

## 1MHZ HANDHELD OSCILLOSCOPE WITH DIGITAL MULTIMETER

There are times when even the most expensive multimeter cannot do the job of an oscilloscope. Engineered in Germany, this excellent product offers the user the best of both worlds in terms of test equipment. It includes both a comprehensive multimeter plus a fully functional 1MHz oscilloscope. When selected in the oscilloscope mode both the waveform and voltage are displayed together. This is a very useful feature. Like more expensive oscilloscopes, the Q 1180 automatically determines the correct horizontal settings to enable optimum waveform viewing. The compact stylish design is ideal for on-site service technicians as it does not have the bulk or weight of a traditional bench oscilloscope. It is housed in a very rugged case with a rubberised protective boot which protects it from day to day knocks and bumps. Ideal for those who work on industrial electronics such as motor controls, UPS, switching power supplies, PLC controls etc.



### Specifications:

Part Number  
**Q1180**

<b>Multimeter</b>	
<b>DC volts:</b>	200mV, 2V, 20V, 200V, 600V
<b>AC volts:</b>	200mV, 2V, 20V, 200V, 600V
<b>DC amps:</b>	200µV, 2mA, 20mA, 200mA
<b>AC amps:</b>	200µV, 2mA, 20mA, 200mA
<b>Resistance:</b>	200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ, 20MΩ

### Specifications:

<b>Oscilloscope</b>	
<b>Max sample rate:</b>	20 Msa/S
<b>DC bandwidth:</b>	1MHz
<b>AC bandwidth:</b>	10Hz~1MHz
<b>A,D resolution:</b>	6bit 6 bit on LCE
<b>Display:</b>	128 x 64 dots
<b>Input coupling:</b>	DC,AC
<b>Timebase:</b>	1S/div, 5uS/div, 10uS/div 50uS/div, 1mS/div, 0.5mS/div, 1mS/div, mS/div 10mS/div, 20mS/div
<b>Trigger:</b>	Auto
<b>Trigger mode:</b>	Free run
<b>Channel:</b>	Signal channel
<b>Max input voltage:</b>	600VDC/600VAC Vp
<b>Sensitivity:</b>	10mV
<b>Input impedance:</b>	1MW
<b>Accuracy:</b>	± 3%
<b>Power supply:</b>	"AA" Size 1.2V NiCd/NiMH(4)rechargeable battery, Battery life: up to 15 hours.

## PROFESSIONAL TEST LEAD KIT

Multimeter test lead set. 2mm pin probes to 4mm banana right angle plugs.  
- Screw on shrouded alligator clips.  
- Colour coded red and black leads.  
- 3.5mm? heavy duty cable.  
- Length 1.1 metres



Part Number  
**MTL2**

## BANANA PLUGS TO ALLIGATOR CLIPS

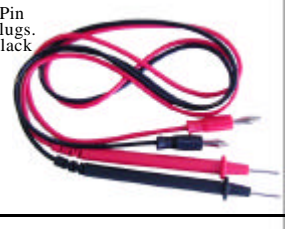
Multimeter test lead set. 4mm banana plugs to alligator clips.  
- Colour coded red and black leads.  
- Length 1.2 metres



Part Number  
**MTL6**

## PIN PROBES TO BANANA PLUGS

Multimeter test lead set. Pin probes to 4mm banana plugs.  
- Colour coded red and black leads.  
- Length 1.2 metres



Part Number  
**P0403**

## UNIVERSAL TEST LEAD SET

Universal test lead set with screw on fittings.  
- 2mm pins, alligator clips and 4mm pins.  
- 1 pair of leads.  
- Colour coded red and black leads.  
- Length 1.2 metres



Part Number  
**MTL4**

## TEST CLIPS

These test-clips with their spring hooks are ideal for testing in tight places. Suitable for hooking onto small parts, IC's, Transistors, PC pins etc.



