precision	0~100um (0.1urn)	0~100um (0.1urn)
	100~1000um (0.1urn)	100~1000um (0.1urn)
	1000~1350um (0.01mm)	1000~1350um (0.01mm)
	0~10mils (0.01mils)	0~10mils (0.01mils)
	10~53mils .1mils (0.1mils)	10~53mils .1mils (0.1mils)
Minimum Curvature Radius	1.5mm	3.0mm
Diameter of Minimum Area	7.0mm	5.0mm
Minimum Measureable Thickness	0.5mm	0.3mm
Size (L x W x D)	113.5 x 54 x 27mm	
Weight	110g	

Features

- Dual technology
- Automatic selection of magnetic induction or Eddy Current measurement techniques
- Memory 320 readings
- Non magnetic coatings (paint, zinc) on steel
- Insulating coatings (paint) on non-ferrous metals
- No-ferrous metal coatings on insulating substrates
- Continue & Single mode
- Working modes: Direct & Group
- Static display: Min / Max / Average / No / S.Dev
- High / Low alarm
- USB Interface



Datalogger

MT155





PRESSURE / FLUID / VIBRATION METERS

DIFFERENTIAL MANOMETER



MT163

MT163 measures Gauge, Differential pressure, Air velocity, Air flow and Temperature. The MT163 is a Differential Pressure Manometer combined with an Anemometer is a simple and ideal solution for HVAC technicians when diagnosing ventilation issues. This instrument offers a wide range of measuring gauge differential pressure as it has 5 selectable units of measurement for the manometer as well as the anemometer.
The meter can display the air flow in CMM or CFM or it displays the air velocity plus temperature simultaneously.
Other features include the Min/Max and Avg record, a large dual LCD display with a backlight. Readings can be recorded and interface with a PC via USB with the CD software that is supplied standard.

LOG Datalogger

Features

- Relative time clock
- 5 Measuring units - psi, mbar, kPa, inHg, mmHg
- Records max/min/average with time stamp
- Measures up to 2 psi
- Offset function
- Real time rec. USB interface
- Auto power off /Data Hold
- Display of Air Flow in CMM and CFM, or Air Velocity + Temperature
- Air flow CMM 0.001 to 999900m3/min (area)

Function	Range	Accuracy
PSI range	2	
PSI resolution	0.001	
mbar range	137.8	
mbar resolution	0.1	
Kpa range	13.78	
Kpa resolution	0.01	
inHg range	4.072	
inHg resolution	0.001	
mmHg range	103.4	
mmHg resolution	0.1	
Air velocity m/s	0.40 to 30.00	± (3% ± 0.2 ms)
Air velocity ft/min	80 to 5900	± (3% ± 40 ft/min)
Air velocity km/h	1.4 to 108.0	± (3% ± 0.8 km/h)
Air velocity MPH	0.9 to 67.0	± (3% ± 0.4 MPH)
Air velocity knots	0.8 to 58.0	± (3% ± 0.4 knots)
Air flow CFM	0 to 999,900ft³/min	
Air temperature	0 to 50.0°C	± (1.0°C)
Size (L x W x D)	203 x 75 x 50mm	
Weight	725g	

LEVEL METER



MT981

The MT981 is a portable filling level indicator for all (propane/butane - LPG) steel or aluminium gas cylinders with a diameter of 200mm to 350mm. It can be used to check whether there is liquid in the cylinder at the test point and determine the filling level.

Features

- Gas Cylinder level Measurement
- Propane/Butane - LPG Gas Level Indicator
- Beep Contact Indicator
- Green LED - Liquid detected at test point
- Red LED - No liquid detected at test point
- Cylinder Type - Steel, Aluminium & Water Tanks

Function	Range
Cylinder Type	Steel or Aluminium
Cylinder Diameter	200mm to 350mm
Green LED	Liquid Detected
Red LED	No Liquid Detected at Test point
Low Battery Indication	Two Status Indicator LED's Flash
Battery	PP9
Size (L x W x D)	146 x 46 x 30mmmm
Weight	99g

VIBRATION METER



MT965

The MT965 is a portable vibration meter used for measuring acceleration and velocity. All industrial machinery vibrates therefore knowing the level of vibration is a useful guide for determining the machine condition. Poor balance, misalignment and looseness of the structure will cause the vibration level to increase. This is a sure sign that maintenance is needed. The MT965 has a microprocessor and is the ideal instrument for industrial vibration monitoring.

Features

- Measuring acceleration and velocity
- Velocity Range 200mm/s
- Min / Max
- Frequency 10Hz - 1KHz
- Separate vibration probe with magnetic base
- RMS and peak measurement
- Microprocessor based

Function	Range	Accuracy
Velocity range	0.5 to 199.9 mm/s²	
Acceleration range	0.5 to 199.9 m/s²	
Calibration point velocity	50mm/s (160 Hz)	
Calibration point acceleration	50m/s² (160 Hz)	
Frequency accuracy	160 Hz, 80Hz	± (5% +2)
Frequency Range	10Hz to 1KHz	
Sample Rate	1 second	
Size (L x W x D)	185 x 78 x 38mm (meter) 16mm dia x 29mm (probe)	
Weight	274g (meter), 38g (probe)	

SPECIALIST METER



BORESCOPES / PV INSULATION TESTER

VIDEO BORESCOPE

The MT175 Video Borescope system features an integrated LCD colour monitor for real-time viewing and a variety of imaging and measurement functions to meet your inspection needs with a flexible gooseneck camera probe that is waterproof and retains its configured shape for inspecting hard-to-reach areas.
This Borescope offers the latest video borescope technology that are diverse enough to meet your application needs. Ideal to look into tight spots, in dark and moist areas, inspect machine defects internally using the colour LCD monitor. The MT175 can be used for automotive inspection, HVAC inspection, cable routing, boat and aircraft inspection.

Function	Range
Display screen	3.2 Inch TFT
Display pixel	240(RGB) x 320
Photosensitive Devices	¼ inch CMOS
Sensor pixel	640 x 480
Maximum Number of frames(FPS)	30FPS/S
Colour Digit(bit)	24 bit
Focusing distance	Fixed at 5 to 15cm
Gooseneck Length	1m (2/3m selectable)
Camera diameter	17mm
TV-OUT	PAL/NTSC system
Charging system	In camera (AC adapter)
Photo resolution	640 x 480
Video format	MPEG4/3GP/AVI/ASF
Photo format	JPEG
Camera Video format	3GP
Save Image format	JPG (640 x 480)
SD Card	Max 32GB
Flash Memory	Max 8GB
Interfaces	USB data cable and SD card
Size (L x W x D)	240 x 100 x 160mm
Weight	584g

LOG Datalogger

Features

- 3.2" Colour TFT LCD / Resolution: 320 x 240
- On-site photo/video, time and date display
- Video/images transferred to PC via SD card / USB cable
- 1m Flexible gooseneck for hard to reach places
- Camera/video function 3GP / Compatible with TV (TV-OUT)
- Allows viewer to view image on LCD monitor
- Viewing distance 5 to 15cm / Viewing angle 68°
- Rechargeable battery with USB included
- 32MB SD Card
- Image rotation / JPEG Picture format
- Image or video deletion and recording
- Adjustable LED lighting
- Waterproof IP67



MT175

VIDEO BORESCOPE

The MT173 Video Boroscope offers the latest video borescope technology that are diverse enough to meet your applications needs.
The MT173 Video Borescope system features an integrated LCD colour monitor for real-time viewing and a variety of imaging and measurement functions to meet your inspection needs with a flexible gooseneck camera probe that is waterproof and retains its configured shape for inspecting hard-to-reach areas.

