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# INSTRUMENTS & TOOLS CATALOGUE



Major Tech was founded in 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 technological development and these new ideas and concepts can rapidly be brought to market. The success of Major Tech and our 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 at an affordable price. 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. Due to the enhancement of the Solar Industry and the growth of this new energy, DC testing requirements have become more of a necessity than a preference. Major Tech have recently upgraded the MT1885 and MT1887 to measure 1500V DC plus the added feature of Bluetooth. With technological advancements, we are excited to introduce the MT784, a thermal imaging clamp meter, measuring 1500V DC with Bluetooth 4.0 technology. For the solar industry, the MT782 clamp meter and recently upgraded MT785 Harmonic and Power clamp meter both with Bluetooth 4.0 technology, have been developed to measure 1500V DC.

Infrared (IR) thermometers has been a focal point for Major Tech for many years, but as technology changes we have found the need to introduce Infrared Thermal Imaging to the range. In recent years we have developed a range of Thermal Imagers to meet the needs of all customers. Recently introduced is the low cost MTi11 Thermal Imager which meets the needs of the independent electrician, helping solve possible problems in DB boards and connections. Our advanced Thermal Imaging and DMM technology has allowed us to introduce the MT2005, a combined Digital Multimeter & Thermal Imager with the added benefit of Bluetooth transmission for fast and accurate image transfers.

Software has become an integral part of measuring tools for users, and in recent times we have introduced Bluetooth to many of our meters, allowing data and measurements to be transmitted to the free App for both iOS and Android devices. The Bluetooth function is available for some DMM's, Laser Distance Meters, Clamp Meters, Thermal Imagers and Environmental Meters.

Major Tech is celebrating 30 years of service to the South African market in 2022 where our name and history has been proven in ensuring total customer satisfaction.

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



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

#### Measuring data transferred to Cloud • Edit, analyze & store the data < 2021-07-09 13:30:40 8 Connecting with iPhone/iPod/iPad **Record File** • Android Phone/Android Pad Sharing the data with others by E-mail, facebook & twitter Data Value(°C) Trend capture Record File Rec Time: 05/29/2019 15:44:14~1 021-07-0 Cloud backup Data num:15 Sample Rat Max: 24.90 °C 05/29/2019 AC Min: 23.90 °C 05/29/2019 Home Scanning device. Avg: 24.24 °C Data Value MT150-LDM No MT2005 MR 150 24.00 MT91EM 24.00 MT785 AM 100 23.90 3 Meterbox Pro unknown de 4 24.00 MT1005 MM 52 38 24 MT777" AM 24.00 MT745 AM 24.10 MT95 EM 24.90 24.60 24.60

#### Meterbox-iMM Software permits/functions:

### How do I choose an instrument that will keep me and my electricians safe?



Understanding the components of a safe meter

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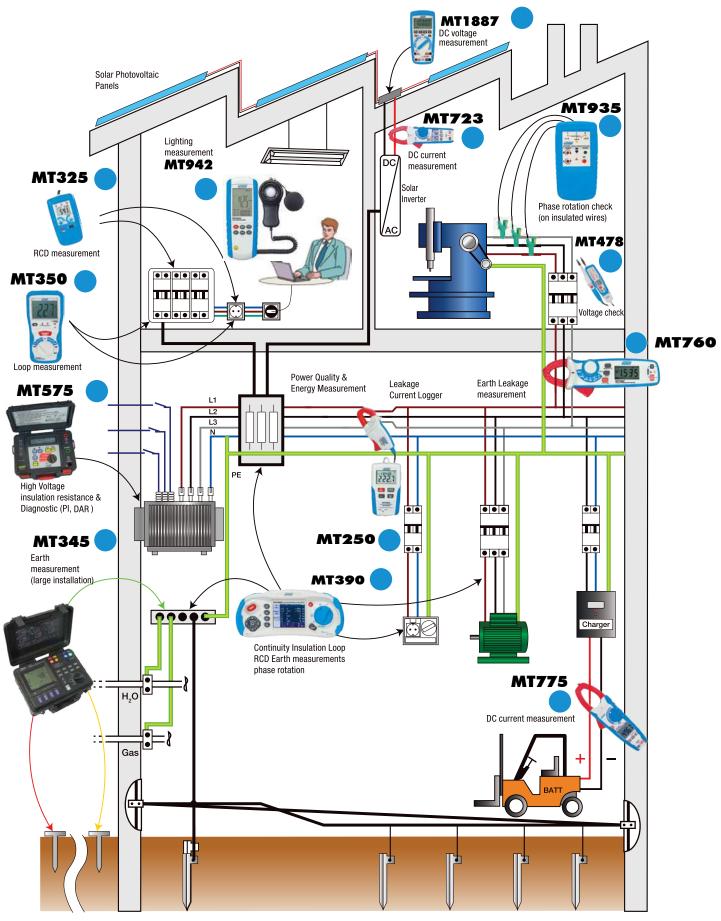


### **Understanding CAT Rating & Transient Voltages**

<ul> <li>Primary Supply Source</li> <li>Incoming Utility Feed</li> <li>Exterior Transformers</li> <li>Over Current Protection Devices</li> <li>Supply between Meter &amp; Panel</li> </ul>	Phase to Neutral 300V   600V   1000V 6000V   8000V   12000V Transient Voltage	CATIV
<ul> <li>Fixed primary feeders</li> <li>Wiring within buildings</li> <li>Bus Bars &amp; Distribution Panels</li> <li>Lighting Systems</li> <li>Motors with permanent connections</li> </ul>	Phase to Neutral 300V   600V   1000V 4000V   6000V   8000V Transient Voltage	CATII
<ul> <li>Non Fixed Power Devices</li> <li>Appliances</li> <li>Lighting Equipment</li> <li>120V or 240V equipment in a building</li> <li>Portable tools</li> </ul>	Phase to Neutral           300V   600V   1000V           2500V   4000V   6000V           Transient Voltage	CATI
<ul><li> Electronic Equipment</li><li> Regulated low-voltage sources</li><li> Photo Copiers</li></ul>	IEC NO LONGER SPECIFIES PROTECTION LEVEL FOR CAT I	CATI

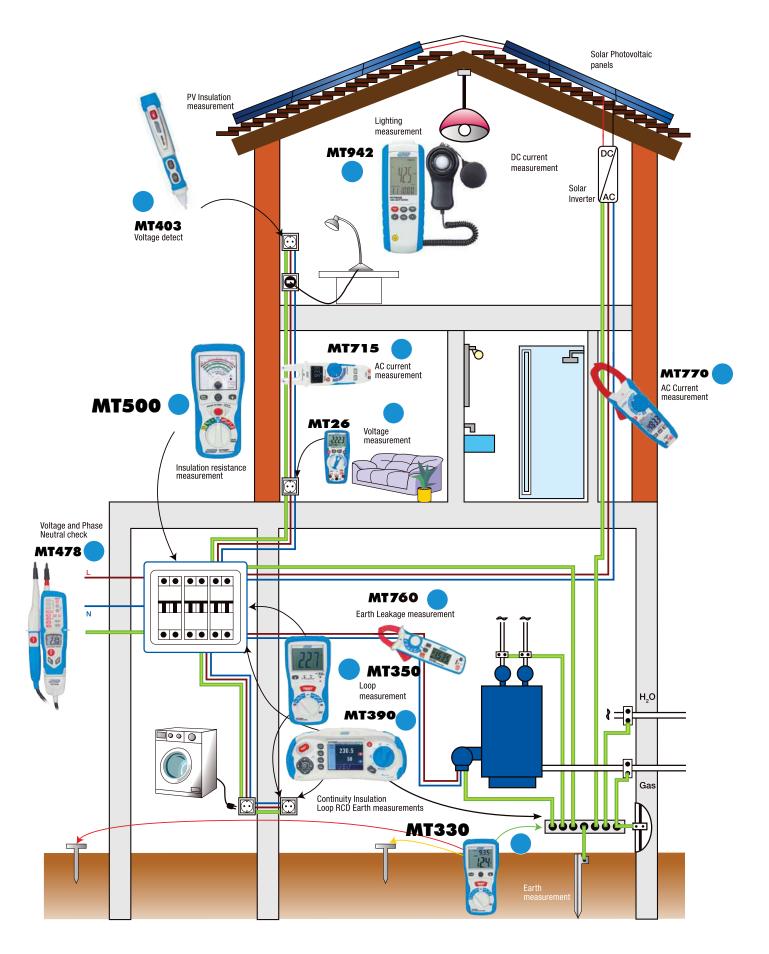


INDUSTRIAL APPLICATIONS





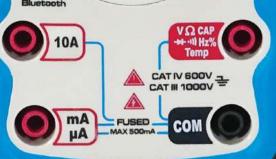
**RESIDENTIAL APPLICATIONS** 











# **MULTIMETERS**

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# MULTIMETERS



# THERMAL MULTIMETER



The MT2005 Professional True RMS Industrial Digital Multimeter with a built-in 80 x 80 pixel Thermal Imager, and TFT colour LCD display, providing fast A/D converting sampling time with high accuracy. This CAT IV meter offers full DMM function ranges of ACV and DCV to 1000V, plus AC+DC Trms Voltage, Micro Amps and Amps, Frequency, Resistance, Capacitance and K-Type Temperature measurements. The 2.8-inch TFT colour display provides a clear thermal image with hot, cold and center spot measurements. It is able to differentiate temperatures between -20°C and 260°C in different colour pallet options, and displays amperage on the thermal screen. The unit offers Bluetooth communication and an internal memory to store and transfer information. The Bluetooth and IOS platforms for viewing, organizing and sharing recordings. The MT2005 is a fast and easy solution providing maximum versatility and a wide range of features for both trouble shooting and preventative maintenance electricians.

#### **Features**

- 6000 count 2.8" TFT Colour 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
- Capacitance to 6mF
- Frequency to 10MHz
- 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.

Phone not included

Function	Range	Accuracy
Imaging and Optical Data		·
Field of View	21° x 21°/0.5m	
Spatial 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 to 260°C	±(3°C or ± 3%)
Measurement analysis		
Spot	Center spot	
Automatic detection	Hot or cold markers	
Emmisivity correction	Variable 0.01 to 0.99	
Measurement corrections	Emissivity, reflected	
	temperature	
<b>Communications Interfaces</b>	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)
Duty Cycle	5.0% to 95.0%	±(1.2% +2)
Resistance	600.0Ω - 60ΜΩ	±(0.5% + 5)
Frequency	40.00Hz -10MHz	±(0.09% +5)
Capacitance	60.00nF - 6mF	±(1.2% + 8)
Temperature	-40°C to 600°C	±(1.5% + 3)
Digital Display	6000 count 2,8" TFT	
Input impedance	>10MΩ VDC & >10MΩ VAC	
Size	195 x 88 x 58mm	
Weight	540g	
Optional Accessory	MT740	
Flexi Coil AC Current	30.00A - 3000A	±(0.8% + 5)

TRUERMS

MT2005





### **INSULATION TESTER & TRMS MULTIMETER**

The MT565 is a combination of a True RMS multimeter and an Insulation Continuity tester. The MT565 measures AC/DC voltage, AC/DC current, resistance, capacitance, frequency, duty cycle and temperature. The Low pass filter can accurately measure variable frequency drive (VFD) signals. The insulation tester offers 50V, 100V, 250V, 500V, and 1000V ranges with an insulation resistance up to 5000M $\Omega$ , DAR and Auto PI functions. The meter has a 50 000 count LCD dual display with an analogue bar graph, and the CAT IV 600V rating ensures the highest level of safety. The unit offers Bluetooth communication and an internal memory to store and transfer information.

#### Features

- 50 000 count with analogue bargraph backlit LCD display
- Measures AC and DC voltage up to 1000V
- Measures AC and DC current up to 10A
- 5 insulation test ranges: 50V, 100V, 250V, 500V, 1000V
- Insulation Resistance up to 5GΩ
- Temperature measurement from -50°C to 1200°C
- Capacitance to 10mF
- Frequency to 10MHz
- Low Pass Filter for measurement of variable frequency drive (VFD)
- Peak Hold function for Voltage and Current measurements
  Download stored data to iOS or Android App via Bluetooth
- Continuity buzzer
- Min/Max and Data Hold function
- IP65 double moulded rugged waterproof housing



Function	Range	Accuracy
Insulation		
50V – 2000MΩ	1mA@50kΩ	±(4.0% +5)
100V – 5000MΩ	1mA@100kΩ	±(4.0% +5)
250V – 5000MΩ	1mA@250kΩ	±(3.0% +5)
500V – 5000MΩ	1mA@500kΩ	±(3.0% +5)
1000V – 5000MΩ	1mA@1MΩ	±(4.0% +5)
Low Ohm Meter		
Resistance	0.000Ω – 2000Ω	±(2.0% +5)
Open Circuit Voltage	5.0V	±1V
Measuring Current	200mA	
Multimeter		
DC Voltage	500mV – 1000V	±(0.1% +4)
AC Voltage	500mV – 1000V	±(0.1% +5)
DC Current	500µA – 10A	±(1.0% +3)
AC Current	500µA – 10A	±(1.5% +3)
Resistance	500Ω - 50ΜΩ	±(0.5% +3)
Frequency	50Hz – 50MHz	±(0.3% +2)
Capacitance	500nF – 5mF	±(3.5% +9)
Temperature	-50°C – 1200°C	±(1.0% +2.5°C)
Size	210 x 97 x 68mm	
Weight	634g	



MT565



# **INDUSTRIAL MULTIMETERS**

### TRUERMS



### TEUERMS



MT1003

# INDUSTRIAL DMM



The MT1005 Heavy duty True RMS Industrial Digital Multimeter with TFT colour LCD display, provides fast A/D converting sampling time, high accuracy, built-in data logging and Trend Capture features. It can trace any interruptions of the equipment and record events automatically unattended. Using the Bluetooth feature, it is easy to find and solve the problems while the app creates reports that can be transferred via Email, WhatsApp and other options. This meter provides safer measurements with the double moulded rubber housing design.

#### Features

- Large 50 000 count 320 x 240 TFT colour LCD display
- Logging function with Trend Capture 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 - 50ΜΩ	±(0.2% +5)
Temperature	-200°C to 1350°C	±(1.0%+3)
Capacitance	5nF - 10mF	±(1.5% +8)
Frequency	50Hz - 10MHz	±(0.01% +5)
Size	170 x 79 x 50mm	
Weight	360g	



# INDUSTRIAL DMM



The MT1003 Heavy duty True RMS Industrial Digital Multimeter with TFT colour LCD display, provides fast A/D converting sampling time, high accuracy, built-in data logging and Trend Capture features. It can trace any interruptions of the equipment and record events automatically unattended. Using this meter, it is easy to find and solve the problems while the internal memory keeps measurements stored. This meter provides safer measurements with the double moulded rubber housing design.

#### Features

- Large 6000 count 320 x 240 TFT colour 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
- Setup function & Saves measuremen
- 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 - 60ΜΩ	±(0.8% +5)
Temperature	-40°C to 1350°C	±(1.2%+3)
Capacitance	60nF - 600µmF	±(1.5% +8)
Frequency	60Hz - 10MHz	±(0.09% +5)
Size	170 x 79 x 50mm	
Weight	360g	



### **CARRYING CASES**

#### **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)



**MTKBAG** 

Registered Design

#### Features

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



TIMETERS

# **IP67 INDUSTRIAL MULTIMETERS**



# INDUSTRIAL OSCILLOSCOPE/DMM

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 utilised as a standalone unit to log events! The meter is housed in a double moulded rubber casing with an IP67 waterproof design.

#### **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 Trend Capture for easy review of logged data
- Bluetooth PC interface for easy data transfer & accuracy calibration
- 100kHz Bandwidth (voltage/current)
- Temperature measurement from -50°C to 1000°C
- 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

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 - 50ΜΩ	±(0.5% +20)
Frequency	50Hz- 10MHz	±(0.01% +10)
Capacitance	5nF - 10mF	±(2.0% +40)
Temperature	-50°C to 1000°C	±(1.0% +2.5)
Size	220 x 96 x 60mm	
Weight	631g	





# **INDUSTRIAL DMM**

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 data logging 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.

#### **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 rubber housing

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 - 50ΜΩ	±(0.5% +20)
Frequency	50Hz - 10MHz	±(0.01% +10)
Capacitance	5nF - 10mF	±(2.0% +40)
Temperature	-50°C to 1000°C	±( 1.0%+2.5)
Size	220 x 96 x 60mm	
Weight	631g	







# **IP67 INDUSTRIAL MULTIMETERS**

### TRUERMS



MT1881IS

### TRUE RMS



MT1882

# TRUERMS



# INDUSTRIAL DMM



The MT1881 is a True RMS professional multimeter having a large 6000 count backlit LCD with a 61 segment analogue bar graph, especially designed for everyday use by electricians. Capable of measuring 1000V AC and DC, with added measuring ranges of Resistance, AC/DC Current, Capacitance and Frequency. The meter has been designed that should a user turn the rotary switch in any direction whilst an input of less than 1000V AC/DC is applied to the meter, the meter will not get damaged. NCV function, automatic Non-Contact voltage detection, the LCD backlight will glow red when AC voltage above 110V is sensed. The meter has a double moulded rubber case with IP67 waterproof and dustproof rating, rugged design for heavy duty use.

#### Features

- NCV detection above 110V AC\_LCD turns red to indicate presence of voltage
- IP67 Dust & waterproof with O-ring sealed casing
- Auto range with manual override
- Measures frequency range of 10Hz to 10MHz on electronic and electrical circuits
- Measures AC and DC voltage to 1000V
- Capacitance to  $4000\mu$ F / 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	±(0.5% +5)
AC Voltage	6.000V - 1000V	±(0.8% +4)
AC Voltage VFD	50V - 600V	±(4% + 9)
DC Current	600.0µA - 10A	±(0.1% +3)
AC Current	600.0µA - 10A	±(1.5% +3)
Resistance	600.0Ω - 60.00ΜΩ	±(0.8% +2)
Frequency	9.999Hz - 9.999MHz	±(1% +3)
Capacitance	40.00nF - 4000µF	±(4% +5)
Size	187 x 81 x 50mm	
Weight	342g	

# **INDUSTRIAL DMM**

The MT1882 is a True RMS professional multimeter especially designed for everyday use by HVAC technicians and electricians, whist offering voltage measuring ranges up to 1000V AC and DC and with useful measuring ranges of Temperature, Resistance, AC/DC Current, Capacitance and Frequency. NCV function, automatic Non-Contact voltage detection, the LCD backlight will glow red when AC voltage above 110V is sensed. The large 6000 count backlit LCD display with a 61 segment bargraph ensures that readings are easy to read under all circumstances. The meter has been designed that should a user turn the rotary switch in any direction whilst an input of up to 1000V AC/DC is applied to the meter, the meter will not get damaged. The meter has a double moulded rubber case with IP67 waterproof and dustproof rating, rugged design for heavy duty use.

#### **Features**

- IP67 Dust & waterproof with O-ring sealed casing
- Auto range with manual override
- Temperature between -20°C to 1000°C
- Measures frequency range of 10Hz to 10MHz on electronic and electrical circuits
- Measures AC and DC voltage to 1000V
- Capacitance to  $4000 \mu F$  / 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  $60 \text{M}\Omega$
- 6000 Count LCD display with a 61 segment analogue bargraph
- Full ranges protection & Auto power off

Function	Range	Accuracy
DC Voltage	600.0mV - 1000V	±(0.5% +2)
AC Voltage	6.000V - 1000V	±(0.8% +4)
AC Voltage VFD	50V - 600V	±(4.0% +9)
DC Current	600.0μA - 10A	±(1.0% +3)
AC Current	600.0μA - 10A	±(1.5% +3)
Resistance	600Ω - 60.00ΜΩ	±(0.8% +2)
Temperature	-20°C to 1000°C	±(3.0% +5)
Capacitance	40.00nF - 4000µF	±(1.0% +5)
Frequency	9.999Hz - 9.999MHz	±(4.0% +3)
Size	187 x 81 x 50mm	
Weight	342g	

# INDUSTRIAL DMM



P67

Dust &

The MT1877 DMM is a 4000 count True RMS 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
- NCV detection above 110V AC, LCD turns red to
- indicate presence of voltage
- Auto Range with Manual Override
- Measures Frequency range on Electronic and **Electrical Circuits**
- Capacitance to 100mF
- Measures AC and DC Voltage to 1000V
- Relative Mode
- Data Hold / 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	±(0.5% +5)
AC Voltage	400.0mV - 1000V	±(0.8% +8)
DC Current	400.0µA - 10A	±(1.0%+3)
AC Current	400.0µA - 10A	±(1.5% +3)
Resistance	400.0Ω - 40.00ΜΩ	±(0.8% +2)
Frequency	9.999Hz - 10.00MHz	±(1.0% +5)
Capacitance	99.99nF - 99.99mF	±(4.0% +5)
Size	187 x 81 x 50mm	
Weight	375g	



Q



# **IP67 INDUSTRIAL MULTIMETERS**



### **INDUSTRIAL DMM**



The MT1887 is a CAT IV 600V True RMS professional multimeter having improved measurement functions, troubleshooting feature, resolution and accuracy to solve problems on power distribution, motor drives, electromechanical equipment and plant automation with the 4-20mA% loop measurements. The meter has a large 40 000 count backlit LCD with the added advantage of a 41 segment analogue bargraph. NCV function, automatic Non-Contact voltage detection, the LCD backlight will be inr ed when AC voltage above 110V is sensed. Specially designed for the Solar Industry the DC voltage range measures up to 1500V DC, other measurements. The Bluetooth function allows the user to transmit data to the Android or iOS mobile App for viewing, organising and sharing recordings. The meter has a double moulded rubber case with IP67 waterproof and dustproof rating, rugged design for heavy duty use.

The MT1885 is a CAT IV 600V True RMS multimeter specially designed for the Solar industry due to the measurement of up to 1500V DC. The meter has a large 6000 count backlit LCD with the added advantage of a 61 segment analogue bargraph. NCV function, automatic Non-Contact voltage detection, the LCD backlight will be in red when AC voltage above 110V is sensed. Other measuring ranges include ACV to 1000V, Micro Amps and Amps, Frequency, Resistance, Duty Cycle, capacitance and temperature measurements. The Bluetooth function allows the user to transmit data to the Android or iOS mobile App for viewing, organising and sharing recordings. The meter

has a double moulded rubber case with IP67 waterproof and dustproof rating, rugged design for heavy duty use.

#### Features

- 40 000 count with 41 Segment Bargraph
- Measures DCV to 1500V & ACV up to 1000V
- Temperature measurement from -50°C to 1000°C
- AC & DC Micro Amps up to 10A
- 4-20mA process loop measurements with % reading
  Capacitance to 40mF
- Frequency to 100MHz
- Frequency to 100ivil
   Duty Cycle
- Duty CycleRelative mode

**Features** 

•

- Relative mode
- Automatic NCV where LCD backlight turns red
  Min, Max and Data Hold
- Auto Power Off
- AutoPower On
- IP67 Dust & waterproof with O-ring sealed casing
- MT1887IS Intrinsically safe version available

### **INDUSTRIAL DMM**

6000 count with 61 Segment Bargraph

AC & DC Micro Amps up to 10A

Capacitance to 100mF

Min, Max and Data Hold

Frequency to 10MHz

Duty Cycle

Relative mode

Auto Power Off

Measures DCV up to 1500V & ACV up to 1000V

Automatic NCV where LCD backlight turns red

IP67 Dust & waterproof with O-ring sealed casing

Temperature measurement from -20°C to 1000°C

Funct	tion	Range	Accuracy
DC Vo	ltage	400.0mV - 1500V	±(0.1% +6)
AC Vol	tage	4.0000V - 1000V	±(1.0% +8)
DC Cu	rrent	400.0µA – 10A	±(1.0% +3)
AC Cui	rrent	600.0µA – 10A	±(1.5% +8)
Resista	ance	$400.0\Omega - 40M\Omega$	±(0.5% +8)
Freque	ency	40.000Hz – 99.99MHz	±(0.1% +1)
Capac	itance	40.00nF – 40mF	±(2.5% +10)
Tempe	erature	-50°C – 1000°C	±(1.0% +2.5°C)
4-20m	A	25% to 125%	±50 dgt
Duty C	Cycle	5.0% to 95.0%	±(1.2% +2)
Size		187 x 81 x 50mm	
Weigh	t	342g	

IEC 61010-1

Optional MT815 2m Test Leads

IEC 61010-1

Optional MT815 2m Test Leads



TRUERMS

MT1887 MT1887IS





1011 1000

# IP67 WATERPROOF & DUST PROOF RATINGS

An Ingress Protection rating commonly known as IP usually has a two-digit rating. In the IP67 rating, the first digit 6 indicates full protection against dust and other particles, while the second digit 7 relates to full immersion for up to 30 minutes in depths up to 1 meter. The Major Tech multimeters were one of the first to have been designed to meet the IP67 rating.

Mining and some industries have harsh and tough conditions and normal multimeters do not adequately meet these demands. Typically, when an electrician has to go down a mine, the conditions underground are severe and there is normally a very high humidity content. A standard meter would be required to "Soak" a term describing the period of time for the meter to acclimatize under these conditions, which could be a few hours. Using the Major Tech IP67 multimeters these electricians or engineers can use the meters underground immediately to troubleshoot electrical problems with accuracy and safety. Even though the Major Tech MT1800 series have the IP67 rating their pricing is similar to that of standard mutimeters.







# **IP67 COMPACT MULTIMETERS**

#### TRUERMS



**MT26** 

# COMPACT MULTIMETER



The MT26 is a CAT III 600V True RMS compact multimeter offering measurements of AC and DC voltage, AC and DC current, frequency, capacitance, resistance and temperature. The meter has a large 4000 count backlit LCD with the added advantage of an analogue bar graph. The Low Z function has a low pass filter to eliminate errors caused by "Ghost" voltages. There is a built-in LED flashlight for dimly lit areas and a tilt stand. The Bluetooth function allows the user to transmit data to the Android or iOS mobile App for viewing, organising and sharing recordings. The meter has a double moulded rubber case with IP67 waterproof and dustproof rating.

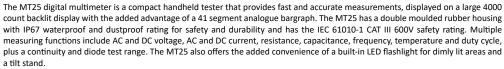
#### **Features**

- 4000 count with 41 Segment Bargraph
- Measures AC and DC voltage up to 600V
- Temperature measurement from -18°C to 760°C
- Capacitance to 4000μF
- Frequency to 10MHz
- Duty Cycle
- Min, Max and Data Hold Auto Power Off
- LED Flashlight
- IP67 Dust & Waterproof
- LCD Back Light

Function	Range	Accuracy
DC Voltage	400.0mV – 600V	±(1.0% +3)
DC Voltage LowZ	400.0mV - 400V	±(1.5% +3)
AC Voltage	4.000V - 600V	±(1.2% +5)
AC Voltage LowZ	4.000V - 400V	±(1.5% +5)
DC Current	4.000A - 10A	±(2.0% +3)
AC Current	4.000A - 10A	±(2.5% +3)
Resistance	400.0Ω – 40ΜΩ	±(1.5% +5)
Frequency	9.999Hz – 9.999MHz	±(1.0% +5)
Capacitance	40.00nF – 4000μF	±(3.0% +5)
Temperature	-18°C - 760°C	±(2.0% +5°C)
Duty Cycle	0.1% to 99.9%	±(1.2% +2)
Size	147 x 68 x 50mm	
Weight	318g	

# COMPACT MULTIMETER





#### **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

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 - 40.00ΜΩ	±(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	147 x 68 x 50mm	
Weight	318g	



**MT25** 

GENERAL PURPOSE MULTIMETER



The MT1883 is an average reading 2000 count manual range 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.

#### **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  $20M\Omega$
- 2000 Count LCD .
- Full Ranges Protection
- Overmould rubber housing
- Integrated Test Lead Holder
- Backlight for dimly lit areas



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 - 40.00ΜΩ	±(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	147 x 68 x 50mm	
Weight	318g	

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 - 20.00ΜΩ	±(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	182 x 81 x 50mm	
Weight	375g	



TRUERMS

RANGE MAX HOLD

# COMPACT MULTIMETER



The MT876 is a compact True RMS multimeter supplied in a double moulded rubber housing, designed to withstand the rugged environment of a work site and has been drop tested up to 2 meters. This is an auto ranging multimeter with the option of manual override and has a 4000 count display with a back light. The "Live" function allows the user to physically connect one lead to the Live or Neutral wires to determine the Live contact and when detected, LIVE is displayed on screen and the NCV indicator light flashes and the buzzer sounds. This meter conforms to the International Standard IEC 61010-1 CAT III 600V, and is ideally suited for everyday use by electricians, electronic technicians, the air conditioning industry and DIY users.

Eo	at		00
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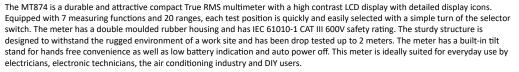
- 4000 count with backlit LCD display
- Measures AC and DC voltage up to 600V
- Temperature measurement from -18°C to 1000°C
- Capacitance to 100mF
- Frequency to 10MHz
- Resistance to 40MΩ
- . Battery test for 1.5V and 9V batteries
- Detection of LIVE wire •
- Duty Cycle
- Min, Max and Data Hold
- Auto Power Off
- NCV Non-Contact Voltage Detector

#### Function Range Accuracy 400.0mV - 600V DC Voltage ±(0.5% +8) AC Voltage 4.000V - 600V ±(1.2% +5) DC Current 400.0µA – 10A ±(1.0% +8) AC Current 400.0µA - 10A ±(1.2% +8) Resistance 400.0Ω - 40ΜΩ ±(1.2% +5) 9.999Hz - 9.999MHz ±(1.2% +5) Frequency Capacitance 99.99nF - 100mF ±(3.5% +5) Temperature -18°C - 1000°C ±(1.5% +5°C) ±(1.2% +5) 0.1% to 99.9% Duty Cycle 9V and 1.5V ±(1.0% +5) Battery Test Size 154 x 74 x 43mm Weight 221g



CAT II 1000V

COMPACT MULTIMETER



#### **Features**

- Large 2000 count LCD display
- Measures AC and DC voltage up to 600V
- Measures AC and DC current up to 10A
- Resistance to  $2M\Omega$
- Battery test for 1.5V and 9V batteries
- Continuity Buzzer & Diode Test •
- Data Hold Function •
- Relative Mode
- Auto Power Off

**Features** 

Function	Range	Accuracy
DC Voltage	200.0mV - 600V	±(0.8% +5)
AC Voltage	200.0V - 600V	±(1.2% +10)
DC Current	200.0mA – 10A	±(1.2% +5)
AC Current	200.0mA – 10A	±(1.2% +5)
Resistance	200.0Ω – 2ΜΩ	±(0.8% +5)
Battery Test	9V and 1.5V	±(1.0% +5)
Auto Power Off	Approximately 15 minutes	
Size	154 x 74 x 43mm	
Weight	221g	





MT874

REL Hz%

\*\*\*\*

# 6-IN-1 ENVIRONMENT DMM



Accuracy ±(1.0% +4)

±(1.0% +4)

±(1.0%+2)

 $\pm(2.0\% + 5)$ 

±(1.5% +2)

±(1.2% +3)

±(3.0% +5)

 $\pm(3.0\%+5)$ 

±(3.0%+5)

±(5.0%+10)

 $\pm(5.0\%+10)$ 

± 1.2%

4000-40,000Lux

50Hz to 400Hz 99.90%

187 x 81 x 50mm

35 - 110dB

355g

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 voltage, DC voltage, AC current, DC current, Resistance, Capacitance, Frequency and Duty Cycle.

Lux

Size Weight

Decibel

AC Bandwidth

Duty Cycle

eatures	Function	Range
6-in-1 multifunction meter with environment measurement	DC Voltage	400.0mV - 600V
Fully functional DMM with ACV, DCV, ACA, DCA, Ohms,	AC Voltage	400.0mV - 600V
Frequency, Capacitance and Duty Cycle	DC Current	400.0µA - 10A
Continuity Buzzer and Diode Test          Non-contact voltage detector          LUX Meter measurement to 40,000 lux          Humidity range from 33% to 99% RH (0.1%)	AC Current	400.0µA - 10A
	Resistance	400.0Ω - 40.00ΜΩ
	Frequency	5.000Hz - 10.00MHz
	Capacitance	50.00nF - 100.0μF
	Temperature	-20°C to 750°C
Temperature from -20°C to 750°C	Humidity	33%-99%



- Sound level measurement to 110dB
- 4000 Count digital display with backlight

Data hold and relative function





**MT22** 

### COMPACT MULTIMETER

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.

#### 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

**Features** 

600V AC/DC Voltage

10A DC Current
Resistance to 2000kΩ
Battery test 1.5V & 9V batteries
2 000 Count LCD display

Resistance to 20MΩ



2000 Count LCD

-1	IEC 61010-1
"	CAT II 1000V

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

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 - 20.00ΜΩ	±(1.2% +2)
Frequency	10MHz	±(1.2% +3)
Temperature	-50°C to 1000°C	±(3.0%+5)
Size	150 x 70 x 48mm	
Weight	255g	



MT21

### TRUERMS





Q

•	Overmould Rubber Housing
•	Integrated Test Lead holder



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	187 x 81 x 51mm	
Weight	342g	

# COMPACT MULTIMETER

COMPACT MULTIMETER

is the battery test ranges, which test 1,5V and 9V batteries with a load.

The MTD84 is a compact True RMS auto ranging multimeter with a 6000 count LCD backlit display. The Smart mode, "AUTO", is a function that automatically identifies DC voltage, AC voltage, Resistance and continuity and automatically displays the measurements. There is a built-in Non-Contact voltage detector, by pressing the NCV button continuously the LCD displays "EF" and will display "----" when voltage is detected and the buzzer sounds. This meter meets the International Standard IEC 61010-1 CAT III 600V, and is ideally suited for everyday use by electricians, electronic technicians, students and DIY users. The meter has a built-in tilt stand for hands free convenience as well as low battery indication and auto power off.

#### **Features**

- 6000 count with backlit LCD display
- Smart Mode automatically identifies DCV, ACV, Resistance and continuity
- Measures DC voltage up to 1000V and AC voltage to 750V
- Temperature measurement from -20°C to 1000°C
- Capacitance to 10mF
- Frequency to 10MHz
- Duty Cycle
- REL mode and Data Hold
- Auto Power Off
- NCV Non-Contact Voltage Detector

Function	Range	Accuracy
DC Voltage	60.00mV – 1000V	±(0.5% +3)
AC Voltage	60.00mV - 750V	±(1.0% +3)
DC Current	60.00mA – 10A	±(1.2% +3)
AC Current	60.00mA - 10A	±(1.5% +3)
Resistance	600.0Ω - 60ΜΩ	±(0.5% +3)
Frequency	99.99Hz – 9.999MHz	±(0.1% +2)
Capacitance	9.999nF – 10mF	±(2.0% +5)
Temperature	-20°C - 1000°C	±(2.5% +5°C)
Duty Cycle	1% to 99.9%	±(0.1% +2)
Size	130 x 65 x 32mm	
Weight	138g	

### **COMPACT MULTIMETER**

The MTD81 is a compact auto ranging multimeter with a 4000 count LCD backlit display. Measuring functions include AC and DC voltage, AC and DC current, Resistance, Frequency, Capacitance, continuity buzzer and diode test range. This meter meets the International Standard IEC 61010-1 CAT III 600V, and is ideally suited for everyday use by electricians, electronic technicians, students and DIY users. The meter has a built-in tilt stand for hands free convenience as well as low battery indication and auto power off.

61010-1

61010-1

#### **Features**

- 4000 count with backlit LCD display
- Measures DC voltage up to 1000V and AC voltage to 750V
- Measures AC and DC current up to 10A
- Capacitance to 200µF
- Frequency to 10MHz
- Duty Cycle
- Duty Cycle
- Continuity buzzer and Diode Test
- REL mode and Data Hold
- Auto Power Off



Function	Range	Accuracy
DC Voltage	400mV - 1000V	±(0.5% +4)
AC Voltage	400mV – 750V	±(1.2% +4)
DC Current	40.00mA – 10A	±(1.5% +4)
AC Current	40.00mA – 10A	±(2.0% +4)
Resistance	400.0Ω - 40ΜΩ	±(0.8% +4)
Frequency	99.99Hz – 9.999MHz	±(0.1% +2)
Capacitance	4.000nF – 200µF	±(3.5% +4)
Duty Cycle	1% to 99.9%	±(0.1% +2)
Size	130 x 65 x 32mm	
Weight	136g	



TRUERMS

# COMPACT MULTIMETER





The MT873 is a True RMS multimeter and can be used to measure AC/DC voltage, AC/DC current, resistance, capacitance, 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**

- Large 6000 count LCD display
- Measures AC and DC voltage up to 600V •
- Measures AC and DC current up to 10A
- Capacitance and Frequency Measurements
- Temperature measurement from -20°C to 1000°C
- NCV – Non-Contact Voltage Detector Continuity Buzzer & Diode Test
- Min. Max and Data Hold Function
- Relative Mode •
- Auto Power Off
- Auto back light

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



MT873

MT870

TRUERMS

# COMPACT MULTIMETER



IEC 61010-1

CAT I

The MT870 is a compact True RMS multimeter supplied with a rubber holster designed to be robust and drop proof. The meter has a 2000 count large easy to read display and is an auto ranging multimeter with the option of manual override. Measuring functions include AC and DC voltage, AC and DC current, resistance, continuity buzzer and diode test range. The AC and DC micro Amp ranges is suited for electronic measurements. The MT870 also offers the added convenience of 1.5V and 9V battery tests and a tilt stand. This meter meets the International Standard IEC 61010-1 CAT III 300V. The meter offers excellent performance and is ideal as a handy multimeter for electronic technicians and electricians, alarm installers and students studying electronics.

#### **Features**

- Large 2000 count LCD display
- Measures AC and DC voltage up to 600V
- Measures AC and DC current up to 10A
- Battery test for 1.5V and 9V batteries
- Continuity Buzzer & Diode Test
- Min, Max and Data Hold Function
- Relative Mode
- Auto Power Off

Function	Range	Accuracy
DC Voltage	200.0mV - 600V	±(0.5% +2)
AC Voltage	2.000V - 600V	±(0.8% +3)
DC Current	200.0μΑ – 10Α	±(1.2% +2)
AC Current	200.0μΑ – 10Α	±(1.5% +3)
Resistance	200.0Ω – 20ΜΩ	±(1.0% +2)
Battery Test	9V and 1.5V	±(5.0% +5)
Auto Power Off	Approximately 15 minutes	
Size	150 x 100 x 34mm	
Weight	250g	

COMPACT MULTIMETER



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 auto ranging 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.

