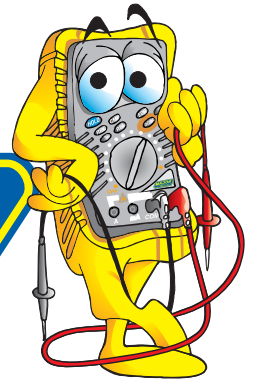


Multifunction Tester



Technical Data

K6016

The K6016 is an advanced multifunction tester that can perform ten separate test functions and provide all the test functions generally required in full compliance of SANS 0142 and IEC 60364-4. Functions include insulation, continuity, earth loop impedance, prospective short circuit, earth resistance, phase rotation and RCD trip testing. It can store a maximum of 1000 measured results in its on-board memory for later downloading to a computer. The data can be downloaded via the K8212-USB adaptor. The K6016 is software driven and guides the user on the graphic LCD through the test functions displayed, making the instrument very easy to use. The K6016 has a slim remote probe with a test button as well as a lockdown option on the instrument for the most convenient hands free testing. The K6016 incorporates Anti Trip Technology (ATT) which electronically bypasses RCD's when performing loop impedance tests.

Features Include:

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

General Specifications

Dimensions	: 235(W) X 136(L) X 114D mm
Weight	: 1350g (including batteries)
Reference Conditions	: Specifications are based on the following conditions except where otherwise stated: <ol style="list-style-type: none"> 1. Ambient temperature: 23 ± 5°C 2. Relative humidity 45% to 75% 3. Position: horizontal 4. AC power source 230V, 50Hz 5. DC power source: 12.0V, ripple content 1% or less 6. Altitude up to 2000m (indoor use)
Battery Type	: Eight LR6 or R6 batteries
Operating Temperature and Humidity	: 0 to +40°C, relative humidity 80% or less, no condensation
Storage Temperature and Humidity	: -20 to +60°C relative humidity 75% or less, no condensation
Display	: Dot Matrix LCD 160(W) X 240 (H) pixels



General Specifications

Overload Protection	:	The continuity test circuit is protected by a 0.5A/600V fast acting (HRC) ceramic fuse mounted in the battery compartment, where a spare fuse is also stored. The insulation resistance test circuit is protected by a resistor against 1000V AC for 10 seconds.
Applicable Standards	:	IEC61010-1:2001, CATIII 300V Pollution degree 2, IEC61557-1,2,3,4,5,6,7:2007, -10:2001 IEC61010-031:2002
Accessories	:	Main test lead, Remote test lead, Distribution board fused test lead, Earth tests lead and auxiliary earth spikes, Test lead carry pouch, Carrying bag, Instruction manual, Battery, USB Adaptor with PC software "KEW Report"
Language	:	Version 1: English is available Version 2: English / French / Spanish / Italian / Russian / Polish / will be available and selectable on the LCD Remark: Upgrading the firmware of version 1 to version 2 is not possible.

Continuity

Open Circuit Voltage (DC)	Short Circuit Current	Range	Accuracy
5V ± 20%	Greater than 200mA	20/200/2000Ω Auto-Ranging	0 ~ 0.19Ω: ± 0.1Ω 0.2 ~ 2000: ± (2%rdg + 8dgts)

Insulation Resistance

Open Circuit Voltage (DC)	Rated Current	Range	Accuracy
250V + 25% - 0%	1mA or greater @ 250kΩ	20/200MΩ Auto-Ranging	0 ~ 19.99MΩ: ± (2%rdg + 6dgts) 20 ~ 200MΩ: ± (5%rdg + 6dgts)
500V + 25% - 0%	1mA or greater @ 500kΩ	20/200/2000MΩ Auto-Ranging	0 ~ 199.9MΩ: ± (2%rdg + 6dgts)
1000V + 20% - 0%	1mA or greater @ 1MΩ		200 ~ 2000MΩ: ± (5%rdg + 6dgts)

Loop Impedance

Function	Rated Voltage	Nominal Test Current at 0Ω External Loop: Magnitude/ Duration (at 230V)	Range	Accuracy
L-PE	100~260V 50/60Hz	20Ω: 6A/20ms 200Ω: 2A/20ms 2000Ω: 15mA/20ms	20/200/2000Ω Auto-Ranging	230V+10% -15%: ± (3%rdg + 4dgts) voltages except for above: ± (3%rdg + 8dgts)
L-PE (ATT)	100~260V 50/60Hz	L-N: 6A/60ms N-PE: 10mA/approx. 5s	20/200/2000Ω Auto-Ranging L-N < 20Ω	230V+10% -15%: ± (3%rdg + 6dgts) voltages except for above: ± (3%rdg + 8dgts)
L-N/L-L	100~500V 50/60Hz L-N: 100~300V L-L: 300~500V	20Ω: 6A/20ms	20Ω	230V+10% -15%: ± (3%rdg + 4dgts) voltages except for above: ± (3%rdg + 8dgts)

PSC (L-N/L-L) / PFC (L-PE)

Function	Rated Voltage	Nominal Test Current at 0Ω External Loop: Magnitude/ Duration (at 230V)	Range	Accuracy
PSC	100 ~ 500V 50/60Hz	6A/20ms	2000A/20kA Auto-Ranging	PSC/PFC accuracy is a derived from measured loop impedance specification and measured voltage specification
PFC	100 ~ 260V 50/60Hz	6A/20ms 2A/20ms 15mA/500ms		
PFC (ATT)		L-N: 6A/60ms N-PE: 10mA/approx. 5s		

RCD

Function	Rated Current	Range	Accuracy		Trip Time
			Trip Current		
			AC Type	A Type	
X 1/2	10/30/100/300/500/1000mA	2000ms	-8% ~ -2%	-10% ~ 0%	±(1%rdg +3dgt)
X 1	10/30/100/300/500/1000mA	G550ms/S:1000ms	+2% ~ +8%	0% ~ +10%	
X 5	10/30/100mA	410ms	+2% ~ +8%	0% ~ +10%	
Auto Ramp	10/30/100/300/500mA	20% ~ 110% (per10%) G:300ms/S:500msX10 times	±4%	±10%	
Auto Test	Depending on the accuracy at each function. Measurement sequence: X1/2 (0°) → X1/2(180°) → X1 (0°) → X1 (180°) → X5 (0°) → X5 (180°) Measurements with X5 are not carried out for RCD's with nominal current of 100mA or more.				
Uc	10/30/100/300/500/1000mA	0.0 ~ 100.0V	+5%~+15%rdg±8dgt		

Volts

Function	Rated Voltage	Measuring Range	Accuracy
Volts	25 ~ 500V	25 ~ 500V	± (2%rdg + 4dgts)
Frequency	45 ~ 65Hz	45.0 ~ 65.0Hz	± (0.5%rdg + 2dgts)

Earth

3 wire earth test resistance
100Ω Axiliary Earth resistance

Measuring Range	Accuracy
20/200/2000Ω	20Ω: ± (3%rdg + 0.1Ω)
Auto-ranging	200/2000Ω: ± (3%rdg + 3dgts)

Phase Rotation

Rated Voltage	Remarks
50 ~ 500V, 50/60Hz	Correct Phase: "1-2-3" & CW mark, Reverse Phase: "3-2-1" & CCW mark

Ordering Information

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