Function	Range
Display screen	3 Inch TFT LCD
Display pixel	960 (w) x 240 (h)
Photosensitive Devices	¼ inch CMOS
Sensor pixel	300,000
Maximum Number of frames(FPS)	30FPS/S
Colour Digit(bit)	24
Focusing distance	Fixed at 5 to 25cm
Gooseneck Length	1m/(39 Inch)
Camera diameter	17mm/(66 inch)
TV-OUT	PAL/NTSC system
Charging system	In camera (AC adapter)
Operation Temperature	0°C - 50°C
Size (L x W x D)	235 x 100 x 95 mm
Weight	584g

Features

- 3.2" Colour TFT LCD / Resolution: 320 x 240
- Compatible with TV-OUT
- TV peripherals to support operations in other devices
- Allows viewer to view image on LCD monitor
- 1m Flexible gooseneck for hard to reach places
- Viewing distance 5 to 25cm / Viewing angle 68°
- Rechargeable battery / USB cable
- Image rotation / JPEG Picture format
- Standby function
- Adjustable LED lighting
- Waterproof IP67



MT173

PV INSULATION TESTER

The K6024PV can measure insulation resistance of PV systems with open voltages of 1000V or less and of low voltage installations of 600V or less. It also measures earth resistance and features an automatic AC/DC voltage detection when measuring distribution lines. The K6024PV is compact and lightweight and has an internal memory that can store up to 1000 recordings that can be transferred to PC for analysis.

LOG Datalogger

Insulation resistance	PV insulation	Insulation Range
Test voltage	500V / 1000V	250V / 500V / 1000V
Measuring range(Auto range)	20.00/200.0/2000MΩ	20.00/200.0/2000MΩ
Mid-scale value	—	50MΩ
Rated current	—	1.0-1.2mA / 0.25MΩ 0.5MΩ 1MΩ
First effective measuring range	1.51-200.0MΩ 1.51-1000MΩ	1.51-100.0MΩ 1.51-200.0MΩ / 1.51-1000MΩ
Accuracy	±1.5%rdg±5dgt	±1.5%rdg±5dgt
Open circuit voltage	0 - +20%	
Short circuit current	Max 1.5mA	
Earth resistance		
Measuring range(Auto range)	20.00/200.0/2000Ω	
Accuracy	±3.0%rdg±0.1Ω (20Ωrange)	±3.0%rdg±3dgt (200/2000Ωrange)
Voltage measurement		
Measuring range	AC 5-600V (45-65Hz)DC	±5-±1000V
Accuracy	±1.0%rdg±4dgt	
Size (L x W x D)	84 x 184 x 133 mm	
Weight	900g	



K6024PV

Features

- Accurate measurement of insulation resistance even with Photo Voltaic (PV) arrays generating power.
- Elapsed time measurement
- 1000 data point memory
- Volt Amperometric Earth resistance 2pole and 3pole
- Luminescent buttons and Backlight
- Remote probe test button
- IP54 Water proof design



LCR / CAPACITANCE / MILLIOHM METER

LCR METER



MT957

The MT957 LCR meter is battery operated and provides direct and accurate measurements of inductors, capacitors and resistors with different frequencies and is selectable for auto ranging of manual ranging. Convenient front panel pushbuttons and controls include functions such as data hold, maximum and minimum record mode and relative mode. The 11,000 count LCD display is backlit for easy reading in dark locations.

Features

- Provides direct and accurate measurements of inductors, capacitors and resistors with different frequencies and is selectable for auto/manual ranging
- 11 000 Count LCD display
- Min / Max
- Relative mode
- Measures inductance to 20H
- Resistance 40MΩ
- Capacitance

Function	Range
Resistance	40MΩ
Capacitance	110.00mF
Data Hold	Yes
Inductance	20H
Min/Max	Yes
Relative mode	Yes
Size	150 x 70 x 48mm
Weight	255g

CAPACITANCE METER



MT955

This compact and lightweight MT955 capacitance meter offers a wide measuring range for all capacitors from 0,1pF to 20 000µF. The meter has built-in inputs whereby the capacitors can be inserted directly into the instrument, and for cases where this is not possible due to large capacitors, test leads are supplied.

Features

- Capacitance to 20mF
- 0.1pF Resolution
- Automatic polarity indication
- Zero adjustment for low capacitance range
- Easy-to-read 31/2 digit 2000 count LCD display
- Low battery indication

Function	Range	Accuracy
Capacitance	200pF to 20mF	
Capacitance resolution	10pF	
Capacitance accuracy	±(0.5% +1 +0.5pF)	
Over range indication	Yes	
Size (L x W x D)	145 x 69 x 38mm	
Weight	190g	

MILLIOHM METER



MT985

The MT985 Milliohm & Multimeter Tester measures low resistance from 400mΩ to 40mΩ with a 0.1mΩ resolution and a test current of 200mΩ. This compact handheld unit provides fast and accurate measurements on a large high contrast 400 count LCD Display with a bargraph and backlight. The MT985 also measures AC/DC voltage, AC/DC current resistance, capacitance, continuity and diode test offering excellent performance and is ideal for any industry.

Features

- 4 Terminal Kelvin measurements
- High resolution 0.1mΩ
- Test current of 200mA
- AC 750V / DC 1000V
- AC / DC 400mA
- Capacitance 1pF to 40mF
- MIN / MAX
- Relative mode
- Data Hold
- Continuity
- Diode
- 4000 Count LCD
- Bargraph and backlight
- Low battery indication
- Overload protection

IEC 61010-1 CAT III 1000V

Function	Range	Accuracy
Low Resistance	400MΩ - 40Ω	±(1% +10)
DC Voltage	1000V	±(1.2% +5d)
AC Voltage	750V	±(1.5% +10d)
DC Current	400mA	±(1.0% +2d)
AC Current	400mA	±(1.5% +5d)
Resistance	40MΩ	±(1.0%+4d)
Continuity	Yes	
Data Hold	Yes	
Back Light	Yes	
Capacitance	40mF	±(3.0%+10d)
Bargraph	Yes	
Min Max	Yes	
Size (L x W x D)	200 x 92 x 50mm	
Weight	±700g (incl. battery)	





CALIBRATOR / MOISTURE METER

The MT990 is a portable instrument used for calibrating process devices and measuring process signals, as well as general purpose signal injection applications. This meter has four modes to provide the quality and accuracy of a bench top calibrator; these include a precision current source up to 24mA, current measurement of current signal, DC mV source and the power and measurement of a two-wire loop.
The MT990 ensures correct measurements on mass, volume, length, electricity, flow, pressure, heat and thermal energy. Saves you money by reducing waste due to accurate measurements. Enables smooth production processes.