#### **Features**

- Measures AC and DC Voltage to 1000V
- MIN/MAX Recordings
- Auto Range with Manual Override
- Frequency measurement to 10MHz
- Capacitance to 4000µF
- Temperature from -20°C to 760°C
- Data Hold
- Duty Cycle
- 6000 Count LCD with bargraph •
- Auto Power Off
- Overmould rubber housing
- Integrated Test Lead Holder
- Backlight for dimly lit areas

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 - 60.00ΜΩ	±(2.0% +2)
Frequency	9.999Hz - 10MHz	±(1.2% +3)
Capacitance	40.00nF - 4000µF	±(3.0% +5)
Temperature	-20°C to 760°C	±(3.0% +5)
Size	150 x 70 x 48mm	
Weight	255g	





**MT24** 



#### TRUERMS



**MTD80** 

### COMPACT MULTIMETER

COMPACT MULTIMETER



Accuracy

 $\pm (0.5\% + 3)$ 

±(1.0% +3)

 $\pm(1.0\% + 4)$ 

±(2.0% +3)

 $\pm (0.5\% + 3)$ 

The MTD80 is a compact True RMS auto ranging multimeter with a 4000 count LCD backlit display. The meter always operates in the Smart mode "AUTO" function that automatically identifies DC voltage, AC voltage, Resistance and continuity buzzer and automatically displays the measurements. There is a built-in Non-Contact voltage detector, by pressing the NCV button continuously the LCD displays "EF" and will display "----" when voltage is detected and the buzzer sounds. This meter meets the International Standard IEC 61010-1 CAT II 600V/ CAT III 300V, and is ideally suited for users who wants a simple meter to automatically read the measurement of the circuit or system under test. Ideal for everyday use by electricians, electronic technicians, alarm installers, students and DIY users. The meter has a rubber holster with a built-in tilt stand for hands free convenience as well as low battery indication and auto power off.

Function

DC Voltage

AC Voltage

DC Current

AC Current

Resistance

Size

Weight

#### **Features**

- 4000 count with backlit LCD display
- Smart Mode automatically identifies DCV, ACV,
- resistance and continuity
- Measures AC and DC voltage up to 600V •
- . Measures AC and DC current up to 10A
- NCV Non-Contact Voltage Detector •
- Continuity buzzer
- Data Hold function •
- Auto Power Off . Built-In LED Flashlight

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

The MTD10 is a compact 2000 count DIY digital multimeter and is designed as an ideal meter for general purpose use by electronic technicians, alarm installers, students, hobbyist and homeowners. The MTD10 measures AC and DC voltage to 500V, resistance to 2M Ohms, DC current to 10A, plus has a diode test function and continuity buzzer. The meter also offers the added convenience of a 1.5V battery test under load, a transistor test range, backlit display, data hold and a tilt stand. The meter meets the International standard IEC 61010-1 CAT II 600V / CAT III 300V. Supplied standard with a rubber holster, test leads and a 9V battery.

#### **Features**

- 8 Functions & 21 Versatile ranges
- 3½ Inch Digital LCD screen
- AC/DC Voltage to 500V
- Measures DC Current to 10A
- Resistance to 2MQ
- Transistor Test for NPN and PNP transistors
- Diode Check, Continuity, Data Hold
- 1.5V Battery Test
- Backlight
- Overload Protection

Function	Range	Accuracy
DC Voltage	200mV - 500V	±(1% +2)
AC Voltage	200.0V - 500V	±(2.5% +10)
DC Current	200µA - 10A	±(2% +5)
Resistance	200Ω - 2ΜΩ	±(1% +5)
Size	140 x 70.6 x 31mm	
Weight	170g	

Range

140g

4.000V - 600V

4.000V - 600V

1000.0mA - 10A

1000.0mA - 10A

4.000kΩ – 40MΩ

120 x 62 x 30mm

# ANALOGUE MULTIMETER



The MT832 Analogue Meter is an ideal meter for general purpose site applications for students, hobbyist and homeowners. The MT832 has 24 versatile ranges, 0 adjust and has a large mirrored scale to easily identify the measurements. This meter is supplied standard with a protective rubber holster

#### Features 24 Versatile Ranges

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

Function	Range	Accuracy
DC Voltage	0.1V - 1000V	±(3% of full scale)
AC Voltage	10V - 1000V	±(4% of full scale)
DC Current	50μA - 10A	±(3% of full scale)
Resistance	2Ω - 20ΜΩ	±(3% of ARC)
Size	170 x 110 x 50mm	
Weight	280g	

### POCKET MULTIMETER

The MT800 Analogue Multimeter is a cost effective analogue multimeter for hobbyist and home owner for shop, office, home, boats and cars. The MT800 has 16 versatile ranges, ohm zero adjust and has a mirrored scale to easily identify the measurements

#### **Features**

- 5 Functions & 16 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**

Function	Range	Accuracy
DC Voltage	2.5V - 500V	±(5% of full scale)
AC Voltage	10V - 500V	±(5% of full scale)
DC Current	500μA - 250mA	±(5% of full scale)
Resistance	2Ω - 200kΩ FS	±(5% of ARC)
Size	100 x 64 x 35mm	
Weight	125g	



MTD10

MT832



# 2-IN-1 MULTIMETERS



# 2-IN-1 LAN TESTER DMM

The MTC50 is a 2-in-1 LAN tester as well as an auto ranging multimeter. This meter has been designed as a 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**

- LED displays the actual pin configuration and tests 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

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 - 20ΜΩ	±(1.2% +3)
Continuity	Beep is less than $100\Omega$	
Test Pin Configuration	10 Base-T; 10 Base-2 Ty	win Ethernet Cable
	100 Base-T, RJ45/RJ11	Modular
	258A, tia-568a/568d, T	oken Ring Cables
Batteries	9V & 2x AA	
Size	162 x 75 x 43mm	
Weight	308g	

IEC 61010-1

IEC 61010-1



**MTC50** 

BB

# 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.

#### Features

- Measures AC and DC Voltage up to 600V
- Measures AC and DC Current up to 200mA
- Resistance to  $20M\Omega$ •
- Diode and Continuity
- 2000 Count Digital Display
- Identifies up to 16 cables Cuts out "Bell-Out" time
- Displays the cable number on the large • LED display
- Transmitter and Receiver included

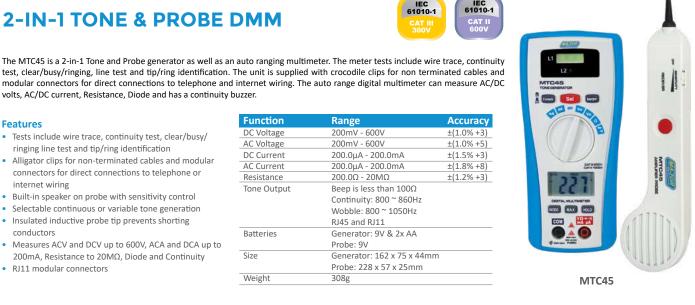
Function	Range	Accuracy
DC Voltage	200mV - 600V	±(1.0% +3)
AC Voltage	200mV - 600V	±(1.0% +5)
DC Current	200.0mA	±(1.5% +3)
AC Current	200.0μA - 200.0mA	±(1.8% +8)
Resistance	200Ω - 20ΜΩ	±(1.2% +3)
Digital Display	2000	
Cable Resistance	30kΩ Max	
Size	162 x 74 x 43 mm	
Weight	308g	



# 2-IN-1 TONE & PROBE DMM

volts, AC/DC current, Resistance, Diode and has a continuity buzzer.





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**Features** 

- 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
- . RI11 modular connectors

Function	Range	Accuracy
DC Voltage	200mV - 600V	±(1.0% +3)
AC Voltage	200mV - 600V	±(1.0% +5)
DC Current	200.0μA - 200.0mA	±(1.5% +3)
AC Current	200.0μA - 200.0mA	±(1.8% +8)
Resistance	200.0Ω - 20ΜΩ	±(1.2% +3)
Tone Output	Beep is less than $100\Omega$	
	Continuity: 800 ~ 860Hz	
	Wobble: 800 ~ 1050Hz	
	RJ45 and RJ11	
Batteries	Generator: 9V & 2x AA	
	Probe: 9V	
Size	Generator: 162 x 75 x 44mm	
	Probe: 228 x 57 x 25mm	
Weight	308g	



# CLAMP METERS

# CONTENTS

3QF

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20F





# THERMAL IMAGING CLAMP METER



# 1000A AC/DC THERMAL **CLAMP METER**

The MT784 is a CAT IV 600V True RMS 1000A AC/DC digital clamp meter incorporating an 80 x 80 pixel Thermal Imager with a range from -20°C to 260°C. This clamp meter has a large 6000 count colour TFT LCD display that provides fast sampling times and high accuracy measurements. The meter has been designed to measure 1500V DC purposely for the Solar industry, 1000V AC, K-Type temperature, frequency, capacitance, AC+DC Voltage and resistance measurements, plus the Low Z range function has a low pass filter to eliminate errors caused by "Ghost" voltages. The 100ms Inrush current detects starting up currents of electric motors, input surge current, or switch-on surge currents, this is the maximum instantaneous input current drawn by an electrical device when first turned on. The meter has a built-in record and store function and displays trend capture, using the Bluetooth function the meter wirelessly transmits data to the Android or iOS mobile App allowing the user to view, save, organise and share recordings. Added features is Non-Contact voltage detection, Peak Hold, Min/Max and Average, Data hold function and a built-in flashlight for dimly lit areas. The double injection moulded housing is IP65 waterproof.

#### **Features**

- 6000 count 2.4" TFT Colour LCD display
- Ø37mm Cable Clamp size
- Measurement of DC voltage to 1500V and AC voltage up to 1000V •
- AC+DC TRMS Voltage •
- INRUSH Current Measurements
- Capacitance to 100mF
- K-type Temperature measurement from -40°C to 1000°C
- Thermal Temperature -20°C to 260°C
- 80 x 80 pixel Thermal Imager Resolution
- Image Frequency to 50Hz •
- Logging function with Trend Capture
- . NCV - Non-Contact Voltage Detector •
- Built-In Flashlight Continuity buzzer and Diode Test •
- •
- Max, Min and Average with Time Stamp
- Auto Power Off
- . Optional MT740 Flexible Coil Clamp for measurement to 3000A AC

Function	Range	Accuracy
maging and Optical Data		
Field of View	21° x 21° / 0.5m	
Spatial Resolution	4.53mrad	
Thermal sensitivity	<0.1°C at 30°C / 100mK	
mage Frequency	50Hz	
R Resolution	80 x 80 Pixels	
maging Presentation		
Display	2.4" TFT Colour LCD, 240 x 32	0 pixels
Measurements		
Thermal Temperature Range	-20°C to 260°C	±(3.0% +3°C)
Measurement Analysis		. ,
Spot	Center Spot	
Automatic Detection	Hot Point or Cold Point	
Emissivity Correction	Variable 0,01 to 0.99 in 0.01 steps	
Colour Palette	Iron / Rainbow / Grey / Grey	Inverted / Feather
Focus Mode	Focus Free	,
Focal Length	7.5mm	
Spectral range	8 - 14μm	
Data Communication Interface	Bluetooth BLE	
Clamp Meter		
law Size	37mm	
DC Current	60.00A - 1000A	±(2.0% +8)
AC Current	60.00A - 1000A	±(2.5% +5)
Flexible Coil Current (Optional)	30.00A - 3000A	±(3.0% +5)
DC Voltage	600.0mV - 1500V	±(0.5% +5)
AC Voltage	6.000V - 1000V	±(1.2% +5)
LowZ AC Voltage	6.000V - 300V	±(3.0% +40)
AC+DC TRMS Voltage	6.000V - 1000V	±(2.5% +20)
LowZ AC+DC Voltage	6.000V - 300V	±(3.5% +40)
Resistance	600.0Ω - 60ΜΩ	±(0.8% +5)
Frequency	60.00Hz – 10.00kHz	±(0.2% +5)
Capacitance	60.00nF – 100.0mF	±(3.0% +8)
K-Type Temperature	-40°C to 1000°C	±(1.5% +3°C)
Duty Cycle	10.0% to 90%	±(1.2% +8)
Size	270 x 95 x 42mm	i
5120		





TRUERAS

# SOLAR CLAMP METER

# 1000A AC/DC CLAMP METER

The MT782 is a CAT IV 600V True RMS 1000A AC/DC digital clamp meter. This clamp meter has a large 6000 count colour TFT LCD display with an analogue bargraph that provides fast sampling times and high accuracy measurements. The meter has been designed to measure 1500V DC purposely for the Solar industry, 1000V AC, K-Type temperature, frequency, capacitance, AC+DC Voltage and resistance measurements. The LOW Z ACV range has a low pass filter to eliminate errors caused by "Ghost" voltages. The 100ms Inrush current detects starting up currents of electric motors, input surge current, this is the maximum instantaneous input current drawn by an electrical device when first turned on. The meter has a built-in record and store function and displays trend capture, using the Bluetooth function the meter wirelessly transmits data to the Android or iOS mobile App allowing the user to view, save, organise and share recordings. Added features is Non-Contact voltage detection, Peak Hold, Min/Max and Average, Data hold function and a built-in flashlight for dimly lit areas. The double injection moulded housing is IP65 waterproof.

#### Features

- 6000 count 2.4" TFT Colour LCD display
- Ø37mm Cable Clamp size
- Measurement of DC voltage to 1500V and AC voltage up to 1000V
- AC+DC TRMS Voltage
- INRUSH Current Measurements
- Capacitance to 100mF
- Temperature measurement from -40°C to 1000°C
- Logging function with Trend Capture
- NCV Non-Contact Voltage Detector
- Built-In Flashlight
- Continuity buzzer and Diode Test
- Max, Min and Average with Time Stamp
- Auto Power Off
- Optional MT740 Flexible Coil Clamp for measurement to 3000A AC

Function	Range	Accuracy
Jaw Size	37mm	
DC Current	60.00A - 1000A	±(2.0% +8)
AC Current	60.00A - 1000A	±(2.5% +5)
Flexible Coil		
Current (Optional)	30.00A - 3000A	±(3.0% +5)
DC Voltage	600.0mV – 1500V	±(0.5% +5)
AC Voltage	6.000V - 1000V	±(1.2% +5)
LowZ AC Voltage	6.000V - 300V	±(3.0% +40)
AC+DC TRMS Voltage	6.000V - 1000V	±(2.5% +20)
LowZ AC+DC Voltage	6.000V - 300V	±(3.5% +40)
Resistance	600.0Ω – 60ΜΩ	±(0.8% +5)
Frequency	60.00Hz – 10.00MHz	±(0.2% +5)
Capacitance	60.00nF – 100.0mF	±(3.0% +8)
Temperature	-40°C to 1000°C	±(1.5% +3°C)
Duty Cycle	10.0% to 90%	±(1.2% +8)
AC Current	60.00A - 1000A	±(2.5% +5)
Size	270 x 95 x 42mm	
Weight	550g	





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MT782

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MT782

# **IR THERMOMETER CLAMP METERS**



# 600A AC/DC CLAMP METER

The MT767 is a CAT IV 600V True RMS 600A AC/DC digital clamp meter incorporating an Infrared Thermometer. This clamp meter has a large 6000 count negative LCD display that provides fast sampling times and high accuracy measurements. The Bluetooth function allows the user to transmit data to the Android or iOS mobile App for viewing, organizing and sharing recordings. The meter measures 1000V AC/DC, frequency, capacitance and resistance measurements. The IR Thermometer has a spot ratio of 4:1 and measures temperature from -30°C to +350°C, plus there is a K-Type thermometer input for measurements up to 1000°C. The 100ms Inrush current detects starting up currents of electric motors, input surge current, or switch-on surge currents, this is the maximum instantaneous input current drawn by an electrical device when first turned on. The VFD function allows the user to measure stable voltage in high frequency applications of Variable Frequency Drives. Added features include Relative mode for Capacitance Zero and DCV, ACV and ACA offset adjustment, Non-Contact voltage detection, MAX/MIN and Data hold function plus a built-in flashlight for dimly lit areas. Housed in a modern double moulded rubber housing with a rugged design. This meter is a useful measuring tool for electricians, maintenance and HVAC environments.

#### Features

- 6000 count negative LCD display
- Ø33mm Cable Clamp size
- Measurement of DC voltage and AC voltage up to 1000V
- Capacitance to 100mF
- Temperature measurement from -20°C to 1000°C
- IR Temperature Spot Ratio 4:1 & measurement from -30  $^{\rm o}{\rm C}$  to 350  $^{\rm o}{\rm C}$
- INRUSH Current Measurements
- VFD Variable Frequency Drive voltage value
- NCV Non-Contact Voltage Detector
- Continuity buzzer and Diode Test
- Built-In Flashlight
- Max/Min
- Data Hold function
- Auto Power Off
- EC D10-1 AT III D00V

Function	Range	Accuracy
Jaw Size	33mm	
DC Current	60.00A - 600A	±(2.8% +8)
AC Current	60.00A - 600A	±(1.5% +10)
DC Voltage	600.0mV - 1000V	±(1.2% +5)
AC Voltage	6.000V - 1000V	±(1.5% +5)
Resistance	600.0Ω - 60ΜΩ	±(2.0% +5)
Frequency	9.999Hz – 9.99kHz	±(1.5% +6)
Capacitance	999.9nF – 100mF	±(4.0% +6)
Temperature	-20°C - 1000°C	±(3.0% +3°C)
IR Temperature	-30°C - 350°C	±(2.0% +2°C)
Duty Cycle	20.0% - 80%	±(1.2% +5)
Size	236 x 66 x 44mm	
Weight	350g	



# 600A AC/DC CLAMP METER

The MT766 is a CAT IV 600V True RMS 600A AC/DC digital clamp meter incorporating an Infrared Thermometer. This clamp meter has a large 6000 count negative LCD display that provides fast sampling times and high accuracy measurements. The meter measures 1000V AC/DC, frequency, capacitance and resistance measurements. The IR Thermometer has a spot ratio of 4:1 and measures temperature from -30°C to +350°C, plus there is a K-Type thermometer input for measurements up to 1000°C. The VFD function allows the user to measure stable voltage in high frequency applications of Variable Frequency Drives. Added features include Relative mode for Capacitance Zero and DCV, ACV and ACA offset adjustment, Non-Contact voltage detection, MAX/MIN and Data hold function plus a built-in flashlight for dimly lit areas. Housed in a modern double moulded rubber housing with a rugged design. This meter is a useful measuring tool for electricians, maintenance and HVAC environments.

#### Features

- 6000 count negative LCD display
- Ø33mm Cable Clamp size
- Measurement of DC voltage and AC voltage up to 1000V
- Capacitance to 100mF
- Temperature measurement from -20°C to 1000°C
- IR Temperature Spot Ratio 4:1 & measurement from -30°C to 350°C
- VFD Variable Frequency Drive voltage value
- NCV Non-Contact Voltage Detector
- Built-In Flashlight
- Continuity buzzer and Diode Test
- Max, Min and Data Hold function
- Auto Power Off



Function	Range	Accuracy
Jaw Size	33mm	
DC Current	60.00A - 600A	±(2.8% +5)
AC Current	60.00A - 600A	±(1.5% +10)
DC Voltage	600.0mV - 1000V	±(1.2% +5)
AC Voltage	6.000V - 1000V	±(1.5% +5)
Resistance	600.0Ω – 60ΜΩ	±(2.0% +5)
Frequency	9.999Hz – 9.99kHz	±(1.5% +6)
Capacitance	999.9nF – 100mF	±(4.0% +6)
Temperature	-20°C - 1000°C	±(3.0% +3°C)
IR Temperature	-30°C - 350°C	±(2.0% +2°C)
Duty Cycle	20.0% - 80%	±(1.2% +5)
Size	236 x 66 x 44mm	
Weight	350g	



### **600A AC CLAMP METER**

The MT765 is a CAT IV 600V True RMS 600A AC digital clamp meter incorporating an Infrared Thermometer. This clamp meter has a large 6000 count negative LCD display that provides fast sampling times and high accuracy measurements. The IR Thermometer has a spot ratio of 4:1 and measures temperature from -30°C to +350°C, plus there is a K-Type thermometer input for measurements up to 1000°C. The meter measures 1000V AC/DC, frequency, capacitance and resistance measurements. The VFD function allows the user to measure stable voltage in high frequency applications of Variable Frequency Drives. Added features include Relative Mode for Capacitance Zero and DCV, ACV and ACA offset adjustment, Non-Contact voltage detection, Data hold function and a built-in flashlight for dimly lit areas. Housed in a modern double moulded rubber housing with a rugged design. This meter is a useful measuring tool for electricians, maintenance and HVAC environments.

#### **Features**

- 6000 count negative LCD display
- Ø33mm Cable Clamp size
- Measurement of DC voltage and AC voltage up to 1000V
- Capacitance to 10mF
- Temperature measurement from -20°C to 1000°C
- IR Temperature Spot Ratio 4:1 & measurement from -30°C to 350°C
- VFD Variable Frequency Drive voltage value
- NCV Non-Contact Voltage Detector
- Built-In Flashlight
- Continuity buzzer and Diode Test
- Max, Min and Data Hold function
- Auto Power Off



Function	Range	Accuracy
Jaw Size	33mm	
AC Current	60.0A - 600A	±(2.5% +8)
DC Voltage	600.0mV - 1000V	±(0.8% +5)
AC Voltage	6.000V - 1000V	±(1.5% +5)
Resistance	600.0Ω - 60ΜΩ	±(2.0% +5)
Frequency	9.999Hz – 9.99kHz	±(1.5% +6)
Capacitance	999.99nF – 10mF	±(4.0% +6)
Temperature	-20°C - 1000°C	±(3.0% +3°C)
IR Temperature	-30°C – 350°C	±(2.0% +2°C)
Duty Cycle	20.0% - 80%	±(1.2% +5)
Size	239 x 66 x 44mm	
Weight	350g	

### TRUERMS

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# TRUE RMS



### TRUE RMS



MT710

### TRUERMS



# 600A AC CLAMP METER



The MT710 is a CAT III 600V, 4000 count True RMS 600A AC digital clamp meter with indication on a large backlit LCD display, providing fast sampling time with high accuracy. The Smart mode, "AUTO", is a function that automatically identifies DC voltage, AC voltage, resistance and continuity and automatically displays the measurements. By pressing the NCV button continuously the LCD displays "EF" and will display "----" when voltage is detected and the buzzer sounds. The meter measures 600V AC/DC, frequency, resistance measurements, plus Inrush current and Peak Voltage value. Other features include, Data hold function and a built-in flashlight for dimly lit areas. Housed in a modern compact housing ideal for electricians, HVAC technicians and students studying electrical.

#### **Features**

- 4000 count backlit LCD display
- Ø25mm Cable Clamp size
- Smart Mode automatically identifies DCV, ACV, Resistance and continuity
- Measurement of DC voltage and AC voltage up to 600V
- **INRUSH Current Measurements**
- NCV Non-Contact Voltage Detector
- **Built-In Flashlight**
- Continuity buzzer
- Peak Mode and Data Hold function Auto Power Off

Function	Range	Accuracy
Jaw Size	25mm	
AC Current	4.000A - 600A	±(2.5% +8)
DC Voltage	4.000V - 600V	±(0.5% +3)
AC Voltage	4.000V - 600V	±(1.0% +3)
Resistance	4.000ΚΩ – 40ΜΩ	±(0.5% +3)
Frequency	4.000Hz – 100KHz	±(1.0% +2)
Size	172 x 64 x 32mm	
Weight	172g	

# 200A AC CLAMP METER



The MT715 is a CAT IV 600V, 6000 count True RMS 200A AC digital clamp meter with indication on a large backlit negative LCD display, with a clamp jaw opening of 16mm. This open jaw clamp meter is designed to assist in the ease of measuring current in crowded or tight cable areas, as the jaws need only be pushed over the wire to obtain accurate readings. The meter measures 1000V AC/DC, capacitance and resistance measurements, plus a Min and Max mode. The Low Z range function has a low pass filter to eliminate errors caused by "Ghost" voltages, and has features of Non-Contact Voltage detection, diode test function, a continuity buzzer and a built-in flashlight. Housed in a modern double moulded rubber housing with a rugged design for heavy duty use.

#### **Features**

- 6000 count negative LCD display
- Open Jaw Sensor
- Ø16mm Cable Clamp size
- Measures DC voltage and AC voltage up to 1000V
- Capacitance to 4000µF
- Temperature measurement -40°C to 1000°C
- NCV Non-Contact Voltage Detector
- Low input impedance prevents false readings due to "Ghost" voltage (LoZ)
- Built-In Flashlight
- Continuity buzzer and Diode Test
- Min/Max and Data Hold function
- Auto Power Off





200A AC CLAMP METER

rubber housing with a rugged design for heavy duty use.

IEC 61010-1 61010-

#### The MT700 is a CAT IV 600V, 2000 count 200A AC digital clamp meter with indication on a large backlit negative LCD display, with a clamp jaw opening of 16mm. A superb feature for electricians is the ability to simultaneously measure current and voltage and view both readings on the LCD display. The MT700 measures AC and DC voltage up to 1000V and displays the reading on both the LED and LCD displays. This open jaw clamp meter is designed to assist in the ease of measuring current in crowded or tight cable areas, as the jaws need only be pushed over the wire to obtain accurate readings. Added features include resistance measurements, Rotary Field

Indication, continuity buzzer, data hold, built-in flashlight plus Non-Contact Voltage detection. Housed in a modern double moulded

**Features** 

- 2000 count negative LCD display
- Open Jaw Sensor
- Ø16mm Cable Clamp size
- Simultaneously displays voltage and current measurements
- Measures DC voltage and AC voltage up to 1000V on LCD
- LED indication of AC and DC voltage from 12V to 1000V
- Resistance measurement to 2000Ω
- **Rotary Field Indication** NCV - Non-Contact Voltage Detector
- **Built-In Flashlight**
- Continuity buzzer and Data Hold function
- Auto Power Off

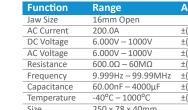
Range	Accuracy
16mm Open	
200A	±(3.5% +5)
6V-1000V	±(3.0% +5)
6V-1000V	±(3.0% +5)
12V - 1000V	Complies with EN 61243-3:2014
12V - 1000V	Complies with EN 61243-3:2014
0Ω – 2000Ω	±(5.0% +10)
100V - 1000V LED	
250 x 78 x 40mm	
350g	
	16mm Open 200A 6V - 1000V 6V - 1000V 12V - 1000V 12V - 1000V 0Ω - 2000Ω 100V - 1000V LED 250 x 78 x 40mm

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# **1000A AC CLAMP METER**

The MT770 is a CAT IV 600V, 6000 count True RMS 1000A AC digital clamp meter with indication on a large backlit LCD display, providing fast sampling time with high accuracy. The meter measures 1000V AC/DC, temperature, frequency, capacitance and resistance measurements, plus 100ms Inrush current and Peak Voltage value. The VFD function allows the user to measure stable voltage in high frequency applications of Variable Frequency Drives, while the Low Z range function has a low pass filter to eliminate errors caused by "Ghost" voltages. Added features include Relative mode for Capacitance Zero and DCV, ACV and ACA offset adjustment, Non-Contact voltage detection, Data hold function and a built-in flashlight for dimly lit areas. Housed in a modern double moulded rubber housing.

**Function** 

AC Current

DC Voltage

AC Voltage

Resistance

Frequency

Capacitance

Temperature

Duty Cycle

Size

Weight

Function

AC Current

DC Voltage

AC Voltage

Resistance

Frequency

Capacitance

Temperature

Duty Cycle

Size

Weight

Jaw Size

LoZ AC Voltage

Jaw Size

#### **Features**

- 6000 count backlit LCD display
- Ø33mm Cable Clamp size
- Measurement of DC voltage and AC voltage up to 1000V .
- Capacitance to 100mF
- Temperature measurement from -20°C to 1000°C
- INRUSH Current Measurements
- VFD - Variable Frequency Drive voltage value
- LoZ Low impedance mode prevents false readings due to • "Ghost" voltage
- NCV Non-Contact Voltage Detector
- Built-In Flashlight
- Continuity buzzer and Diode Test
- Peak Mode and Data Hold function
- Auto Power Off



IEC 61010-1

IEC 61010-1

CAT III

Range

600.0A - 1000A

6.000V - 1000V

6.000V - 300V

600.0Ω - 60ΜΩ

-20°C - 1000°C

230 x 66 x 44mm

10.0% to 90%

350g

Range

33mm

60.00A - 600A

6.000V - 1000V

6.000V - 1000V

600.0Ω - 60ΜΩ

10Hz – 100kHz

99.00nF - 100mF

-20°C - 1000°C

239 x 72 x 40mm

20.0% to 80%

318g

9.999Hz – 99.99kHz 60.00nF – 100mF

600.0mV - 1000V

33mm

IEC 61010-1

Accuracy

 $\pm (2.5\% \pm 8)$ 

 $\pm(1.5\% + 2)$ 

 $\pm(1.5\% + 5)$ 

 $\pm(1.5\% \pm 2)$ 

 $\pm(1.2\% + 5)$ 

±(3.0% +5)

 $\pm(1.2\% \pm 2)$ 

Accuracy

±(2.0% +8)

±(1.0% +3)

±(1.2% +5)

±(1.5% +2)

±(1.0% +5)

±(3.0% +5)

±(3.0% +3°C)

 $\pm(1.2\% + 10)$ 

Accuracy

+(2.0% + 8)

 $\pm(1.0\% + 3)$ 

±(1.2% +5)

 $\pm(1.5\% + 2)$ 

 $\pm(1.0\% + 5)$ 

 $\pm(3.0\% + 5)$ 

±(3.0% +3°C)

±(1.2% +10)

±(3.0% +5°C)

 $\pm(3.0\% \pm 40)$ 

The MT730 is a CAT III 600V, 6000 count True RMS 600A AC digital clamp meter with indication on a large backlit LCD display, providing fast sampling time with high accuracy. The meter measures 1000V AC/DC, temperature, frequency, capacitance and resistance measurements, plus 100ms Inrush current and Peak Voltage value. The VFD function allows the user to measure stable voltage in high frequency applications of Variable Frequency Drives. Added features include Relative mode for Capacitance Zero and DCV, ACV and ACA offset adjustment, Non-Contact voltage detection, Data hold function and a built-in flashlight for dimly lit areas. Housed in a modern double moulded rubber housing.

#### **Features**

- 6000 count backlit LCD display
- Ø33mm Cable Clamp size •
- . Measurement of DC voltage and AC voltage up to 1000V • Capacitance to 100mF
- Temperature measurement from -20°C to 1000°C
- **INRUSH Current Measurements**
- •
- VFD Variable Frequency Drive voltage value
- NCV - Non-Contact Voltage Detector .
- Built-In Flashlight
- Continuity buzzer and Diode Test

Continuity buzzer and Diode Test

Peak Mode and Data Hold function

NCV - Non-Contact Voltage Detector

Built-In Flashlight

Auto Power Off

- Peak Mode and Data Hold function
- Auto Power Off

**Features** 

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# 400A AC CLAMP METER

IEC 61010-1 CAT

20.0% to 80%

305g

220 x 80 x 39mm

The MT720 is a CAT III 600V, 4000 count True RMS 400A AC digital clamp meter with indication on a large backlit LCD display, providing fast sampling time with high accuracy. The meter measures 1000V AC/DC, temperature, frequency, capacitance and resistance measurements, plus 100ms Inrush current and Peak Voltage value. The VFD function allows the user to measure stable voltage in high frequency applications of Variable Frequency Drives. Added features include Relative mode for Capacitance Zero and DCV, ACV and ACA offset adjustment, Non-Contact voltage detection, Data hold function and a built-in flashlight for dimly lit areas. Housed in a modern double moulded rubber housing.

eatures	Function	Range
4000 count backlit LCD display	Jaw Size	30mm
Ø30mm Cable Clamp size	AC Current	40.00A - 400A
Measurement of DC voltage and AC voltage up to 1000V	DC Voltage	4.000V - 1000V
	AC Voltage	4.000V - 1000V
Capacitance to 100mF	Resistance	400.0Ω – 40ΜΩ
Temperature measurement from -20°C to 1000°C	Frequency	10Hz – 100kHz
INRUSH Current Measurements	Capacitance	99.00nF – 100mF
VFD - Variable Frequency Drive voltage value	Temperature	-20°C - 1000°C

Duty Cycle

Size

Weight





MT770





TRUE RMS

MT720





TRUERMS

# 2000A AC CLAMP METER

The K2002PA is a CAT III 600V, 4000 count 2000A AC digital clamp meter, with a tear drop clamp jaw size of 55mm. This tear drop jaw is designed to assist in the ease of measuring current in crowded cable areas. The meter 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.

#### Features

- 4000 count backlit LCD display
- Ø55mm Cable Clamp size
- Measurement of AC Current up to 2000A
- Measurement of AC/DC Voltage up to 1000V
- Resistance to 400kΩ
- Peak Hold
- Data Hold
- Continuity Buzzer and Diode Test
- Auto Power Off



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 - 400ΚΩ	±(1.5% +2)
Size	247 x 105 x49mm	
Weight	470g	

# **1000A AC CLAMP METER**

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 1000A and AC/DC voltage up to 600V. It measures  $6k\Omega$  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**

- Large LCD display
- Ø33mm Cable Clamp size
- Measurement of AC Current up to 1000A
- Measurement of AC/DC Voltage up to 600V
- Resistance to 6KΩ
- Data Hold
- Continuity Buzzer
- Auto Power Off



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 - 6ΚΩ	±(1.0% +5)
Size	204 x 81 x 36mm	
Weight	220g	



K2007R

# 120A AC CLAMP ADAPTOR

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 from 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.

#### Features

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



Function	Range	Accuracy
Jaw size	8mm	
AC Current	200mA - 120A	±(1.5% + 0.2mA)
AC current resolution	0.1mA	
AC Bandwidth	40Hz to 10kHz	
Size	147 x 58 x 26mm	
Weight	100g	

K8112

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# **3000A AC CLAMP METER**

The K2210R 3000A AC Flexible Current True RMS Clamp Meter is ergonomically designed for ease of use in confined spaces. The 55mm flexible coil can easily fit around flat busbar or parallel supply cables and can also be maneuvered into cable trays where conventional hard jaw clamps cannot reach. The unit features a large backlit LCD display making it easier to read measurements in dimly lit areas.

#### Features

- AC Current True RMS measurements
- 3149 Count Backlit LCD display
- Ø150mm Cable Clamp size
   Measurement of AC Current up
- Measurement of AC Current up to 3000A AC

IEC 61010-1 CAT IV 600V

- Data Hold
- Min/Max function
- Auto Power Off

Function	Range	Accuracy
Conductor Size	Ø150mm	
Jaw Size	55mm	
AC Current	0.1A ~ 3000A	± (3.0% +5d)
Crest Factor	Full scale CF<1.6	
	Half scale CF3.2	
Influence of	± 3.0% (max)	
conductor size		
Overload protection	5000A AC for 10	seconds
Battery	2x AAA	
Size	120 x 70 x 26mm	l
Weight	470g	



# **3000A AC CLAMP METER**

The MT745 3000A AC Flexible Current Clamp Meter with Data Logging is ergonomically designed for ease of use in confined spaces. The 8mm flexible coil can easily fit around flat busbar or parallel supply cables and can also be maneuvered into cable trays where conventional hard jaw clamps cannot reach. The Bluetooth feature can be used to perform live recordings or to transfer recorded data to a smart phone app. Using the Log Key will start a recording that will be stored on the instrument. The smart phone app allows the user to retrieve Data as well as set up recording sample rate. The unit features inrush current measurement as well as frequency measurement and has a large backlit LCD display making it easier to read measurements.

#### 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



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	
Size	230 x 76 x 40mm	
Weight	315g	



# **3000A AC CLAMP ADAPTOR**

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.

#### Features

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



Function	Range	Accuracy
Jaw Size	185mm	
AC Current	30A- 3000A	±(3.0% + 5mA)
Output	3000A@1mV/A	
	300A@10mV/A	
	30A@100mV/A	
AC Bandwidth	50Hz to 60Hz	
Size	180 x 106 x 28mm	
Weight	210g	







### TRUERMS



MTD73A

### TRUERMS



MTD70T





The MTD73A True RMS 800A AC Clamp Meter is a useful tool that allows you to safely test for electrical problems, motor's condition and current on appliances. Equipped to test any electrical circuit without disconnecting any wires. Handy function includes a backlit LCD display and Flashlight for working in dimly lit areas. The NCV Non-Contact Voltage detector is useful for a quick check to see if voltage is present on circuit under test. It comes with a 28mm Jaw opening and measures 0.001A to 800A AC, 0.1mV to 600V AC/DC, Temperature, Capacitance, Frequency, Resistance, Continuity buzzer and Diode Test.

#### Features

- Measures AC Current to 800A
- Measures AC & DC Voltage to 600V
- Temperature measurement -40°C to 1000°C
- Resistance to 40MΩ
- Frequency to 10MHz
- Capacitance to 40mF
- 28mm conductor size
- 4000 count LCD display with backlight
- Continuity and buzzer test
  Data hold and Duty Cycle function
- Data hold and Duty Cycle functionNon-Contact Voltage
- Non-Contact Vo
- Auto power offLow battery indication

Function	Range	Accuracy
Jaw Size	28mm	
AC Current	4A - 800A	±(3.0% +5)
DC Voltage	400mV - 600V	±(0.5% +5)
AC Voltage	4V-600V	±(1.0% +5)
Resistance	400Ω – 40ΜΩ	±(2.0% +30)
Frequency	10Hz – 10MHz	±(0.5% +4)
Capacitance	4nF – 40mF	±(2.5% +5)
Temperature	-40°C – 1000°C	±(1.0% +5°C)
Size	185 x 65 x 37mm	
Weight	180g	

# 600A AC CLAMP METER



The MTD70T True RMS 600A AC Clamp Meter is a useful tool that allows you to safely test for electrical problems, motor's condition and current on appliances. Equipped to test any electrical circuit without disconnecting any wires. Handy features include a backlit LCD display and flashlight for working in dimly lit areas. The NCV Non-Contact Voltage detector is useful for a quick check to see if voltage is present on circuit under test. It comes with a 28mm Jaw opening and measures 0.001A to 600A AC, DC and AC Volt, Resistance, Continuity buzzer and Diode Test.

#### Features

- Measures AC Current to 600A
- Measures AC & DC Voltage to 600V
- Resistance to 20MΩ
- 28mm conductor size
- 2000 count LCD display with backlight
- Continuity and buzzer test
- Data hold functions
- Non-Contact Voltage
- Auto power off
- Low battery indication





400A AC/DC CLAMP METER

IEC 51010-1 CAT III 500V

MTD15 is a cost effective 400A AC Clamp Meter and 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's condition and current on appliances. Equipped to test any electrical circuit without disconnecting any wires. Measures 0.001A to 400A AC, DC Volt, Resistance, Continuity buzzer, 23mm Jaw opening and includes carrying case.