Part Number	Length	Colour
<b>MJ002.B</b>	40mm Long	Black
<b>MJ002.R</b>	40mm Long	Red
<b>MJ1001.B</b>	57mm Long	Black
<b>MJ1001.R</b>	57mm Long	Red
<b>MJ3044.B</b>	190mm Long	Black
<b>MJ3044.R</b>	190mm Long	Red

## TEST LEAD PROBES

These test lead probes are available on their own. These can be used to make up your own combination test lead set. Solder contacts

Part Number	Colour
<b>P9166</b>	Black
<b>P9165</b>	Red



Part Number	Colour
<b>P0270</b>	Black
<b>P0268</b>	Red

Part Number	Colour
<b>P9168</b>	Black
<b>P9167</b>	Red

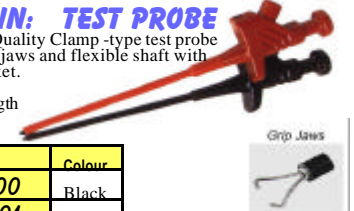


## HIRSHMANN: TEST PROBE

HIRSHMANN: Quality Clamp -type test probe with rotating grip jaws and flexible shaft with 4mm banana socket.

158mm Total length  
16Amps 60VDC

Part Number	Colour
<b>KLEPS30-100</b>	Black
<b>KLEPS30-101</b>	Red



## LOGIC TESTER

Quality logic probe. Will test all logic families (TTL, LS, CMOS, etc). Pulse/normal switch to indicate pulse or continuous signals. Three LEDs provide the logic level indication. Will detect pulse widths as narrow as 25nS and for frequencies to 20MHz.

### Specifications:

<b>Working Voltage:</b>	DC 4 - 16V
<b>Current Consumption:</b>	Max 32mA @ 5V
<b>Frequency Response:</b>	Max 20MHz
<b>Response Pulse Width:</b>	Longer than 25nS
<b>Input Impedance:</b>	Min 1M ohm
<b>Input Overload Protection:</b>	±250V DC/AC
<b>Supply Voltage Protection:</b>	±50V DC/AC
<b>Operating Temperature:</b>	-20 +70°C

Part Number  
**QT2210**



## CRO PROBE - 10:1 / 1:1

This quality probe kit consists of a 1.4m quality cord terminated at one end with a moulded-on stainless steel BNC connector and 1x, 10x attenuator probe at the other end.

An earthing lead 280mm long with alligator clip to connect to the probe at the other end is provided. Also provided is an adaptor that slides on to the probe to change the probe tip to a spring hook.

\*NB: Not to be used for EHT Voltage.  
100x required for this

Part Number  
**Q0174**



### Specifications:

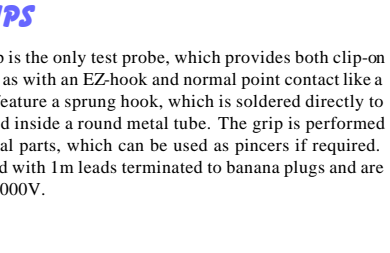
<b>Bandwidth (x1):</b>	DC to 3MHz Max
<b>Bandwidth (x10):</b>	DC to 60MHz
<b>Input Voltage:</b>	Max Input Voltage: 600V DC
<b>Lead Length:</b>	600V DC
	Approximately 1.5 metres



## PARROT CLIPS

The PARROT Clip is the only test probe, which provides both clip-on hands free contact as with an EZ-hook and normal point contact like a test probe. These feature a sprung hook, which is soldered directly to the lead and housed inside a round metal tube. The grip is performed between the 2 metal parts, which can be used as pincers if required. Probes are supplied with 1m leads terminated to banana plugs and are fully insulated to 1000V.

Part Number  
**WT5330**



## 6 TO 400 VOLT AC/DC VOLTAGE TESTER

Quick and easy measurement of voltages from 6 to 400 volts AC & DC. This tester consists of 2 probes connected by a heavy duty cable. Results are shown on a six stage LED display which also indicates whether AC or DC is being measured. The tester looks simple but will measure a range of values including DC voltages & polarity, AC voltages AC or DC indicator. Probes are approximately 215mm long GS & DVE approved

Part Number  
**QT2256**