IEC 61010-1 CAT III 1000V

IEC 61010-1 CAT IV 600V

Function	Range	Accuracy
DC Voltage resolution	0.1mV	
DC Current resolution	0.01mA	±(0.5%FS +1d)
DC Voltage	-199.9mV to 199.9mV	±(0.25%FS +1d)
DC Current	0-24mA	
Data Hold	Yes	
Back Light	Yes	
Size (L x W x D)	150 x 70 x 40mm	
Weight	232g	

Features

- Measuring process signals
- General purpose signal injection applications
- Current loop calibrator
- Load output 0 - 24mA
- Calibrator drives loads to 500Ω
- Adjustable - 199.9mV to +199.9mV DCV source
- Powers or measures a two wire current loop
- 4 Functions - current source, current measurement, DC mV source, power and current measurement of two wire loop



MT990

The MT962 Moisture Meter measures moisture level in sawn timber, dry wall partitioning, cardboard, paper, as well as in hardened materials such as plaster, concrete and mortar. The MT962 displays the moisture level immediately on the LCD Bargraph. This meter is ideal for quick reference by the Professional or Handy Man.

Function	Range	Accuracy
Measuring Principle	Electrical resistance	
Electrode Length	8mm	
Electrodes	Intergrated, replacable	
Measuring image wood	1 to 45%	
Measuring image material	01 to 2.4%	
Size (L x W x D)	139 x 47 x 25mm	
Weight	100g	

Features

- Measures hardened materials and timber
- Measures moisture levels in sawn timber, dry wall partitioning, cardboard, paper, as well as in hardened materials such as plaster, concrete and mortar
- Integral electrode pins
- Wood measurements 6% - 44%
- Material measurements 0.2% - 2.0%
- Built-in battery check
- Function check for wood display is 27% ± 2%
- Function check for material display is 1.25% ± 0.1%



MT962

The MT960 Moisture Meter is used to measure the moisture level in sawn timber, cardboard, paper, as well as hardened materials such as plaster, concrete and mortar. The MT960 is a conductivity moisture instrument that measures moisture content over the range of 6% to 99.9%. There are two integral electrode pins at the top of the meter for easy one hand operation, supplied with the meter is an extension electrode pin which is ideal when testing in hard to reach locations. Using the temperature probe the readings will be automatically temperature corrected.

Ideal application for surveying buildings for dampness and for rapid determination of the moisture content of wood, chipboard, etc. The meter is microprocessor based and assures maximum possible accuracy.

Function	Range
Measuring Principle	Electrical resistance
Electrode Length	8mm
Electrodes	2 pin moisture probes
Measuring image wood	6 to 99.9%
Wood accuracy	±(1%)
Size (L x W x D)	180 x 50 x 31mm
Weight	175g

Features

- Conductivity moisture meter
- WOOD - measure the moisture level in sawn timber, cardboard & paper
- Display moisture levels of hardened materials such as plaster, concrete & mortar
- Integral electrode pins
- 3 Digit backlit LCD
- 150 Different species of wood material provided
- 8 Calibration scales
- Built-in self calibration circuit
- Temperature measurement 0°C to 50°C (with external probe)



MT960





LASER DISTANCE METERS

LASER DISTANCE METER



MT152

This professional Laser Distance Meter is designed to give special users a high accuracy, one person distance measuring and estimating tool to measure remote and difficult reaching places. The enhanced the measurement ability of outdoor application. Shortcut keys for addition, subtraction, Pythagoras, area and volume calculation make measuring fast and very reliable. The last 20 measurements are also stored.

Features

- Area, Volume Calculations
- Indirect measurement using Pythagoras
- Indirect measurement using tilt sensor
- Angle measurement using tilt sensor(± 65°)
- Addition/Subtraction
- Continuous Measurement & Timer (self-triggering)
- Min/Max Distance Tracking
- Laser continuous
- Stake out function
- Display illumination and multi-line display
- Multifunctional endpiece
- Tripod thread
- Bluetooth with APP support
- Meterbox iLDM & cloud service

Bluetooth Interface Datalogger

Function	Range	Accuracy
Measuring Range	0.05 to 100m	
Measuring accuracy(2σ)	Typically: ±1m	
Measuring units	m,ft	
Laser Class	Class I	
Smallest unit displayed	1m	
Dust Protect/Splash proof	IP 54	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-20°C to 60°C	
Size (L x W x D)	115 x 75 x 40mm	
Weight	203g	

LASER DISTANCE METER



MT150

The MT150 is a pen-shaped laser distance meter and was specifically designed for indoor applications. Shortcut and soft grip keys for addition, subtraction, area and volume calculation make measuring fast and very reliable.

The Meterbox software can support the MT150 transferring the measured data to your smartphone. The easy to use software makes it possible for you to check, transfer or edit the data with tables & charts.

Features

- Bluetooth 4.0 wih App support
- Distance measuring and estimate tool
- Area, Volume calculations
- Measures up to 50m with1.5mm accuracy
- Indirect measurement using Pythagoras
- Addition / Subtraction
- Continuous measurement
- Min / Max distance tracking
- Display illumination and multi-line display
- Store 20 measurements
- Best for indoor applications
- IP54

Bluetooth Interface Datalogger

Function	Range	Accuracy
Range	0.05 to 50m	
Measurement units	m, in & ft	
Laser class	Class II	
Laser type	635nm, less than 1mW	
IP Grade	IP54	
Size (L x W x D)	135 x 33 x 24mm	
Weight	80g	