#### Features

- 5 functions & 19 versatile ranges
- Measures AC Current to 400A
- Measures AC & DC Voltage to 600V
- Resistance to 20MΩ
- 2000 count LCD display with backlight
- Jaw size Ø23mm
- Continuity and buzzer test
- Diode check / Data hold

Function	Range	Accuracy
Jaw Size	23mm	
AC Current	2A – 400A	±(2.0% +6)
DC Voltage	200mV – 600V	±(1.0% +5)
AC Voltage	200mV – 600V	±(2.0% +5)
Resistance	200Ω – 20ΜΩ	±(2.0% +5)
Size	200 x 70 x 37mm	
Weight	200g	

MTD15



# 1000A AC/DC CLAMP METER



Range

33mm

600.0A- 1000A

600.0A- 1000A

30.00A - 3000A

6.000V - 1000V

6.000V - 300V

6.000V - 1000\

600.0Ω - 60ΜΩ

60.00nF - 100mF

230 x 66 x 44mm

-40°C - 1000°C

10.0% to 90%

350g

Range

600.0A - 1000A

600.0A - 1000A

6.000V - 1000V

6.000V - 300V

600.0Ω - 60ΜΩ

60.00nF - 100mF

-20°C - 1000°C

230 x 66 x 44mm

10.0% to 90%

350g

9.999Hz - 99.99kHz

600.0mV - 1000V

33mm

9.999Hz – 99.99kHz

600.0mV - 1000V

TRUERMS

The MT777 is a CAT IV 600V, 6000 count True RMS 1000A AC/DC digital clamp meter with an analogue bargraph indication on a TFT colour display, providing fast sampling time with high accuracy. The meter has a built in Data logger with 100 Graph Data review, using Bluetooth, the meter wirelessly transmits data to the Android or iOS mobile App allowing the user to view, save, organise and share recordings. The VFD function allows the user to measure stable voltage in high frequency applications, while the Low Z range function has a low pass filter to eliminate errors caused by "Ghost" voltages. The 100ms Inrush current detects starting up currents of electric motors, input surge current, or switch-on surge currents, this is the maximum instantaneous input current drawn by an electrical device when first turned on. The meter measures 1000V AC/DC, temperature, frequency, capacitance and resistance measurements plus Peak Hold. Using the optional MT740 True RMS Flexible Clamp Adaptor, the measuring range can be extended to measure 3000A AC. Added features is Non-Contact voltage detection, data hold function and a built-in flashlight for dimly lit areas.

Function

DC Current

AC Current

DC Voltage

AC Voltage

Resistance

Frequency

Capacitance

Duty Cycle Size

Weight

Function

DC Current

AC Current

DC Voltage

AC Voltage

Resistance

Frequency

Capacitance

Temperature

Duty Cycle

Size

Weight

LoZ AC Voltage

Jaw Size

Temperature

LoZ AC Voltage

Flexible Coil Current

AC+DC TRMS Voltage

Jaw Size

#### Features

- 6000 count TFT colour LCD display
- Ø33mm Cable Clamp size
- Measurement of AC, AC+DC TRMS and DC voltage up to 1000V
- Capacitance to 100mF
- Temperature measurement from -40°C to 1000°C
- Trend Capture Function
- 100 Graph Data Review
- **INRUSH Current Measurements**
- 3000A range for optional MT740 Flex Clamp Adaptor
- VFD - Variable Frequency Drive voltage value
- LoZ Low impedance mode prevents false readings due to "Ghost" voltage •
- NCV Non-Contact Voltage Detector •
- Continuity buzzer and Diode Test
- Peak Mode, Min/Max and Data Hold function
- Built-in Flashlight and Auto Power Off

# 1000A AC/DC CLAMP METER

The MT775 is a CAT IV 600V, 6000 count True RMS 1000A AC/DC digital clamp meter with indication on a large backlit LCD display, providing fast sampling time with high accuracy. The meter measures 1000V AC/DC, temperature, frequency, capacitance and resistance measurements, plus 100ms Inrush current and Peak Voltage value. The VFD function allows the user to measure stable voltage in high frequency applications of Variable Frequency Drives, while the Low Z range function has a low pass filter to eliminate errors caused by "Ghost" voltages. Added features include Relative mode for DCA and Capacitance Zero and offset adjustment, Non-Contact voltage detection, data hold function and a built-in flashlight for dimly lit areas. Housed in a modern double moulded rubber housing.

#### **Features**

- 6000 count backlit LCD display
- Ø33mm Cable Clamp size
- Measurement of DC voltage and AC voltage up to 1000V
- Capacitance to 100mF
- Temperature measurement from -20°C to 1000°C •
- **INRUSH Current Measurements**
- VFD Variable Frequency Drive voltage value
- LoZ Low impedance mode prevents false readings due to "Ghost" voltage
- NCV – Non-Contact Voltage Detector
- Built-In Flashlight
- Continuity buzzer and Diode Test
- Peak Mode and Data Hold function
- Auto Power Off

# 400A AC/DC CLAMP METER



The MT723 is a CAT III 600V, 4000 count True RMS 400A AC/DC digital clamp meter with indication on a large backlit LCD display, providing fast sampling time with high accuracy. The meter measures 1000V AC/DC, temperature, frequency, capacitance and resistance measurements, plus 100ms Inrush current and Peak Voltage value. The VFD function allows the user to measure stable voltage in high frequency applications of Variable Frequency Drives. Added features include Relative mode for Capacitance Zero and DCV, ACV and ACA offset adjustment, Non-Contact voltage detection, data hold function and a built-in flashlight for dimly lit areas. Housed in a modern double moulded rubber housing.

#### **Features**

- 4000 count backlit LCD display
- Ø30mm Cable Clamp size
- Measurement of DC voltage and AC voltage up to 1000V
- Capacitance to 100mF
- Temperature measurement from -20°C to 1000°C
- **INRUSH Current Measurements**
- VFD Variable Frequency Drive voltage value
- NCV Non-Contact Voltage Detector
- Built-In Flashlight
- Continuity buzzer and Diode Test
- Peak Mode and Data Hold function
- Auto Power Off

Function	Range	Accuracy
Jaw Size	30mm	
DC Current	40.00A - 400A	±(2.0% +8)
AC Current	40.00A - 400A	±(2.0% +8)
DC Voltage	4.000V - 1000V	±(1.0% +3)
AC Voltage	4.000V - 1000V	±(1.2% +5)
Resistance	400.0Ω - 40ΜΩ	±(1.5% +2)
Frequency	10Hz – 100kHz	±(1.0% +5)
Capacitance	99.00nF – 100mF	±(3.0% +5)
Temperature	-20°C - 1000°C	±(3.0% +3°C)
Duty Cycle	20.0% to 80%	±(1.2% +10)
Size	220 x 80 x 39mm	
Weight	305g	

IEC 61010-1	IEC 61010-1
CAT III	CAT IV

Accuracy

±(2.5% +5)

 $\pm(2.5\% + 5)$ 

±(3.0% +5)

±(1.5% +5)

 $\pm(1.5\% + 5)$ 

±(3.0% +40)

±(2.5% +20)

±(1.5% +5) ±(1.2% +5)

±(3.0% +8)

 $\pm(1.5\% + 5^{\circ}C)$ 

±(1.2% +8)

Accuracy

 $\pm(2.5\% \pm 5)$ 

±(2.5% +8)

±(1.5% +2)

 $\pm(1.5\% + 5)$ 

 $\pm(3.0\% + 40)$ 

 $\pm(1.5\% + 2)$ 

 $\pm(1.2\% + 5)$ 

±(3.0% +5)

 $\pm(1.2\% + 5)$ 

±(3.0% +5°C)



MT777



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### TRUERMS



K2056R



### 1000A AC/DC CLAMP METER

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.

#### **Features**

- 6039 count backlit LCD display with 61 segment bargraph
- Ø40mm Cable Clamp size •
- Measurement of AC/DC Current up to 1000A
- Measurement of AC/DC voltage up to 600V
- Temperature Measurement -50°C to 700°C
- Capacitance to 4mF
- Resistance to 60MQ
- Frequency Measurement to 10kHz
- Continuity Buzzer and Diode Test
- Peak Hold and Data Hold
- Relative Mode, MIN/MAX recording mode Double Moulded housing provides comfortable palm grip



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 - 60ΜΩ	±(1.5% +5)
Frequency	1Hz - 10kHz	±(0.5% +5)
Capacitance	40nF - 4000μF	±(2.5% +20)
Temperature	-50°C to 700°C	±(5.0°C +3)
Duty Cycle	0.1 to 99.9%	±(2.5% +5)
Size	254 x 82 x 36mm	
Weight	310g	

# 1000A AC/DC CLAMP METER

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.

#### **Features**

- 6039 count backlit LCD display with 61 segment bargraph
- Ø40mm Cable Clamp size
- Measurement of AC/DC Current up to 1000A
- Measurement of AC/DC Voltage up to 600V
- Resistance to  $60M\Omega$
- Frequency Measurement to 10kHz
- Continuity Buzzer and Diode Test
- Data Hold
- Relative Mode, MIN/MAX recording mode
- Double Moulded housing provides comfortable palm grip
- Auto Power Off



#### Range Functior Accuracy Jaw size 40mm 600A - 1000A DC Current $\pm(1.5\% + 5)$ AC Current 600A - 1000A ±(2.0% +5) DC Voltage 600mV - 600V ±(1.0% +3) AC Voltage 6V - 600V ±(1.3% +4) Resistance 600Ω - 60ΜΩ ±(1.0% +5) 1Hz - 10kHz ±(0.5% +5) Frequency 0.1 to 99.9% ±(2.5% +5) Duty Cycle 254 x 82 x 36mm Size Weight 310g

K2055

### TRUERMS



# 600A AC/DC CLAMP METER

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.

#### Features

- 6039 count backlit LCD display with 61 segment bargraph
- Ø33mm Cable Clamp size
- Measurement of AC/DC Current up to 600A •
- Measurement of AC/DC voltage up to 600V
- Temperature Measurement -50°C to 700°C
- Capacitance to 4mF
- Resistance to 60MO
- Frequency Measurement to 10kHz
- Continuity Buzzer and Diode Test
- Peak Hold and Data Hold
- Relative Mode, MIN/MAX recording mode Double Moulded housing provides comfortable palm grip



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 - 60ΜΩ	±(1.5% +5)
Frequency	1Hz - 10kHz	±(0.5% +5)
Capacitance	40nF - 4000μF	±(2.5% +20)
Temperature	-50°C to 700°C	±(5.0°C +3)
Duty Cycle	0.1 to 99.9%	±(2.5% +5)
Size	243 x 77 x 36mm	
Weight	300g	

K2046R

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# 2000A AC/DC CLAMP METER

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**

- 4000 count backlit LCD display
- Ø55mm Cable Clamp size
- Measurement of AC/DC Current up to 2000A
- Measurement of DC voltage up to 1000V and AC voltage up to 750V
   Resistance to 40000
- Resistance to 4000ΩFrequency to 4000Hz
- Microprocessor DCA zero adjustment
- Provides Recorder Output for long hour monitoring
- Duty Cycle and Continuity Buzzer
- Auto Power Off



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	250 x 105 x 49mm	
Weight	540g	





K2009R

# 2000A AC/DC CLAMP METER

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**

- 4000 count backlit LCD display
- Ø55mm Cable Clamp size
- Measurement of AC/DC Current up to 2000A
- Measurement of DC voltage up to 1000V and AC voltage up to 750V
- Resistance to 4000Ω
- Microprocessor DCA zero adjustment
- Provides Recorder Output for long hour monitoring
- Continuity Buzzer
- Auto Power Off



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	250 x 105 x 49mm	
Weight	540g	



K2003A

# **100A AC/DC CLAMP METER**

The K2300R is a CAT III 300V, 1049 count True RMS 100A AC/DC digital clamp meter, with a clamp jaw opening of 10mm. This open jaw clamp meter is designed to assist in the ease of measuring current in crowded or tight cable areas, as the jaws need only be pushed over the wire to obtain accurate readings. The meter has a Non-Contact Voltage detection, diode and is housed in a rugged design for heavy duty use.

#### **Features**

- 1049 count negative LCD display
- Open Jaw Sensor
- Ø10mm Cable Clamp size
- Measures DC Current and AC Current up to 100A
- NCV Non-Contact Voltage Detector
- Microprocessor DCA Zero
- Data Hold function
- 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	161.3 x 40.2 x 30.3	3mm
Weight	110g	



K2300R





**200A AC CLAMP METER** 

The K2031 is a CAT III 300V, 4000 count 200A AC digital clamp meter, with a clamp jaw size of 24mm. This mini clamp meter is the ideal pocket-sized dedicated clamp meter and has a resolution of 10mA. Features include a one-handed operation rotary range selector and power switch, data hold and auto power off for extended battery life.

#### Features

- 4000 count LCD display
- Ø24mm Cable Clamp size •
- Measures AC Current up to 200A AC current resolution 0.01A



- Frequency response from 40Hz to 1kHz on AC current
- Data Hold

Function	Range	Accuracy
Jaw size	24mm	
AC Current	200A	±(2.0% +5)
Digital Display	4000	
AC Bandwidth	40Hz to 1KHz	
Size	147 x 59 x 25mm	
Weight	100g	

# TRUERMS



TRUERMS

# 100A AC/DC CLAMP METER

The MT760 is a CAT III 300V, 2000 count True RMS 100A AC/DC digital clamp meter with a resolution of 1mA. The MT760 has a compact design, high reliability and safety, and provides fast sampling time with high accuracy and all readings are indicated on a large backlit LCD display. The meter measures 600V AC/DC, capacitance, resistance measurements, plus a continuity buzzer and diode test function. The VFC function allows the user to measure stable voltage in high frequency applications of Variable Frequency Drives. Added features include Zero/ Relative mode for Capacitance Zero, resistance, DCV, ACV, DCA and ACA offset adjustment and Non-Contact voltage detection. Housed in a modern double moulded rubber housing.

#### **Features**

- Current measurement from 1mA
- Measures AC and DC current to 100 Amps
- Ø17mm Cable Clamp size
- 2000 count backlit LCD display
- Measurement of DC voltage and AC voltage up to 600V
- Capacitance to 20mF
- VFC Variable Frequency Drive voltage value
- Microprocessor Zero adjustment • NCV – Non-Contact Voltage
- Detector Continuity buzzer and Diode Test
- Data Hold function
- Auto Power Off



Function	Range	Accuracy
Jaw Size	17mm	
DC Current	2.000A - 100A	±(2.0% +3)
AC Current	2.000A- 100A	±(2.5% +8)
DC Voltage	200.0mV - 600V	±(0.7% +3)
AC Voltage	2.000V - 600V	±(1.0% +3)
Resistance	200.0Ω – 20ΜΩ	±(1.0% +2)
Capacitance	2.000nF – 20mF	±(4.0% +5)
Size	175 x 60 x 34mm	
Weight	170g	

# 800A AC/DC CLAMP METER

The MTD75T True RMS 800A AC/DC Clamp Meter is a useful tool that allows you to safely test for electrical problems, motor's condition and current on appliances. Equipped to test any electrical circuit without disconnecting any wires. Handy function includes a backlit LCD display and Flashlight for working in dimly lit areas. The NCV Non-Contact Voltage detector is useful for a quick check to see it voltage is present on circuit under test. It has a 28mm Jaw opening and measures 0.01A to 800A AC & DC, 0.1mV to 600V AC/DC, Temperature, Capacitance, Frequency, Resistance, Continuity buzzer and Diode Test.

- Measures AC & DC Current, AC Voltage,
   Continuity and buzzer test DC Voltage, Temperature, Capacitance, Frequency and Resistance
- Measures current to 800 Amps without
- Resolution to 1A AC and DC Current
- 28mm conductor size
- 6000 count LCD display with backlight



Data hold and Duty Cycle

function

Auto power off Low battery indication

Function	Range	Accuracy
Jaws Size	28mm	
DC Current	60A – 800A	±(1.5% +5)
AC Current	60A – 800A	±(1.5% +5)
DC Voltage	600mV – 600V	±(0.5% +5)
AC Voltage	6V - 600V	±(0.8% +5)
Resistance	600Ω – 60ΜΩ	±(0.8% +1)
Frequency	10Hz – 10MHz	±(0.5% +4)
Capacitance	6nF – 60mF	±(2.5% +5)
Temperature	-40°C – 1000°C	±(1.0% +5°C)
Size	185 x 65 x 37mm	
Weight	180g	



TRUERMS

600A AC/DC CLAMP METER

The MT713 is a CAT IV 600V, 6000 count True RMS 600A AC/DC digital clamp meter with indication on a large backlit LCD display, providing fast sampling time with high accuracy. The Smart mode, "AUTO", is a function that automatically identifies DC voltage, AC voltage, Resistance and continuity and automatically displays the measurements. There is a built-in Non-Contact voltage detector, by pressing the NCV button continuously the LCD displays "EF" and will display "----" when voltage is detected and the buzzer sounds. The meter measures 600V AC/ DC, frequency, resistance, temperature and capacitance measurements, plus Inrush current and Peak Voltage value. Other features include a Data hold function and a built-in flashlight for dimly lit areas. Housed in a modern compact housing ideal for electricians. HVAC technicians and students studying electrical.

#### **Features**

- 6000 count backlit LCD display
- Ø25mm Cable Clamp size
- Smart Mode automatically identifies DCV, ACV, Resistance and continuity
- Measurement of DC voltage and AC voltage up to 600V
- **INRUSH Current Measurements**
- NCV Non-Contact Voltage Detector

### Built-In Flashlight

- Continuity buzzer
  - Peak Mode and Data Hold function Auto Power Off



Function	Range	Accuracy
Jaws Size	25mm	
DC Current	60.00A - 600A	±(2.0% +3)
AC Current	60.00A - 600A	±(2.0% +3)
DC Voltage	6.000V - 600V	±(0.5% +3)
AC Voltage	6.000V - 600V	±(1.0% +3)
Resistance	600.0Ω – 60ΜΩ	±(0.5% +3)
Capacitance	6.000nF – 60.00mF	±(2.0% +5)
Frequency	6.000Hz – 10MHz	±(0.1% +2)
Temperature	-30°C - 1000°C	±(2.5% +5)
Size	172 x 64 x 32mm	
Weight	172g	

MT713

S

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**Features** 

MTD75T

- breaking the circuit

# AC/DC POWER METERS



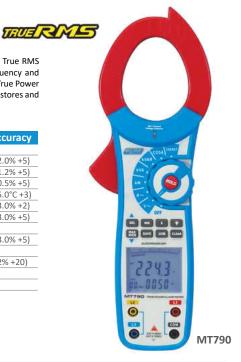
# 1000A AC POWER CLAMP

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.

#### Features

- True RMS Clamp Meter, Power Meter and DMM
- Ø55mm Cable clamp size
- 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

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	335 x 70 x 21mm	
Weight	631g	



508

MT785

IEC 61010-1

TRUERMS

# **1500V DC H & W ANALYSIS CLAMP METER**

The MT785 is a CAT IV 600V, 6000 count True RMS H & W analysis clamp meter that measures up to 1000A AC/DC with an analogue bargraph indication on a TFT colour display. The MT785 simultaneously measures and displays Active, Reactive and Apparent Power and Energy, and current harmonic analysis up to the 25th order with THD% calculation in a single phase. The 100ms Inrush current detects starting up currents of electric motors, input surge current, or switch-on surge currents, this is the maximum instantaneous input current drawn by an electrical device when first turned on. The meter has been designed to measures 1500V DC purposely for the Solar industry, 1000V AC, temperature, frequency, capacitance and resistance, plus the Low Z range function has a low pass filter to eliminate errors caused by "Ghost" voltages. The meter has a built in record and store function and displays trend charts, using the Bluetooth function the meter wirelessly transmits data to the Android or iOS mobile App allowing the user to view, save, organise and share recordings.

#### Features

- 6000 count TFT colour LCD display
- Ø33mm Cable Clamp size
- Measurement of AC and DC current up to 1000V
  TRMS AC voltage to 1000V, DC voltage up to
- 1500V and AC+DC voltage measurements • Active, Reactive, Apparent Power & Power Factor
- Active, Reactive, Apparent Power & Power Factor on single phase
- AC and DC Power measurements
- Energy measurements on single phase Active, Reactive and Apparent
- Capacitance to 6000µF
- Trend Capture Function
- INRUSH Current Measurements
  AC Voltage and Current Harmonics (1 25) and
- THD% up to 75Hz (1 8 above 75Hz)
  LoZ Low impedance mode prevents false
- readings due to "Ghost" voltage
- NCV Non-Contact Voltage Detector
- Built-In FlashlightContinuity buzzer and Diode Test
- Peak Mode. Min/Max and Data Hold function
- Auto Power Off

Function	Range	Accuracy
AC TRMS Current	600.0A - 1000A	±(2.5% +8)
DC Current	600.0A - 1000A	±(2.8% +5)
AC TRMS Voltage	6.000V - 1000V	±(1.5% +5)
DC Voltage	600.0mV - 1500V	±(1.5% +8)
LoZ AC TRMS Voltage	6.000V-1000V	±(3.0% +40)
AC+DC TRMS Voltage	6.000V - 1000V	±(2.5% +20)
AC Voltage Harmonic	1 - 25 (20 - 75Hz) [0.1% THD]	±(5.0% +8)
	1 - 8 (75 - 400Hz) [0.1% THD]	±(6.0% +8)
AC Current Harmonic	1 - 25 (20 - 75Hz) [0.1% THD]	±(5.0% +20)
DC Power	99.99kW – 999.9kW	±(3.0% +5)
AC Power	99.99kW/kVA/kVAR	±(3.0% +5)
	999.9kW/kVA/kVAR	10.070 107
Power Factor	0.20 - 1.00	±3°
Energy	9.999kW/kVA/kVAR	+(2,00/ + 5)
	99.99kW/kVA/kVAR	±(3.0% +5)
Resistance	600.0Ω - 60.00ΜΩ	±(1.5% +5)
Frequency	9.999Hz – 9.99kHz	±(1.2% +6)
Capacitance	60.0nF – 6000μF	±(3.0% +8)
Temperature	-40°C - 1000°C	±(1.5% +3°C)
Duty Cycle	10.0% - 90%	±(1.2% +8)
Size	236 x 66 x 44mm	
Weight	350g	

Range

12mm

140g

0A - 180A

0.1A - 130A

147 x 42 x 22mm

**Accuracy** 

+(1.2% + 4mV)

±(1.2% + 4mV)

# 130A AC/ 180A DC CLAMP SENSOR

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

Function Jaw size

DC Current

AC Current

Size

Weight

#### 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



- Anno

K8115



# AC LEAKAGE CLAMP METERS



### **100A AC LEAKAGE CLAMP METER**

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

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



K2434

# TRUERMS



# **1000A AC LEAKAGE CLAMP METER**

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

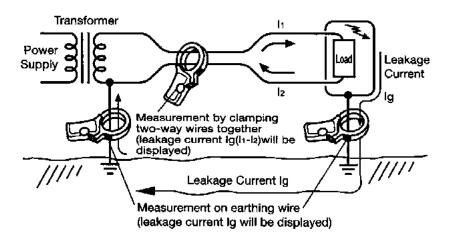
Function	Range	Accuracy
Jaw size	68mm	
AC Current	200mA - 1000A	±(2.8% +10)
Size	250 x 130 x 50mm	
Weight	600g	



K2413R

#### 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.





# **INSULATION TESTERS**

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# **INSULATION TESTERS**



MT560



MT550



MT500

# **1000V INSULATION TESTER**



The 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.

#### 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

Function	Range	Accuracy
Insulation resistance	125V - 4MΩ	±(2.0% +10)
	250V - 40MΩ	±(2.0% +10)
	500V - 400MΩ	±(2.0% +10)
	1000V - 4000MΩ	±(3.0% +10)
Short circuit current	1.0mA	
Measuring Current	200mA@4.5V	
DC voltage	0 - 1000V	±(0.8% +3)
AC voltage	0 - 750V	±(1.2% +10)
Resistance	40Ω - 400Ω	±(1.2%+3)
Size	200 x 92 x 50mm	
Weight	700g	

### **1000V INSULATION TESTER**



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.

#### **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

<b>Range</b> 250V - 200MQ	Accuracy
250V - 200MO	. (0, 0,0) = )
2001 20011122	±(3.0% +5)
500V - 200MΩ	±(3.0% +5)
1000V - 2000MΩ	±(5.0% +5)
1.0mA	
200mA@4.5V	
0 - 1000V	±(0.8% +3)
0 - 750V	±(1.2% +10)
200Ω - 200ΚΩ	±(1.0%+2)
200 x 92 x 50mm	
700g	
	1000V - 2000MΩ 1.0mA 200mA@4.5V 0 - 1000V 0 - 750V 200Ω - 200KΩ 200 x 92 x 50mm

### **1000V INSULATION TESTER**



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  $3\Omega$  continuity range and a  $500\Omega$  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 environments.

#### **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

Function	Range	Accuracy
Insulation resistance	250V - 100MΩ	±(5.0%)
	500V - 200MΩ	±(5.0%)
	1000V - 400MΩ	±(5.0%)
Short circuit current	1.3mA	
Measuring Current	200mA@4.5V	
AC voltage	0 - 600V	±(3.0%)
Resistance	3Ω - 500Ω	±(3.0%)
Size	200 x 92 x 50mm	
Weight	700g	

TESTERS

NSULATION



# **INSULATION TESTER & TRMS MULTIMETER**

The MT565 is a combination of a True RMS multimeter and an Insulation Continuity tester. The MT565 measures AC/DC voltage, AC/DC current, resistance, capacitance, frequency, duty cycle and temperature. The Low pass filter can accurately measure variable frequency drive (VFD) signals. The insulation tester offers 50V, 100V, 250V, 500V, and 1000V ranges with an insulation resistance up to 5000MΩ, DAR and Auto PI functions with adjustable time setting and an auto discharge. The Low Ohm function offers a resolution of 1mA and an open circuit voltage of 5V. The meter has a 50 000 count LCD dual display with an analogue bar graph, and the CAT IV 600V rating ensures the highest level of safety. The unit offers Bluetooth communication and an internal memory to store and transfer information. The Bluetooth app is available on both Android and iOS platforms. This provides maximum versatility and a wide range of features for both trouble shooting and preventative maintenance electricians.



#### **Features**

- 5 Insulation Test Ranges: 50V, 100V, 250V, 500V, 1000V
- Insulation Resistance up to 5GΩ
- 50 000 count with analogue bargraph backlit LCD display
- Measures AC and DC voltage up to 1000V
- Measures AC and DC current up to 10A
- Temperature measurement from -50°C to  $1200^{\circ}\text{C}$
- Capacitance to 5mF
- Frequency to 50MHz
- Dielectric Absorption Ratio (DAR)
- Polarization Index (PI)
- Low Pass Filter for measurement of variable frequency drive (VFD)
- Auto discharge of voltage test signal
- Peak Hold function for Voltage and Current measurements
   Download stored data to iOS or Android App via Bluetooth
- Continuity buzzer
- Min/Max and Data Hold function
- Auto Power Off
- IP65 double moulded rugged waterproof housing

Function	Range	Accuracy
Insulation		
50V – 2000MΩ	1mA@50kΩ	±(4.0% +5)
100V – 5000MΩ	1mA@100kΩ	±(4.0% +5)
250V – 5000MΩ	1mA@250kΩ	±(3.0% +5)
500V – 5000MΩ	1mA@500kΩ	±(3.0% +5)
1000V – 5000MΩ	1mA@1MΩ	±(4.0% +5)
Low Ohm Meter		
Resistance	0.000Ω – 2000Ω	±(2.0% +5)
Open Circuit Voltage	5.0V	±1V
Measuring Current	200mA	
Multimeter		
DC Voltage	500mV - 1000V	±(0.1% +4)
AC Voltage	500mV - 1000V	±(0.1% +5)
DC Current	500µA – 10A	±(1.0% +3)
AC Current	500µA – 10A	±(1.5% +3)
Resistance	500Ω – 50ΜΩ	±(0.5% +3)
Frequency	50Hz – 50MHz	±(0.3% +2)
Capacitance	500nF – 5mF	±(3.5% +9)
Temperature	-50°C - 1200°C	±(1.0% +2.5°C)
Size	210 x 97 x 68mm	
Weight	634g	



MATOR	
STORE CARD MAX REL RANGE PEAK	
BODE INSULATION MODE INSULATION TEST TEST INFO HOLD DEL	
LOW OHM UA H2% DAA H2% DFF UCF H2% DFF H2% DFF H2% DFF H2% H2%	
MT565 TRUE RMS MULTIMETER & INSULATION TESTER	

MT565



# **INSULATION TESTERS**





# **1000V INSULATION TESTER**

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
- Resistance to 2000Ω
- 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

Function	Range	Accuracy
Insulation resistance	250V - 20MΩ	±(1.5% +5)
	500V - 200MΩ	±(1.5% +5)
	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	185 x 167 x 89mm	
Weight	900g	



K3131 K3131IS



# **1000V INSULATION TESTER**

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.

#### Features

- Three test ranges 250V 500V 1000V
- Resistance to 20Ω
- 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

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





# **1000V INSULATION TESTER**

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,  $3\Omega$  and 500 $\Omega$  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.

#### Features

- Three test ranges 250V 500V 1000V
- Resistance to 500Ω
- 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

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

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# **DIGITAL INSULATION/CONTINUITY TESTERS**

The K3552 and the K3552BT insulation resistance testers have six ranges for insulation resistance measurement 50/100/125/250/500/1000V and insulation measurement from 4.000-40G  $\Omega$ . The K3552 and K3552BT have a diagnostic test for PI polarization index and DAR dielectric absorption ratio. These insulation testers have the world's fastest measurement speed of 0.5sec and are fully protected against accidental connection to a live circuit. The internal memory can store 1000 measurements and can be transferred to the PC by using an optional K8212-USB, the K3552BT has Bluetooth 4.0 and can transfer data directly to a compatible tablet or smart phone devices. The insulation status indicator enables the user to set different low or high resistance values for each insulation respectively and the screen will change colour for high resistance (pass) the screen will be green and low resistance (fail) the screen will be red. Both Insulation tester facilitate working in dimly illuminated locations, with an automatic sensor which turns on the LCD backlight and LED spotlight on/off.

#### **Features**

- Insulation 6 ranges 50/100/125/250/500/1000V, automatic discharge of capacitance, Polarization Index (PI) and Dielectric Absorption ratio (DAR)
- Output short circuit current 1.5mA
- Continuity range  $40.00/400.0/4000\Omega$ Measuring current 200mA with an output voltage of 5V
- Measurement of AC and DC voltage 2.0 to 600V
- Connectivity: K3552BT via Bluetooth to KEW Smart App and K3552 via an optional USB to PC



Function	Range	Accuracy
Insulation testing range	50/100/125/250/500/1000V	
Measuring range	4.000 – 40GΩ	±(2% + 2)
Continuity	40/400.0/4000Ω auto ranging	
Open circuit voltage	5V	±(2.5% + 8)
Measurement current	200mA	
Voltage	AC 2.0 – 600V (45-65Hz)	
	DC -2.0 - 600V +2.0 -+600V	$\pm(1\% + 4)$
Cat Rating	IEC61010 CATIII 600V/CATIV 300V	
Applicable Standards	IEC61557-1,2,6 IEC61326-1	
Communications Interface	K8212-USB (optional)	
	Bluetooth 4.0LE Kew Smart*(K3552BT)	
Dimensions	97 x 156 x 46mm	
Weight	490g	
Power source	LR6 x 4	



K3552BT K3552

Insulation status indicator enables faster Pass / Fail judgement









Automatic sensor turns the LCD backlight and LED spot light ON/OFF.

File transfer via bluetooth to free iOS or Android App

# **1000V INSULATION TESTER**

The 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

Function	Range	Accuracy
Insulation resistance	250V - 20MΩ	±(1.5% +5)
	500V - 200MΩ	±(1.5% +5)
	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	185 x 167 x 89mm	
Weight	900g	



K3007 K3007IS



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# **HV INSULATION TESTERS**

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ESC

PRESS TO TEST

▲ 5630

HIGH VOLTAGE INSULATION TESTER

5000 V

2500 V

500 V 12

1000 V

OFF

K3127

FILTER

CE

K3127

# **5KV INSULATION TESTER 10TΩ**

The K3127 is microprocessor controlled and is capable of performing tests from 250V 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.

Function	Range	Accuracy
Insulation resistance	250V - 10GΩ	±(5.0% +3)
	500V - 100GΩ	±(5.0% +3)
	1000V - 200GΩ	±(5.0% +3)
	2500V - 1000GΩ	±(5.0% +3)
	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	208 x 225 x 130mm	
Case Size	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**

The K3125 is microprocessor controlled and is capable of performing tests from 250V 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**

- Wide Test Voltage from 250V to 5000V
- · Large LCD Display with bargraph and backlight
- Polarization index measurement (PI)
- · Indication of output voltage and discharge voltage
- Insulation resistance up to  $1000G\Omega$
- 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

Function	Range	Accuracy
Insulation resistance	250V - 100.0MΩ	±(5.0% +3)
	500V - 100MΩ	±(5.0% +3)
	1000V - 2GΩ	±(5.0% +3)
	2500V - 100GΩ	±(5.0% +3)
	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	177 x 226 x 100mm	1
Weight	1,9kg	



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# 12KV DIAGNOSTIC INSULATION TESTER 35T $\Omega$



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  $35T\Omega$ . 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











Function	Range	Accuracy
Insulation resistance	500V - 500GΩ	±(5.0% +3)
	1000V - 1TΩ	±(5.0% +3)
	2500V - 2,5TΩ	±(5.0% +3)
	5000V - 5TΩ	±(5.0% +3)
	10000V - 35TΩ	±(5.0% +3)
	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	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.





# **HV INSULATION TESTERS**



K3123



K3122 IEC 61010-1





# **10KV INSULATION TESTER**

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
- Battery test function Guard terminal supplied
- - Supplied in a drip proof rubber sealed casing
  - · Lock down test button for continuous use

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

# **5KV INSULATION TESTER**

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.

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

Function	Range	Accuracy
Insulation resistance	5000V - 5GΩ	±(5.0%)
Short Circuit Current	0.08mA	
Size	177 x 226 x 100mm	
Weight	1,7Kg	

# 2.5KV INSULATION TESTER

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
- Function Range Accuracy Insulation resistance 2500V - 2GQ ±(5.0%) Short Circuit Current 0.08mA 177 x 226 x 100mm Size Weight 1,6Kg

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INSULATION



# **HV INSULATION TESTERS**



# **5kV INSULATION TESTER**



The MT570 is a CAT IV 600V Digital High Voltage Tester with measurements from 500V DC to 5000V DC, and will automatically discharge the circuit after the test has been completed. Using the rotary selector switch, 4 preset ranges of 500V, 1000V, 2500V and 5000V can be selected, with an insulation resistance up to  $1T\Omega$ . The microprocessor controlled MT570 has the capabilities of being a diagnostic tool and is intended for testing insulation on Rotating Machines, Transformers, Cables, High Voltage Generators, Electric Circuits and Surge Arrestors as the short circuit current output is up to 5mA. 200 test measurement results can be saved in the memory of the meter and recalled onto the LCD display. The large intelligent LCD display consists of 2 lines x 16 characters, indicating the reading of insulation, measuring time, output voltage and output current. The MT570 can measure AC and DC voltage up to 600V and is housed in a robust case ideal for extended field use, powered by 8 pieces "C" 1.5V batteries.

#### Features

- Insulation Test Voltages from 500V to 5000V
- Microprocessor controlled with 2 lines x 16 characters intelligent display
- Short circuit current up to 5mA
- DAR - Dielectric Absorption Ratio indication
- PI Polarization Index indication •
- Measurement of AC and DC voltage up to 600V
- Auto ranging on all insulation ranges
- Adjustable test time from 1 minute to 30 minutes
- Auto hold to freeze measurement readings
- 200 measurement results can be saved in memory and recalled onto the display
- Visual and audible warning of external voltage greater than 30V AC and DC
- Auto Power Off
- Date and Time calendar

Function	Range	Accuracy		
Insulation	500V - 100GΩ ±(5.0% +5)			
	1000V – 200GΩ	±(5.0% +5)		
	2500V – 500GΩ	±(5.0% +5)		
	5000V – 1TΩ	±(5.0% +5)		
Short Circuit Current	5mA			
Current Measurement	0.5nA to 0.55mA (Dep	ending		
	on insulation resistanc	e)		
AC Voltage	30.0V - 600V ±(2.0% +3)			
DC Voltage	30.0V - 600V ±(2.0% +3)			
Power Source	8 x 1.5V "C" Alkaline Batteries			
Size	250 x 190 x 127mm			
Weight	2.07kg			



MT570

# **10kV INSULATION TESTER**



Auto hold to freeze measurement

200 measurement results can be saved in

memory and recalled onto the display

Visual and audible warning of external

voltage greater than 30V AC and DC

readings

Auto Power Off

Date and Time calendar

The MT575 is a CAT IV 600V Digital High Voltage Tester with measurements from 1000V DC to 10,000V DC, and will automatically discharge the circuit after the test has been completed. Using the rotary selector switch, 4 preset ranges of 1000V, 2500V, 5000V and 10 000V can be selected, with an insulation resistance up to 2TΩ. The microprocessor controlled MT575 is ideal for analysing the insulation characteristics of cables, transformers, motors, generators, high pressure switches, insulators and large wiring installations as the short circuit current output is up to 5mA. 200 test measurement results can be saved in the memory of the meter and recalled onto the LCD display. The large intelligent LCD display consists of 2 lines x 16 characters, indicating the reading of insulation, measuring time, output voltage and output current. The MT575 can measure AC and DC voltage up to 600V and is housed in a robust case ideal for extended field use, powered by 8 pieces "C" 1.5V batteries.

#### **Features**

- Insulation Test Voltages from 1000V to 10 000V
- Microprocessor controlled with 2 lines x 16 characters intelligent display
- Short circuit current up to 5mA
- DAR Dielectric Absorption Ratio indication •
- PI – Polarization Index indication
- Measurement of AC and DC voltage up to 600V •
- Auto ranging on all insulation ranges
- Adjustable test time from 1 minute to 30 minutes

Function	Range	Accuracy	
Insulation	1000V – 200GΩ	±(5.0% +5)	
	2500V – 500GΩ	±(5.0% +5)	
	5000V – 1ΤΩ	±(5.0% +5)	
	10 000V – 2TΩ	±(5.0% +5)	
Short Circuit Current	5mA		
Current Measurement	0.5nA to 0.55mA		
	(Depending on insulation resistance)		
AC Voltage	30.0V - 600V	±(2.0% +3)	
DC Voltage	30.0V - 600V	±(2.0% +3)	
Power Source	8 x 1.5V "C" Alkaline Batteries		
Size	250 x 190 x 127mm		
Weight	2.12kg		





# **HV VOLTAGE DETECTORS**



## **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 company. 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.

The MT269 is a personal instrument designed to detect voltage from 100V AC to 69kV AC and alert users with bright LED indication and a loud audible buzzer sound, while approaching live equipment where dangerous voltage is present. The MT269 being a safety voltage detector is supplied in a pouch to typically be hung around the user's neck and ensures the user stays a safe distance away

AC Voltage Detection

Frequency Range

Sound Level

#### **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

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	245 x 80 x 37 mm
Weight	175g

Range

> 99dB

100V to 69kV

40 to 70Hz



MT269

#### from live equipment, and protects and safeguards users from approaching dangerous live high voltage equipment or cables. **Features** Function

SAFETY VOLTAGE DETECTOR

- Bright LED visual indication •
- Audible indication
- AC voltage detection: 100V AC to 69kV AC
- Non-contact detection by proximity
- Convenient to use neck hanging strap and case
- On/Off switch Self-test function
- Comply with EN 61326-1
- Lightw

weight, robust and compact	
	DETECTOD

**SAFETY VOLTAGE DETECTOR** 

The MT222 is a personal sensor for detecting AC Voltage from 100V AC to 22kV AC and alert users with bright LED indication and a loud audible buzzer sound, while approaching live equipment where dangerous voltage is present. The MT222 provides electric engineering personnel, power engineering personnel, firefighting personnel and instrument equipment workers with prominent warning when approaching high voltage source. Supplied with a rubber strap and hooks, the unit can be worn on the wrist, around the arm or placed on a safety helmet. The unit uses a CR2032 battery and typical battery life is around 50 hours.

### Features

- Compact, easy to wear and convenient in use
- LED visual indication and Audible indication
- AC voltage detection from 100V to 22kV
- Non-contact detection by proximity
- IP65 waterproof housing
- Use on wrist, arm or on a safety helmet
- Self-test function
- Comply with EN 61326-1 Low power consumption
- Function Range AC Voltage Detection 100V to 22kV Voltage Detection Distance 6.6kV (3.8kV to ground): 40cm ±20% 11.4kV (6.6kV to ground): 55cm ±20% 19.7kV (11.4kV to ground): 80cm ±20% 22.8kV (13.2kV to ground): 40cm ±20% Detection Angle 90° Frequency Range 50/60Hz Sound Level 70dB or higher at 1m **Operating Temperature** 0°C to +40°C 20% to 80% RH **Operating Humidity** Size 61 x 61 x 18.5mm Weight 70g



MT222

# SAFETY VOLTAGE DETECTOR

The MT275 is a high voltage proximity detector that has 10 voltage settings from 240V AC to 500kV AC. The MT275 provides a wide 120° angle for non-contact detection with an internal pickup sensor plate that senses the radiated field which surrounds live conductors, the field strength increases with voltage and decreases quickly with distance or earthing shields. When testing for high kilo voltages the MT275 can be used in conjunction with long insulating link sticks or hot sticks. There is a built-in self-test range to verify the detector is in working order.

#### **Features**

- IP65 waterproof housing
- Function Range AC Voltage Detection 240V to 500kV 240V, 3.3kV, 11kV, 22kV, 33kV, 66kV, AC Voltage Ranges 110kV, 220kV, 330kV, 500kV Detection Angle 120° Frequency Range 40 to 70Hz Sound Level > 99dB -20°C to +60°C **Operating Temperature** 20% to 85% RH **Operating Humidity** Size 255 x Ø96 x Ø45mm Weight 531g
- Compatible with most hot sticks
- Suitable for indoor and outdoor use
- High impact nylon casing
- Built-in Flashlight
- Self-test function
- Comply with EN 61326-1, CISPR 11, EN 61000-4-2, EN 61000-4-3, EN 61000-4-8

Function	Range	(MDV) Minimum Detection Voltage	(MDV) Minimum Detection Voltage
AC Voltage	240V	80V	9.1%
	3.3kV	80V	9.1%
	11kV	1kV	9.1%
	22kV	2kV	9.1%
	33kV	3.1kV	9.4%
	66kV	6kV	9.4%
	110kV		
	220kV		
	330kV		
	500kV		

- 10 voltage settings from 240V to 500kV
- Bright LED visual indication and Audible indication
- AC voltage detection from 240V to 500kV
- Wide 120° angle for voltage detection
- Non-contact detection by proximity
- Easy-to-prove method

**Operating Temperature** 0°C to +40°C **Operating Humidity** 20% to 80% RH 100 x 71 x 40mm Size Weight 153g

MT275



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# **MULTIFUNCTION TESTER**



## MT390

# **MULTIFUNCTION TESTER**

The MT390 is a fast and accurate Multifunction Installation tester which makes testing installations easy and ensures that it is safe and complies to regulations, and is a must have in an electrician's arsenal. It is the most cost effective MFT on the market and is a firm favourite with electrical installers and commissioning engineers. The unit features Insulation resistance, Low Ohm measurement, Loop/PSC measurement, RCD measurement, Earth resistance measurement, Phase rotation and shows mains voltage with frequency on screen. The MT390 has soft key and menu options allowing the user to access the easy-to-use menu to select and change parameters, and a friendly "Help" option displays a wiring diagram on screen to ensure correct connection. With safety in mind, the meter connections panel has a protective slide that prevents incorrect connection while charging and communicating with the meter. The 3.5" TFT screen displays multiple readings clearly and are visible from all angles.

The instrument allows the user to save, review and label recordings. The all-in-one design includes Bluetooth file transfer and an internal memory with easy-to-use software that eliminates time consuming paperwork while testing multiple sites. The Bluetooth app allows the user to instantly share a measurement to a smartphone, both iOS and Android devices are supported, and the test report can be shared instantly via email in CSV format. Other connection options include Mini USB, S-Video TV out and MicroSD. The rugged double injection rubber housing withstands the knocks and bangs of everyday heavy use, and is supplied in a hard plastic carrying case. The MT390 complies with the IEC 61010 CAT IV 400V safety ratings.

## 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
- Standard accessories include Earth Resistance Spikes and Leads

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Function	капде
Insulation Resistance	125,250,500,1000V
Measuring Range	0,125 - 4000ΜΩ
Short Circuit Current	1mA
Earth Resistance	99.99 - 2000Ω
Resolution	0.01Ω
Low Ohm (Continuity)	400Ω
Resolution	0.001Ω
Open Circuit Voltage	5.8VDC
Measurement Current	200mA
Voltage Measurement	80 to 500V
Frequency	45-65Hz
Phase Rotation	50-500V
Loop Impedance Range	0.23Ω - 999Ω
Resolution	0.01Ω
Measuring Current (Hi Amp)	8A - 25A
Measuring Current (Anti-Trip)	15mA
PSC/PFC Range	0 – 50kA
Resolution	1A
RCD Test Current	10mA, 30mA, 100mA, 300mA, 500mA,
Auto x1/2, x1, x2 and x5	1000mA
Communication Interface	MiniUSB, Bluetooth, MicroSD, S-Video
Dimensions	220 x 95 x 61mm
Weight	631g

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



Dual line display with correct wiring indication

IEC 61010-1 CAT IV 400V



Graphical help options

RCD	ente	Corriente de disparo	ľ		-
Auto	<b>x</b> 1	30m A	ŀ		ms
Corriente	K	100mA	ŀ		ms
30mA	x1	300mA	ŀ		ms
	x1	500mA	ŀ		ms
Tipo de R	x5	650m A	-		ms
00	x5	1000mA 10mA	-	-	ms

Easy access to parameter setup via F-Key

# **MULTIFUNCTION TESTER**



IEC 61010-1

# **MULTIFUNCTION INSTALLATION TESTER**

The K6516 and K6516BT are advanced multifunction testers performing 12 separate test functions which are required for SANS 0142 and IEC 61557-10. The multifunction's include Insulation with PI and DAR, continuity, earth loop impedance, RCD testing, prospective short circuit, prospective fault current, earth resistance, AC Voltage, frequency, phase rotation, SPD (varistor) and PAT (portable appliance testing). The meters can store a maximum of 1000 measured results and the K6516 downloaded via a K8212-USB adaptor (also an optional accessory for K6516BT) and the K6516BT can transfer data to a tablet or smartphone via Bluetooth using Kew smart\* in google play or iOS App store. The K6516's are software driven and guides the user through the colour graphic display, making the meter very user friendly. The K6516's come supplied with a remote test lead for hands free testing. The ATT (anti trip technology) with 2 and 3 wire for no trip Loop L-PE on all RCD's. With 2 wire only can test with no neutral (eg 3-phase motors).



K6516

#### Features

- Insulation 4 ranges 100/250/500/1000V, automatic discharge of capacitance, Polarization Index (PI) and Dielectric Absorption ratio (DAR)
- Loop Impedance High Test current range of  $2\Omega$  with 0,001 $\Omega$  resolution
- RCD Type AC, A, F, B (general & selective) EV (electric vehicle) and variable RCD's, single and auto test, ramp test and contact voltage
- Earth Resistance test 2 & 3 wires with all accessories
- ACV Trms Voltage measurements 2V to 600V, mains frequency
- · Continuity test at 200mA or15mA with selectable buzzer for fast judgment
- Phase rotation on 3-phase lines with clear indication of the sequence on the display
- SPD (Varistor) Surge protection device test, for SPD that uses varistor
- PAT- Portable Appliance Tester function for insulation and continuity
- Connectivity: K6516BT via Bluetooth (to KEW Smart App) and K6516 via USB (to PC)

Function	Range	Accuracy
Insulation testing range	100/250/500/1000V	
Measuring range	2.000-2000ΜΩ	
Rated Current	1.0 – 1.2mA	±(2% + 6)
Loop Impedance 3 wire	100-260V (50/60Hz)	
2 wire	48-260V(50/60Hz)	
Range	20.00/200.0/2000Ω	±(3% + 6)
PSC/PFC	2000A/20kA	Derived from loop and
		voltage measurement
RCD rated voltage	100-260V 50/60Hz	
Function	x1/2, x1, x5, Ramp, Auto,Uc	
	10/30/100/300/500/1000mA	±(2% + 8)
Trip Time	x1/2	
Continuity	20.00/200.0/2000Ω	
Open circuit voltage	7-14VDC	
Measuring current	>200mA	±(2% + 8)
Voltage	2.0-600VAC auto ranging	±(2% + 4)
Frequency	45-65Hz	±(0.5% + 2)
Phase rotation	48 – 600V 50/60Hz	
Earth resistance	20.00/200.0/2000Ω auto ranging	±(2% + 0.08)
Cat Rating	IEC610101-1 CAT IV 300V	
Applicable standards	IEC61010-2-034	
	IEC61557-1,2,3,4,5,6,7,10	
Communication interface	K8212-USB (optional K6515BT)	
	Bluetooth 5.0 (K6515BT) Android 5.0	
	or more iOS 10.0 or more	
Power source	LR6 x 8	
Dimensions	136 x 235 x 114mm	
Weight	1300g	
-	-	

#### Large LCD

All the test data is shown in one large colored screen.







Loop test from a wall socket

# Continuity check of equipotential bonding

#### SPD test

SPD (Surge Protection Device) which contains varistor can be tested measuring the tripping voltage without damage it.



#### Connectivity

K6516 can download the test data by connecting the USB adaptor (Model 8212-USB) and then print complete Test Reports by a PC. While K6516BT can transfer the test data to a Tablet or Smartphone via Bluetooth. Such test data can be saved, shared and sent by email. The USB adaptor can also be ordered as an option for the K6516BT.





# **MULTIFUNCTION TESTERS**

# **PV INSULATION EARTH 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.

Insulation resistance	PV insulation	Insulation Range
Test voltage	500V / 1000V	250V / 500V / 1000V
Measuring range(Auto range)	20.00/200.0/2000MΩ	20.00/200.0/2000ΜΩ
Mid-scale value	_	50ΜΩ
Rated current	_	1.0-1.2mA / 0.25MΩ 0.5MΩ 1MΩ
First effective measuring range	1.51-200.0MΩ	1.51-100.0ΜΩ
	1.51-1000MΩ	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	±3.0%rdg±3dgt
	(20Ωrange)	(200/2000Ωrange)
Voltage measurement		
Measuring range	AC 5-600V (45-65Hz)DC	±5-±1000V
Accuracy	±1.0%rdg±4dgt	
Size	84 x 184 x 133mm	
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



# **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.





## Features

к6011

- 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  $0.01\Omega$  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
- Function Range Accuracy 0.01Ω - 2000Ω Continuity Testing Range  $\pm(0.5\% + 3)$ Open Circuit Range >6V Open Circuit Current 200mA 250V, 500V, 1000V Insulation Testing Range Measuring Range 0.01ΜΩ - 200ΜΩ ±(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) X 1/2: 10/30/100/300/500/1000mA Trip Duration 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 130 x 183 x 100mm

1.080kg

U

Weight

# EARTH RESISTIVITY TESTER



# **EARTH RESISTIVITY & RESISTANCE TESTER**

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 (p), 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 1mQ on  $2\Omega$  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 reworking electrode installations. It can also be suitable for geological investigations.

#### Features

- High test current up to 80mA yielding resolution of  $0.001\Omega$  on  $2\Omega$  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  $200k\Omega$
- 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.



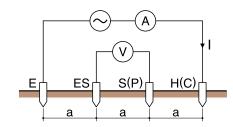


## Principle of Earth Resistivity (p) Measurements

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 ( $\Omega$ )", devide the potential difference "V" by AC current "I"; where the distance between electrodes is "a" (m).

Then use the formula:  $\rho = 2 \cdot \pi \cdot a \cdot \text{Rg} (\Omega \cdot \text{m}).$ 





Function	Range	Resolution	Measuring Range	Accuracy
Earth Resistance	2Ω	0.001Ω	0.03 – 2.099Ω	±(2% +0.03Ω)
	20Ω	0.01Ω	0.03 – 20.99Ω	±(2% +5)
	200Ω	0.1Ω	0.3 – 209.9Ω	±(2% +5)
	2000Ω	1Ω	3 – 2099Ω	±(2% +5)
	20kΩ	10Ω	0.03k – 20.99kΩ	±(2% +5)
	200kΩ	100Ω	0.3k – 209.9kΩ	±(2% +5)
Auxiliary Earth Spikes				8% of Re + Rh + Rs
Earth Resistivity p	2Ω		0.2−395.6Ω•m	
	20Ω		0.2 - 3956Ω•m	
	200Ω	0.1Ω∙m - 1Ω∙m	20 – 39.56kΩ•m	2
	2000Ω	Auto-Ranging	0.2-395.6kΩ•m	p = 2 x π x a x Rg
	20kΩ		2.0 – 1999kΩ∙m	
	200kΩ		2.0 – 1999kΩ•m	
Series Interference Voltage Ust	50V	0.1V	0 – 50.9Vrms	±(2% +2)
Frequency	Auto ranging	0.1Hz, 1Hz	40Hz – 500Hz	±(1% +2)
Test Current	80mA (Max)			
Memory capacity	800 data			
Size	167 x 185 x 89m	m		
Weight	900g			



# EARTH RESISTANCE TESTERS



K4105



DIGITAL EARTH RESISTANCE TESTER

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. 3mA Measuring current permits earth resistance tests without tripping the earth leakage current breakers in the circuit under test.

#### Features

- Direct earth resistance to  $2000\Omega$
- Measures earth voltage to 200V
- Indicates if resistance of auxiliary spikes is within tolerance
- 3½ Inch Digital LCD display
- 3mA Measuring current
- Low power consumption for extended battery life
- Direct readout of the earth resistance on the LCD display
- IP54 Protection Dust & Drip Proof
- Overload protection

Range Accuracy	
0.01Ω - 2000Ω	±(2.0% + 3)
840Hz	
20Ω RANGE 3mA	
0.1V - 200V	±(1.0% + 4)
105 x 158 x 70mm	
550g	
	0.01Ω - 2000Ω 840Hz 20Ω RANGE 3mA 0.1V - 200V 105 x 158 x 70mm



# DIGITAL EARTH RESISTANCE TESTER

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 200k $\Omega$  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.

#### Features

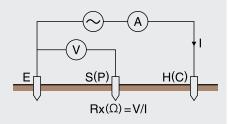
- Earth Resistance 2000Ω
- Earth voltage to 200V
- Indicates if resistance of auxiliary spikes is within tolerance
- Direct readout of the earth resistance on the LCD display
- Measures DCV to 1000V and ACV to 750V
- Overrange indicator
- Zero adjustment of leads
- Data Hold
- Overmould Rubber Casing
- Dual LCD with backlight
- · Ideal for earth rods and lightning conductors

Function	Range	Accuracy
Earth Resistance	20Ω - 2000Ω	±(2.0% + 10)
Measuring Current	20Ω Range 3mA	
Earth Voltage	0.1V - 200V	±(3.0% + 3)
Resistance	0.1KΩ - 200KΩ	±(1.0% + 2)
DC Voltage	1V - 1000V	±(0.8% + 3)
AC Voltage	1V - 750V	±(1.2% + 1)
Size	200 x 92 x 50mm	
Weight	700g	



## **Principle of Earth Resistance Measurements**

This instrument makes earth resistance measurements with fall-of-potential method, which is a method to obtain earth resistance "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).



MT330

# EARTH RESISTANCE TESTER



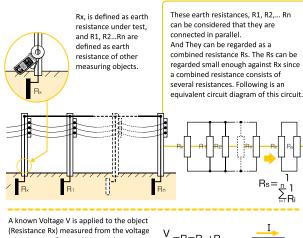
TRUERMS

# EARTH RESISTANCE TESTER

The K4202 measures earth resistance from 0.05 to  $1500\Omega$  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.

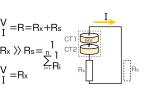
Function	Range	Accuracy
Earth resistance	20.00 – 200 -1500Ω	±(1.5% +0.05Ω) [0.00 – 20.99Ω]
		±(2% +0.5Ω) [16.0 – 99.99Ω]
		±(3% +2Ω) [100.0 – 209.99Ω]
		±(10% +10Ω) [400.00 – 599Ω]
		Accuracy not guaranteed
		[600 – 1580Ω]
AC Current	100mA - 1000mA - 10A - 30A	±(2% +0.7mA) [0.0 – 104.9mA]
		±(2% +0.7mA) [80.0 – 1049mA]
		±(2% +0.7mA) [0.8 – 10.49A]
		±(2% +0.7mA) [8 – 31.5A]
Operation Indication	Earth Resistance Function:	Constant voltage injection
		Current detection
		(Frequency approx 2400Hz)
		Dual integration
	AC Current Function:	Successive approximation
Response Time	Earth Resistance Function:	7 seconds
	AC Current Function:	2 seconds
Communication	Bluetooth Ver 2.1 + EDR Class 2	
Function		
Conductor Size	Ø32mm	
Size	246 x 120 x 54mm	
Weight	780g	

## Why earth measurements can be found by only clamping it?



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)





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.

Features	

- Easy Earth / Ground
- resistance measurementTrue RMS readings
- Jaw Ø32mm
- Earth / Ground Resistance 0.050 to 15000 resolution
- AC A 0.1mA to 30A
   Resolution
- Noise check function
- 100 Data storage points
- Bluetooth Function







K4202





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





# EARTH/LOOP/PSC TESTERS



K4140



# LOOP & PSC / PFC TESTER

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.

#### **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.
- IP54 Dust & Drip Proof
- PSC/PFC 2000A/20KA

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	84 x 184 x 133mm	
Weight	860g	



K4118



# LOOP & PSC / PFC TESTER

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 Tester 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).

#### **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  $0.01\Omega$
- 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 Dust & Drip Proof

Function	Range	Accuracy
Loop Impedance	0.01Ω - 2000Ω	±(2.0% + 4)
AC Test Current	20Ω - 25A	±(2.0% + 4)
	200Ω - 2.3A	
	2000Ω - 15mA	
PSC Range	200A (2.3A 20mS)	
	2000A (25A 20mS)	
	20KA (25A 20mS)	
AC Voltage	110V - 260V	±(2% + 4)
Size	185 x 167 x 89mm	
Weight	750g	



MT350

LOOP & PSC / PFC TESTER



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.

#### 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  $0.01\Omega$
- 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

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 20mS)	± (2.5% + 4)
	1A - 2000A (25A 20mS)	
	10A - 20KA (25A 20mS)	
AC Voltage	50V - 250V	± (2.0% + 5)
Size	200 x 92 x 50mm	
Weight	700g	

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# **POWER ANALYSERS**

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20h



# **POWER QUALITY ANALYSER**

# **POWER QUALITY ANALYSER**



## Power & Energy

#### Instantaneous value

- Measures instantaneous / average / min / max for voltage, current, active / reactive / apparent power, PF (cosO) 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 cogeneration like solar panels, etc).

## tim tett 00:15:33 DEN P 21.45

## 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.



Can display voltage and current by vector per Ch.



• 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.





- 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.

#### One-Touch START/STOP Key for Quick Start Guide providing easy setup guides. Diset a recording period. @Check the test environment. ③Select desirable recording item. ct to the circuit under test Select a desirable recording interval Wiring check..... All (Per REC Time 08:00 ~ 16:00 Self diagnosis..... Power + Quality Power + Harmonics 29/10/2013~29/11/2015 Sensor identification... 06 18mi 15mi **REC Period** Power only usec. Next 0 0 0 Guide start Connect to the circuit Wring check Select interval Set recording time Start recording Automatic creation of graph and list the alter with

- 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.





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

Load current clamp sensors







K8126 Max 200A • Ø40 mm









S





## **POWER QUALITY ANALYSER**



#### 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	±(0.3% ±0.2% f.s. +accuracy of clamp
	against power factor 1)	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	

175 X 120 X	68mm		
900g			
			REC item
	Possible recording	Interval	Power
n be used	time when the 2GB	1 sec	13 days

• SD cards up to 2GB can be used

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5
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of SD is used:	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

• Da



K8133 Max 3000A Ø150 mm

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+Harmonics

3 days

Power Adaptor

## **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

K9132 Magnetic Case







K6305



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

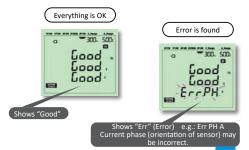
Starting from OFF position and rotating the Rotary switch clockwise, K6305 is ready to use in 3 simple steps

## 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.



## 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

# **POWER METER**

### 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 1 second and 1 hour.
- 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
- K6305 is supplied with 3 x K8125 Clamp Sensors

Function	Range	Accuracy
Measurements & Parameters	Power factor (cos $\Theta$ ), 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	o 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 Cl	ass2
Size	175 x 120 x 68mm	
Weight	800g	

## **Bluetooth communication with Android application**

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





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



\*communication charges may be incurred separately to download application

## Windows software

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.

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, equivalent values in the report.

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System requirements: Windows® Vista/7/8/10 OS: XGA(Resolution 1024×768 dots) or more Display:

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.

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ANALYSER

2

Real time & remote measurements using Android application accessing K6305.



# DATA LOGGERS



# LEAK/LOAD CURRENT LOGGER

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.

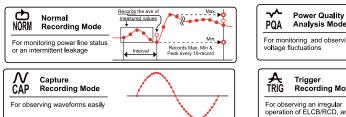
#### **Features**

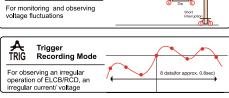
- Stores 60 000 data points
- 1Ø Power quality analysis
- LED flickers when the preset current/voltage value is exceeded •
- Lowpass Filter will filter out the higher frequency harmonics Download data to PC via USB Interface cable

IEC 61010-1

AT II

IEC 61010-1







K5020

## **Optional Accesories**



Function	Range	Accuracy
Measurements &	Voltage, Current, Normal, Trigger,	,
Parameters	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-1000A 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 cla	amp 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	

# K8146

## Max 30A • Ø24 mm



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

K8147

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.	recuracy
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)	+2% +1%f.s.
	95% or less of each range	
Sampling Speed	1second to 24Hour	
Current (RMS)	2 - 200A	
Frequency Range	40 - 1KHz	
PC Communication	USB	
Size	114 x 63 x 34mm	
Weight	248g	







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# **INDUSTRIAL RCD/ELCB TESTERS**



# **INDUSTIRAL RCD (ELCB) TESTER**

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.

#### **Features**

- Microprocessor controlle
- Operating voltage 80V 450V L-E
   Other Test Setting
- Auto Ramp
- 0° or 180° Phase angle selection
- Rated current 10mA 500mA
- Automatically measures trip current
- Remote testing
- IP54 Dust & Drip Proof
- K5410IS Intrinsically Safe Version Available

	Function	Range	Accuracy
ed	Rated trip current	10 - 30 - 50 - 100 - 200 - 500mA	±(1.0% + 3)
450V L-E	Other Test Settings	X½ - 5/15/25/50/100/250mA	±(1.0% + 3)
430V L L		X 1 - 10/30/50/100/200/500mA	±(1.0% + 3)
		X 5 - 10/30/50/100mA	±(1.0% + 3)
election		Auto Ramp - 10/30/100/200/500mA	±(1.0% + 3)
0mA	Operating Voltage	80V - 450V (L - E)	
trip	Fault Trip Time	2000ms (200ms FOR X5)	
	Phase Angle Setting	0° OR 180°	
	AC Voltage Range	80V - 450V	
	Size	186 x 167 x 89mm	
e	Weight	965g	





# **INDUSTIRAL RCD (ELCB) TESTER**

The MT328 is a Microprocessor controlled Industrial Earth Leakage tester designed to operate on 550V, 380V and 230V 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 milli amp rating or the operator can simply let the instrument ramp to 1000mA. It is important to select the appropriate phase angle when performing ELCB tests, for this reason the MT328 has the 0° or 180° selection which is graphically displayed on the LCD. Once the test has been completed, the user can view the result and circuit voltage, either the disconnect time or milliamp sensitivity as well as the trip polarity of the ELCB on the LCD Display. The MT328 is ideally suited for Mining, Industrial and Domestic applications.

IEC 61010-1

#### **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	ı
AC Voltage Range	100V ~ 450V	
Size	170 x 120 x 95mm	
Weight	800g	

#### **3-PHASE ROTARY SWITCH ADAPTOR FOR MT328**

The MT328 is a powerful meter when used for testing Industrial Earth Leakage devices. The test procedure is quite simple when performing tests on the open terminals between L1 and Earth, L2 and Earth and L3 and Earth as the test leads can simply be connected to each phase. Simply connect the black lead with the crocodile clip to the Earth terminal and the Red prod to the Phase terminal under test, the test button can then be pressed to either determine the trip time or the mA leakage current.

However in more industrial applications where an ELCB test needs to be performed on Industrial sockets etc, where there are 3-phase circuits, it is cumbersome to try perform the test due to space issues plus encountering the spring loaded cover of the socket, for this reason the MT319 3-Phase Socket Adaptor was developed. The MT319 allows for standard 4mm test leads to be connected to the MT328, and any type of Industrial plug to be connected to the open ends of the cable. Once the plug has been inserted into the industrial socket, one can begin the test. There is a rotary switch on the side of the MT319 where the user can select L1, L2 or L3 of 3-phase circuits for testing.

Where a number of different industrial plugs are required for different testing purposes, one can simply use more MT319 adaptors. The MTKBAG Heavy Duty Meter Bag is the ideal carrying case for housing the MT328 and all the MT319 adaptors.





# **RCD/ELCB TESTERS/PHASE ROTATION METER**



# SOCKET RCD TESTER



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 indication2000ms 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
- O° 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

	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	±(5.0%)
		Fast Trip - 250mA	
	Operating Voltage	230V ± 10% 50/60Hz	
t	Fault Trip Time	2000ms for Trip and No Trip Tests	
		40ms for Fast Trip	
	Phase Angle Setting	0° OR 180°	
	Size	130 x 69 x 32mm	
	Weight	130g	

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MT310

# SOCKET ELCB TESTER



The MT310 Earth Leakage Tester is a compact, lightweight and easy to use socket and polarity and earth leakage tester that tests 3-wire 230V AC circuits and Earth Leakage Circuit Breakers. A unique feature is the AC Voltage indication on the LCD display. It also features a milli-amp (mA) trip setting with a separate test button. The unit can be set from 10mA, used for testing saturation and to eliminate nuisance tripping, to 35mA. The bright neon indication assists the user in confirming the wiring status of the circuit under test. Simply plug the MT310 into a wall socket and the results are clearly displayed. For additional safety, the MT310 is rated at CAT IV 300V and CAT III 600V.

#### Features

Compact, lightweight and easy to use

Correct Wiring Indication with neon lights

AC Voltage measurement on LCD display

Operates on 230V systems

- Fixed current settings from 10mA to 35mA
- Separate test button
- Double injection rubber housing

Function	Range	Accuracy
ELCB Trip Ratings	10mA - 15mA - 20mA - 25mA - 30mA - 35mA	± 1.75mA AT 220V AC
AC Voltage Indication	From 150V AC to 245V AC	
Wiring Identification		
• • •	Wiring Correct	
Neon On	🗧 🗧 🔍 No Earth	
• • •	Live and Neutral Reversed	
Neon Off	🔍 🔍 🌒 No Neutral	
	Live And Earth Reversed	
	No Live	
Size	130 x 69 x 32mm	
Weight	130g	

PHASE ROTATION METER



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 croc 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

Range
110V - 600V
50/60Hz
110V - 600V
5 Minutes AT 500V
Rotary Disc
106 x 75 x 40mm
350g

# PHASE ROTATION METERS



11/0

# **MOTOR & PHASE ROTATION METER**



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.

#### **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

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



IEC 61010-1

MT935

CAT # 500V

# PHASE ROTATION METER

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

#### **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

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

## MT930

# **NON-CONTACT PHASE ROTATION METER**

The K8035's 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.

#### **Features**

- The insulated crocodile clips can clip insulated cables from  $\Phi 2.4$  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

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	122 x 61 x 36mm
Weight	380g







# **VOLTAGE TESTERS**



# 690V AC/DC VOLTAGE TESTER



The MT476 is IP64 and is a useful tester designed to meet electrician's requirements for a multitude of applications. The tester operates without a switch and by simply placing the probes onto the circuit under test, the meter automatically turns on and displays the voltage on a 2000 count display and quick indication can be viewed on the analogue bargraph. The MT476 incorporates a Low Impedance Test, which induces a basic load of approximately 6KQ at 690 volts. The voltage tester can show the direction of the rotating field with three-phase systems. The applied voltage and the rotating field direction is shown on the LCD display, with corresponding rotating field direction L = anticlockwise and R = clockwise. The tester can be used as a Single Pole phase tester and measure continuity up to 400KQ plus RCD Test. The MT476 meets the CAT IV 600V and CAT III 1000V safety standards.

#### Features

- AC & DC Voltage detection from 6V to 690V
- Phase Rotation
- 2000 Count LCD display
- Double Injection IP64 housing
- Low Impedance test
- Built-in Flashlight
- Polarity Detection
- Rotary Field indication
- Continuity test to 400kΩ

Function	Range
DC Voltage	6V - 690V
AC Voltage	6V - 690V
Continuity	<400kΩ
Frequency	50/60Hz
RCD Trip	10mA/30mA
Low Impedance	<6kΩ
Response Time	0.1S
Display	2000 COUNT LCD
Size	240 x 78 x 40mm
Weight	237g



690V AC/DC VOLTAGE TESTER



The MT474 is IP64 and is a useful tester designed to meet electrician's requirements for a multitude of applications. The tester displays the voltage on red LED's which increment as the voltage increases. There is an LED indication for polarity when DCV is measured. No switching of the meter on as the tester automatically turns on when voltage is applied to the two test probes. The MT474 incorporates a Low Impedance Test, which induces a basic load of approximately  $6k\Omega$  at 690 volts. The voltage tester can show the direction of the rotating field with three-phase systems, with the direction of field shown as L = anticlockwise and R = clockwise. The tester can be used as a Single Pole phase tester and measure continuity up to 400k $\Omega$  plus RCD Test. The MT474 meets the CAT IV 600V and CAT III 1000V safety standards.

#### Features

- AC & DC Voltage detection from 12V to 690V
- 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 400kΩ

Function	Range
DC Voltage	12V - 690V
AC Voltage	12V - 690V
Continuity	<400kΩ
Frequency	50/60Hz
RCD Trip	10mA/30mA
Low Impedance	<200kΩ
Response Time	0.1S
Display	14 LED
Size	240 x 78 x 40mm
Weight	237g



690V AC/DC VOLTAGE TESTER



The MT472 is IP64 and is a basic voltage tester designed to meet electrician's requirements for the measurement of AC and DC voltage and continuity. The tester displays the voltage on red LED's which increment as the voltage increases. There is an LED indication for polarity when DCV is measured. No switching of the meter on as the tester automatically turns on when voltage is applied to the two test probes. The MT472 incorporates a Low Impedance Test, which induces a basic load of approximately  $6k\Omega$  at 690 volts. The MT472 meets the CAT IV 600V and CAT III 1000V safety standards.

#### Features

- AC & DC Voltage detection from 12V to 690V
- 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
RCD Trip	10mA/30mA
Low Impedance	<6kΩ
Response Time	0.1S
Display	11 LED
Size	240 x 78 x 40mm
Weight	237g

MT472

5

TESTE

ELECTRICAL

# VOLTAGE TESTERS



# **1000V AC/DC VOLTAGE TESTER**



Accuracy

 $\pm (3.0\% + !)$ 

±(3.0% +5)



**1000V AC/DC VOLTAGE TESTER** 



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 and RCD Test. High Quality heavy duty molded IP64 case, a thicker cord with wear indicator and well fitted and durable probe protector.

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 and RCD Test. High Quality heavy duty molded IP64 case, a thicker cord with wear indicator and

Function

DC Voltage

AC Voltage

Rotary field

RCD Test

Size Weight

Resistance

AC Bandwidth

Digital Display

Continutity resolution

Low Input impedance

#### **Features**

LED Indication to 12V to 1000V AC/DC

well fitted and durable probe protector.

LED Indication to 12V to 1000V AC/DC

Fixed impedance  $-200k\Omega (\leq 3.5mA@1000V)$ 

Switchable load by 2 push buttons (30mA@230V)

2000 Count LCD display

Vibration during load

Rotary field direction

4mm probe tip thickness

Flash light

**Features** 

- 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

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	
Continutity resolution	≤400kΩ	
AC Bandwidth	50/60Hz	
Low Input impedance	<6kΩ	
Size	240 x 78 x 30mm	
Weight	237g	

Range

12V to 1000V

12V to 1000V

100V to 400V

30mA@230V

0-1999Ω

≤400kΩ

50/60Hz

2000 LCD

<6kΩ 240 x 78 x 30mm

237g



IEC 61010-1 51010



MT470



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TESTER

ELECTRICAL

# **MT47**

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 all the different plug sockets around the world.

#### **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
- 1MΩ input impedance
- Polarity Detection

Function	Range	
DC Voltage	6V - 220V	
AC Voltage	12V - 690V	
Continuity	0 to 85KΩ	
Frequency	50/60Hz	
Input Impedance	1ΜΩ	
Response Time	0.15	
Display	11 LED	
Size	240 x 78 x 40mm	
Weight	237g	



# VOLTAGE DETECTORS

Range

50/60Hz

55g

12V - 1000V

LED audible beep

160 x 23 x 25mm

Function

AC Voltage

Frequency

Size

Weight

Voltage Detector

Voltage Detector

## IEC 61010-1 Dust &

100V -1000V Red LED audible beep

Dust &

12V -1000V Yellow then Red



EX II 2 G EX ib IIB T4 Gb



MT403





# NCV DETECTOR

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.

Fe	а	tı	J	r	e	S				
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- 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

# NCV DETECTOR

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 50/60Hz Frequency 100V -1000V Red LED Voltage Detector audible beep 12V -1000V Yellow then Red LED Voltage Detector audible beep 160 x 23 x 25mm 55g



Range

50/60Hz

Red LED

I FD

34g

IEC 61010-1

CAT III

50V - 1000V

Continuous Beep

158 x 21 x 25mm

High Intensity Green

1EC 61010-1

IEC 61010-1

NCV DETECTOR CAT III The MT402 is ideal for checking the presence of voltage from 50V to 1000V. Suitable for outlets or against wire insulation testing, this noncontact 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.

Function

AC Voltage

Frequency

Size

Weight

Voltage Detector Visual

Power On Indicator

Voltage Detector Audible

## 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

# NCV DETECTOR

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
- All outer surfaces are non-conductive for safety
- Built-in LED flashlight
- Fits into shirt pocket for convenience

Range
200V - 1000V
50/60Hz
Red LED
176 x 26 x 25mm
48g

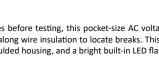




Use MT400 to quickly check for the presence of live wires before performing any electrical testing. Suitable for outlets or against wire insulation testing, this AC Voltage Detector for non-contact detection of AC Voltage from 50 to 600V (50/60Hz). The Red LED in the tip indicates the presence of voltage

#### **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



# **ELECTRICAL TESTERS**



# **CIRCUIT BREAKER FINDER**



The MT190 is a Circuit Breaker Finder system that operates on energized circuits, consists of a Transmitter, which plugs into the socket on the circuit you wish to isolate and a Receiver Scanner. The Transmitter sends signals along the cable to the distribution board, the operator simply runs the Receiver Scanner along the circuit breakers or fuses, and the scanner will automatically identify the correct breaker by means of a green LED and a continuous buzzer tone. An added feature is the convenient chart printed on the Transmitter that helps determine the wiring condition of the socket outlet, based on the LED lights results. Conditions indicated are Correct Wiring, Open Ground, Reverse Polarity, Open Live, Open Neutral and reverse Live and Ground. There is also a 30mA RCD test function built into the MT190 Transmitter.

#### Features

- Automatic scanning technology
- Identifies Circuit Breakers & Fuses
- Microprocessor is self-calibrating
- Operates on 240VAC 50Hz circuits
- Built-in 30mA RCD Test in Transmitter
- Correct wiring indication
- Visual and audible indication

Function	Range
Operating Voltage	200 to 240V AC
Operating Frequency	50Hz
RCD (ELCB) Trip Rate	30mA
Size	Receiver: 196 x 55 x 36mm
	Transmitter: 82 x 51 x 33mm
Weight	Receiver: 148g
	Transmitter: 140g



# **CONTINUITY & BELL TESTER**

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.