LASER DISTANCE METER



MT145

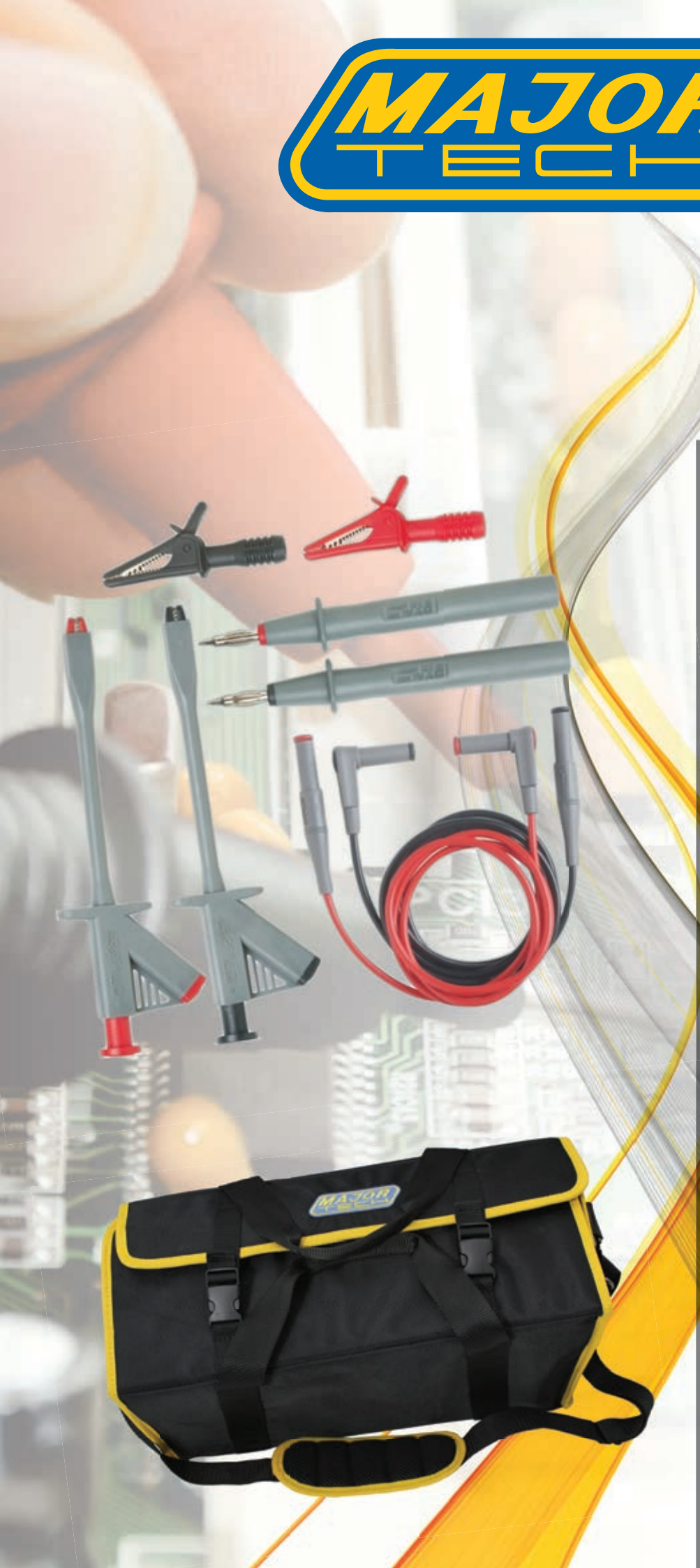
This professional Laser Distance Meteris designed to provide a high accuracy to special users, one person distance measuring and estimating tool to measure remote and difficult reaching places. This meter offers enhanced the measurement ability of outdoor application. Shortcut keys for addition, subtraction, Pythagoras, area and volume calculation make measuring fast and very reliable. The last 20 measurements are also stored.

Features

- Unit selectable (m, ft, in)
- Area, Volume Calculations
- Continuous Measurement
- Min/Max Distance Tracking
- Bluetooth4.0 with APP support Reference level selectable
- Water and dust proof
- Display illumination and 3-line display.
- Buzzer indication

Bluetooth Interface Datalogger

Function	Range	Accuracy
Measuring Range	0.05 to 20m	
Measuring accuracy(2σ)	Typically: ±1.5mm(±0.06in)	
Smallest unit displayed	1mm	
History measurement records	20	
Measuring units	m,in,ft	
Laser Class	Class II 650 nm, < 1mW	
Dust Protect/Splash proof	IP 54	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-20°C to 70°C	
Auto. laser switch-off	after 0.5 min	
Auto instrument switch-off	after 3 min	
Size (L x W x D)	100 x 30 x 22mm	
Weight	100g	



ACCESSORIES

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TEST SETS

CLIP & PROD SETS



HDT3916

Power Clip Set

Features

- Spring wire clip set with flexible insulated shank
- Approximate size 155 x 49mm
- Use with 4mm safety socket test leads HDT3081 and HDT3051
- CAT III1000V / 5



HDT3908

4mm Test Probe Set

Features

- 4mm Tips that include banana style spring contacts
- Includes protective cap for PCB testing
- Approximate size 109 x 10mm
- Use with 4mm safety socket test leads HDT3081 and HDT3051
- CAT IV 600V / CAT III 1000V / 10A

CROC & PROD SETS



HDT3925

Crocodile Clip Set

Features

- Wide opening grip claw with an insulated shank
- Approximate size 160 x 49mm
- Use with 4mm safety socket test leads HDT3081 and HDT3051
- CAT III 1000V / 10A



HDT3907

2mm Test Probe Set

Features

- 2mm Hard tip points for electronic work
- Approximate size 102 x 10mm
- Use with 4mm safety socket test leads HDT3081 and HDT3051
- CAT IV 600V / CAT III 1000V / 10A

HOOK & PROD SETS



HDT3926

Hook Clip Set

Features

- Hook clamp with an insulated shank
- Approximate size 160 x 49mm
- Use with 4mm safety socket test leads HDT3081 and HDT3051
- CAT III 1000V / 2A



HDT3923

Sharp Tip Probe Set

Features

- Sharp 8mm point tip supplied with protective cap
- Approximate size 100 x 21mm
- Use with 4mm safety socket test leads HDT3081 and HDT3051
- CAT IV 600V / CAT III 1000V / 6A

MODULAR TEST SET



HDT3051

Modular Test Set

Features

- The HDT3051 are DMM test leads and have safety shrouds with standard 4mm safety plugs
- Highly flexible PVC insulation 0.8mm2 wire
- Straight connector on both ends of the leads, and recommended accessories for HDT3907, HDT3908, HDT3909, HDT3916, HDT3917, HDT3923, HDT3925 and HDT3926
- CAT IV 600V, CAT III 1000V, 10A rating



HDT3081

Modular Test Set

Features

- The HDT3081 are DMM test leads and have safety shrouds with standard 4mm safety plugs
- Highly flexible PVC insulation 0.8mm2 wire
- Straight connector on one end and a right angled connector on the other end
- Recommended accessories for HDT3907, HDT3908, HDT3909, HDT3916, HDT3917, HDT3923, HDT3925 and HDT3926
- CAT IV 600V, CAT III 1000V, 10A rating



TEST LEADS

Electronic Test Set

Features

The HDT831 is an Electronic ComfiGrip™ test probe set consisting of:

- HDT3916 electronic probe
- HDT3923 pincer clips
- HDT3081 PVC test leads



HDT831

Universal Test Set

Features

The HDT822 is a Universal ComfiGrip™ test probe set consisting of:

- HDT3908 4mm tip probes
- HDT3926 hook clips
- HDT3909 crocodile clips
- HDT3081 PVC test leads