#### **Features**

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

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	96 x 47 x 33mm
Weight	135g



# **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.

## 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

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	158 x 21 x 25mm
Weight	48g



# **BATTERY TESTER**

The MT235 battery tester measures all kinds of batteries. The user can choose three measurement methods according to the battery shape and read the Voltage on the LCD display. Proper use and care of this tester will provide many years of reliable service.

Batte Button AAA-N AA-C-E

Lithiun

6V

9V

12V

15V 22.5V

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- Three measurement methods
- Pocket size
- Easy to read LCD display
- Easy to use
- Light weight and portable

ery Type	Load Current	Minimum Voltage for Good
n cell 1.5V	50mA	1.125V±0.09V
V-1.5V	50mA	1.125V±0.09V
D-1.5V	150mA	1.125V±0.09V
m 3V	100mA	2.25V±0.18V
	10mA	4.5V±0.36V
	10mA	6.75V±0.54V
	10mA	9V±0.72V
	10mA	11.25V±0.9V
	10mA	16.875±1.35V



ELECTRICAL

TESTERS



# **CONTRACTORS TEST KITS**

## **CONTRACTORS TEST KIT**



**MTK45** 

MTKBAG Heavy Duty Meter Case - Pg 101

## **Kit Includes:**



IP67 Industrial

Multimeter - Pg 10

K3005

**Digital Insulation Tester** 

- Pg 36

**Kit Includes:** 

000

MT1881

IP67 Industrial

Multimeter - Pg10

K3132

Analogue Insulation Tester - Pg 36



K4118

Loop/PSC Impedance

Tester - Pg 50

K2007R

1000A AC TRMS

Clamp Meter - Pg 24



MT310 ELCB Tester - Pg 58

155



K4105 Digital Earth Resistance





**MTK35** 

# **CONTRACTORS TEST KIT**

**Kit Includes:** 



MTK25





MTKBAG Heavy Duty Meter Case - Pg 101



MTKBAG

Heavy Duty Meter Case - Pg 101



MT930 Phase Rotation Meter - Pg 59

MT691

- Pg 74

MT330

Earth Resistance

Tester - Pg 48

LIL2L3 K

> MT310 ELCB Tester - Pg 58

221

MT1877 IP67 Industrial Multimeter - Pg 10

222







Tester - Pg 48

551 26

MT310 ELCB Tester - Pg 58



K4105 Digital Earth Resistance Tester - Pg 48





K4118

dance

Loop/PSC Impedar Tester - Pg 50





MT550 Digital Insulation Tester Loon/PSC Impedance Tester - Pg 50

- Pg 34









MT150

MT310 ELCB Tester - Pg 58

MT720 400A AC Clamp Meter - Pg 23

Continuity & Bell Tester - Pg 63 **IR** Thermometer

50M Laser Distance Meter - Pg 91



# THERMAL IMAGERS

~30.2 °C

MAJOR

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UID

Thermal imager Þ

CB 10.47 PM 63,6

Hi:63,7 Lo:31,4

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# THERMAL MULTIMETERS





## MT2005





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

# THERMAL MULTIMETER

The MT2005 Professional True RMS Industrial Digital Multimeter with a built-in 80 x 80 pixel Thermal Imager, and TFT colour LCD display, providing fast A/D converting sampling time with high accuracy. This CAT IV meter offers full DMM function ranges of ACV and DCV to 1000V, plus AC+DC Trms Voltage, Micro Amps and Amps, Frequency, Resistance, Capacitance and K-Type Temperature measurements. The 2.8-inch TFT colour display provides a clear thermal image with hot, cold and center spot measurements. It is able to differentiate temperatures between -20°C and 260°C in different colour pallet options, and displays amperage on the thermal screen. The unit offers Bluetooth communication and an internal memory to store and transfer information. The Bluetooth app is available on both Android and IOS platforms for viewing, organizing and sharing recordings. The MT2005 is a fast and easy solution providing maximum versatility and a wide range of features for both trouble shooting and preventative maintenance electricians.

#### Features

- 6000 count 2.8" TFT Colour 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
- Capacitance to 6mF
- Frequency to 10MHz
- Duty Cycle
- Temperature with K-type probe
- Flexible coil current

Function	Range	Accuracy
Imaging and Optical Data		
Field of View	21° x 21°/0.5m	
Spatial 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 to 260°C	±(3°C or ± 3%)
Measurement analysis		
Spot	Center spot	
Automatic detection	Hot or cold markers	
Emmisivity correction	Variable 0.01 to 0.99	
Measurement corrections	Emissivity, reflected	
	temperature	
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	600.0μΑ - 10Α	±(0.9% +5)
AC Current	600.0μΑ - 10Α	±(01.2% + 5)
Duty Cycle	5.0% to 95.0%	±(1.2% +2)
Resistance	600.0Ω - 60ΜΩ	±(0.5% + 5)
Frequency	40.00Hz -10MHz	±(0.09% +5)
Capacitance	60.00nF - 6mF	±(1.2% + 8)
Temperature	-40 to 600°C	±(1.5% + 3)
Digital Display	6000 count 2,8" TFT	
Input impedance	>10MQ VDC & >10MQ VAC	
Size	195 x 88 x 58mm	
Weight	540g	
Optional Accessory	MT740	
Flexi Coil AC Current	30.00A - 3000A	±(0.8% + 5)



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.



# 384 x 288 PIXEL THERMAL IMAGER

The MTi60 High-Performance Thermal Imager with a resolution of 384x288 pixel at 50Hz, built-in Laser Distance meter and Wi-Fi ensures that thermal inspections are conducted with greater ease, more effective, and with extreme accuracy. With manual focus, large bright touch screen and easy to access toolbar the user can fine-tune and analyze images quickly and effectively. The touch screen allows the user to manually add up to 3 spot or area measurements, Hot/Cold spot marker that automatically finds the hottest and coldest spots and adjustable zone alarm. It features temperature ranges from -20°C to 650°C, 32X digital zoom, HDMI video output and on-screen adjustable level and span. The hard protective carry case contains a memory card, lithium polymer battery & power supply, and USB cable.

#### **Features**

- 384 x 288 Pixel Thermal Detector
- 110,592 points real temperature
- 50Hz Image Frequency
- Laser Distance 30m
- 3 Area and 2 Line Analysis
- 3 Manual Spots

Size Weight

- Hot, Cold and Centre Spot Temperature
- 3.5" TFT LCD display, Touch Screen
- Instant share & save via WiFi to PC, iOS and Android smart devices
- Colour Pallets include Iron, Rainbow, Grey, Grey Inverted, Brown, Blue/Red,
- Feather, Zone AlarmRugged and industrial design casing
- Easy to use functions via touch screen

Function	Range
Imaging and Optical Data	
Field Of View	17° x 12.7°
Spatial Resolution	0.77mrad
Thermal Sensitivity	<0.08° at 30°C (86°F)/80mK
Image Frequency	50Hz
Focus Mode Manual	
Focus Mode	Manual Focus
Focal Length	22mm
Focal Plane Array (FPA)/Spectral Range	Uncooled Microbolometer/8-14µm
IR Resolution	384 x 288 pixels
Image Presentation	· · · · · · · · · · · · · · · · · · ·
Display	3.5" TFT LCD, Touch Screen
Display Resolution	640 x 480 pixels
Image Modes	IR Image, Visual Image, Pic-in-Pic, Auto Fusion
Colour Pallets	Iron, Rainbow, Grey, Grey Inverted, Brown, Blue/Red,
	Feather, Zone Alarm
Measurements	,
Object Temperature Range	-20 to 150°C (-4 to 302°F) / 0 to 650°C (32 to 1202°F)
Object Temperature Accuracy	±2°C (3.6°F) or ±2% of reading
Laser Distance	0.05 to 30m (0.15 to 98ft)
Laser Distance Accuracy	Typically ±1.5mm (0.06in)
Measurement Analysis	
Spot	Centre Spot & 3 Manual spots
Automatic	Auto Hot & Cold markers
Line	2 lines analyse
Area	3 areas analyse
Adjustable Emissivity	0.01 to 1.0
Measurement Correction	Emissivity, Reflected Temperature, Ambient Temperature,
	Humidity, Infrared Compensation, Distance Compensation
Storage	
Storage Media	8GB Micro SD Card, 3.4GB Internal EMMC
Video Storage Mode	Standard MPEG-4
Image Storage Mode	JPEG and HIR and simultaneous visual image including
0 0	measurement data
Data Communication Interfaces	
Interfaces	USB-Mini, HDMI
Video Out	HDMI
Wi-Fi	802.11, transfer images and real time video stream
Sizo	260 - 101 - 120

260 x 101 x 120mm



846g



MAJOR

Hi:23.1



# THERMAL IMAGER



# 160 X 120 PIXEL THERMAL IMAGER

The MTi50 Thermal Imager with a resolution of 160 x 120 pixel at 50Hz, built-in Laser Distance meter and Wi-Fi is ideal for predictive maintenance, equipment troubleshooting and verification. Quickly and effectively detects anomalies on drive motors, electrical panels or HVAC applications with manual focus, large bright touch screen and easy to access toolbar. The touch screen allows the user to manually add up to 3 spot or area measurements, Hot/Cold spot marker that automatically finds the hottest and coldest spots and adjustable zone alarm. It features temperature ranges from -20°C to 650°C, 32X digital zoom, HDMI video output and on-screen adjustable level and span. The hard protective carry case contains a memory card, lithium polymer battery & power supply, and USB cable.

#### Features

- 160 x 120 Pixel Thermal Detector
- 19,200 points real temperature
- 50Hz Image Frequency
- Laser Distance 30m
- 3 Area and 2 Line Analysis
- 3 Manual Spots
- Hot, Cold and Centre Spot Temperature
- 3.5" TFT LCD display, Touch Screen
- Instant share & save via WiFi to PC, iOS and Android smart devices
  Colour Pallets include Iron, Rainbow, Grey, Grey Inverted, Brown, Blue/
- Red, Feather, Zone Alarm
- Rugged and industrial design casing
- Easy to use functions via touch screen

Function	Range
Imaging and Optical Data	
Field Of View	17° x 12.7°
Spatial Resolution	1.89mrad
Thermal Sensitivity	<0.05° at 30°C (86°F)/50mK
Image Frequency	50Hz
Focus Mode Manual	
Focus Mode	Manual Focus
Focal Length	9mm
Focal Plane Array (FPA)/Spectral Range	Uncooled Microbolometer/8-14µm
IR Resolution	160 x 120 pixels
Image Presentation	
Display	3.5" TFT LCD, Touch Screen
Display Resolution	640 x 480 pixels
Image Modes	IR Image, Visual Image, Pic-in-Pic, Auto
	Fusion
Colour Pallets	Iron, Rainbow, Grey, Grey Inverted,
	Brown, Blue/Red, Feather, Zone Alarm
Measurements	
Object Temperature Range	-20 to 150°C (-4 to 302°F) / 0 to 650°C
	(32 to 1202°F)
Object Temperature Accuracy	±2°C (3.6°F) or ±2% of reading
Laser Distance	0.05 to 30m (0.15 to 98ft)
Laser Distance Accuracy	Typically ±1.5mm (0.06in)
Measurement Analysis	
Spot	Centre Spot & 3 Manual Spots
Line	2 Line Analysis
Area	3 Line Analysis
Automatic	Auto Hot & Cold Markers
Adjustable Emissivity	0.01 to 1.0
Measurement Correction	Emissivity, Reflected Temperature,
	Ambient Temperature, Humidity,
	Infrared Compensation, Distance
	Compensation
Storage	
Storage Media	8GB Micro SD Card, 3.4GB Internal EMMC
Video Storage Mode	Standard MPEG-4
Image Storage Mode	JPEG and HIR and simultaneous visual
	image including measurement data
Data Communication Interfaces	
Interfaces	USB-Mini, HDMI
Video Out	HDMI
Video Out Wi-Fi	802.11, transfer images and real time
	802.11, transfer images and real time







File transfer via Wi-Fi to free iOS or Android app (phone not included)

# **THERMAL IMAGER**



# **160 x 120 PIXEL THERMAL IMAGER**

For clear and accurate thermal analysis of electrical panels, motors, compressor lines and HVAC applications, the Wi-Fi enabled MTi15 Thermal Imager allows the user to transfer images and stream live video to PC or a smart device. With a 160 x 120  $\,$ pixel resolution at 50Hz, touch screen and manual focus, this lightweight thermal imager offers real-time detection of thermal issues effectively and is ideal for plant and maintenance electricians as well as HVAC installers. The unit has a temperature range from -20°C to 650°C, 16X digital zoom, picture-in-picture, thermal fusion, 3 Hot/Cold spot marker, 3 Area and 2 line analysis options that are available on the 3.5" touch screen from which data can be easily transferred.

#### **Features**

- 160 x 120 Pixel Thermal Detector
- 19,200 points real temperature
- 50Hz Image Frequency
- 3 Area and 2 Line Analysis •
- 3 Manual Spots
- Hot, Cold and Centre Spot Temperature
- 3.5" TFT LCD display, Touch Screen
- Instant share & save via WiFi to PC, iOS and Android smart devices Colour Pallets include Iron, Rainbow, Grey, Grey Inverted, Brown, Blue/ Red, Feather, Zone Alarm
- Rugged and industrial design casing
- Easy to use functions via touch screen

Function	Range
Imaging and Optical Data	
Field Of View	20.7° x 15.6°
Spatial Resolution	1.88mrad
Thermal Sensitivity	<0.05° at 30°C (86°F)/50mK
Image Frequency	50Hz
Focus Mode Manual	
Focus Mode	Manual Focus
Focal Length	7.5mm
Focal Plane Array (FPA)/Spectral Range	Uncooled Microbolometer/8-14µm
IR Resolution	160 x 120 pixels
Image Presentation	·
Display	3.5" TFT LCD, Touch Screen
Display Resolution	640 x 480 pixels
Image Modes	IR Image, Visual Image, Pic-in-Pic, Auto Fusior
Colour Pallets	Iron, Rainbow, Grey, Grey Inverted, Brown,
	Blue/Red, Feather, Zone Alarm
Measurements	
Object Temperature Range	-20 to 150°C (-4 to 302°F) / 0 to 650°C
	(32 to 1202°F)
Object Temperature Accuracy	±2°C (3.6°F) or ±2% of reading
Measurement Analysis	
Spot	Centre Spot & 3 Manual Spots
Automatic	Auto Hot & Cold Markers
	2 Line Analysis
	3 Area Analysis
Adjustable Emissivity	0.01 to 1.0
Measurement Correction	Emissivity, Reflected Temperature
Storage	
Storage Media	8GB Micro SD Card, 3.4GB Internal EMMC
Video Storage Mode	Standard MPEG-4
Image Storage Mode	Bitmap (.bmp) and simultaneous visual image
	including measurement data
Data Communication Interfaces	
USB Type	C, Data and Live Video transfer to PC
WiFi	802.11 Data and Live Video transfer to App
Size	224 x 77 x 96mm
Weight	500g







File transfer via Wi-Fi to free iOS or Android app (phone not included)



MAJOR

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# THERMAL IMAGER

# 80 x 80 PIXELS THERMAL IMAGER

Detecting a hot connection in a distribution board has never been this easy. The MTi13 is focus free and has a large touch screen that makes detecting and analyzing hot spots quick and easy. This lightweight thermal imager with 80x80 pixel resolution at 50Hz offers real-time detection of hot spots ideal for maintenance electricians. The Wi-Fi functionality allows the user to transfer live thermal information to a smart device for analysis. It features adjustable emissivity, temperature ranges from -20°C to 650°C, 3 moveable spots and area temperatures, centre spot, automatic Hot and Cold spot markers; and line measurement. The instrument comes supplied in a hard carry case and includes a charging base, microSD card and Type-C data cable.

#### Features

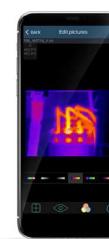
- 80x80 Pixel Thermal Detector
- 6,400 points real temperature
- 50Hz Image Frequency
- Hot, Cold and Centre Spot Temperature
- 3 Area and 2 Line Analysis
- 3 Manual Spots
- Hot, Cold and Centre Spot Temperature
- 3.5" TFT LCD display, Touch Screen
- Instant share & save via WiFi to PC, iOS and Android smart devices
- Colour Pallets include Iron, Rainbow, Grey, Grey Inverted, Brown,
- Blue/Red, Feather, Zone Alarm
- Rugged and industrial design casing
- Easy to use functions

Function	Range
Imaging and Optical Data	
Field Of View	21° x 21°
Spatial Resolution	4.53mrad
Thermal Sensitivity	<0.1° at 30°C (80°F)/100mK
Image Frequency	50Hz
Focus Mode Manual	
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	3.5" colour TFT LCD, Touch Screen
Display Resolution	640 x 480 pixels
Image Modes	IR Image, Visual, Pic-in-pic, Thermal Fusion,
	Zone Alarm
Colour Pallets	Iron, Rainbow, Grey, Grey Inverted, Brown,
	Blue/Red, Feather
Measurements	
Object Temperature Range	-20 to 650°C (-4 to 1202°F)
Object Temperature Accuracy	±2°C (3.6°F) or ±2% of reading
Measurement Analysis	
Spot	Centre Spot, 3 Manual Spots
Automatic	Automatic Hot/Cold Detection
Line	2 Line Analysis
Area	3 Area Analysis
Adjustable Emissivity	0.01 to 1.0
Measurement Correction	Emissivity, Reflected Temperature, Ambient,
	Temperature, Humidity, Infrared Compensation
	Distance Compensation
Storage	
Storage Media	8GB Micro SD Card, 3.4GB Internal EMMC
Video Storage Mode	Standard MPEG-4
Image Storage Mode	JPEG and HIR and simultaneous visual image
mage storage mode	including measurement data
Data Communication Interfaces	
Interfaces	Туре-С
Wi-Fi	802 11 transfer images and real time video

Interfaces	Type-C
Wi-Fi	802.11, transfer images and real time video
	stream
Size	224 x 77 x 96mm
Weight	500g



MTi13







## File transfer via Wi-Fi to free iOS or Android app (phone not included)

# THERMAL IMAGER



## 80 x 80 PIXELS THERMAL IMAGER

For quick and accurate thermal diagnostics, the MTi11 is a must have for every electrician. With an 80x80 pixel 50Hz thermal detector, this compact thermal camera is ideal for beginners. It is focus free and makes detecting hot spots quick and easy. The Bluetooth functionality allows the user to transfer thermal information to a smart device while still in the plant and a PDF report can be sent via email immediately eliminating costly downtime. It features adjustable emissivity, temperature ranges from -20°C to 380°C, centre spot temperature as well as Hot and Cold spot markers.

## Features

- 80 x 80 Pixel Thermal Detector
- 6,400 points real temperature
- 50Hz Image Frequency
- Hot, Cold and Centre Spot Temperature
- 2" bright graphical TFT display, 240x320 pixel
- Instant share & save via Bluetooth to iOS and Android smart devices
- Colour Pallets include Iron, Rainbow, Rainbow HC, Grey and Grey Inverted
- Rugged and industrial design casing
- Easy to use functions

Function	Range
Imaging and Optical Data	
Field Of View	21° x 21°
Spatial Resolution	4.53mrad
Thermal Sensitivity	<0.1° at 30°C (86°F)/100mK
Image Frequency	50Hz
Focus Mode Manual	
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
Display Resolution	240 x 320 pixels
Image Modes	IR Image
Colour Pallets	Iron, Rainbow, Rainbow HC, Grey, Grey
	Inverted
Measurements	
Object Temperature Range	-20 to 380°C (-4 to 716°F)
Object Temperature Accuracy	±2°C (3.6°F) or ±2% of reading
Measurement Analysis	
Spot	Centre Spot & 3 Manual Spots
Automatic	Auto Hot & Cold Markers
Adjustable Emissivity	0.01 to 1.0
Measurement Correction	Emissivity, Reflected Temperature
Storage	
Image Storage Mode	Bitmap (.bmp) including measurement
	data
Data Communication Interfaces	
USB	Micro
Bluetooth	BLE 4.0
Size	175 x 58 x 70mm
Weight	450g







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





MTiB12

## **BODY & SURFACE THERMAL IMAGER**

The MTiB12 Body & Surface Thermal Imager is a handheld thermal imaging camera used for measuring body temperature and can also be used for predictive maintenance, equipment troubleshooting and verification. The MTiB12 features a 20mS sampling rate and is ideal for scanning multiple targets. The adjustable High alarm makes it easy to instantly identify a person in a group that has an above average temperature. Thermal images are displayed on the LCD display and can be saved on the internal memory. With Bluetooth and an instant share function, the thermal images can be transferred to one's smart phone to analyze, share and perform quick reporting.

## Features

- 80 x 80 pixel thermal imaging system
- 6400 points real temperature fast measurements
- Screening Temperature mode 32 to 42°C
- Measuring Accuracy: ±0.5°C
- Thermal sensitivity: <0.1°C | 300°C / 100mK</li>
- 50Hz fast Thermal image frame rate
- Hot, Cold, Centre three temperature tracking function
- Large, easy-to-read, bright graphical TFT display
- Bluetooth image instant share & save with iOS and
- Android smart device
- Scene temperature range Lock function.
- With LED flashlight function
- Long running time up to 8 hours with rechargeable battery
- Smart and compact design
- Rugged industrial design

Function	Range	
Imaging and Optical Data		
Field of View	21° x 21°	
Spatial resolution (IFOV)	4.53mrad	
Thermal Sensitivity/NETD	<0.1°C @ +30°C / 100mK10.12:1	
Image range	50Hz	
Focus mode Manual		
Focus Mode	Focus Free	
Focal length	7.5mm	
Focal Plane Array (FPA)/Spectral range	Uncooled microbolometer / 8-14um	
IR Resolution	80 x 80 pixels	
Image Presentation		
Display	22 colour TFT LCD, 240 x 320 pixels	
Image Modes	IR Image	
Colour Palletes	Iron, Rainbow, Grey, Grey Inverted,	
	Rainbow high contrast	
Measurement		
Temperature Range	-20°C to +380°C ±(2.0% +2°C)	
Body Temperature Range	+32°C to +42°C ±0.5°C	
Storage		
Images Format	Bitmap (BMP) including measurement data	
Size	175 x 58 x 70mm	
Weight	450g	



MTiB12









# THERMOMETERS

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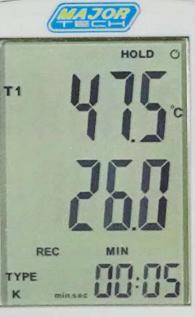
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MAIN MOTOR

OFF

BLOWE

OFF



1198/2

MT630" DIGITAL THERMOMETER

500





6



# **INFRARED THERMOMETERS**



2670099

1000°C INFRARED THERMOMETER

The MT694 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 is 20:1 and the temperature range is from -50°C to 1000°C. This meter features a multipoint laser which increases the target accuracy when the unit is at the optimum distance from the object being measured. Special features include adjustable emissivity from 0.1 to 1.0, external Type-K temperature measurements, response time 150mS, max hold, large backlit LCD display, High and Low alarm and a trigger lock for continuous use.

## **Features**

- Spot Ratio 20:1
- Temperature -50°C to +1000°C
- Response time 150ms
- Adjustable emissivity from 0.10 to 1.0
- Circular laser sighting Selectable °C or °F
- Automatic Data Hold
- MIN, MAX, AVG and DIF temperature displays Set High and Low alarms
- Type-K input
- Automatic selection range and Display Resolution
- Backlit LCD display
- 2 meter drop tested
- IP54 Splash Proof & Dust Resistant
- Auto Power Off

Function	Range	Accuracy
Infrared Temperature range	-50°C to +1000°C	±(1.0% +1°C)
Resolution	0.1°C	
Distance Spot Ratio	20:1	
Response Time	150ms	
Emissivity	0.10 to 1.0	
Type-K Temperature range	-50°C to +1370°C	±(0.5% +1.5°C)
Resolution	0.1°C 0.1°F	
MIN/MAX/AVG/DIF Display	Yes	
Hi/Lo Alarm	Yes	
Overrange Indication	Yes	
Size	170 x 50 x 85mm	
Weight	248g	

## 650°C INFRARED THERMOMETER

The MT691 is a professional dual laser infrared thermometer that is small and compact with a pistol grip and has a super fast sampling rate of 150 milliseconds. The distance to spot ratio is 12:1, and the temperature range is from -50°C to 650°C. This dual laser infrared thermometer meter features two laser pointers which converges into a single spot when the unit is at the optimum distance from the object being measured. Special features e time 150mS, large backlit LCD display, High and Low alarm and a

## **Features**

- Selectable °C or °F •
- Automatic Data Hold
- MIN, MAX, AVG and DIF temperature displays .
  - Set High and Low alarms
- Automatic selection range and Display Resolution
- Backlit I CD display
- 2 meter drop tested

Function	Range	Accuracy
Infrared Temperature range	-50°C to +650°C	±(1.0% +1°C)
Resolution	0.1°C	
Distance Spot Ratio	12:1	
Response Time	150ms	
Emissivity	0.10 to 1.0	
MIN/MAX/AVG/DIF Display	Yes	
Hi/Lo Alarm	Yes	
Overrange Indication	Yes	
Size	170 x 50 x 85mm	
Weight	238g	

MT691

MT694



## **BODY INFRARED THERMOMETER**

The MT688 is a professional body infrared thermometer is designed for body surface and forehead temperature measurement for infants and adults without contact with the human body. It can also be used to measure temperature of baby bottles, bath water or room temperature. This small and compact IR thermometer with a pistol grip offers accurate readings for body temperature from 32°C to 42.5°C, while in surface mode the temperature range is 0°C to 60°C. The operating distance range is from 1cm to 10cm, and 32 measurements can be memorized all displayed on the large backlit LCD display. The MT688 has an automatic data hold function as well as auto power off mode after several seconds that extends the battery life. Complies to IEC 60601-1 and IEC 60601-1-2 medical electrical equipment.

#### Features

- Measurement range 1cm to 10cm
- Body Temperature 32°C to 42.5°C
- Surface Temperature 0°C to 60°C
- Set Alarm value
- Memorize last 32 measurements
- Selectable °C or °F •
- Automatic Data Hold
- Resolution 0.1°C
- Backlit LCD display
- Auto Power Off

Function	Range	Accuracy
Body Temperature range	32°C to 42.5°C	±0.2°C
Surface Temperature range	0°C to 60°C	±0.2°C
Resolution	0.1°C	
Distance Spot Ratio	1cm to 10cm	
Response Time	< 1 seconds	
Overrange Indication	Yes	
Size	131 x 82 x 35mm	
Weight	130g	

**MT688** 

S

ERMOMETER

Spot Ratio 12:1

- Temperature -50°C to +650°C
- . Response time 150ms
  - Adjustable emissivity from 0.10 to 1.0
- Dual laser sighting

- IP54 Splash Proof & Dust Resistant
  - Auto Power Off

2:	s include adjustable emissivity fi a trigger lock for continuous use.	rom 0.1 to 1.0, max h	•
	Function	Range	Accuracy
	Infrared Temperature range	-50°C to +650°C	±(1.0% +1°
	Resolution	0.1°C	
	Distance Spot Ratio	12:1	
	Response Time	150ms	
	Emissivity	0.10 to 1.0	
	MIN/MAX/AVG/DIF Display	Yes	
	Hi/Lo Alarm	Yes	
	Overrange Indication	Voc	

## **DUAL INPUT THERMOMETER**

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.

#### Features

- Dual K-Type inputs
- Max / Min / Average
  K-type -200°C to 1372°C
- 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)	
К-Туре	-200°C to 1372°C	
K-Type resolution	0.1°C	±(0.15%+1°C)
Ј-Туре	-210°C to 1100°C	
J-Type resolution	0.1°C	±(0.15%+1°C)
Channels	Two	
Min Max Ave	Yes	
Data Hold	Yes	
Back Light	Yes	
Size	146 x 104 x 43 mm	
Weight	163g	





MT632

## SINGLE INPUT THERMOMETER

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 Jtype -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)	
К-Туре	-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)
Min Max Ave	Yes	
Channels	One	
Data Hold	Yes	
Back Light	Yes	
Size	160 x 58 x 27mm	
Weight	200g	



MT630

## **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.

#### **Features**

- Compact pocket size with carrying case
- Temperature -50°C to 200°C / Accuracy ±2°C / 0.1°C Resolution
- 65mm 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 p	orobe
Temperature Ranges	°C or °F	
Size	112 x 65 x 14	mm
Weight	35g	



MT600

## **PEN-TYPE THERMOMETER**

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	112 x 65 x 14mm	
Weight	35g	



THERMOMETERS



## THERMOMETERS



## THERMOMETER KITS

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 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.

#### MT652 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

## THERMOMETER KITS

The MT650 temperature kit is ideal for the factories, 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.

#### MT650 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





## **K-TYPE DATA LOGGER**

The MT643 is a standalone temperature data logger and measures and stores over 32,000 temperature readings from -200°C to +1370°C. With its precision calibrated internal temperature sensor, all the user has to do is place the logger in the field and leave it until the desired information has been recorded. The user can easily set up the logger and view downloaded data for analysis by plugging the data logger into a PC's USB port and using the free software. Displays all status information through two LED's, and where user defined minimum/maximum values are exceeded, and alarm LED will flash. Selectable measuring cycles can be set up from 1 second to 12 hours.

- Features K-Type -200° to 1370°C
- 31 808 Data storage points
- Battery life: more than 3 years
- USB interface
- Alarm display
- Software
- Selectable measuring cycle: 1s, 2s, 5s, 10s, 30s, 1m, 5m, 10m, 30m, 1hr, 2hr, 3hr, 6hr, 12hr

Function	Range	Accuracy
К-Туре	-200°C to 1370°C	±(1%)
K-Type resolution	0.1°C	
Data logging	31808 Readings	
Sample Rate	1s, 2s, 5s, 10s, 30s, 1m, 5m, 10m, 30m, 1hr, 2hr,	
	3hr, 6hr, 12hr	
Channels	Single	
Temperature Ranges	°C, °F	
Size	101 x 24 x 21.5mm	
Weight	172g	

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THERMOMETERS

# **TEMPERATURE PROBES**



## **TEMPERATURE PROBE KIT**

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**

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



## LIQUID TEMPERATURE PROBE

The MT685 Liquid Temperature 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**

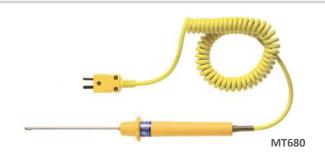
- Range -50°C to 649°C
- Very strong for liquids, semi-solids, air and granular material



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**

- Range -50°C up to 300°C
- Extremely fast response for gas and air temperatures
- Ideal for refrigeration, heating and ventilating engineers



## SURFACE TEMPERATURE PROBE

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**

- Range -50°C up to 500°C
- **Right Angled Probe**
- Quick response for surface temperature measurement
- Ideal for refrigeration, heating and ventilating engineers

MT675

MT670

MT685

## SURFACE TEMPERATURE PROBE

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**

- Range -50°C 500°C
- Straight Probe
- Quick response for surface temperature measurement
- Ideal for sheet metal, radiators, photocopier and rollers

## **GENERAL PURPOSE TEMPERATURE PROBE**

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.

- 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











RANGE A/C

8

HOLD

3

**ENVIRONMENTAL METERS** 

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# **ANEMOMETERS**

## THERMO ANEMOMETER



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 999900m<sup>3</sup>/min (area)
- CFM air flow from 0.001 to 999900ft<sup>3</sup>/ 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°C 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 999.9m <sup>2</sup>
Air flow Cubic ft/min	1 to 999900ft <sup>3</sup> /min	
Air flow Cubic ft/min resolution	0.001 to 101	area 0.000 to 999.9ft <sup>2</sup>
Size	203 x 75 x 50mm,	
	sensor head Ø70mm	
Weight	725g	



MT948

## **HOT WIRE ANEMOMETER**

The MT945 is a 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°C to 50°C	
Air temperature resolution	0.1°C	±(1.0°C)
Air velocity m/s resolution	0.01m/s	
Size	210 x 75 x 50mm	
Weight	280g	



## MINI ANEMOMETER



The MT90 is a mini anemometer professionally designed to ensure comfort in the hand and with a modern look. Selectable windspeed units are m/s, km/h, ft/min, MPH, Knots, perfect when measuring air velocity in various environments. The large backlit display indicates the air velocity readings together with the temperature measured. Other features include Min/Max recording, Data Hold function and Bluetooth. The Bluetooth function allows the user to transmit data to the Android or iOS mobile App for viewing, organizing and sharing recordings.

- 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°C to 60°C	±(2.0°C)
Data Transfer	Bluetooth	
Size	213 x 54 x 36mm	
Weight	172g	









# LUX METERS & VIDEO BORESCOPE

Function

Function

Sample Rate





MT942

## 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.

## **Features**

- Professional light meter providing quick light readings in Lux
- LCD display with 4 segment bargraph
- Measures to 400 000 Lux
- 4 Measuring ranges
- Peak Hold Relative mode
- Min / Max
- Data Hold

USB Interface

- Short rise and fall time Data logging up to 99 Readings
- Spectral Response CIE Photopic (human eye response Curve) One Silicon photo diode and spectral Photo Detector response filter Cosine Response Accuracy f2′ ≤ % Meter 170 x 80 x 40mm Size Photo Detector 115 x 60 x 20mm Weight 390g

1.3 times/sec

Range

400.0 to 400 000 Lux

Accuracy

±(3% ± 0.5%f.s)

## LED LUX METER

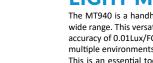
The MT942 measures light from visible luminaries equipped with white light LED fluorescent, metal halide, high-pressure sodium and incandescent sources. The MT942 is ideal for using in warehouses, factories, office buildings, restaurants, schools, hospitals, art galleries, photographic studios and stadiums.

## Features

- Professional light meter providing quick
- light readings in Lux
- 4000 Count LCD display 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

Function	Range
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	162 x 63 x 28mm
Weight	250g





## LIGHT METER

The MT940 is a handheld light meter that provides accurate display of light levels in terms of Foot Candle (FC) or LUX over a wide range. This versatile meter offers Peak Hold and Data Hold functions and can measure light up to 20,000 Lux or FC with an accuracy of 0.01Lux/FC. The light sensor is connected through an extension cable to the meter, providing fast measurements in multiple environments. The readings are displayed on a large and clear LCD display with range annunciations to assist the user. This is an essential tool for Designers or Quality Assurance Managers to troubleshoot or check lighting levels in a variety of situations from office to factory areas where health and safety is a requirement.

#### **Features**

- · Check light levels in a wide variety of situations Accurate test with fast response and auto zero adjustment
- 4 measuring ranges for Lux and Foot Candle
- Lux range from 200 Lux to 200,000 Lux
- Foot Candle range from 20fc to 20,000fc
- Measurement rate 2 times per second
- Peak Hold and Data Hold functions
- Symbol and unit display easy to read

<ul> <li>Auto Power Οπ</li> </ul>		
Function	Range	Accuracy
Lux Range	200.0 to 200,000 Lux	±(5.0% +10)
Foot Candle Range	20.00 to 20,000 fc	±(5.0% +10)
Spectral Response	CIE Photopic (human eye r	esponse curve)
Photo Detector	Photo diode and filter	
Sample Rate	2 times/sec	
Size	Meter 130 x 95 x 30mm	
	Sensor 100 x 60 x 27mm	
Weight	300g	



## 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 is 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.

#### **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



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	240 x 100 x 160mm
Weight	584g

Overrange indication

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## THERMO-HYGROMETER

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°C to 100°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

#### Range Function 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 225 x 45 x 34mm Weight 200g

MT667

# USB TEMPERATURE HUMIDITY DATA LOGGER

Ine MI 668 is a small and compact data logger for temperature and numility. 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	
Relative humidity resolution	0.1RH	±(3.5% RH)
Min Max	Yes	
Data logging	32000 Data points in total	
Size	130 x 30 x 25mm	
Weight	20g	

MT668

40.5

## **TEMPERATURE HUMIDITY DATA LOGGER**

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**

- Total data storage: 32 700 Readings
- 16 350 Readings for each temperature and humidity
- Temperature -40°C to 70°C
- Humidity range 0% to 100% RH
- Selectable measuring cycle: 1s to 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	101 x 24 x 21.5mm	
Weight	91g	





MT669



ENVIRONMENTAL

METERS

# MINI HYGROMETER

The MT91 mini hygrometer measures relative humidity, temperature, and dew point while the modern ergonomic design with large backlit dual display makes it easy to use in any application. 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 dew point. The Bluetooth connectivity allows users to transfer and share measured data to a smart phone and the app is available on both Android and IOS platforms. Other features include Min/Max record more and data hold.

- 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	204 x 54 x 36mm	
Weight	172g	

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PARTICLE COUNTER/HUMIDITY METER



MT970

## **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.

#### Features

- Particle measurements
- Air measurements
- Dewpoint measurements
- Wet bulb temperature
- Air Humidity measurements
- 2.8: TFT 320 x 240 pixels colour LCDImages (JPEG) and Video (3GP)
- Simultaneously measure and display
- 6 channel of particle sizesMeasure particle size down to o.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

Function	Range	Accuracy
Channel	0.3, 0.5, 1.0, 2.5, 5.0, 10μm	
Air temperature	10°C to 50°C	±(0.5°C) 10°C - 40°C
Humidity	0 - 100% RH	±(3%RH) 40% - 80%
Dew Point temperature range	0°C to 50°C	±(0.5°C) 10°C - 40°C
Images and Video	JPEG and 3GP	
Flow rate	0.1ft <sup>3</sup> (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 ft <sup>3</sup>	
Count modes	Cumulative, Differential,	
	Concentration	
Storage	Micro SD max 8GByte	
Data	5000 sample records	
Size	240 x 75 x 57mm	
Weight	570g	





MT96



MT662

## **MINI PARTICLE COUNTER**

The MT96 Particle Counter with a 2" colour TFT LCD display provides fast, easy and accurate readings for particles down to  $2.5\mu$ m 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.

#### Features

- 2.0" TFT Colour LCD
- Measure particle in the air
- Relative humidity and temperature
- Auto power off
- Simultaneously measures PM2.5 & PM10
- Analogue bargraph indication
- Memory 5000 readings
- Date/Time/Alarm
  - Selectable sample times 30s, 1min, 2min or 5min

Function	Range	Accuracy
Channel	2.5μm, 10μm	
Mass Concentration	PM2.5:0 to 2000ug/m <sup>3</sup>	
	PM10:0 to 2000ug/m <sup>3</sup>	
Resolution	1ug/m <sup>3</sup> s	
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	
Size	185 x 55 x 38mm	
Weight	139g	

## **DESKTOP TEMPERATURE & HUMIDITY METER**

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.