HDT822

Industrial Test Set

Features

The HDT821 is an industrial ComfiGrip™ test probe set consisting of:

- HDT3907 2mm tip probes
- HDT3925 crocodile clips
- HDT3081 PVC test leads



HDT821

Silicone Test Set

Features

- The HDT1288 is a ComfiGrip™ Test Probe set with one red and one black probe, and has silicone insulation and 4mm tips
- Frost flexible and temperature resistant from -40°C to 80°C
- They are recommended for general purpose measurements, and have a length 1m with 4mm safety right-angle test probes
- CAT IV 600V, CAT III 1000V, 10A rating



HDT1288

ComfiGrip™ Test Set

Features

- The HDT1284 is a ComfiGrip™ Test Probe set with one red and one black probe, and has a PVC insulation and 4mm Tips
- It is recommended for general purpose measurements, the cable length is 1m with 4mm safety right-angle test probes.
- CAT IV 600V, CAT III 1000V, 10A rating



HDT1284

ComfiGrip™ Test Set

Features

- The HDT1282 is a ComfiGrip™ Test Probe set with one red and one black probe, and has a PVC insulation and 2mm Tips
- It is recommended for general purpose measurements, the cable length is 1m with 4mm safety right-angle test probes
- CAT IV 600V, CAT III 1000V, 10A rating



HDT1282

Economy Test Set

Features

- The MT820 is an economically priced test probe set with one red and one black probe, and has a PVC insulation and 4mm tips
- It is recommended for general purpose measurements, and has 4mm safety right-angle test probes
- CAT II 600V, 10A rating



MT820

Fused Test Leads

Features

- The K7159 are fused test leads fused with a 10A 600V fuse.
- The set comprises of one red and one black probe, and have a PVC insulation and 4mm Tips
- They are recommended for use with multimeters, and have a 4mm safety right-angle test probes
- CAT III 1000V, 10A rating



K7159



TEST LEADS

TEST LEADS

Test Leads

Features

- The MT810 are replacement test leads for the Major Tech MT1800 series IP67 multimeter range
- CAT IV 600V, CAT III 1000V, 10A Rating



MT810

Distribution Board Leads

Features

- 1500mm Spare distribution board leads for the K6011





K7133

TEST LEADS

Insulation Tester Leads

Features

- 1220mm Spare insulation test leads for the K3131, K3132, K3005, K3007 and K6011



K7122

Distribution Board Leads

Features

- 1500mm Spare distribution board leads for the K4118





K7121

TEST LEADS

Insulation Tester Leads

Features

- 1500mm Spare high voltage leads for the K3121, K3122 and K3123



K7058

Test Leads for Clamp Meters

Features

- 1100mm
- Applicable model: K2007R, K2040, K2046R, K2055, K2056R



K7066

TEST LEADS

Earth Resistance Leads



K7095

Features

- Spare set of leads consisting of a 5m green lead, a 10m yellow lead and a 20m red lead for the K4105

Earth Spikes



K8032

Features

- Spare set of earth spikes for the K4105

Power Cord



K7126

Features

- 1500mm Spare power cord with a South African plug for the K4118






TEST LEADS

Crocodile Clip Set



HDT3917

Features
- Wide opening crocodile clip set with a jaw opening approx 23mm
- Approximate size 94 x 42mm
- Use with 4mm safety socket test leads HDT3081 and HDT3051
- CAT IV 600V / CAT III 1000V / 16A

Crocodile Clip Set



HDT3909

Features
- Universal crocodile clip set with a jaw opening approx 36mm
- Approximate size 82 x 36mm
- Use with 4mm safety socket test leads HDT3081 and HDT3051
- CAT III 600V / CAT II 1000V / 10A

Crocodile Clip Set



HDT3914

Features
- Economy crocodile clip set with a jaw opening approx 10mm
- Approximate size 64 x 20mm
- Use with 4mm safety socket test leads HDT1288, HDT1284,HDT3081 and HDT3051 test leads
- CAT III 600V / CAT II 1000V / 10A

Test Lead Light



MT825

Features
- Fits test leads with a penholder diameter of 8 - 12mm
- Easy to use
- Ideal for dimly lit areas

Kelvin Clip Test Leads



MTKCTL

Features
- Kelvin clip test leads for the MT933

Measurement Test Leads



K7127

Features
- 1570mm Simplified measurement test leads
- (K4102 / K4105)

Earth Probe



K7132

Features
- 1200mm Spare earth cord for the K6011
- Ø4mm Terminals

Test Leads



K7128

Features
- Test leads for the K5410
- Ø4mm Terminals

Voltage Test Lead Set



K7141

Features
- 3000mm Spare line probe for the K3125
- Ø4mm Terminals

Line Probe



K7165

Features
- 3000mm Spare line probe for the K3125

Line Probe with Aligator Clip



K7168

Features
- 3000mm Spare line probe for the K3125

Test Leads with Remote Switch



K7196

Features
- 1550mm Test leads with remote control switch
- for K6016

Earth Cord



K7224

Features
- 1500mm Spare earth lead for the K3121,
- K3122, K3123, K3125, K3127, K3128

Guard Cord



K7225

Features
- 1500mm Spare guard cord for the K3121, K3122,
- K3123, K3125, K3127

Line Probe



K7226

Features
- 3000mm Line Probe for the K3128

Test Leads



K7221

Features
- Test leads for the K6016 and K4140
- Ø4mm Terminals





TEST SETS

CARRYING CASES

Hard Carrying Case



MT651

Features

- Hard carrying case with partitions.

Heavy Duty Meter Bag



Registered Design

MTKBAG

Features

- Specially designed by Major Tech to be compact with a shoulder strap
- Adjustable compartments for bigger instruments or tools
- Pocket for instruction manuals or documentation

Carrying Case



MT827

Features

- Carrying case for digital multimeters
- Size: 220x110x60mm

ACCESSORIES

Extension Cable



K7185

Features

- 3000mm Extension cable
- Applicable for K8121, K8122,
- K8123, K8124, K8125, K8126,
- K8127,K8128, K8141, K8142,
- K8143, K8146, K8147, K8148

Output Cable



K7199

Features

- 1000mm Output cable
- Applicable for K8129

Magnetic Strip



MTMAG

Features

- Rubber magnet strip for use on MT500, MT550, MT560, MT330, MT350, MT985 and MT1800 series DMM's

CLAMP SENSORS

Leakage and Current Clamp Sensor



K8141

Features

- Jaw Ø24mm
- 1000mA AC
- Accessory for : K5001 / K5010 / K5020 / K6315

Leakage and Current Clamp Sensor



K8142

Features

- Jaw Ø40mm
- 1000mA AC
- Accessory for : K5001 / K5010 / K5020 / K6315

Leakage and Current Clamp Sensor



K8143

Features

- Ø68mm
- 1000mA AC
- Accessory for : K5001 / K5010 / K5020 / K6315

ACCESSORIES

Thermocouple Module



MT801

Features

- Use with most digital multimeters having a standard 4mm input jack and 10MΩ or greater impedance
- All the Major Tech temperature probes can be used with the MT801

15A Socket Adaptor



MT802

Features

- Temperature Plug adapter for MT700 series clamp meters.

Carrying Case



K9135

Features

- Soft carry bag for the K5010, K5020 and K5001KIT
- Dimensions: 250(L) x 270(W) x 216(D)mm

Why are CATIV Meters Needed?







Voltage spikes (surges) are a constant threat

As electrical distribution systems become more complex the chances of voltage spikes are always increasing. These spikes are superimposed to normal Mains voltage waveform as shown in figure 1.

These voltage spikes are generated by:
(a) The switching of large loads such as big motors, capacitor banks in power factor correction units, variable speed drivers etc.
(b) Lightning that strikes a middle / high voltage cable, even if this is kilometers away.

A voltage spike is unpredictable and can be much higher than the maximum rated voltage of our measuring instrument.

Eg. if we are carrying out a Mains voltage measurement in a 230/400V AC distribution line, the spike could reach voltage values of 10 times higher (some 4000 V).

In this case, our safety depends on the protection circuits of our instrument. However its max voltage rating alone (for instance 300 or 600V) gives no indication of the instrument's capability to withstand high voltage spikes. If the instrument is not purposely designed to withstand these high voltage spikes, it will blow and a potential arc blast can create a life-threatening situation for the end user.

Thus the safety of a measuring instrument has to be based on both the max voltage rating and the withstand capability against the over voltage spikes.

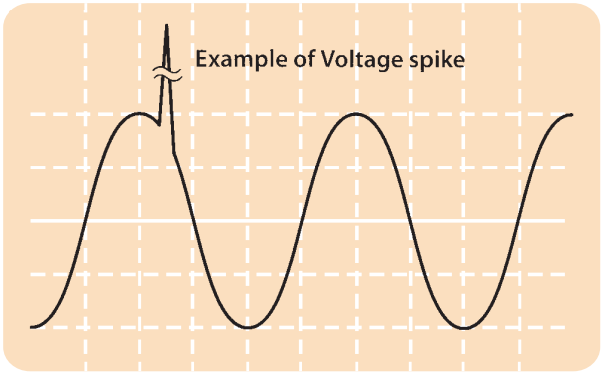


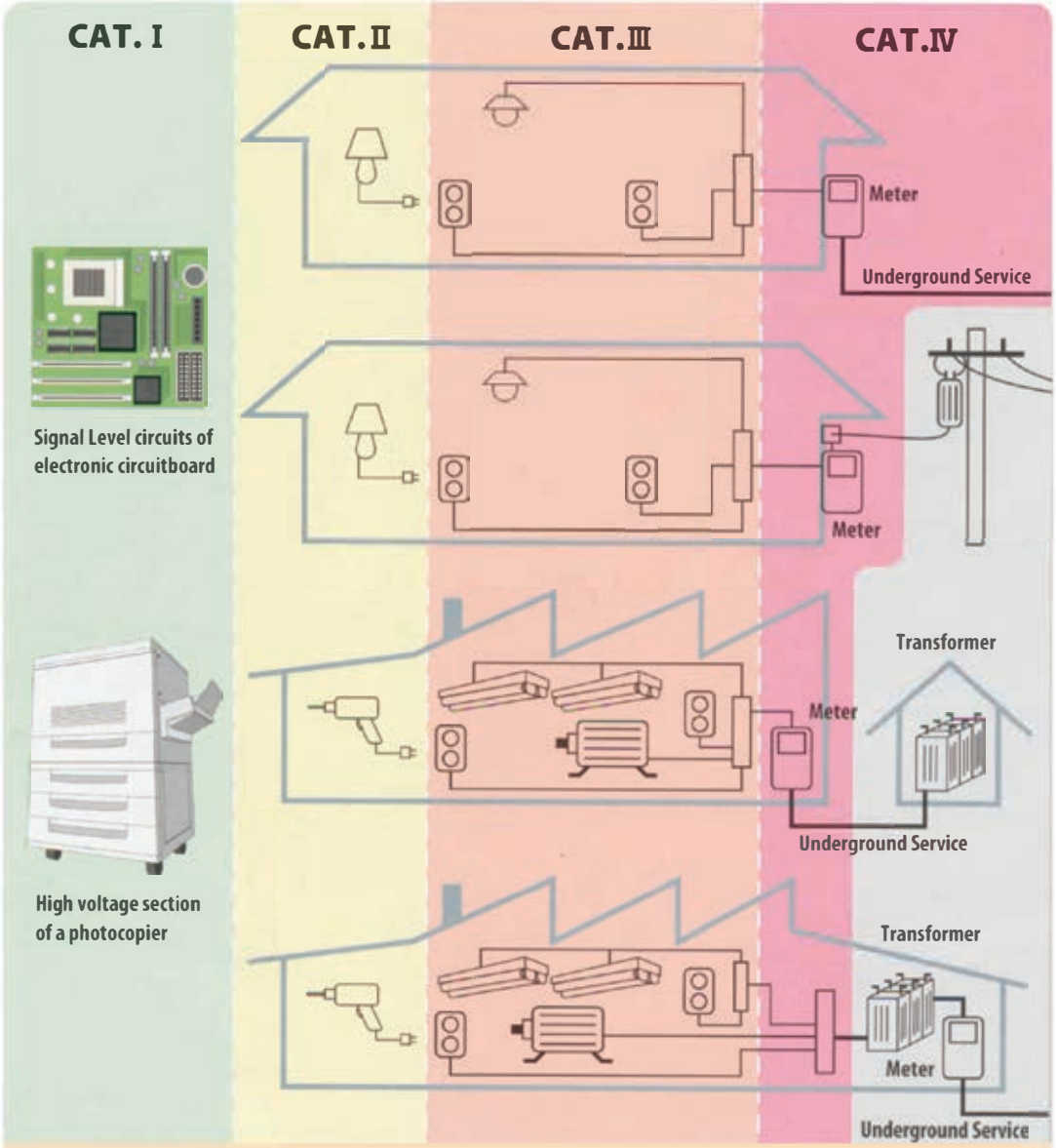
figure 1.

APPLICATION NOTES & GLOSSARY

Standard for Overvoltage - Measurement Categories

To protect us against overvoltage spikes, we must use Instruments that meet the requirements for high protection standards. The IEC (International Electrotechnical Commission) has prepared an International and European safety standard named IEC 61010-1 with the aim of defining the safety requirements for measuring instruments.

In particular IEC 61010-1 standard defines also the safety Measurement areas called Categories, shortly indicated with the abbreviation "CAT".
These Categories start from CAT I to CAT IV and the most dangerous one is the CAT IV. The figure below shows some area examples of Measurement Categories.