- 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

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	108 x 60 x 15mm	
Weight	74g	

# **ENVIRONMENT METERS**



## 5-IN-1 ENVIRONMENT METER

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	20-20000Lux
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	251 x 63.8 x 40mm
Weight	365g



## **6-IN-1 ENVIRONMENT METER**



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

- AC V / DC V 600V
- Fully functional DMM Sound Level Meter 100dB
- Light Meter 40 000 Lux
- Humidity Meter 95% RH
- Resistance  $40 \text{M}\Omega$ •
- Temperature 750°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)
AC Current	10A	±(2.0% +5)
Resistance	40MΩ	±(1.5% +2)
Temperature	-20°C to 750°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	170 x 79 x 50mm	
Weight	342g	





# SOUND LEVEL METERS



MT975



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-Fi 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

#### 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

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	278 x 76 x 50mm		
Weight	350g		





MT95

## MINI SOUND LEVEL METER

The MT95 mini sound level meter has a wide dynamic range from 35dB to 130dB and a different frequency weighting, A and C, to respond to human sense or machine monitoring purposes while the modern ergonomic design with large backlit dual display makes it easy to use in any application. The Bluetooth connectivity allows users to transfer and share measured data to a smart phone and the app is available on both Android and iOS platforms. This is the perfect meter where measurements are required in noisy engineering, sound quality control, health, industrial safety offices in various environments, schools, and traffic noise pollution.

#### **Features**

- 4 Digit display with an analogue Bargraph
  A & C level weighting for checking in
  - compliance with safety regulations IEC 61672-1 class 2
- Sound Level range 35dB to 130dB
- Hi & Lo range settings
- Background noise absorber
  - Min, Max and Data Hold
  - 0.5" Electret Condenser Microphone
  - Auto Power Off
- 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 1/2" Electret condenser Digital Display resolution 0.1dB Sample rate 2 times per second "over" limit range Alarm function Data output Bluetooth Size 185 x 54 x 36mm Weight 139g



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ENVIRONMENTAL METER

# LEAK DETECTORS / CARBON METER



## **COMBUSTIBLE GAS DETECTOR**

The MT982 is a 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
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	400mm (16 inch)
Alarm	Visable and audiable at 10% methane
Size	221 x 72 x 46mm
Weight	520g



MT982

## **REFRIGERANT LEAK DETECTOR**

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 400mm 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 400mm gooseneck
- Visual leak detection by LED indicators
- Adjustable tick rate to locate leaks quickly and easily
   Precision sensor detects event the smallest leaks
- 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	400mm (16 inch)
Alarm	Visable and audiable at 10% Lel for all
	Choroflucarbons (CFC)
Size	221 x 72 x 46mm
Weight	498g



MT980

## AIR QUALITY CO<sub>2</sub> MONITOR

The MT182 is a air quality monitor detector with exquisite concise and efficient detector which is integrated with  $CO_2$ , temperature and humidity detection. The device has a high precision  $CO_2$  sensor which can detect  $CO_2$  accurately and sensitively. The MT182 not only displays the readings on a negative LCD display, but also has a colour bargraph indication to indicate the  $CO_2$  grade level – Green is Good, Yellow is Normal and Red is Poor. The unit has a 1000mAh high capacity rechargeable lithium battery and a battery icon indicating the battery status. The operation of the unit is simple and very convenient to carry, especially to check the air quality from time to time in various areas.

#### **Features**

- Accurate CO<sub>2</sub> measurements
  Checks for Carbon Dioxide (CO<sub>2</sub>)
- concentrationsIndoor Air Quality displayed in PPM
- Colour bargraph indication of Air Quality
- with Green, Yellow and Red indication • Simultaneously displays CO<sub>2</sub>
- concentrations, Temperature and HumidityEasy to read large dual display
- Rechargeable lithium battery
- Low battery indication

Function	Range	Accuracy
CO <sub>2</sub> Concentration measurement	0 to 5000ppm	±75ppm ±5% of rdg
Temperature	-10.0°C to 50°C	±1°C
Humidity	0.0 to 100% RH	±5% RH
Battery	1000mAh recharge	able lithium battery
Charging	Micro USB DC 5V 1	A
Size	104 x 60 x 35mm	
Weight	116m	

Range (PPM)	Grid	Colour	Grade
<800	1	Green	GOOD
800 to 1500	2	Yellow	NORMAL
>1500	3	Red	POOR



ENVIRONMENTAL METERS



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MT195 CABLE LOCATOR RECEIVER

LEVEL

MANUAL

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Press 1s to mut

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# CABLE METERS

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# CABLE METERS



## **CABLE LOCATOR**



The MT195 Cable Locator is the ideal tool to detect electrical power cables, communication cables, metal pipes and much more during construction, maintenance, or renovation. Pinpoint pipes and cables in walls or underground with precision by identifying the corresponding signal number sent by the transmitter. The transmitter and receiver with their advanced digital circuit technologies ensures a highly stable and reliable performance. The transmitter not only sends signals but can be used as an AC/DC voltmeter displaying the voltage on the tested line. When testing on electrical circuits, the receiver can quickly identity circuit breakers in the distribution board of the circuit the transmitter is connected to or visa versa. The receiver displays the value of the signal measured and it can be used to check short circuits or breaks on existing installations, ideal for underfloor heating systems. The MT195 set is lightweight and is supplied with a complete set of accessories for direct measurement.

#### **Features**

- Detects cables, electrical wire, water/gas supply pipelines concealed in walls and ground
- Detects interruptions and short circuits in cables and concealed electrical wire
- Tracing sockets and distribution sockets having accidentally been covered by plastering
- The transmitter measures voltage from 12V to 400V AC/DC
- The screen of transmitter displays preset transmitting power, transmitted codes and voltage
- Transmitter has self-inspection displaying status on LCD
- Both transmitter and receiver have flashlight function
- Output signal 125kHz
- Detects interruptions and short circuits in floor heating
- The LCD of receiver displays preset transmitting power, transmitted codes and voltage
- The sensitivity of the receiver can be adjusted manually or automatically
- The receiver can sweep frequency automatically
- Identifies fuses and assigned current circuits
- Mute mode can be set for both the transmitter and receiver
- Auto Power Off
- Additional transmitters are available to extend or verify several functions

Function	Range	Accuracy
Transmitter		
Output signal	125 kHz	
External Voltage Range	12V to 400V DC	±(2.0%)
	12V to 400V AC	±(2.5%)
Power consumption	115mA approx.	
Operating Temperature	0°C to +40°C	
Operating Humidity	20% to 60% RH	
Size	190 x 89 x 43mm	
Weight	420g	
Receiver		
Cable locating mode	0 to 2 meters (Single pole application)	
	0 to 0.5 meters (Dual pole application)	
	0 to 2.5 meters (Single loop line)	
Grid Voltage Identification	0 to 0.4 meters approx.	
Power consumption	32mA (Min current), 89mA (Max current)	
Operating Temperature	0°C to +40°C	
Operating Humidity	20% to 60% RH	
Size	242 x 78 x 39mm	
Weight	350g	







MT195

**CABLE IDENTIFIER** 



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

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





MT915



# **CABLE METERS**



## CABLE LENGTH METER

The MT933 is a 60 000 count handheld battery operated metric cable length meter that quickly measures any reeled wire or cable up to 30 000m and with gauges ranging from 0.15mm<sup>2</sup> to 240mm<sup>2</sup>. Within seconds cables can be measured and digitally displayed without the cumbersome task of unrolling cable reels. All that 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 or cables. In this mode, the user can measure the length of any metal wire, resistance of which can be measured, as well as Copper or Aluminium cables. Temperature is also displayed on the large backlit LCD display. This instrument is very useful for Electrical Contractors, Utilities and Distributors for the control of inventories of cable.

#### **Features**

- 60 000 count backlit LCD display
- Measure up to 30 000m
- 20 pre-set wire gauge settings 0.15mm<sup>2</sup> to 240mm<sup>2</sup>
- 8 memory locations in user select mode
- Automatic temperature compensation
- Measures Aluminium (AI) and Copper (Cu) cables and wire
- Measures and indicates Temperature User Calibration mode
- Measures in meters (m) and feet (ft)
- Kelvin clip test leads included
- Built-in buzzer Auto Power Off

Function	Range	Accuracy
Cable Length	0.1m to 30.00km	±(1% +1m)
	0.1ft to 100kft	±(1% +1ft)
Resistance	2000.0mΩ – 2000Ω	±(1.0% +3)
Temperature	-5°C to 50°C	±(2.0% +1.8°C)
Size	210 x 97 x 68mm	
Weight	634g	

#### IEC 61010-1 IEC 61010-1 CAT II





## 2-IN-1 LAN TESTER & DMM



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 20MQ
- Diode Check
- Continuity
- 2000 Count LCD

00V	1 (1 00(
	±(1.0% +3)
V00	±(1.0% +5)
00.0mA	±(1.5% +3)
00.0mA	±(1.8% +8)
ΩΜΩ	±(1.2% +3)
000	
ss than 7.5MΩ VDC &	
ss than 7.5MΩ VAC	
J45 and RJ11 + BNC	
62 x 74 x 43 mm	
08g	
	00.0mA 00.0mA DMΩ D00 Ss than 7.5MΩ VDC & ss than 7.5MΩ VAC 45 and RJ11 + BNC 52 x 74 x 43 mm

## **MTC50**



## TONE AND PROBE TESTER

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
Tone and Probe	
Tester	Cable and Wire; RJ11
Tracing	Telephone, cable and wire
Enclosure	Moulded casing
Batteries	2 x 9V
Size	Probe 231 x 56 x 27mm
	Generator 59 x 59 x 34mm
Weight	270g

**MTC40** 

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# **CABLE METERS**



## **TDR CABLE LENGTH 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 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 cables up to 3.0km
- 20 Standard Cables Library 99 Internal memory locations store up to 99 •
- traces for future analysis Measures V.O.P (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



TFT Full Colour Screen

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 15	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	152 x 61 x 34mm		
Weight	227g		





09:30 20	16/09/24	¥ 000
vc	P Test	
Length:	10m	
VOP:	?%	
Name:		
Үуре:	Data	
Producer		
Impedance:	51	

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

## **VDV WIRE TESTER**

The MT902 is a professional VDV Wire Tester that analyses patch leads on phones, computer networks and coax cables in one easy step. This portable Voice, Data and Video meter is used to verify and troubleshoot RJ11, RJ12, RJ45 and F-connector cable. Indication on the large LCD display will map out and indicate open faults, short faults, split pairs and reverse wiring together with icons of PASS and FAIL status. The MT902 comes standard with 5 RJ45 Data and 5 Coax F-Connector identification remotes that can be used by technicians to permit mapping as well as identify cable runs from patch panels to a wall outlet ports. The built-in tone generator can be used to locate cables in wiring closets and patch panels by using an optional amplifier probe. Housed in a rugged double moulded case will provide years of reliable service.

#### **Features**

- Analysing of Voice, Data and Video cables
- Tests shielded twisted pair (STP), unshielded twisted pair (UTP) and coaxial cables.
- Detects shorts, opens, reversed polarity, crossed and split pairs •
- 5 Data RJ45 Remote Identifiers, 5 Coax F-Connector Remote Identifiers
- Generates three distinct, selectable digital tone patterns for cable tracing and trouble shooting
- Flashing Voltage warning alerts user of unidentified hazardous voltage
- Simple cable identification of patch panel or wall outlet port
- Low Battery indication and Auto Power Off
- PASS or FAIL indication of correct or error in wiring
- Large LCD backlit display •

Function	Range
Maximum Cable Length for Split Pairs Detection	0.5 meters
Maximum Coax Cable Length	305 meters
Maximum Coax Cable Resistance	100Ω maximum DC
Maximum Voltage between any two pins without damage	60V DC or 55V AC
Cable Types	Cat 7, Cat 7a, cat 6a, Cat 6, Cat 5e, Cat 5, Cat 4, Cat 3, Coax
Operating Temperature	0°C to +50°C
Operating Humidity	10% to 90% RH
Size	152 x 61 x 34mm
Weight	230g



MT900

100000	100 1 00 W 00	
Data Library		
Num	Name	Producer
1	CAT4UT	MBBNM
2	cAT5UT	ADHD
3	cAT5ST	EFDG
4	<b>cAT6ST</b>	S24R
5	cAT6UT	GFERTD

99 internal memory locations







# SPECIALIST METERS

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MT150 LASER DISTANCE METER







# LASER DISTANCE METERS



## **100m LASER DISTANCE METER**

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. This meter has the enhanced ability to take measurements in outdoor applications. Shortcut keys for addition, subtraction, Pythagoras, area and volume calculation make measuring fast and very reliable. The last 20 measurements are stored and can be transferred via Bluetooth to Android or iOS mobile devices. The IP54 double moulded rubber case is splash proof and dust resistant.

The MT150 is a Bluetooth pen-shaped professional laser distance meter capable of measuring lengths up to 50m, designed to provide high accuracy. This is a one person measuring and estimation tool ideal for measuring remote and difficult to reach places. The meter offers area and volumetric calculations as well as a continuous measurement mode plus has the added features of a built-in level and a buzzer indication. The Bluetooth function allows the user to transmit data to the Android or iOS mobile App for viewing, organising and sharing recordings. The

Function

Laser class

Laser type

IP Grade

Weight

Size

Measurement units

Range

#### **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

**Features** 

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Bluetooth 4.0 with APP support Meterbox iLDM & cloud service

Bluetooth 4.0 wih App support Distance measuring and estimate tool

Measures up to 50m with 1.5mm accuracy

Indirect measurement using Pythagoras

Display illumination and multi-line display

Area, Volume calculations

Addition / Subtraction

Continuous measurement

Store 20 measurements Best for indoor applications IP54 Splash Proof & Dust Resistant

Min / Max distance tracking

Function	Range
Measuring Range	0.05 to 100m
Measuring accuracy (2σ)	Typically: ±1m
Aeasuring units	m, ft
aser Class	Class I
Smallest unit displayed	1m
Dust Protect/Splash proof	IP54
Operating Temperature	-10°C to 50°C
Storage Temperature	-20°C to 60°C
bize	115 x 75 x 40mm
Veight	203g

Range

Class II

IP54

80g

0.05 to 50m

635nm, less than 1mW

135 x 33 x 24mm

m, in & ft





MAJOR

## **50m LASER DISTANCE METER**

IP54 double moulded rubber case is splash proof and dust resistant.

uetooth	LOG
terface	Datalogger



MT150



## 20m LASER DISTANCE METER

The MT145 is a Bluetooth compact mini laser distance meter capable of measuring lengths up to 20m, designed to provide high accuracy. This is a one person measuring tool ideal for measuring remote and difficult to reach places. The meter measuring units of metres (m), inches (in) and feet (ft) with a continuous measurement mode where readings are updated approximately every 0.5 seconds. The Bluetooth function allows the user to transmit data to the Android or iOS mobile App for viewing, organizing and sharing recordings. The IP54 double moulded rubber case is splash proof and dust resistant.

- Unit selectable (m, ft, in)
- Area, Volume Calculations
- Continuous Measurement
- Min/Max Distance Tracking
- Bluetooth 4.0 with APP support •
- Reference level selectable
- Display illumination and 3-line display.
- Buzzer indication
- IP54 Splash Proof & Dust Resistant

Function	Range
Measuring Range	0.05 to 20m
Measuring accuracy (2o)	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	IP54
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	100 x 30 x 22mm
Weight	100g



# **TACHOMETER / THICKNESS TESTERS**



## **CONTACT/NON-CONTACT TACHOMETER**

The MT952 is a combination non-contact and contact digital tachometer for convenient, fast and accurate measuring of high rotational speeds up to 100 000RPM. 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.

#### **Features**

#### Combination non-contact and contact digital tachometer for convenient, fast and accurate measuring of high rotational speeds up to 100 000RPM

- 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 0.1RPM
- Built-in laser spot

Function	Range	Accuracy
Non contact test range	2 to 99 999RP	M
Non contact resolution	0.1RPM	±(0.05% +1)
Sampling time	0.5 seconds (o	ver 120RPM)
Detection distance	50mm to 500r	nm
Time base	Quartz crystal	
Contact test range	2 to 20 000RP	M
Contact resolution	0.1RPM	±(0.05% +1)
Size	162 x 74 x 43n	nm
Weight	160g	

## NON-CONTACT TACHOMETER

The MT950 provides fast and accurate non-contact revolutionary measurements for rotating objects. Using reflective tape on an object to be measured, simply point the laser at the object, the tachometer RPM will then measure up to a maximum of 100,000 revolutions with an accuracy of ±0.05% and a fast sampling time of 0.5 seconds. The MT950 has a built-in memory that recalls the Min/Max and last value stored. The meter can also be used as a Total TOT counter where the meter can be set up to count passing objects. The MT950 is lightweight and easy to operate.

#### **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

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MT155

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Function Range Accuracy 2 to 99 999RPM Non contact test range ±(0.05% +1) 0.1RPM Non contact resolution

## 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.

- 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 nonferrous 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

Function	Range	Range
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	0-1000μm ±(2.5%+2μm)	0-1000μm ±(2.5%+2μm)
(of reading)	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 Measurable	0.5mm	0.3mm
Thickness		
Size	113.5 x 54 x 27mm	
Weight	110g	



Count range	1 to 99 999 REV
Sampling time	0.5 seconds (over 120RPM)
Detection distance	50mm to 500mm
Time base	Quartz crystal
Size	160 x 58 x 39mm
Weight	151g

# **VIBRATION / MOISTURE METERS**

## **VIBRATION METER**

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

±(5% +2) neter) (probe) probe)

## **MOISTURE METER**

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.

#### 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%

Function	Range
Measuring Principle	Electrical resistance
Electrode Length	8mm
Electrodes	Intergrated, replacable
Measuring image wood	6% to 44%
Measuring image material	0.2% to 2.0%
Size	139 x 47 x 25mm
Weight	100g



**MOISTURE METER** 

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.

#### **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)

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	180 x 50 x 31mm
Weight	175g





MT965





## LCR METER

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 or manual ranging. Convenient front panel push buttons 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	40ΜΩ	
Capacitance	110.00mF	
Inductance	20H	
Data Hold	Yes	
Min/Max	Yes	
Relative mode	Yes	
Size	150 x 70 x 48mm	
Weight	255g	



## **CAPACITANCE METER**

This compact and lightweight MT955 capacitance meter offers a wide measuring range for all capacitors from 200pF to 20 000mF. 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
- 10pF Resolution
- Automatic polarity indication
- Zero adjustment for low capacitance range
- Easy-to-read 3½ digit 2000 count LCD display
- Low battery indication

malcation	

## **MILLIOHM METER**

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



The MT985 is a handheld Milliohm/Multimeter combination that measures low resistance from 400m $\Omega$  to 40 $\Omega$  with a resolution of 0.1m $\Omega$  and a test current of 200mA. With a two times per second sampling rate, this unit provides fast and accurate measurements on a large high contrast 4000 count LCD Display with a bargraph and back light. The Multimeter function measures AC/DC voltage, AC/DC current, resistance, capacitance, continuity, and includes a 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

Function	Range	Accuracy
Low Resistance	400ΜΩ - 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)
Capacitance	40mF	±(3.0%+10d)
Continuity	Yes	
Data Hold	Yes	
Back Light	Yes	
Bargraph	Yes	
Min Max	Yes	
Size	200 x 92 x 50mm	
Weight	700g	

## **PROCESS CALIBRATOR**

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.

#### **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

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



MAXMIN

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# ACCESSORIES

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PSL

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all





## **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

#### 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

- 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

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## **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



## **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

## **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



## SILICONE TEST SET

## Features

- The HDT1288 is a ComfiGrip<sup>™</sup> 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
- safety right-angle test probes
  CAT IV 600V, CAT III 1000V, 10A rating



## COMFIGRIP™ TEST SET

#### **Features**

rating

- 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



## 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



The HDT3081 are DMM test

leads and have safety shrouds

Highly flexible PVC insulation

Straight connector on one end

Recommended accessories for

HDT3907, HDT3908, HDT3909,

HDT3916, HDT3917, HDT3923,

CAT IV 600V, CAT III 1000V, 10A

HDT3925 and HDT3926

and a right angled connector on

with standard 4mm safety plugs

**Features** 

0.8mm<sup>2</sup> wire

the other end

rating

**MODULAR TEST SET** 



## Features

- The HDT3051 are DMM test leads and have safety shrouds with standard 4mm safety plugs
- Highly flexible PVC insulation 0.8mm<sup>2</sup> 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

## **MODULAR TEST SET**



HDT3081



## **TEST LEAD SET 2m**

#### **Features**

- The MT815 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

The MT820 is an economically

priced test probe set with one

red and one black probe, and

has a PVC insulation and 4mm

It is recommended for general purpose measurements, and has 4mm safety right-angle test

- Replacement for MT1800 Series IP67 Multimeters
- CAT IV 600V, CAT III 1000V, 10A Rating Cable Length 2m

**Features** 

tips

probes CAT II 600V, 10A rating MT815

ECONOMY TEST LEAD SET



## **TEST LEAD SET 1m**

#### **Features**

- The MT810 is an economically priced test probe set with one red and one black probe, and has a PVC insulation
- and 4mm tipsIt is recommended for general purpose measurements, and has 4mm safety right-angle test probes
- Replacement for MT1800 Series IP67 Multimeters
- CAT IV 600V, CAT III 1000V, 10A Rating Cable Length 1m



## ECONOMY TEST LEAD SET

#### **Features**

- Test probes with PVC insulation and 2mm tips Design for easy, reliable grip in tight
- work places
- 4mm safety right angle test probes





- They are recommended for use with multimeters, and have a 4mm safety right-angle test probes
- CAT III 1000V, 10A rating

## Insulation **Tester Leads**

#### **Features**

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

#### **Features**

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

K7058



K7122

MT820



# K7133

## Distribution **Board Leads**

**Features** 

 1500mm Spare distribution board leads for the K4118



# K7121

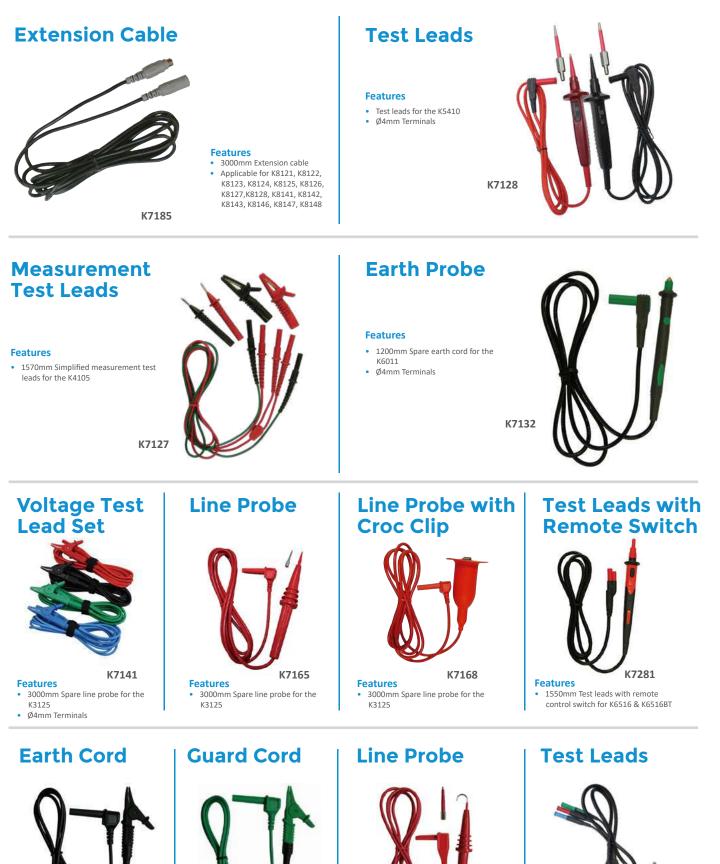
# Clamp Meters Test Leads

## **Features**

• 1100mm Applicable model: K2007R, K2046R, K2055, K2056R







K7224 **Features** 1500mm Spare earth lead for the . КЗ121, КЗ122, КЗ123, КЗ125, КЗ127, K3128



**Features** 1500mm Spare guard cord for the K3121, K3122, K3123, K3125, K3127



**Features** 3000mm Line Probe for the K3128



K7221 **Features** Test leads for the K4140 Ø4mm Terminals



# **ACCESSORIES**

## **Earth Spikes Earth Resistance** Leads к7095 K8032 **Features Features Features** Spare set of leads consisting of a 5m green lead, a Spare set of earth spikes for the K4105 for the K4118 10m yellow lead and a 20m red lead for the K4105

## **CLAMP SENSORS**



## **Power Cord**



1500mm Spare power cord with a South African plug



## **Magnetic Strip**



#### **Features**

 Rubber magnet strip for use on MT500, MT550, MT560, MT330, MT350, MT985 and MT1800 series DMM's



**15A Socket Adaptor** 

**Features** Temperature Plug adapter for multimeters and clamp meters.

MT802

## **Thermocouple Module**

## **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

MT801

## **Test Lead Light**

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



# **CARRYING CASES**



## **HEAVY DUTY METER BAG**

### **Features**

- Optional carrying case to house a range of meters the user needs to carry at 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 x 450mm x 200mm



## HARD CARRYING CASE FOR THERMOMETERS

#### **Features**

- Hard carrying case with partitions for thermometers
- Partitions include space for a thermometer and temperature probes



MT651

## **CARRYING CASE FOR K5020**

#### **Features**

- Soft carry bag for the K5020
- Dimensions: 250(L) x 270(W) x 216(D)mm



# CARRYING CASE FOR MULTIMETERS

#### Features

- Carrying case for most digital multimeters
- Adds extra protection for the meter • . Size: 220mm x 110mm x 60mm



MT827



# **APPLICATION NOTES**

# Why are CAT IV 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.

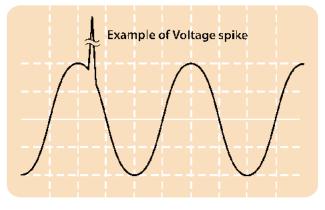
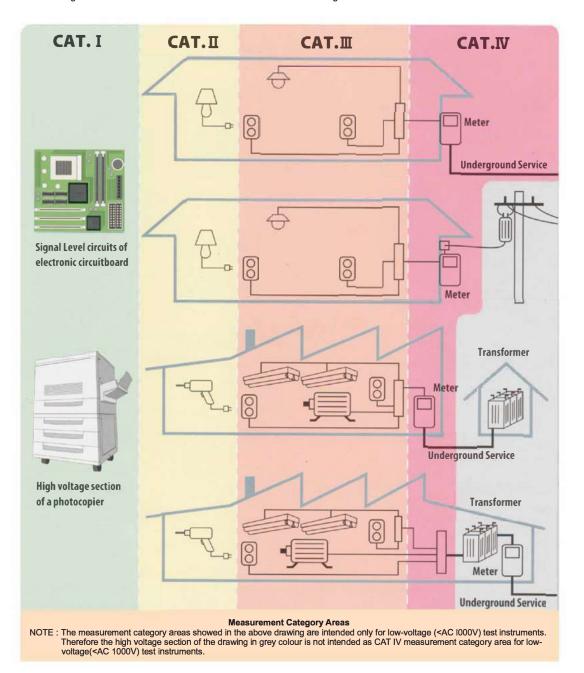


figure 1.



## **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.



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.



# **APPLICATION NOTES**

## 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.

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

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.

## 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 industria control equipment such as PLCs, programmable controllers it is possible to find electronic circuits (CAT I) together with power circuits (CAT III).

## 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

## 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 |

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.

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.

What should be done in similar situations? It is not reasonable to study and define the right category before each and every measurement. So it is always recommended to select an instrument with a rated category and voltage sufficient to cater for the worst case scenario.







# **1000V** Certified Tools

The new and improved range of Major Tech's ever popular Pliers and Cutters are fully certified safe **1000V** CHROME VANADIUM working tools, and feature the highest quality design ensuring safety and comfort for all day working.

The highest quality pivots carefully machined for minimum play with easy one hand operation.

**High comfort hand** guards stop hand slipping onto live conductors.



High quality 50CRV chrome vanadium with polished finish, HRC of blade 63#.

**Composite TPE handles are** designed for non-slip safety, superb control and comfort in the hand.















**DP0108** 

**SP1006** 

CS0340

Major Tech was the first to introduce 1000V tools in 1988, and our ever popular 1000V pliers and cutters have evolved over the years. We recently introduced the fourth edition of these pliers and cutters which now feature composite TPE handles as well as Chrome Vanadium to the complete range. Major Tech has over the years developed tools for electricians, making tasks easier with the correct tools and ensuring comfort for daily use. The Major Tech tools are a firm favourite with electricians and many insist on only using our tools.

The success of Major Tech tools over the history of the company has allowed us the opportunity to bring to market different concepts and ideas. Major Tech was one of the first to introduce tool kits to meet customer's requirements depending on their environment.

The TBP5 backpack with its waterproof and oil resistant rubber base was developed for the mining industry as this allowed the electrician to place the bag in any wet surface and not effect or wet the tools. The reflective tape on the back was for safety visual reasons. Newly introduced is the TBP7 which is similar to the TBP5 but made of a strong bright yellow tarpaulin material.

The comprehensive range of major Tech tools include crimping tools – ratchet type and hydraulic versions, cable shears, tape measures and hammers. There is also a full range of VDE approved tools which include hacksaws, spanners and utility knives. Our electronic section offers Data tools plus gas soldering irons and electronic pliers and cutters. Where one needs to make holes, Major Tech offer a wide range of options from Bi-Metal holesaws to HSS holesaws and tungsten carbide holesaws, plus we stock step drills and sheet metal punches. Our KTK0707SG is our most popular 1000V screwdriver set, however we have a variety of other screwdrivers and screwdriver sets to meet electrician's requirements.

The demand for electricians working on their own created an opportunity for Major Tech to introduce LED headlamps, torches and worklights, thus improving visual light in dark areas. The worklights have magnets and swivel hooks for easy and simple assistance.





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# **ECONOMY PLIERS RANGE**



### **COMBINATION PLIERS**

#### **Features**

- Guaranteed cutting edge hardness
- Suitable for both hard & soft wire
- 55# Carbon steel
- Heavy duty ergonomical handgrips
- EPC230 includes a crimp slot
- Heavy duty insulation

Length	Head	Handle
220mm	60mm	140mm
200mm	55mm	135mm
165mm	45mm	108mm
	220mm 200mm	220mm         60mm           200mm         55mm



LP160

SP160

### **DP160**

### **Features**

**DIAGONAL CUTTERS** 

- Guaranteed cutting edge hardness
- Suitable for both hard & soft wire
- 55# Carbon steel
- Heavy duty ergonomical handgrips
- Heavy duty insulation

Product Code	Length	Head	Handle
DP200	200mm	40mm	177mm
DP160	165mm	33mm	120mm



### LONG NOSE PLIERS

#### Features

- Guaranteed cutting edge hardness
- Suitable for both hard & soft wire
- 55# Carbon steel
- Ideal for working in confined spaces
- Heavy duty insulation

Product Code	Length	Head	Handle
LP200	200mm	90mm	105mm
LP160	165mm	60mm	98mm



### Spring assist opening

- Stips cable size 0.3mm<sup>2</sup> to 6.0mm<sup>2</sup> • Suitable for both hard & soft wire
- 55# Carbon steel
- Heavy duty insulation

• Easy to adjust stop with locking nut

Product Code	Length	Head	Handle
SP160	160mm	44mm	118mm

### **CRIMPING PLIERS**

- 55# Carbon steel
- Heavy duty insulation
- Crimps cable size 0.5mm<sup>2</sup> to 6mm<sup>2</sup>
- Easy indent crimping and cutting

Product Code	Length	Head	Handle
CTR240	240mm	38mm	130mm

Product Code	Length	Head	Handle

# **1000V PLIERS RANGE**



EPC0109

EP0108

EP0106

DP0108

### **ELECTRICIAN PLIERS**

#### **Features**

- Guaranteed cutting edge hardness
- HRC 58-63 suitable for both hard & soft wire
- Quality 50CRV Chrome Vanadium
- Individually tested to 10 000V

Product Code	Length	Head	Handle
EPC0109	230mm	55mm	170mm
EP0108	200mm	53mm	150mm
EP0106	165mm	45mm	120mm

- Heavy duty TPE rubber insulated handle grips
- 1000V Safe
- EPC0109: Ir

Individually tested to 10 000V

• 1000V Safe

• 1000V Safe

•

• 1000V Safe

Heavy duty TPE rubber insulated handle grips

• Heavy duty TPE rubber insulated handle grips

Ideal for working in confined spaces

Heavy duty 1000V TPE handles

Individually tested to 10 000V

oduct Code	Length	Head	Handle
C0109	230mm	55mm	170mm
0108	200mm	53mm	150mm
0106	165mm	45mm	120mm

1		
ncludes a	crimp slot	



### **DIAGONAL CUTTERS**

#### **Features**

Guaranteed cutting edge hardness

- HRC 58-63 suitable for both hard & soft wire
- Quality 50CRV Chrome Vanadium

Product Code	Length	Head	Handle
DP0108	200mm	40mm	177mm
<b>DP010</b> 6	165mm	33mm	132mm



**DP0106** 

### LONG NOSE PLIERS

#### **Features**

- Guaranteed cutting edge hardness
- HRC 58-63 suitable for both hard & soft wire
- Quality 50CRV Chrome Vanadium
- Individually tested to 10 000V

Product Code	Length	Head	Handle
LP0108	200mm	90mm	115mm
LP0106	165mm	60mm	110mm



LP0106

### **STRIPPING PLIERS**

#### **Features**

- Quality 50CRV Chrome Vanadium
- Spring assist opening
- Easy to adjust stop with locking nut •
- Strips cable 0,3mm<sup>2</sup> 6.0mm<sup>2</sup>

Product Code	Length	Head	Handle
SP1006	160mm	44mm	124mm



### **CABLE SHEAR**

- Quality 50CRV Chrome Vanadium
- 38mm<sup>2</sup> Max cross section
- 7mm Max cable diameter
- Heavy duty 1000V TPE handles
- Individually tested to 10 000V
- 1000V Safe

Product Code	Length	Head	Handle
CS0340	215mm	75mm	110mm





# **DRIVERS / SPANNERS / T-HANDLES**



**KTIN0513** 

### **METRIC NUT SCREWDRIVER SET**

### Features

- 6 Piece
- Conforms to EN 60900 standards Speciallt designed as a nut driver with a tube
- · Fully insulated for heavy duty for
- professional use up to 1000V AC



• New soft grip handles for maximum torque

Product Code	Length	Shaft	Head
KTIN0513	225mm	155mm	5mm 🔴
	260mm	150mm	6mm 🌑
	260mm	150mm	7mm 💮
	270mm	150mm	8mm 💮
	270mm	150mm	10mm 💮
	270mm	150mm	13mm 🌑



### **Features**

- Conforms to EN 60900 standards
- For use on or near electrical systems generating up to 1000V
- Reinforced Polypropylene handles for comfort and durability

Product Code	$\bigcirc$	Α	В	E	CxD	L
KTIN0205	5	7.2	125	31	105x30	230
KTIN0207	7	7.2	125	31	105x30	230
KTIN0208	8	7.2	125	31	105x30	230
KTIN0210	10	7.2	125	31	105x30	230
KTIN0211	11	8.1	125	31	118x41	240
KTIN0212	12	8.1	125	31	118x41	243
KTIN0213	13	8.1	125	31	118x41	243
KTIN0214	14	8.1	125	31	118x41	243

Sizes in mm

### **REVERSABLE RATCHET SPANNER**

#### Features

- Fully insulated for use on live conductors up to
- 1000V AC • 1/2 Inch size (12.7mm)
- Conforms to EN 60900 standards
- Ratchet reverse
- Socket unlock button
- Individually tested to 10 000V

Product Code		× mm →
VRA125	1/2"	250

### **1/2" T-HANDLE**

### Features

- Fully insulated for use on live conductors up to
- 1000V AC 1/2 Inch size (12.7mm)
- Conforms to EN 60900 standards
- T-Handle
- Individually tested to 10 000V

Product Code		Н	L
VTH125	1/2"	155mm	205mm

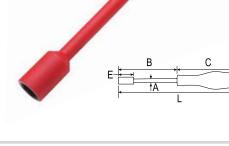




1000V VDE EN60900

VTH125

- C B 0 D





### **RATCHET EXTENSION BARS**

#### **Features**

- ½ Inch size (12.7mm)
- Conforms to IEC 60900 standards
- Individually tested to 10 000V

	× mm →
1/2"	125
1/2"	250
	1/2" 1/2"



### **INSULATED SOCKETS**

#### **Features**

- Fully insulated for use on live conductors up to 1000V AC
- Individually tested to 10 000V
- Chrome vanadium
   Conforms to EN 60900 s
- Conforms to EN 60900 standard
- Metric



Product Code	$\bigcirc$	D	н
VSS10	10	19.7	54
VSS11	11	21.0	54
VSS12	12	22.1	54
VSS13	13	23.3	54
VSS14	14	24.7	54
VSS16	16	27.4	54
VSS17	17	28.1	54
VSS18	18	29.7	54
VSS19	19	30.0	54
VSS21	21	32.0	54
VSS22	22	34.0	54



L-WR	ENCH	HEX	<b>KEYS</b>

### Features

- Fully insulated for use on live conductors up to 1000V AC
- Conforms to EN 60900 standards
- Chrome vanadium steelIndividually tested to 10 000V

Product Code	OI	× mm →
VB03	3	130
VB04	4	140
VB05	5	160
VB06	6	180
VB08	8	210
VB10	10	240

\*Sizes in mm

\*Sizes in mm



### ADJUSTABLE SPANNERS

- Chrome vanadium steel
- Individually tested to 10 000V
- High quality spanner that adjusts to suit various
- sizes of bolt and nut headsUseful when only a limited number of tools can be carried or kept in a tool kit
- Conforms to EN 60900 standards

Product Code	к mm ж	OI
VAS0108	200	30
VAS0110	250	36

\*Sizes in mm





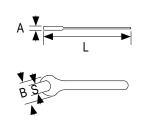
# **SPANNERS**



### SINGLE OPEN ENDED

#### Features

- Fully insulted for use on live conduits up to 1000V AC
- High quality open end spanner
- Unique design drives metric sizes
- Chrome vanadium steel
- Angled 15 degrees
- Conforms to EN60900 standards
  Individually tested to 10 000V