Measurement Category Areas

NOTE : The measurement category areas showed in the above drawing are intended only for low-voltage (<AC l000V) test instruments. Therefore the high voltage section of the drawing in grey colour is not intended as CAT IV measurement category area for low-voltage(<AC 1000V) test instruments.

High voltage spikes are more dangerous at the origin of the installation since a spike is attenuated during its transit through the installation as a result of cable impedance. The categories are thus classified accordingly.
So, the closer we are to the power source origin (eg. the secondary side of a power transformer or the incoming service cable) the higher is the category number and the potential danger from voltage spikes.
Therefore an instrument designed for CAT IV, can resist high voltage spikes for CAT IV and for all the lower categories as CAT III, CAT II and CAT I.

Some Measurement Category Scenarios

CAT IV

Generally the Measurement Category CAT IV is for measurements to an area at the origin or near the origin of installation.
This area includes:

- An incoming service cable whether it is an underground cable or an overhead line to a detached building.
- The outside and service entrance.
- The service drop from a pole to a building.
- The tails from the power electricity meter to the main protective device (breaker or fuse) or main distribution board.
- The secondary side of Middle Voltage Power Transformer and its main distribution board closed to it.

N.B. instruments designed for CAT IV may also be used in all lower Categories III, II, I and when an even higher degree of reliability and availability is desired.

Note:
An overhead line that supplies a house might be only 230 or 400V but it is still technically CAT IV because any outdoor conductor can be subject to very high energy lightning-related overvoltage spikes.
Also incoming underground cables are considered as CAT IV; because although they may not be struck directly by lightning, a nearby lightning strike can generate high electro-magnetic fields that induce overvoltage spikes on the underground cables.

CAT III

Generally the Measurement Category CAT III is for measurements performed to an area inside the building installation.
This area includes:

- Equipment in fixed installations such as main switchgear and distribution boards.
- Stationary Motors with permanent connection, Bus-bar, junction boxes and sub main cables in industrial plants.
- Short branch circuits, fuse or circuit-breaker panels and some mains installation control equipment.
- Fix Lighting systems and wiring including cables.
- Three-phase and Single-phase appliance sockets.

N.B. instruments designed for CAT III may also be used in all lower Categories II and I.

CAT II

Generally the Measurement Category CAT II is for measurements performed on circuits directly connected to the low voltage installation.
Examples are:

- Portable (e.g. driller, hair dryer, table lamp, etc) or fixed (e.g. fridge, water heater, etc) equipment powered via a socket outlet.
- Household appliances, portable tools and similar equipment.

N.B. Instruments designed for CAT II may also be used in Category I area.

CAT I

Generally the Measurement Category CAT I is for measurements performed to the following examples below.

Examples are:

- Equipment intended to be connected to a Mains supply in which means have been taken to substantially and reliably reduce overvoltage spikes to a level where they cannot be a hazard.
- Any high-voltage (but with low-energy source) derived from a highwinding resistance transformer, such as the high-voltage section of a photocopier.
- Signal level circuits for telecommunications and electronic equipment.

Note:
Inside a photocopier (or other appliances like TVs, Monitors, Pc's, etc. that fall within typical CAT I area) we could actually find some DC voltages much higher than the Mains voltage of 230V / 400V AC measured on a large motor typically classified as a CAT III area.
However the spikes in a CAT I electronic circuitry, whatever the voltage, are clearly of a lesser threat than ones we can find on a CAT III area, as the energy available to form an arc is limited.
This does not mean that there is no electrical hazard present in CAT I equipment.

Some Measurement Category Scenarios

In some cases it is difficult to classify the correct category as the same equipment could contain more than one category.

Examples:

- In electronic equipment like a photocopier, TV, monitor etc, there is often more than one category. For instance, in a photocopier; from the 230V side of the power supply back to the socket out- let is CAT II. But its electronic circuitry is CAT I.
- In building control systems, such as lighting control panels, or industrial control equipment such as PLCs, programmable controllers it is possible to find electronic circuits (CAT I) together with power circuits (CAT III).

What should be done in similar situations? It is not reasonable to study and define the right category before each and every measurements. So it is always recommended to select an instrument with a rated category and voltage sufficient to cater for the worst case scenario.

Safety first is the right choice!

Before purchasing a new Clamp Meter, we strongly recommend to consider the worst case scenario you might come across in your job and then determine which category is needed.
So first choose a Clamp Meter designed for the highest category you could be working in. Then, look for a Clamp Meter with a voltage rating and the category matching your needs.
The modern clamp meters designed to meet the IEC 61010-1 must clearly mark all the Category information and the max voltage rating. See the example shown in the picture:



Look for Category and Voltage rating of your Clamp Meter!

K2056R

Instrument Glossary

Accuracy

The accuracy of a digital tester is defined as the difference between the reading and the true value for a quantity measured in reference conditions.
Accuracy is specified in the format: (±xx% rdg ±xx dgt)
The first portion identifies a percentage error relative to the reading, which means it is proportional to the input. The second portion is an error, in digits, that is constant regardless of the input.
"Rdg"is for reading and "dgt"is for digits. Dgt indicates the counts on the last significant digit of the digital display and is typically used to represent an error factor of a digital tester.

Auto-discharge Function

A function used immediately after an insulation test to automatically release charges stored within the circuit under test during measurement.
Voltage remaining in the circuit under test can be monitored during auto-discharging process as the scale reading.

Auto-ranging

A function of a tester to automatically select the appropriate measuring range based on the input signal.

Average Value
The average of an AC waveform's instantaneous values taken over a half cycle. Ordinary testers respond to the average value.

For sinusoidal wave:
Average value = Maximum valuex2/1π= Maximum valuex0.637

When the true RMS value is 100V;
Average value= Maximum valuex2/1π=141 x0.637 = 90(V)
The reading of ordinary testers is calibrated in terms of the effective value of a sinusoidal wave even though they are responding to the average value. They are called average- responding-RMS-calibrated type of testers. As opposed to these, true-RMS type testers respond and show the true RMS value.

Crest Factor

The ratio of the maximum value to the effective value.
It represents the range of input in which a tester maintains linear operation, expressed by a multiple of the full scale value of the range being used.
Crest factor = Maximum value/True RMS value
For sinusoidal wave;
Crest factor = 141/100= 1.41

Data Hold

A function to freeze the reading on a digital display for ease of checking or recording even in a difficult-to-read situation for a tester.

Decibel: dB

A unit used to express the magnitude of change in level of electric signal or sound intensity.
A voltage ratio of 1 to 10 is equal to -20dB, 10 to 1 to 20dB, 100 to 1 to 40dB and 1000 to 1 to 60dB. A power ratio of 10 to 1 is not 20dB, but 10dB, since power(P) is proportional to the square of voltage(V).

Diode

A function to apply a diode or a transistor a constant current having a value needed to turn it on in order to check the diode's or the transistor's forward voltage drop and identifying the connection direction of the device.

Distortion Factor

A degree of distortion of a waveform, typically expressed as the ratio of the effective value of harmonic components to the effective value of the fundamental component.

Dual Integration Method

A technique to convert voltage into time. The first integration time (Ts) and the second integration time (Tx) are used. First, the input voltage (Vx) is integrated on a certain time interval (Ts) and then, the resulting voltage is "reverse-integrated" using a reference voltage (Vr) until it becomes 0 (zero).

The "reverse-integration time" (Tx) is proportional to input voltage (Vx). Therefore, the input voltage (Vx) can be determined by measuring Tx.

With this technique, stable measurements can be taken with high accuracy, resolution and noise rejection ratio. One particular advantage is high noise rejection ratio at 50 or 60Hz power line frequency. All of Kyoritsu digital clamp meters and testers utilize this method.

Effective Measuring Range of Insulation Tester

The measuring range for which the accuracy of an insulation tester is guaranteed. There are two kinds of effective measuring ranges: the first and second effective measuring ranges.

First effective measuring range
From 1/1000 to 1/2 the maximum effective scale value
(When there is no major scale division for 1/2 the maximum effective scale value, the nearest major scale division is used.)

Second effective measuring range
Scales divisions not included in the first effective measuring range For example for a 500V/100MΩ insulation tester;
First effective measuring range: 0.1-50MΩ(:±5% of indicated value)
Second effective measuring range: 50-100MΩ(:±10% of indicated value)

Form Factor

The ratio of the effective value to the average value.
Form factor = Effective value/Average value

Frequency Response

The manner in which a device changes its output quantity, its indication for a measured quantity or its response over a range of frequencies.
AC signals to measure with a tester can be of one frequency or from a wide frequency band ranging from low to high frequencies. To measure these frequencies, it is better to use a tester having a wide frequency response range.

Instrument Glossary

Hall Element

When a current-carrying conductor is placed in a magnetic field so that the direction of the magnetic field is perpendicular to the direction of the current flow, voltage is developed in the direction perpendicular to both the magnetic field and the current flow. This is called the Hall effect and the Hall element is a device that utilizes the effect. Major Tech AC/DC clamp meters and clamp sensors employ the Hall element.

Harmonics

Power line AC voltage from a utility company has near sinusoidal waveform of fundamental frequency with little distortion. When only a load consisting of resisters, capacitors and coils, called a linear load (its constant is fixed regardless of the amount of current flowing through it), is connected to mains supply, no distortion is introduced into the load current waveform. However, when a non-linear load, such as a semiconductor and a saturable reactor, is connected, distortion appears in the load current waveform.

The current with a waveform containing distortion, or harmonic current, flows in the direction toward the low impedance side and in the process, produces voltage drop over the impedance of the current path, causing the load voltage also to contain harmonics.

Indicated Value

The value indicated by a tester for a measured quantity.

Peak Hold

A function to memorize the peak value over a certain period of time. *Response time is selectable from approx. 10ms and 100ms. Reading in the peak hold mode is the peak current value multiplies by 1√2.

(When the input is sinusoidal, the reading is equal to the true RMS value.)

Peak Value

The value at a point where a waveform has the maximum amplitude.

Resolution

The minimum increments in which a tester can take measurements.

Sample Rate

Frequency at which an AID converter circuit senses the quantity to measure: typically, twice or three times per second.

Sensitivity

The ability of a tester to respond to the quantity to measure, expressed as the ratio of a change induced in the reading to a change in the input:

$$\text{Sensitivity} = \frac{\text{Change in reading}}{\text{Change in quantity to measure}}$$

Shock Hazard

Also referred to as electric shock. When a person touches a motor that has a "leak", a path can be created from the motor frame to the hand, body and feet of the person to the floor he is standing on to allow a current to flow through it, sometimes resulting in a fatal accident.

The seriousness of a shock hazard widely varies depending on the amount and duration of the current that flows through the person's body. His constitution, age and medical condition are also variation factors, but in general, at a frequency of 50 or 60Hz, stimulus to the skin is felt at 1 mA, considerable pain occurs at 5mA, pain is unbearable at 10mA, there is difficulty in releasing the "leaking" object because of intense muscle contraction at 20mA, it is considerably dangerous at 50mA and fatality is likely at 100mA. For the safety limit for a fatal current, which causes ventricular fibrillation, Professor Dalziel proposed the following equation from numbers of experiments on animals.

$I=165\sqrt{t}$

Where, I =current (mA) and t=time (sec).

From this theory, the maximum duration for a current of 165mA is 1 second.

Thermocouple

A device that uses the voltage developed by the junction of two dissimilar metals to measure temperature. One junction, called the measuring junction, is placed at the point where temperature is to be measured. The other junction, called the reference junction, is maintained at a reference temperature. The voltage developed between the two junctions varies depending on the difference between the temperatures of the two junctions and the type of thermocouple.

True RMS Value

The square root of the average of the square of a periodic waveform's instantaneous values taken over one cycle. It is also called the rms value and the most closely relates to such form of energy as force and heat.

(The effective value of an alternating current is expressed as the value of the direct current which produces the same amount of heat as the alternation current does.)

For sinusoidal wave:

True RMS =Maximum valuex1/√2= Maximum valuex0.707

When a True RMS is 100V ;

Maximum value True RMSx√2=100x1.41=141(V)

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Comprehensive Catalogue Range

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VETI

The Veti range of products include the Veti 1 modular and monoblock switches and sockets which are designed by South Africans for South Africans. The recently launched range of Veti 2 low cost switches and sockets have our newly developed and patented Reset Switch mechanism with a modern sleek look. Included in this catalogue is the full range of Miniature Circuit Breakers (MCB) and DB Boards, plus populated DB boards and Pull Up Towers.



LIGHTING

This lighting catalogue displays the comprehensive range of LED decorative lighting, LED panel lighting for commercial and domestic use, full range of LED lamps available in standard or dimmable versions, plus LED security lighting and motion sensors. Lighting automation is the future and our full range of cost effective lighting automation products and diagrams assist the customer in making the correct choice.



TOOLS

Our tools are developed by Electricians for Electricians and we recently introduced the ungraded 4th edition of our ever popular 1000V pliers and cutters with a composite TPE handle and Chrome Vanadium. We constantly review our tool range and now have introduced the new and improved range of economy pliers, hammers, headlights and worklights, toolkits and crimping tools, plus our newly developed range of tape measures with the 5m model now having a 25mm blade width.



INSTRUMENTS

Major Tech is known for their innovation and quality when it comes to test and measuring instruments. The new MT1005 and MT1003 multimeters are a new range of professional multimeters that can log events and have Trend Capture, then uses Bluetooth to send the data to a Smartphone or PC. Other new meters include our Thermal Imagers, combined Thermal Imager + DMM, Laser Distance Meters, K-Series Electrical test meters and Cable meters.

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