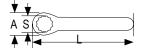
Product Code	$\bigcirc 1$	Α	В	L
VOSP07	7	7.5	20	90
VOSP08	8	8	22	90
VOSP10	10	9	26	105
VOSP11	11	9.5	29	110
VOSP12	12	10	32	125
VOSP13	13	10	33	135
VOSP14	14	11	35	140
VOSP15	15	11	38	150
VOSP16	16	12	40	160
VOSP17	17	12	42	160
VOSP18	18	12	44	165
VOSP19	19	13	45	170
VOSP21	21	14	48	188
VOSP22	22	14	52	200
VOSP24	24	15	55	225

\*Sizes in mm

### **RING GEAR WRENCH**

### Features

- Fully insulated for use on live conductors up to 1000V AC
- Conforms to EN 60900 standards
- Individually tested to 10 000V
- Chrome vanadium steel
- Unique design drives metric sizes
- 72 Teeth



Product Code  $\bigcirc$ Α VRRS10 29.5 150 10 VRRS11 11 32 160 VRRS12 34.5 12 165 VRRS13 13 34.5 170 VRRS14 37.5 180 14 VRRS17 17 38 180 VRRS19 19 40 200

\*Sizes in mm

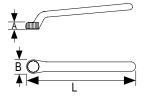




### **RING WRENCH**

#### Features

- Fully insulated for use on live conductors up to 1000V AC
- Conforms to EN 60900 standards
- Individually tested to 10 000V
- Chrome vanadium steel
- Unique design drives metric sizes



Product Code	$\Box$	Α	В	L
VRSP07	7	10.5	17	150
VRSP08	8	12	19	155
VRSP09	9	12	20.5	160
VRSP10	10	12	20.5	165
VRSP11	11	12	23	175
VRSP12	12	12	24	185
VRSP13	13	13	26	190
VRSP14	14	13	27	200
VRSP15	15	13	29	205
VRSP16	16	14	30	205
VRSP17	17	14.5	32	210
VRSP18	18	14.5	33	220
VRSP19	19	14.5	35	230
VRSP21	21	16	38	240

\*Sizes in mm

# HACKSAWS / SHEARS / KNIVES



### **PROFESSIONAL HACKSAW**

#### Features

- Heavy, ergonomical, professional metal hacksaw
- Conforms to IEC 60900 standard
- Non-slipping two component safety soft handle
- Individually tested to 10 000V

Product Code	Length	Blade
VHSL0112	460mm	300mm





### JUNIOR HACKSAW

#### **Features**

 Ideal for cutting small delicate pieces of electrical material where the weight alone of the standard hacksaw may cause damage to the workpiece

Length

270mm

Handle

110mm

Blade

150mm

the workpiece

**Product Code** 

VHSJ0106

- Easier to use in confined spaces
- Conforms to IEC 60900 standard
- Individually tested to 10 000V





### **CABLE SHEAR**

#### **Features**

- 50mm Width blades
- 38mm Max cross section
- 7mm Max diameter cable
- Compact, one handed cable shear, cuts cleanly & effortlessly
- Conforms to IEC 60900 standard
- Note: Not suitable for cutting steel wire armoured cables

Product Code	Length	Weight	Blade Width
VCSS0108	210mm	360g	50mm



### **1000V STRIPPING KNIVES**

#### **Features**

- VSKN011S: Fixed straight blade
- VSKN012C: Fixed curved blade
- VSKN013S: Fixed curved blade with safety shoe to prevent damage to inner conductors
- Insulated for use on live conductors up to 1000V AC
- Strong comfortable shaped safety handle
- Complete with protective cap for storage
- Stainless steel

Product Code	Length	Blade
VSKN011S	180mm	50mm
VSKN012C	155mm	28mm
VSKN013S	155mm	38mm



VSKN013S





**KV-7RSP** 

### **INSULATED SPANNER SET**

#### **Features**

- 7 Piece Set
- Insulated Injection Open End Spanners
- Sizes: 8mm, 10mm, 12mm, 13mm, 14mm, 17mm, 19mm





**VDE SETS** 



KV-10SS

### **INSULATED SOCKET SET**

- Features
- 10 Piece Set
- 1/2" Insulated T-Handle Wrench
- 1/2" Insulated Sockets





Product Code	Handle	<del>K <sup>™</sup> →</del>
KV-10SS	200	10, 11, 12, 13, 14, 15, 16, 17, 18, 19



KV-9SS

### **INSULATED SOCKET SET**

#### **Features**

- 9 Piece Set
- 1/2" Insulated Reversible Ratched Handle • ½" Insulated 125mm Extension Bar
- 1/2" Insulated Sockets
- Sizes: 10mm, 12mm, 13mm, 14mm, 15mm, 17mm, 19mm

Product Code	Handle	mm ★────────────────────────
KV-9SS	200	10, 12, 13, 14, 15, 17, 19

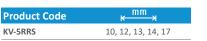


KV-5RRS

### **INSULATED RATCHET RING SPANNER SET**

#### **Features**

- 5 Piece Set
- Insulated Ratchet Ring Spanners
- Sizes: 10mm, 12mm, 13mm, 14mm, 17mm





### **INSULATED RING SPANNER SET**

- 5 Piece Set
- Insulated Ring Spanners
- Sizes: 10mm, 12mm, 13mm, 14mm, 17mm

Product Code	× mm →
KV-5RSP	10, 12, 13, 14, 17



# **VDE TOOL KITS**

### **1000V TOOL KIT**

KV3-28

### **Kit includes**

- KTK0306 1000V Insulated Screwdriver Set
- VSKN011S: Fixed straight blade
- VSKN013S: Fixed curved blade
- EPC0109: 225mm Combination Pliers •
- DP0108: 210mm Diagonal Cutting Pliers
- LP0108: Long Nose Pliers
- KV-7RSP: 7 Piece Insulated Spanner Set
- KV-9SS: 9 Piece Insulated Socket Set •
- VTH125: 1/2" T-Handle •
- TKC3: Large Zipper Case

Ideal for Solar Installations





Pg 146



VSKN011S & VSKN013S Pg 113

LP0108

Pg 109

DP0108

Pg 109

кткозо6

Pg 117

Pg 114



VHT125 Pg 110

> KV-9SS Pg 114





EPC0109

Pg 109





### ENGINEERS SCREWDRIVER SET

#### **Features**

- 7 Piece
- Dropped forged chrome vanadium steel with hardened tips
- Corrosion resistant tips
- Magnetic tips
- Ideal for electrical or mechanical use

Product Code	Length	Blade	Тір	
KTE0206	205mm	100mm	PH2	•
	175mm	80mm	PH1	0
	170mm	75mm	PH0	0
	255mm	150mm	6.5mm	•
	215mm	125mm	5.5mm	•
	190mm	100mm	4mm	•
	170mm	75mm	3.5mm	•



### ENGINEERS SCREWDRIVER SET

#### **Features**

- 8 Piece
- Chrome vanadium construction
- Hardened precision tips Magnetic tips hold screws
- securely
- Soft material handles offer great torque and comfort for jobs
- Variety of handle sizes and tips to accommodate a number of fastening projects

Product Code	Length	Blade	Тір	
KTE0308	210mm	100mm	PH2	0
	170mm	75mm	PH1	0
	103mm	38mm	PH2	0
	275mm	150mm	8mm	•
	210mm	100mm	6.5mm	•
	195mm	100mm	5mm	•
	145mm	75mm	3mm	•
	103mm	38mm	6.5mm	•

**KTE0308** 



### **ELECTRONIC SCREWDRIVER SET**

Features	Product Code	Length	Blade	Тір	
• 7 Piece	KTKTSD07	175mm	75mm	PH00	0
Fully insulated 1000V		175mm	75mm	PH0	0
<ul><li>Chrome Vanadium</li><li>Ideal for eletronic use, swivel</li></ul>		140mm	40mm	1.5mm	•
tops and fast fixing screws		160mm	65mm	1.8mm	•
		160mm	65mm	2mm	•
The second s	1010	175mm	75mm	2.5mm	•
	SAFE	175mm	75mm	3mm	-

KTKTSD07



### PRECISION SCREWDRIVER SET

### Features

- 8 Piece • Chrome Vanadium construction
- Ideal for all electronics industry
- use with hardened tips
- Supplied in a plastic carrying case
- Nickel chrome molybdenum
- steel blades with hardened tips Swivel tops aid fast fixing of screws

Product Code	Length	Blade	Тір
KTPS0208	168mm	75mm	3mm 🛟
	168mm	75mm	3.5mm 🛟
	168mm	75mm	P1 🗘
	155mm	75mm	2mm 🌘
	155mm	75mm	2.5mm 🍧
	168mm	75mm	4mm 🌘
	155mm	75mm	P0 🗘
	168mm	75mm	P2 🗘

SCREWDRIVERS

# SCREWDRIVERS



### **1000V INSULATED SCREWDRIVER SET**

Tip

PH2

PH1

6mm

5mm

4mm

3mm

0

0

•

•

•

Blade

100mm

100mm

150mm

125mm

100mm

75mm

#### Features

• 6 Piece

•

Corrosion resistant tips Magnetic Tips

**Product Code** 

КТК0306

Fully insulated for heavy duty professional use up to 1000V AC working to EN60900
Dropped forged chrome vanadium steel with hardened tips

Length

205mm

190mm

250mm

225mm

190mm

145mm

KTK0306

### **1000V INSULATED SCREWDRIVER SET**

### Features

• 7 Piece

- Fully insulated for heavy duty for professional use up to 1000V AC working to EN60900
- IEC Stepped Insulation for greatly improved terminal access
- Drop forged Chrome Vanadium Steel with hardened tips

Product Code	Length	Blade	Тір
KTK0707SG	235mm	125mm	No 2 🗘
	230mm	125mm	No 1
	260mm	150mm	8mm
	260mm	145mm	6mm
	230mm	125mm	5mm 🌻
	200mm	100mm	4mm 🌻
	180mm	75mm	3mm







### **HEAVY DUTY 1000V SCREWDRIVER SET**

### Features

- 8 Piece
- Fully insulated for heavy duty for professional use up to 1000V AC working to EN60900
- Corrosion resistant tips
- Made from Chrome vanadium Steel
- IEC Stepped Insulation for greatly improved terminal access
- Designed for comfort with recessed fingerstops to prevent slipping
- New soft grip handles for maximum torque

Product Code	Length	Blade	Тір
КТК0408	240mm	125mm	No 2  🕀
	205mm	100mm	No 1
	300mm	175mm	8mm 🌻
	270mm	150mm	6mm 🍧
	230mm	125mm	5mm 🌻
	225mm	125mm	4mm 🍧
	185mm	100mm	3mm 🌻
NEON	140mm	100mm	3mm 🍧





KTK0408



# **SCREWDRIVERS & 2-WAY RADIO**

VNS1407	<ul> <li>NECON SCREEWD</li> <li>Detects voltage from 110V - 250V AC</li> <li>Electrical orange colour for high visibli</li> <li>Long life neon light</li> <li>Ideal to test mains circuits to see if they are live</li> <li>Tough all moulded construction &amp; sealed for safety</li> </ul>		Length 140mm 190mm	Blade 65mm 100mm	Tip 3mm 3.5mm	•
TSD0320S	<b>TERMINAL SCR</b> <b>Features</b> • High quality special alloy chrome vanadium blade • Clear colour coded top for slot/ crosshead • Ultra comfort swivel top gives speed and control • Thin sleeve protected blade gives excellent access	<b>Product Code</b> TSD03205 TSD0320P	<b>Length</b> 195mm 195mm	Blade 100mm 100mm	Tip 3.5mm PZ2	•
KTESO406 KTEP04P2	<b>STUBBY SCREW</b> <b>Features</b> • Perfect for hard to reach areas • Tough, chrome vanadium steel shank • Comfortable grip • KTES0406: Flat stubby • KTEP04P2: Philips P2 stubby	Product Code KTES0406 KTEP04P2	S Length 100mm 100mm	Blade 40mm 40mm	Tip 6mm P2	•
TSD0407	<b>TERMINAL SCRE</b> <b>Features</b> • Terminal screws with recessed heads • Fully insulated for 1000V working to EN 60900 • Ideal for circuit breakers	Product Code TSD0407			Тір	AFE
	Display with acklit Colours	A Constant of the second secon	IVER power indicate cklit Colours rs - units can be the MTD90CC (	or e cloned		

- Roger Tone
- Call Tone
- Time Out Timer (TOT)
- Narrow/Wide Bandwidth Selective
- . Squelch Level Setup
- Frequency Reverse
- Scrambler
- Busy Channel Lock-Out (BCLO)
- Emergency Channel
- Keypad Locker

Product Code Ler	0	dth Heig	
MTD90 114	mm 57n	nm 38mn	1

HB

1 80. 1.mm 83

80

MENU 2 840 3400 # 154

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MTD90

# HAMMERS



HDP0316

### **BALL PEIN HAMMER**

#### **Features**

- Dropped forged 100g steel head
- Mirror polished finish
- Shock absorbing rubber grip •
- Balanced head •
- Fibreglass handle for maximum strength

Product Code	Length	Head
HP0335	285mm	Ball Pein



MAJOR

### **BALL PEIN HAMMER**

#### **Features**

- Dropped forged 450g carbon steel head
- Shock absorbing rubber grip
- Balanced head
- Mirror polish finish •



Product Code	Length	Head
HDP0316	330mm	Ball Pein



#### **Features**

- Dropped forged 500g carbon steel head
- Shock absorbing rubber grip •
- Mirror polish finish
- Fibreglass handle for maximum strength

Product Code	Length	Head	

HDP0320	350mm	Claw

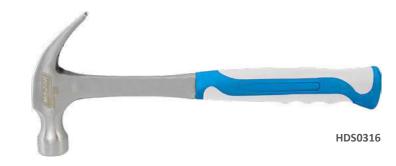


### **STEEL CLAW HAMMER**

#### **Features**

- 450g carbon steel head
- One piece carbon steel for professional quality
- · Accurate machined claw with fine gripping edges to prevent splintering
- Balanced head zone tempered for safety
- Finely polished one piece steel shaft and head
- Heavy duty, shock absorbing rubber grip on handle

Product Code	Length	Head
HDS0316	330mm	Claw



### **CLUB HAMMER**

- · Head to shaft reinforcement for maximum strength and safety
- Dropped forged 1.25kg steel head
- Head construction to DIN 6475
- · Fibreglass handle for maximum strength

Product Code	Length	Head
HDC0610	285mm	Club







### **BNC RATCHET CRIMPING TOOL**

#### Features

- Crimp tool for coax terminals from 1.72mm<sup>2</sup> to 8.2mm<sup>2</sup>
- Easy to adjust pre-set crimp pressure
- Suitable for left or right hand operation
- Automatic release with manual override
- Professional quality drop forged jaws
- Full ratchet mechanism with pressure adjustment Terminal sizes: • 1 72mm<sup>2</sup>· 2 5mm<sup>2</sup>· 5 4mm<sup>2</sup>· 6 48mm<sup>2</sup>· 8 2mm<sup>2</sup>

	,, ,	,	. ,
Product Code	Length	Head	Handle
CCTR50	240mm	50mm	150mm



### **BNC RATCHET CRIMPING TOOL Features**

- Ratchet BNC crimping tool
- Hexagonal crimping type
- Comfort grip handles
- For RG58, RG59 and RG62 ethernet cable
- Ratchet mechanism for maximum grip
- Professional quality drop forged jaws
- Automatic release with manual override

Product Co	de Length	Head	Handle
KDBNC01	225mm	35mm	120mm



Non-Insulated Terminals

### HEX CRIMPING TOOL

### Features

- Crimp tool for hexagon terminals from 1.5mm<sup>2</sup> to 6 0mm<sup>2</sup>
- Ratchet mechanism for maximum grip
- Automatic release with manual override

٠	Terminal	sizes:	
	-		-

1.5mm<sup>2</sup>: 2.5mm<sup>2</sup>: 4.0mm<sup>2</sup>: 6.0mm<sup>2</sup>

Product Code	Length	Head	Handle
CTR156	220mm	35mm	150mm



Insulated & Non-Insulated Terminals

### **BOOTLACE FERRULE CRIMPING TOOL**

- assembly to comply with BS 5750 and ISO 9000 standard requirements
- Crimp tool for coax terminals
- Ratchet crimping tool for cord end (bootlace) from 0.5mm<sup>2</sup> to 6.0mm<sup>2</sup>
- Flexibility to crimp

- izes: 0.5mm<sup>2</sup>; 0.75mm<sup>2</sup>; 1.0mm<sup>2</sup>;
- 1.5mm<sup>2</sup>; 2.5mm<sup>2</sup>; 4.0mm<sup>2</sup>; 6.0mm<sup>2</sup>

Product Code	Length	Head	Handle
CTR0510	195mm	35mm	110mm



#### KDRJ45R

CTR0816

### MODULAR CONNECTOR CRIMPING TOOL **Features**

- Crimps RJ45, RJ11 & RJ9 connectors Ratchet action for more secure crimp
- Repeatable action
- Long term durability with comfort grip handles
- Telephone modular connector crimper
- · Automatic release with manual override
- Built-in stripper and cutting tool

Product Code	Length	Head	Handle
KDRJ45R	225mm	60mm	110mm



### MC4 SOLAR CRIMPING TOOL

#### **Features**

- Ideal for Solar Panel PV cable terminals
- Ratchet mechanism with pressure adjustment •
- Suitable for left or right hand operation
- Automatic release with manual override
- Professional quality drop forged jaws
- Terminal sizes:
  - 2.5mm<sup>2</sup>; 4.0mm<sup>2</sup>; 6mm<sup>2</sup>

Product Code	Length	Head	Handle
CTR0334	250mm	38mm	210mm

### RATCHET CRIMPING TOOL **Features** .

- Ratchet crimping tool with automatic release and manual override
- Self-adjusting wire end tool with side entry
- Automatically adjusts to the desired sleeve size
- Produces square crimp profile
- Crimping tool for cord end (bootlace) terminals from 0.08mm<sup>2</sup> to 16mm<sup>2</sup>
- Crimping tool for coax terminals
- Ergonomic design minimises operator fatigue

Product Code	Length	Head	Handle
CTR0816	180mm	43mm	110mm

IMPING TOOLS









with combined calibrator	• Terminal size

# **CRIMPING TOOLS**

#### UNIVERSAL CRIMPING TOOL **Features** Cuts & strips cable • **Product Code** Head Handle Length Built-in stripper and cutting tool **CTR011** 200mm 20mm 70mm Capable of shearing small bolts • • Crimps terminal sizes 1.5mm<sup>2</sup> to 6mm<sup>2</sup> **CTR011** NON-INSULATED CRIMPING TOOL **Features** Ratchet mechanism crimp tool **Product Code** Head Handle Length for terminals CTR0316 280mm 135mm 90mm Automatic release with manual override Professional quality drop forged jaws Terminal sizes: Non-Insulated Terminals CTR0316 • 1.25mm<sup>2</sup>; 2.0mm<sup>2</sup>; 5.5mm<sup>2</sup>; 8.0mm<sup>2</sup>; 16.0mm<sup>2</sup> **HEX CRIMPING TOOL Features** 6-25mm<sup>2</sup> Ratchet Hex Crimping Tool Professional quality drop forged jaws Product Code Handle Head Length . Hex Crimp type Suitable for left or right hand usage CTR0525 345mm 50mm 110mm Terminal sizes: CTR0525 6.0mm<sup>2</sup>; 10.0mm<sup>2</sup>; 16mm<sup>2</sup>; 25mm<sup>2</sup> Non-Insulated Terminals NON-INSULATED CRIMPING TOOL **Features** Ratchet mechanism crimp tool for terminals • Indent crimping type **Product Code** Length Head Handle Suitable for left or right hand operation CTR0325 CTR0325 345mm 35mm 110mm Automatic release with manual override Terminal sizes: Non-Insulated Terminals 6.0mm<sup>2</sup>; 10.0mm<sup>2</sup>; 16.0mm<sup>2</sup>; 25.0mm<sup>2</sup> PRE-INSULATED CRIMPING TOOL **Features** Ratchet mechanism crimp tool for terminals from 0.5mm<sup>2</sup> to 6.0mm<sup>2</sup> 3 Colour coded crimp sizes: Red, Blue & Yellow Suitable for left or right hand operation • **Product Code** Head Handle Length **CTR0323** Automatic release with manual override CTR0323 225mm 110mm 38mm Professional quality drop forged jaws RED: 0.5mm<sup>2</sup> - 1.0mm<sup>2</sup> Ö BLUE: 1.5mm<sup>2</sup> - 2.5mm<sup>2</sup> YELLOW: 4.0mm<sup>2</sup> - 6.0mm<sup>2</sup> Pre-Insulated Terminals NON-INSULATED CRIMPING TOOL **Features** Ratchet mechanism crimp tool for terminals Automatic release with manual override Product Code Length Head Handle Professional quality drop forged jaws CTR0310 225mm 35mm 115mm CTR0310 Terminal sizes: 1.25mm<sup>2</sup>; 2.5mm<sup>2</sup>; 4.6mm<sup>2</sup>; 8.0-10.0mm<sup>2</sup> Non-Insulated Terminals **AUTOMOTIVE CRIMPING TOOL Features** • Automotive and white goods crimp tool for terminals Automatic release with manual override

- Professional quality drop forced jaws for non insulated terminals
- Terminal sizes: 1.5mm<sup>2</sup>; 2.5mm<sup>2</sup>; 6.0mm<sup>2</sup>

**Product Code** Length Head Handle CTR0333 225mm 120mm 35mm

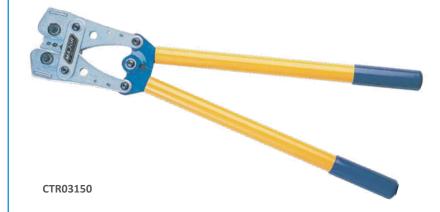


**CTR0333** 

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# **CRIMPING TOOLS**



### **HEX CRIMPING TOOL**

#### **Features**

- High quality hex crimp tool for terminating copper tube cables
  - Die sets revolve within the tool head for quick and easy selection
- Terminal sizes: 25mm<sup>2</sup>; 35mm<sup>2</sup>; 50mm<sup>2</sup>; 70mm<sup>2</sup>; 95mm<sup>2</sup> 120mm<sup>2</sup>; 150mm<sup>2</sup>

Product Code	Length	Handle
CTR03150	650mm	470mm

Non-Insulated Terminals



### **HEX CRIMPING TOOL**

#### **Features**

- High quality hex crimp tool for terminating copper tube cables
- Die sets revolve within the tool head for quick and easy selection
- Terminal sizes: 6mm<sup>2</sup>; 10mm<sup>2</sup>; 16mm<sup>2</sup>; 25mm<sup>2</sup>; 35mm<sup>2</sup>; 50mm<sup>2</sup>; 70mm<sup>2</sup>; 95mm<sup>2</sup>; 120mm<sup>2</sup>

Product Code	Length	Handle
CTR03120	650mm	470mm

Non-Insulated Terminals 

# **HEX CRIMPING TOOL**

#### **Features**

- High quality hex crimp tool for terminating copper tube cables
- Die sets revolve within the tool head for quick and easy selection
- Terminal sizes: 6mm<sup>2</sup>; 10mm<sup>2</sup>; 16mm<sup>2</sup>; 25mm<sup>2</sup>; 35mm<sup>2</sup>; 50mm<sup>2</sup>

Product Code	Length	Handle
CTR03650	385mm	255mm

Non-Insulated Terminals

### **ADJUSTABLE INDENT CRIMPING TOOL**

### Features

- Heavy duty point indent crimping tool
- Graduated scale an easy screw adjustment allow quick selection of sizes
- Non-ratchet for use on terminals •
- Terminal sizes: 10mm<sup>2</sup> - 120mm<sup>2</sup>

Product Code	Length	Crimping Type
CTR1020	570mm	Indent





CTR03650

CTR1020

# **BATTERY POWERED CRIMPERS**



### **BATTERY POWERED CRIMPING TOOL**

#### **Features**

- OLED Display showing Crimping Time, Electricity Quantity, Maintenance Reminding and Fault Code
- Crimping head rotates 350°
- Two stage hydraulic system with fast feed and power control •
- . Quick motor stop guarantees highest safety for the operator
- Automatic retraction when crimp is completed
- Electronic control and monitor of crimping operation
- Ergonomic design and optimised position of centre of gravity •
- Rated pressure: 120KN •
- . Oil capacity: 160ml
- Stroke: 42mm
- 5 - 8 seconds per cycle time
- Max crimping: Copper 400mm<sup>2</sup> / Aluminium 300mm<sup>2</sup>

Product Code	Crimping Dies
ECT400	16, 25, 35, 50, 70, 95, 120 150, 185, 240, 300, 400mm²



1x Charger

Carrying Case

ECT400

### **BATTERY POWERED CRIMPING TOOL**

#### Features

- OLED Display showing Pressing Time, Battery Percentage, Maintenance Notes and Fault Code
- 180° Swivelling Barrel
- Two stage hydraulic system: hydraulic ram output provides more force for reliable connection
- Ergonomic design with light weight and in-line grip
- Easily work overhead and in tight spaces •
- Rated pressure: 50KN
- Stroke: 14mm •
- 2.5 - 4 seconds per cycle time
- Max crimping: Copper 240mm<sup>2</sup> / Aluminium 185mm<sup>2</sup>

Product Code	Crimping Dies
ECT240	16, 25, 35, 50, 70, 95, 120
	150, 185, 240mm²



#### Kit Includes:

- Crimping Tool & Crimping Dies
- 2x 3.0Ah Batteries
- 1x Charger
- Carrying Case



ECT240

### **BATTERY POWERED CABLE CUTTING TOOL**

#### **Features**

- OLED Display
- Two stage hydraulic system with fast feed and power control
- Fast and reliable way to cut •
- Micro-computer control system •
- Cuts different cable materials including armoured Cu/Al cable, • ACSR, Cu/Al cable
- Cutting Force: 60KN
- Stroke: 86mm •
- Cutting Range: Ø85mm

Product Code	Cutting Range
ECC85	Ø85mm



Kit Includes: Battery Powered Cable Cutter •

- 2x 3.0Ah Batteries •
- . 1x Charger
- Carrying Case





# HYDRAULIC CRIMPING TOOLS



**HCT435** 



HYDRAULIC CRIMPING TOOL SET

- Safety system inside
- Crimping force: 13 Tonne
- Stroke: 30mm
- Oil capacity: 145cc
- Crimping dies (Included): Copper: 35mm<sup>2</sup>, 50mm<sup>2</sup>, 70mm<sup>2</sup>, 95mm<sup>2</sup>, 120mm<sup>2</sup>, 150mm<sup>2</sup>, 185mm<sup>2</sup>, 240mm<sup>2</sup>, 300mm<sup>2</sup>, 400mm<sup>2</sup>

Aluminium: 35mm<sup>2</sup>, 50mm<sup>2</sup>, 70mm<sup>2</sup>, 95mm<sup>2</sup>, 120mm<sup>2</sup>, 150mm<sup>2</sup>, 185mm<sup>2</sup>, 240mm<sup>2</sup>, 300mm<sup>2</sup>

Product Code	Dies
HCT435	35mm² - 400mm²



### HYDRAULIC CRIMPING TOOL SET

#### **Features**

- Safety system inside
- Crimping force: 60KN
- Stroke: 15mm
- Oil capacity: 60cc
- Crimping Type: Hexagon • Crimping dies (Included):
- Copper: 10mm<sup>2</sup>, 16mm<sup>2</sup>, 25mm<sup>2</sup>, 35mm<sup>2</sup>, 50mm<sup>2</sup>, 70mm<sup>2</sup>, 95mm<sup>2</sup>, 120mm<sup>2</sup>, 150mm<sup>2</sup>

Product Code	Dies
HCT150	10mm² - 150mm²

Includes hard plastic carry case

### HCT150



### HYDRAULIC CABLE CUTTER

#### **Features**

- Ø45mm max (for armoured Cu/Alu cable)
- Cutting force: 12 Tonne
- High quality tool steel cutting blades
- Note: Not suitable for cutting steel wired armoured cables

Product Code	Cutting Range
HCC45	Ø45

HCC45

### REPLACEMENT CRIMPING DIES



HCT630 Replacement dies		
Product Code	Sizo	

FIGUACE COUP	3120	iype	
D150	150mm	Hex	٠
D185	185mm	Hex	٠
D240	240mm	Hex	٠
D300	300mm	Hex	٠
D400	400mm	Hex	٠
D500	500mm	Hex	٠
D630	630mm	Hex	٠



#### HCT435 Replacement dies:

Product Code	Size	Туре	
C25	25mm	Hex	٠
C35	35mm	Hex	٠
C50	50mm	Hex	٠
C95	95mm	Hex	۲
C120	120mm	Hex	٠
C150	150mm	Hex	٠
C185	185mm	Hex	۲
C240	240mm	Hex	٠

CRIMPING TOOLS

# HYDRAULIC CRIMPING TOOLS



### HYDRAULIC CRIMPING TOOL

#### Features

- Crimping force: 30T Stroke: 25mm
- Crimping range: 150mm<sup>2</sup> 630mm<sup>2</sup>
- Crimping type: Hexagon
  Crimping dies (included):
- Crimping dies (included):
   150mm<sup>2</sup>; 185mm<sup>2</sup>; 240mm<sup>2</sup>; 300mm<sup>2</sup>; 400mm<sup>2</sup>; 500mm<sup>2</sup>; 630mm<sup>2</sup>

Product Code	Dies
HCT630	150mm² - 630mm²

- Note: This product can be matched with the HP700 hydraulic pump
- Includes metal carry case



HYDRAULIC CRIMPING TOOL

#### **Features**

- Crimping force: 22 T (Max)
- Stroke: 22mm
- Crimping range: 16mm<sup>2</sup> 400mm<sup>2</sup> (Max)
- Crimping type: Hexagon
   Conper conductor size
- Copper conductor size
  Crimping dies (Included)
- Crimping dies (Included):
   16mm<sup>2</sup>; 25mm<sup>2</sup>; 35mm<sup>2</sup>; 50mm<sup>2</sup>; 70mm<sup>2</sup>; 95mm<sup>2</sup>;
   120mm<sup>2</sup>; 150mm<sup>2</sup>; 185mm<sup>2</sup>; 240mm<sup>2</sup>; 300mm<sup>2</sup>;
   400mm<sup>2</sup>

Product Code	Dies
HCT416	16mm <sup>2</sup> - 400mm <sup>2</sup>



HCT416

### HYDRAULIC PUMP

#### **Features**

- Maximum pressure: 700kg/cm
- Oil capacity: 900cc
- Solid shaped stand gives the
- pump stability during operation
  Supplied with 2m long pressure
  hose complete with female self
- hose complete with female self lock quick coupler

Product Code	Dies	
HP700	700mm	

Includes metal carry case



**CRIMPING TOOLS** 



# **CABLE SHEARS**



### **RATCHET CABLE SHEARS**

#### Features

- Durable blades for superior cutting
- Precise ratchet & release mechanism
- Comfortable handle grips with finger stops to prevent slipping
- 240mm<sup>2</sup> Max cutting range for Aluminium & Copper
- Max Cable Diameter 32mm
- Spring loaded handles for ease of use
- Note: Not suitable for cutting solid steel bar or cable with steel cores, wire and rope
- Product CodeLengthCS03100250mm



**RATCHET CABLE SHEARS** 

### Features

- Max Cutting Range: 500mm<sup>2</sup> Aluminium
- Max Cutting Range: 400mm<sup>2</sup> Copper
- Telescopic handles for max leverage
- Precise ratchet & release mechanism
- Comfortable handle grips with finger stops to prevent slipping
   Quick release lock
- Note: Not suitable for cutting solid steel bar or cable with steel cores, wire and rope

Product Code	Length
CSR0380	250mm







### **CABLE CUTTER**

#### Features

- Cutting range: 500mm<sup>2</sup> Max for Aluminium conductor
- Cutting range: 400mm<sup>2</sup> Max for Copper conductor
- Note: Not suitable for cutting solid bar or cable with steel cores, wire & rope

Product Code	Length
CSR0400	410mm

### **ARMOURED CABLE CUTTER**

#### **Features**

- Effortless cutting of armoured steel wire cable
- Telescopic handles for max leverage
- Precise ratchet and release mechanism
- 150mm<sup>2</sup> SWA Max cross section
- Armoured: Max diameter cable 55mm Max Cross Section 150mm<sup>2</sup>
- Non-Armoured: Max diameter cable 55mm Max cross section 630mm<sup>2</sup>
- Carrying case included

Product Code	Length
CSWA01	375mm

### STEEL WIRE CABLE SHEARS

### Features

- Designed for effortless cutting of wire rope
- Ideal for low voltage lighting steel wire
- Automatic sprung operation for one handed use
- Max diameter cable 5mm<sup>2</sup>
- Max cross section 20mm<sup>2</sup>

Product Code	Length	Head	Handle
CWR01	190mm	50mm	140mm

126

# **CABLE SHEARS**

**Product Code** 

Product Code

CS0360

VCSS0108

**Product Code** 

Product Code

KDLAC01

KDC22

CS0338



CS0338

CS0360

CS0340

VCSS0108

KDC22

### **CABLE SHEAR**

#### **Features**

- Max diameter cable 7mm
- Max cross section 38mm<sup>2</sup>
- High grade carbon steel •
- Note: Not suitable for cutting steel wire armoured cable

### **CABLE SHEAR**

#### **Features**

- Max diameter cable 20mm •
- Max cross section 60mm<sup>2</sup>
- Insulated handle
- Note: Not suitable for cutting steel wire armoured cable

10001		
10000	CABLE	SHEAR

#### **Features**

- High quality 50CRV material
- 38mm<sup>2</sup> Max cross section •
- 7mm Max cable diameter
- Heavy duty 1000V TPE handles
- Note: Not suitable for cutting steel wire • armoured cable

Length	Head	Handle
215mm	70mm	130mm
	-	0

Head

70mm

Head

80mm

Length

215mm

Length

243mm

Handle

130mm

Handle

145mm

SAFE

Approved

Handle

97mm

### **VDE CABLE SHEAR**

#### **Features**

- 50mm Width blades
- 38mm Max cross section
- 7mm Max diameter cable
- Compact, one handed cable shear, • cuts cleanly & effortlessly
- Conforms to IEC 60900 standard Note: Not suitable for cutting steel wire armoured cable

CABLE	SH	EAR

#### **Features**

- High grade carbon steel
- Heavy duty insulation on hand grips
- Max cross section 22mm<sup>2</sup>
- Max diameter cable 6mm
- Note: Not suitable for cutting steel wired armoured cable

### FIBRE OPTIC CABLE SHEAR

- Features
- High grade carbon steel
- Heavy duty insulation on hand grips
- Reduces cutting force by 40% •
- Apeture spring for hardend steel wire
- Suitable for cutting fiber optic cable



KDLAC01

### **TIN SNIPS CABLE SHEAR**

#### **Features**

- Straight cut drop forged chrome vanadium steel blades
- Cuts up to 1.2mm cold rolled steel or 0.7mm AISI 304 stainless steel •
- Induction hardened serrated edge blades for stronger grip
- Spring loaded handles with vinyl sleeving and finger guards

Product Code	Length	Head	Handle
TS015	160mm	45mm	115mm



	Blade Width	Weight	gth
	50mm	360g	mm
82			

**Product Code** Len

Head

60mm

Length

165mm

210



# WIRE STRIPPERS / HEX KEYS



### OFFSET HEX KEYS

#### Features

- Fully insulated for use on live conductors up to 1000V AC
- Conforms to EN 60900 standards
- Chrome vanadium steel
- Individually tested to 10 000V

Product Code	OI	mm ★───────────────────────
VB03	3	130
VB04	4	140
VB05	5	160
VB06	6	180
VB08	8	210
VB10	10	240

\*Sizes in mm





### METRIC HEX KEY SETS

#### Features

- Professional quality chrome vanadium
  - Bevelled ends for easy screw access
- Supplied in easy to select protective case
- HK0308: 9 Piece Set 1,5mm, 2mm, 2.5mm, 3mm, 4mm, 5mm, 6mm, 8mm, 10mm
- BPHK0308: 9 Piece Set 1,5mm, 2mm, 2.5mm, 3mm, 4mm, 5mm, 6mm, 8mm, 10mm
- Hexagonal keys with ball point ends on the long arm and conventional hex on the short arm (BPHK0308)

Product Code	Angle	Тір
HK0308	90°	Standard
BPHK0308	90°	Ball

### **COAXIAL WIRE STRIPPER**

#### Features

- Rotary coaxial cable stripper
- Finger opening in handle for ease of rotation
- Easy adjustable to strip inner and outer core in one operation
- 3 Blade Model

Product Code	Cable strip sizes
CS03410	4.0mm - 10.0mm

CS03410



### **WIRE STRIPPER**

#### Features

- Strips cable 4.0mm<sup>2</sup> to 28.0mm<sup>2</sup>
- Round cable (dia. 4.28mm) is placed in the "V" section, the stripper is rotated to cut circumference of cable sheath
- Outer stripper is then pulled up cable to strip length of sheath
- Sharpened hook and knife function are also incorporated to assist
- Spare Swivel blade inisde handle included

Product Code	Length	Blade	Handle
WS828	180mm	40mm	110mm

CS03410

# WIRE STRIPPERS



### AUTOMATIC WIRE STRIPPER

#### Features

- Automatically adjusts to cable size in easy one-handed operation
- Strips stranded and solid conductors of 1.0mm<sup>2</sup> to 3.2mm<sup>2</sup>
- Built-in wire cutter
- Insulated crimper Yellow, Red & Blue
- Non insulated 1,5 2,5, 4-6mm

Product Code	Cable strip sizes
WS0310	1.0mm <sup>2</sup> - 3.2mm <sup>2</sup> diameter

Insulated & Non-Insulated Terminals



MAJOR

WS0310

### **AUTOMATIC WIRE STRIPPER**

#### Features

- Ideal for production when stripping lighter gauge wires, automotive wiring, instrumentation wire and avionic wire
- Knife type steel blade
- Delayed action prevents crushing or cutting of wires
- Zinc Alloy body with PVC handle grips

Product Code	Cable strip sizes
WS1032	1.0mm <sup>2</sup> - 3.2mm <sup>2</sup>
WS0520	0.5mm² - 2.0mm²



### **STRIPPING PLIERS**

#### **Features**

- Strips cable size 0.3mm<sup>2</sup> to 6.0mm<sup>2</sup>
- High quality 50CRV material
- Spring assist opening
- Easy to adjust stop with locking nut
- Heavy duty 1000V TPE handles
- Individually tested to 10 000V
- 1000V Safe
   Product Code

SP1006

е	Length	Head	Handle
	160mm	44mm	124mm

SAFE



### **STRIPPING PLIERS**

#### **Features**

- Spring assist opening
- Stips cable size 0.3mm<sup>2</sup> to 6.0mm<sup>2</sup>
- Suitable for both hard & soft wire
- 55# Carbon steel
- Heavy duty insulation
- Easy to adjust stop with locking nut

Product Code	Length	Head	Handle
SP160	160mm	44mm	118mm



### WIRE STRIPPER

- Hardened and precision ground steel jaws
- Wire sizes 0.75mm<sup>2</sup> to 6.00mm<sup>2</sup>
- Built-in wire cutter
- Adjust to most wire sizes
- Spring Loaded

Product Code	Length	Blade	Handle
WS220	125mm	20mm	55mm





27PCS 1/2" DR.SOCKET SET

0000

0



### **34PC RATCHET SOCKET SET**

#### **Features**

Product Code	Length	Width	Depth
RSS34	231mm	115mm	40mm

#### • Metal case **Set Includes**

• 13 x socket 1/4":

Chrome vanadium

- 4/4.5/5/5.5/6/7/8/9/10/11/12/13/14mm
- 2 x extension bars 3" & 6"
- 1 x slide T-bar 120mm
- 1 x universal joint
- 1 x quick release ratchet handle 72 teeth
- 12 x socket bits · Slotted · 4 6mm
  - Phillips : #0, #1, #2, #3
  - Hex : 3,4,5,6,7,8mm
- 1 x screwdriver handle 150mm
- 3 x hex : 1.5, 2, 2.5mm

### **27PC RATCHET SOCKET SET**

#### **Features**

Chrome vanadium	Product Code	Length	Width	Depth
Metal case	RSS27	446mm	155mm	40mm

#### Set Includes

- 20 x socket 1/2": 8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/ 23/24/25/26/27/28/29/30/31/32mm
- 2 x spark plug socket 1/2" x 16,21mm
- 1 x quick release ratchet handle 72 teeth
- 1 x universal joint 1/2"
- 2 x extension bars 5" & 10"
- 1 x 3/8" F x 1/2" M 3-way adaptor

**RSS27** 



22PC RATCHET SOCKET SET

Features	Product Code	Length	Width	Depth
Chrome vanadium	RSS22	314mm	155mm	40mm

Metal case

- **Set Includes**
- 3/8": /11/12/13/14/15/16/17/18/19/22mm
- ug socket 3/8" x 16,21mm
- ease ratchet handle 72 teeth
- bar 10"
- l joint 3/8"
- n bars 3" & 6"

### **6PC RATCHET WRENCH SET**

### **Features**

- 6 Piece set
- Rotates 360° clockwise and anticlockwise
- 12 gripping teeth

High Torque Values	Product Code	Length	Width	Depth
CRV and carbon steel	RWS06	220mm	95mm	42mm

Mirror finish

oduct Code	Length	Width	Depth
/S06	220mm	95mm	42mm



SOCKET SETS

0	<ul> <li>15 x socket 3,</li> </ul>
	6/7/8/9/10/1 • 2 x spark plus
	<ul> <li>1 x quick rele</li> </ul>
2	<ul> <li>1 x sliding T-b</li> </ul>
	<ul> <li>1 x universal</li> </ul>
	<ul> <li>2 x extension</li> </ul>

# PLIERS / SPANNERS



### **GROOVE JOINT PLIERS**

### **Features**

- High grade carbon steel
- Straight jaw grip
- Easily adjustable jaw opening
- Insulated handle
- Double milled groove joint for extra grip and safety
- Cushioned hand grips for comfort in use

Product Code	Length	Head	Handle
GJP0308	200mm	70mm	130mm
GJP0310	255mm	85mm	170mm
GJP0312	300mm	100mm	200mm



GJP0 Range

### LOCKING PLIER

### Features

- High quality chrome vanadium steel
- Curved jaws for maximum grip
- Quick release toggle
- Hardened rivets for longer life
- 30mm Max jaw opening

Product Code	Length	Jaw	Handle
MGP0310	230mm	35mm	195mm



### **ADJUSTABLE SPANNERS**

#### Features

- High quality chrome vanadium steel
- Professional corrosion resistant black finish
- Deep etched metric graduations for fast pre-adjustment of size

Product Code	Length	Jaw	Handle
AS0304	100mm	15mm	60mm
AS0306	155mm	20mm	100mm
AS0308	200mm	25mm	135mm
AS0310	250mm	35mm	215mm
AS0312	300mm	40mm	260mm



ASO Range

### **NUT DRIVER/TUBE SPANNER SET**

### Features

- 9 Piece
- Chrome vanadium construction
- Use as a tube spanner
- Contoured rubber handles
- Firm comfortable grip

Product Code	Length	Blade	Тір
KTN0309	205mm	125mm	3.2mm
	205mm	125mm	4mm
	205mm	125mm	5mm
	205mm	125mm	5.5mm
	235mm	125mm	6mm
	235mm	125mm	7mm
	250mm	130mm	8mm
	250mm	130mm	10mm
	250mm	130mm	13mm



KTN0309



# HACKSAWS / KNIVES



#### HSP0312



HSA0306



HSP0606



UK0306

# MPK0901N



### **PROFESSIONAL HACKSAW**

#### Features

- Complete with high grade Bi-metal blade
- Hand grip design for comfort & protection
- Strong beam
- Additional 45° blade position for use at awkward angles
- Easy to use tensioning device

Product Code	Length	Height	Blade
HSP0312	400mm	140mm	300mm

### ADJUSTABLE HACKSAW

### Features

- High grade HSS blade for cutting metal or wood
- Fully adjustable for 3 angles
- Comfortable moulded handle
- Adjustable blade tension
- Strong aluminium

Product Code	Length	Height	Blade
HSA0306	260mm	80mm	150mm

### JUNIOR HACKSAW

### Features

- High grade HSS blade
- Quality spring steel construction
- Long life spring steel frame
- Handy size to reach awkward places

Product Code	Length	Height	Blade
HSP0606	240mm	60mm	150mm

### **UTILITY KNIFE**

#### Features

- Die cast zinc alloy housing
- Multi position blade setting
- Heavy duty
- Adjustable for depth of cut
- Spare blade storage in handle
- Convenient hole for storing
- SB0306: 10 Piece Carbon steel replacement blades

Product Code	Length	Width	Height
UK0306	150mm	30mm	18mm

### **FOLDING KNIFE**

#### Features

- Die cast zinc alloy housing
- Stainless steel skeleton
- Aluminum handle with belt clip
- Safety lock-back system
- Quick blade change mechanism

Product Code	Length	Width	Height
MPK0901N	110mm	42mm	20mm

### SPARE BLADES

### Features

SB0306: Carbon steel blade replacement

Product Code	Length	Packet	Steel
SB0306	60mm	10	Carbon

SB0306

# MEASURES/LEVELS/UNIVERSAL KEY



#### **TAPE MEASURES Features** Best quality tape measurement • • Class I accuracy power tape • Rubberized moulded housing • Easy to release Powerful non-slip brake for blade Shock absorbing device • • Reinforced hook Magnetic tip Nylon coating on tape **Product Code** Length Таре HV0375 HV0303 16mm 3m HV0305 25mm 5m HV0305

HV0303

### **DIGITAL CALIPER**

8m

25mm

#### **Features**

HV0375

- · Selectable mm or inches with zero adjustment function
- Measurement length 150mm with resolution of 0.01mm • 1.5V Silver oxide battery supplied included

Product Code	Length	Width	Height
KTV150	180mm	86mm	25mm



### **MAGNETIC SPIRIT LEVEL**

#### **Features**

- 3 Way horizontal, vertical and 45° angle finding
- Tough plastic construction •
- Fixed all-round viewing •
- Built-in magnetic base for fixing steel boxes •
- · Vials have a yellowish-green tint with additives for UV protection

Product Code	Length	Width	Height
SLM0806	200mm	15mm	45mm



#### **Features**

- 3 Way horizontal, vertical and 45° angle finding
- Tough, hardened aluminium •
- Accuracy 0.5mm per 1 metre (0.0286°)
- in normal position

Product Code	Length	Width	Height
SLM24	600mm	20mm	55mm

•



#### · Vials have a yellowish-green tint with additives for UV protection Fixed all round viewing Protective end caps Shock resistant vials



**UNIVERSAL KEY** 

- Multi-purpose key fits gas, electric
- cupboards, ventilation systems, stop valves Made from die-cast zinc •
- Fits square, 3-square and double pin
- Supplied with slotted and Philips bits

Product Code	Tool Dimension	Bit Length
UKEY01	75mm²	40mm





# HOLESAWS / BLADES / DRILLS



### **TUNGSTEN CARBIDE HOLESAWS**

#### Features

**Features** 

Product

MHS16

MHS20

MHS22

MHS25

MHS32

MHS40

MHS50

**Features** 

Max 80m/s

**Product Code** 

DCB115

DCB230

•

•

•

Diamond Cutting Blade

Max 13 200RPM (DCB115)

Max 6 600RPM (DCB230)

· Ideal for cutting hard metal like stainless steel and steel plate

·····			
Product Code	Hole	Chuck	
MTCT20	20mm	10mm	
MTCT22	22mm	10mm	
MTCT25	25mm	10mm	
MTCT32	32mm	10mm	
MTCT40	40mm	13mm	
MTCT51	51mm	13mm	
MTCT64	64mm	13mm	
MTCT73	73mm	13mm	
MTCT76	76mm	13mm	
MTCT83	83mm	13mm	

• Ideal for cutting mild steel, stainless and tool steel, cast iron,

Hole

16mm

20mm

22mm

25mm

32mm

40mm

50mm

Ideal for cutting concrete, stone, hard ceramics & thin granite

9

18

Segments

DIAMOND CUTTING BLADES

Chuck

10mm

10mm

10mm

10mm

13mm

13mm

13mm

Bore

23mm

20mm

Diameter

115mm

230mm

**HSS HOLESAWS** 

copper, aluminium, not more than 2mm

**MTCT Range** 



**MHS** Range



DCB230



4 8 10	
12	l

DS125

**DS129** DS187



### **STEP DRILLS**

#### **Features**

•

- Drills true, round holes in thin materials such as metal, wood and plastic
- Made from the finest grade of high speed steel
- Hole size quickly determined
- Drill numerous sizes of holes with the one cutter
- Automatically de-burrs drilled holes

Product Code	Steps	Hole	Chuck
DS125	5	4-12mm	10mm
DS129	9	4-12mm	10mm
DS187	7	6-18mm	10mm
DS220	10	4-22mm	10mm
DS353	13	6-35mm	10mm

134

# HOLESAWS / DRILLS / ARBORS



### HEAVY DUTY BI-METAL HOLESAW

#### **Features**

- Alternate set variable pitch 4/6 teeth producing tighter grip, less vibration, cleaner faster cut
- · Holesaws can be used in electric pneumatic drills, vertical drilling machines and lathes
- Heavy duty bi-metal construction
- Original pattern pressed gap gives full cutting depth
- M3 steel cutting edge keeps teeth sharper longer
- Shatterproof body designed for staying power
- Holesaws, arbors and pilot drills are fully interchangeable with all leading manufacturers of holesaw products
- Ideal for cutting brass, copper, steel, aluminium and wood

Product Code	Hole	Arbor 1*	Arbor 2*	Product Code	Hole	Arbor 1*	Arbor 2*
KHS16	16mm	AB14	AB19	KHS64	64mm	AB35	AB45
KHS20	20mm	AB14	AB19	KHS65	65mm	AB35	AB45
KHS22	22mm	AB14	AB19	KHS67	67mm	AB35	AB45
KHS25	25mm	AB14	AB19	KHS70	70mm	AB35	AB45
KHS32	32mm	AB35	AB45	KHS73	73mm	AB35	AB45
KHS38	38mm	AB35	AB45	KHS75	75mm	AB35	AB45
KHS40	40mm	AB35	AB45	KHS83	83mm	AB35	AB45
KHS51	51mm	AB35	AB45	KHS95	95mm	AB35	AB45
KHS54	54mm	AB35	AB45	KHS105	105mm	AB35	AB45
KHS57	57mm	AB35	AB45	KHS111	111mm	AB35	AB45



**KHS Range** 

\* SUGGESTED ARBOR

### **HOLESAW KIT**

#### **Features**

10 Piece bi-metal holesaw kit
 Ideal for cutting brass, copper, steel, aluminium and wood

#### Set includes

#### Holesaws:

- 1 x KHS20 20mm; 1 x KHS25 25mm;
- 1 x KHS32 32mm; 1 x KHS38 38mm;
- 1 x KHS40 40mm; 1 x KHS51 51mm

•	Arbors: AB19; AB45
•	Pilot Drills: 1 x PD1: 1 x

• Pilot Drills: 1 x PD1; 1 x PD2

Product Code	Length	Width	Height
KHS093	320mm	190mm	100mm



## ECONOMY ARBORS

- reatures
- Supplied complete with pilot drill
- AB14 use with KHS16, KHS20, KHS22 & KHS25
- AB19 use with KHS16, KHS20, KHS22 & KHS25
- AB35 use with KHS32, KHS38, KHS40, KHS51, KHS54, KHS57, KHS64, KHS65, KHS67, KHS70, KHS73, KHS75, KHS83, KHS95, KHS105 & KHS111mm
- AB45 use with KHS32, KHS38, KHS40, KHS51, KHS54, KHS57, KHS64, KHS65, KHS67, KHS70, KHS73, KHS75, KHS83, KHS95, KHS105 & KHS111mm

Product Code	Туре	Fits	Chuck
AB14	Low Cost	16-25mm	10-13mm
AB19	Hex	16-25mm	10-13mm
AB35	Hex	32-111mm	10-13mm
AB45	Hex	32-111mm	13mm



### **PILOT DRILLS**

- PD1: For use with AB19, AB35 & AB45
- PD2: For use with AB14

Product Code	Length	Size
PD1	75mm	6mm
PD2	110mm	6mm





# **TAP & DIE / FISH TAPES / CHALK**



### **TAP AND DIE SET**

#### Features

- Comprehensive 40 piece metric tap and die set
- Manufactured in high quality Tungsten Alloy Steel
- Ideal for cleaning, cutting and repairing threads
- Tap & die of course & fine threads: M3 x 0.5; M4 x 0.17; M5 x 0.8; M6 x 1.0; M8 x 1.25; M10 x 1.0; M10 x 1.5; M12 x 1.25; M12 x 1.75

#### Set includes

- 1 x 8 Inch adjustable tap and wrench handle
- 1 x Set T handle tap wrench
- 1 x Die handle
- 1 x Screwdriver

Product Code	NPT Tap	Die Wrench
TDM0540	1/8 - 27	25mm OD

Includes metal carry case

TDM0540



### **FISH TAPES**

#### **Features**

- To pull electrical and telecommunication cables through conduit
- Draw-wire manufactured from carbon steel
- Button to allow the draw-wire to return to original position •
- Windows to see the amount of draw-wire in the roll

Product Code	Length	Housing
FTS30	30m	Tough Plastic
FTS60	50m	Tough Plastic



### **CHALK LINE** Features

- Tough die cast construction
- Pure cotton line
- Can be used as a plumb line
- Fold away winding handle
- Slide action filling hole

Product Code	Line Length	Marked Degrees
CL1630	30m	0° & 45°

### **CHALK**

#### **Features**

	Pop	lacement	chal
•	Rep	lacement	Clig

·			
Product Code	Colour	Weight	
CLC1620	Red	100g	

CLC1620

# **GAS SOLDERING IRONS**



MTD48

MTD46

### **PORTABLE SOLDERING IRON KIT**

#### **Features**

- For DIY & the hobbyist
- · Fully portable always ready to use
- . Flaming welding and brazing temperatures 1300°C
- Soldering and hot air shrink temperature 500°C •
- Refillable gas torch with adjustable flame control
- Continuous flame lock mechanism •
- Aluminium body for ruggedness and protective cap with pocket clip Flame off button & safety locks ensures that the tool cannot be .
- accidentally ignited
- Butane gas operated with built-in gas igniter
- Melting and fusing •
- Plastic pipe bending and modeling •
- Plastic fusing and repair •

Product Code	Weld	Length	Tips
MTD48	1300°C	235mm	5 different

· Aluminium body for ruggedness and

Flame off button & safety locks ensures

that the tool cannot be accidentally ignited

· Butane gas operated with built-in gas igniter

protective cap with pocket clip

 Plastic pipe bending and modeling Plastic fusing and repair

Melting and fusing



TANE



**Recommend using MTD1 Butane Gas refill** 

1300°C • Soldering and hot air shrink temperature 500°C

Flaming welding and brazing temperatures

- Refillable gas torch with adjustable flame control
- Continuous flame lock mechanism

· Fully portable always ready to use

Product Code	Weld	Length	Тір	
MTD46	1300°C	235mm	1	



#### **Features**

**Features** 

•

- Desoldering tool for solder removal
- Ideal to remove solder from circuit boards during electronic repairs
- Sturdy design Aluminium housing

Product Code	Length	Diameter	Тір
SS1	190mm	20mm	18mm



### **MULTI CORE SOLDER**

<ul> <li>Increases bit life of the soldering iro</li> </ul>	n				200 Sn60% Pb40%	MAJOR
by up to 10 times	Product Code	Core	Size	Weight	L secures :	
<ul><li>Coil solder</li><li>60 tin /40 lead</li></ul>	SL518	Multicore	1.0mm	18g		and the second s
Supplied in handy dispenser						SL51

Size

1mm

Weight

200g

### **MULTI CORE SOLDER**

#### **Features**

- Increases bit life of the soldering iron by up to 10 times
- 1mm Roson coil solder •
- 60 tin /40 lead
- · Supplied in handy dispenser

### **GAS LIGHTER REFILL**

#### **Features**

- Butane Gas
- Multiple filling nozzels in cap
- **Product Code** Volume MTD1 300ml

Core

Multicore

Product Code

SL5200

gas aut universi	
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SL5200



# **ELECTRIC SOLDERING IRONS**

### **SOLDERING STATION**

### Features

- 220V AC Input 48Watt
- Temperature range from 150°C to 450°C
- Switch on/off LCD display of Temperature
- Five pin connection of iron to station
- Soldering iron stand with sponge

Product Code	Watt	Тір
SIS100	48W	6.0mm

SIS100



### **PROFESSIONAL SOLDERING STATION**

#### **Features**

- Quick heat soldering iron. 220V Input 60 Watt
- Temperature range from 200°C to 420°C
- Switch on/off LCD display of Temperature
- Six pin connection of iron to station
- Soldering iron stand with sponge
- Spare tips

Product Code	Watt	Тір
SIS200	60W	6.0mm





### **ELECTRIC SOLDERING IRONS**

#### Features

- Fitted with a fine tip
- Compact design & comfortable to use
- High quality long life
- Ideal for general purpose soldering
- Household electrical appliances and capacitors

Product Code	Watt	Max Temp	Length
SI30	30W	380°C	185mm
SI60	60W	450°C	210mm

### **ELECTRIC SOLDERING GUN**

#### Features

- Pistol grip for easy operation
- Trigger action to increase the power from 30W to 130W
- The dual-power soldering iron is a light duty soldering iron with optional additional power
- Complete with spare tip
- Compact design for easy storage

Product Code	Watt	Max Temp	Grip
SI100	100W	450°C	Pistol

SI100

# **PUNCHDOWN TOOLS & ACCESSORIES**



KDKP01

KDIP01

MAJO

### **PUNCHDOWN TOOL**

#### Features

- Punchdown and insertion tool for Krone style blocks
- Automatically inserts and trims wire in one action
- Datacom tool

#### How it works

 To use the punch down tool, a wire is prepositioned into a slotted post and then the punch down tool is pressed down on top of the wire, over the post. Once the required pressure is reached, the internal spring is triggered, and the blade pushes the wire into the slot, cutting the insulation, securing the wire.

Product Code	Length	Width
KDKP01	180mm	33mm

### PUNCHDOWN TOOL

#### Features

- Universal can be used with either Krone or 110 style blades
- High and low impact adjuster
- Lockable storage in handle for replacement blades
- Blades easily and quickly changed
- Datacom tool

#### **Ideal for**

 Ideal for inserting wire into insulation-displacement connectors on punch down blocks, patch panels, keystone modules, and surface mount boxes

Product Code	Length	Width
KDIP01	190mm	35mm

### **INSPECTION MIRROR**

#### **Features**

- Double joint ball links swivel mirror for 360° viewing
- Brass tube with chrome plating
- 505mm Extention Length
- Non-rotating inner hex rods prevent mirror from swinging out of alignment

Product Code	Length	Swivel	Mirror
PIM1	178mm	360°	32mm



#### **Features**

- Best way to reposition springs
- Soft grip on shaft

Product Code	Length	Hook 1	Hook 2
SH175	205mm	Push	Pull

### SHARP POINT SCISSORS

#### Features

- Crafted from high-quality stainless steel
- Comfortable, break- proof handles

Product Code	Length	Head	Width
SSC1	150mm	50mm	50mm





SH175



# **TWEEZERS & TRIMMING TOOLS**



### **MINI PLIERS**

#### Features

- ETSC0104: Mini Diagonal Cutter for clipping leads and extra solder tails
- ETLP0104: Mini Long Nose Pliers ideal for confined spaces •
- ETBP0104: Mini Combination Pliers ideal for getting a grip on small components • Ideal for cutting wires and will come in handy with most electronic and robotic
- equipment Precision machined jaws
- High grade carbon steel
- Non-slip, soft grip handles
- Spring loaded return

Product Code	Length	Jaw	Handle
ETSC0104	120mm	20mm	65mm
ETLP0104	120mm	35mm	65mm
ETBP0104	120mm	30mm	73mm

### **BENT TWEEZER**

#### Features

Crafted from high-quality stainless steel

Product Code	Length	Tip Angle
BT140	140mm	45°

### STAINLESS STEEL TWEEZER SET

#### **Features**

- Non-corrosive stainless steel
- Anti-Acid
- Anti-Magnetic

### Set includes

- 1 x Reverse action (clamps when released)
  - - 1 x Duck bill flat point

Product Code	Length	Heads
STS0304	±140mm	4 Different

### **4-IN-1 TRIMMING TOOL**

#### **Features**

- Incorporates 19 different profiles to suit all popular TRIM POTS, I.F.T. and H.F. COILS
- Made from tough, insulating, low capacitance POLYACETAL type material
- Includes extension shaft for adjustment of recessed TRIM POTS

Product Code	Length
TT1	±150mm

### **MAGNIFYING GLASS**

### **Features**

- Lightweight frame and handle
- Classically shaped magnifying glass is made from strong and durable materials •
- Easy to grip sturdy handle •
- High quality glass lens
- Magnification strength from X3 to X5

Product Code	Length	Handle	Glass
MG1	150mm	100mm	50mm <sup>2</sup>



### STS0304

BT140





MG1



1 x Needle Point

• 1 x Duck bill needle point

# LED HEADLIGHTS / WORK LIGHTS



### **3W LED HEADLIGHT**

### **Features**

- 90° Tilt Battery pack
- 3 Light modes: 100% light, 30% light
- & flashing light (Strobe function) Adjustable headstrap
- Aluminium & ABS housing
- 3W COB LED •
- Uses 3 x AAA Batteries (Not included)

Product Code	Watt	Weight
MPL0407	3W	85g

Lumen 150lm

MPL0407



### **3W LED HEADLIGHT**

Product

MPL0405

**Product Code** 

Product Code

MPS80

MPL0402

#### Features

### • 90° Tilt

- 3 Light modes: 100% light, 50% light & flashing light (Strobe function)
- Adjustable headstrap
- . Aluminium & ABS rubberized housing
- **3W COB LED**
- Uses 3 x AAA Batteries (Not included)

Code	Watt	Weight	Lumen
	3W	58g	120lm

Weight

40g

Lumen

50lm

**MPL0405** 

### **3W LED HEADLIGHT**

### **Features**

#### • 90° Tilt

- 3 Light modes: 100% light, 60% light
- & flashing light (Strobe function)
- Adjustable headstrap
- Plastic housing •
- 3W COB Max Light
- Uses 3 x AAA Batteries (Not included)



### **3W LED WORK LIGHT**

**3W LED WORK LIGHT** 

#### Features

- ON/OFF Light function
- 3W COB Max Light with additional 3pc
- LED Torch
- 360° Swivel hook • 90° Tilt

**Features** 

• 180° Tilt 3hrs battery life

•

•

• ON/OFF Light function 3W COB Max Light

360° Swivel hook

Magnet button

- TWO magnets •
- 3hrs for 3W COB battery life • 10hrs for 3pc LED battery life
- Uses 3x AAA batteried (Not included)

Product Code	Watt	Lumen
MSL160	3W	210 lm

Watt

3W

Lumen

200 lm

Wat

3W







**MSL160** 



**MPS80** 











### **6W LED FLASHLIGHT**

#### Features

- Zoom @5M x1, x250 x500, x1000, x2000
- Rubberized switch and handy strap • 4 Light modes:
- 100% Light, 50% Light, 20% Light & flashing light
- Aluminium housing
- 8hrs battery life
- Uses 3x AAA batteried (Not included)

Product Code	Watt	Lumen
MFL140	6W	500 lm

### **500 LUMEN LED FLASHLIGHT**

### Features

- 500 Lumens
- T6 Cree LED
- Light Modes: High Middle Low – Strobe – SOS
- 8 hour battery life (alkaline batteries) - not included
- 100 150m beam angle
- IP65

Product Code	IP Grade	Weight	Lumen
MFL240D	IP65	288g	500lm

### **2600 LUMEN LED FLASHLIGHT**

**Broduct** Code

### **Features**

• IP65

- 2600 Lumens
- XHP70 Cree LED
- Light Modes: High Middle – Low – Strobe – SOS • 8 ho

• 400 – 500m beam angle

8 hour battery life (alkaline	
batteries) – not included	

Product Code	IP Grade	Weight	Lumen
MFL225AA	IP65	293g	2600lm

MFL225AA

MFL240D



### **3W COB LED FLASHLIGHTS**

### Features

- 12 Pieces
- Light Weight
- Black Lanyard
- Compact Size
- Battery Life 8-9 Hours
- Colours: Blue; Black; Red & Green

Product Code	Watt	Lumen
MFL-90-DB12	3W	30lm

MFL-90-DB12

142



### **LED FLASHLIGHTS**

- 24 in a box
- 3W COB LED
- Battery Life 8-9 Hours
- Up to 50 Lumens
- Black Lanyard
- Random colours supplied

Product Code	Watt	Lumen
MFL100B24	3W	50lm
MFL100B24	3W	50lm

# TOOL KITS WITH METERS



### TOOL KIT WITH DIGITAL MULTIMETER

#### **Kit includes**

**Product Code** 

TKE1208

- MT870: Digital Multimeter
- LP160: 170mm Long Nose Plier
- AS0308: 200mm Adjustable Spanner
- CTR240: 250mm Crimping Pliers
- UK0306: Retractable Utility Knife
- KTK0306: 6 Pce 1000V Electrician Screwdriver Set

#### VNS1407: 140mm Neon Screwdriver

- HK0308: 8 Pce Metric Hex Key Set
- MPL0402: 3W Cob Headlamp 50 Lumens
- EP200: 200mm Combination Plier • DP200: 210mm Diagonal Cutting Plier

Width

240mm

Length

390mm

Supplied in TH03914 carrying case



### TOOL KIT WITH DIGITAL CLAMP METER

Depth

100mm

#### **Kit includes**

TKE1210

- MT720: 400A AC Clamp Meter
- UKEY01: Universal Key
- EP200: 200mm Combination Pliers
- LP160: 170mm Long Nose Pliers
- VNS1407: Neon Screwdriver Tester •
- KDC22: 50mm Cross Section Cable Shear

•	KTK0707SG:	7	Piece	1000V	Screwdriver	Set

• CTR240: 250 Crimping Pliers

• AS0308: 200mm Adjustable Spanner

• UK0306: Utility Knife

- Product Code Width Length Depth 390mm 240mm 100mm
- Supplied in TH03914 carrying case

### **TOOL KIT WITH DIGITAL MULTIMETER**

- **Kit includes**
- MT876: Digital Multimeter
- HK0308: 8 Piece Metric Hex Key Set
- EP200: 200mm Combination Pliers
- LP160: 170mm Long Nose Pliers
- DP200: 210mm Diagonal Cutting Pliers
- CTR240: 250mm Crimping Plier
- VNS1407: Neon Screwdriver Tester
- UK0306: Utility Knife

Product Code	Length	Width	Depth	
TKE1211	390mm	240mm	100mm	

E1211	390mm

AS0308: 200mm Adjustable Spanner
KTK0707SG: 7 Piece 1000V Screwdriver Set

- MPL0402: 3W COB LED headlamp



Supplied in TH03914 carrying case

Supplied in TH03914 carrying case

**BASIC ELECTRONIC SERVICE KIT** 

#### **Kit includes**

- MT870: Digital Multimeter
- EP0106: 165mm Combination Pliers
- DP0106: 165mm Diagonal Cutting Pliers •
- LP0106: 170mm Long Nose Pliers •
- ETSC0104: 110mm Precision Diagonal Cutter
- ETLP0104: 125mm Precision Long Nose Plier
- ETBP0104: 120mm Precision Combination Plier •
- UK0306: Utility Knife •
- KTPS0208: 8 Piece Precision Screwdriver Set •
- KTE2006: 6mm Tip 200mm Flat Screwdriver •
- . KTK0707SG: 7 Piece 1000V Screwdriver Set

Product Code	Length	Width	Depth
TKE1218N	390mm	240mm	100mm



**TKF1210** 











## **BASIC ELECTRONIC SERVICE KIT**

### **Kit includes**

- EP0106: 160mm Combination Pliers DP0106: 165mm Diagonal Cutting Pliers •
- LP0106: 165mm Long Nose Pliers
- ETSC0104: 100mm Precision Diagonal Cutter
- ETLP0104: 125mm Precision Long Nose Plier
- ETBP0104: 130mm Precision Combination Plier
- UK0306: Utility Knife •
- KTPS0208: 8 Piece Precision Screwdriver Set
- KTE2006: 6mm Tip 200mm Flat Screwdriver
- KTK0707SG: 7 Piece 1000V Screwdriver Set

Product Code	Length	Width	Depth
F1217N	390mm	240mm	100mm

Supplied in TH03914 carrying case

### **MAINTENANCE TOOL KIT WITH SOLDERING IRON**

#### **Kit includes**

- HV0303: 3m Tape Measure
- HK0308: Metric Hex Key Set
- EP0106: 165mm 1000V Combination Pliers
- DP0106: 165mm 1000V Diagonal Cutting Pliers
- LP0106: 170mm 1000V Long Nose Pliers
- KTK0707SG: 1000V Insulated Screwdriver Set

Product Code	Length	Width	Depth
TKE1219	320mm	230mm	110mm

Supplied with TKC2 Carrying Case

### **STARTER ELECTRICIANS KIT**

#### **Kit includes**

- LP0106: 170mm Long Nose Plier
- EP0106: 165mm Electricians Plier
- DP0106: 165mm Diagonal Cutting Plier
- KTK0306: 1000V Insulated Screwdriver Set
- KDC22: 22mm<sup>2</sup> Cross Section Cable Shear
- AS0306: 155mm Adjustable Spanner
- UKEY01: Universal Key
- UK0306: Utility Knife

Product Code	Length	Width	Depth
TKE1214	320mm	230mm	110mm

### **COMPACT ELECTRICIANS TOOL KIT**

#### **Kit includes**

- LP0106: 170mm Long Nose Plier
- EP0106: 165mm Electricians Plier
- KDC22: 22mm<sup>2</sup> Cable Shear
- VNS1407: 140mm Neon Screwdriver
- HV0303: 3m Tape Measure
- SP0712P2: P2 1000V Insulated Screwdriver
- SS071205: 5.5mm Slot Head 1000V Insulated Screwdriver
- UK0306: Utility Knife

Product Code	Length	Width	Depth
TKE1209	300mm	160mm	60mm

Supplied with TKC1 Carrying Case

TOOL KITS

AS0306: 155mm Adjustable Spanner

- MTD46: Gas Soldering Iron
- SL518: Multi Core Solder
- SLM0806: Magnetic Spirit Level • MPL0402: 3W LED Headlamp

**TOOL KITS** 

- MPK0901N: Folding Knife

Supplied with TKC2 Carrying Case

# **TOOL KITS / BACKPACKS**



Supplied in TPB7 Backpack

### **TOOL BACKPACK**

#### **Kit includes**

- EPC0109: 225mm Combination Pliers
- EP0106: 165mm Combination Pliers
- DP0108: 210mm Diagonal Cutting Pliers
- DP0106: 165mm Diagonal Cutting Pliers •
- LP0108: 205mm Long Nose Pliers •
- LP0106: 165mm Long Nose Pliers
- CS0338: 38mm Cable Shear •
- TS0320S: Terminal Driver
- UK0306: Utility Knife •

Product Code

TBP7-9

- SP1006: 160mm Wire Stripper
- HV0305: 5m Tape Measure •
- AS0308: 200mm Adjustable Spanner
- VNS1407: Neon Screwdriver Tester
- HP0335: 100g Ball Pien Hammer •
- HSP0606: 150mm Junior Hacksaw
- KTK0707SG: 7 Piece 1000V Screwdriver Set

Length

450mm

Width

180mm

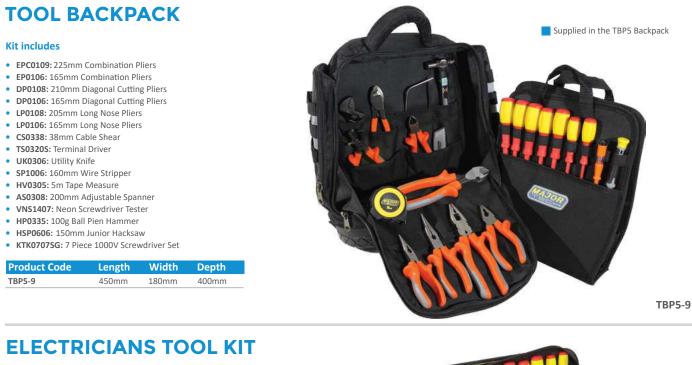
Depth

400mm

N L	
Ma XA	

#### **TPR7-9**

\*Image advertises 2 inserts to show the inside & outside pockets. Only 1 insert is in each tool bag.



#### **Kit includes**

- EPC0109: 225mm Combination Pliers
- EP0106: 165mm Combination Pliers •
- DP0108: 210mm Diagonal Cutting Pliers
- DP0106: 165mm Diagonal Cutting Pliers
- LP0108: 205mm Long Nose Pliers •
- LP0106: 165mm Long Nose Pliers •
- CS0338: 38mm Cable Shear
- TSD0320S: Terminal Driver
- UK0306: Utility Knife
- SP1006: 160mm Wire Stripper •
- HV0305: 5m Tape Measure •
- AS0308: 200mm Adjustable Spanner
- VNS1407: Neon Screwdriver Tester •
- HP0335: 100g Hammer
- HSP0606:150mm Junior Hacksaw •
- KTK0707SG: 7 Piece 1000V Screwdriver Set •

#### **Product Code** Width Depth Length **TKC3-9** 410mm 320mm 100mm

MT1881 Suggested Optional Extra

- Please refer to our Instruments Catalogue for specifications
- Not included in this kit







## **TOOL BAGS**

OPEN DACK	LARGE ZIPPER CASE
TKC3	Preatures         • 600 Nylon Cordura®         • Reinforced Nylon handle         • Heavy duty zip         • Double storage space         • Two velcro closing pockets for extra tools and storage
OPEN	MEDIUM ZIPPER CASE
ткс2	Features       Product Code       Length       Width       Depth         • Heavy Duty Zipper       TKC2       320mm       230mm       110mm         • Multi-loop nylon straps
OPEN	COMPACT ZIPPER CASE Features • Heavy Duty Oxford Cloth • Heavy Duty Zipper • Nylon Wrist Strap
TKC1	<b>TKC1</b> 300mm 160mm 60mm
OPEN OPEN TH03914	Sector       Sector         • Heavy duty vinyl tool case with tough nylon zip         • Supplied complete with an internal elastic divider to give even more storage         • Multi-loop elastic and adjustable looped nylon straps         Product Code       Length       Width       Depth         TH03914       390mm       240mm       100mm
INSERT INSERT	<ul> <li><b>TOOOL BACKPACK</b></li> <li><b>Features</b> <ul> <li>Portable workstation</li> <li>Excellent solution for installers and repair technicians that need to transport tools while still having their hands free whether for climbing ladders or carrying bulky replacement parts</li> <li>Removable sleeve with pockets of various sizes and configurations to hold a multitude of tools and small parts</li> <li>Great for HVAC, satellite/cable television, telecom/networking, stadium lighting, and wind turbine technicians or any trade where convenient hands free tool transport is desired</li> </ul> </li> <li> <ul> <li><u>Product Code Length Width Depth TBP5 450mm 180mm 40mm</u></li> </ul> </li> </ul>
TBPS OPEN	<b>TOOOL BACKPACK Features</b> 9 Strong Bright Yellow Tarpaulin Material         1 Inner tool Board 600D Polyester         9 Portable workstation         1 Stxcellent solution for installers and repair technicians that need to transport tools while still having their hands free whether for climbing ladders or carrying bulky replacement parts         2 Removable sleeve with pockets of various sizes and configurations to hold a multitude of tools and small parts <b>Product Code</b> Length       Width       Depth         TBP7       S50mm       430mm       210mm

TBP7

550mm

430mm

210mm

OPEN



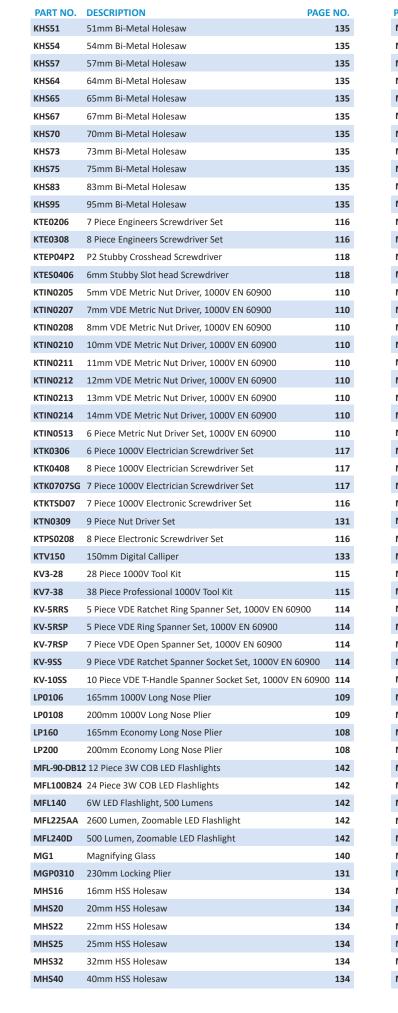
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