

KYORITSU

Test and Measuring Instruments

SHORTFORM CATALOGUE 2009-10



Quality and reliability is our tradition

KYORITSU

MULTI METERS

Analogue Multimeters

1106



°C

1109



1110



°C

Digital Multimeters

1018/1018H



1018H Hard case type

1030



1009



1011/1012



RMS 1012

DMM with AC/DC Clamp

2000/2001



φ6

φ10

	1106	1109	1110	1018/1018H	1030	1009	1011/1012	2000/2001
DC V	0.5/5/25/100/250/500V (5kΩ/V)	0.1/0.5/2.5/10/50/250/1000V (20kΩ/V)	0.3V (16.7kΩ/V) 3/12/30/120/300/600V (20kΩ/V)	400mV/4/40/400/600V	400mV/4/40/400/600V	400mV/4/40/400/600V	600mV/6/60/600V	340mV/3.4/34/340/600V
AC V	10/50/250/500V (2.5kΩ/V)	10/50/250/1000V (9kΩ/V)	12/30/120/300/600V (9kΩ/V)	4/40/400/600V	4/40/400/600V	400mV/4/40/400/600V	6/60/600V	3.4/34/340/600V
DC A	200μA/2.5/25/250mA	50μA/2.5/25/250mA	60μA/30/300mA			400/4000μA/40/400mA/4/10A	600/6000μA/60/600mA/6/10A	60A (2000) 100A (2001)
AC A		15A				400/4000μA/40/400mA/4/10A	600/6000μA/60/600mA/6/10A	60A (2000) 100A (2001)
Ω	3/30/300kΩ	2/20kΩ/2/20MΩ	3/30/300kΩ	400Ω/4/40/400kΩ/4/40MΩ	400Ω/4/40/400kΩ/4/40MΩ	400Ω/4/40/400kΩ/4/40MΩ	600Ω/6/60/600kΩ/6/60MΩ	340Ω/3.4/34/340kΩ/3.4/34MΩ
Continuity buzzer			●	●	●	●	●	●
Battery test	●		●	●	●	●	●	
Diode test				●	●	●	●	
Capacitance test				4/40/400nF/4/40/200μF	50/500nF/5/50/100μF	40/400nF/4/40/100μF	40/400nF/4/40/400/4000μF	
Frequency				10/100Hz/1/10kHz	5/50/500Hz/5/50/200kHz	5.12/51.2/512Hz/5.12/51.2/512kHz/5.12/10MHz	10/100/1000Hz/10/100/1000kHz/10MHz	3.4/10kHz (AC A) 3.4/34/300kHz (AC V)
Decibel		●						
hFE		●						
Auto power off				●	●	●	●	●
Applicable standards			IEC 61010-1 CAT. III 300V CAT. II 600V IEC 61010-031	IEC 61010-1 CAT. III 300V IEC 61010-031	IEC 61010-1 CAT. III 600V IEC 61010-031	IEC 61010-1 CAT. III 300V IEC 61010-031	IEC 61010-1 CAT. III 300V CAT. II 600V IEC 61010-031	IEC 61010-1 CAT. III 300V IEC 61010-031 IEC 61010-2-032
Power source	R6P×1	R6P×2 6F22×1	R6P×2	LR-44×2	LR-44×2	R6P×2	R6P×2	R03×2
Dimensions (L)×(W)×(D)mm	130×85×38	150×100×47	140×94×39	107×54×10	190×39×31	155×75×33	161×82×50	128×87×21 (2000) 128×91×27 (2001)
Weight (Approx.)	175g	330g	280g	70g (1018) 80g (1018H)	100g	260g	280g	210g (2000) 220g (2001)

Digital Multimeters

KEW 1051/1052/1061/1062

NEW



Photo: 1052

Photo: 1062



AC/DC Clamp Sensor

KEW8115

NEW



- Permits extension of the AC and DC current ranges of almost any digital multimeters (DMMs) without breaking the circuit under test.
- Using KEW 8115 with KEW 1051/1052 (DMM) the display can be set for direct reading in A.

High Accuracy, High Performance and Reliable Measurements

- Basic DC accuracy for 0.02% (1061/1062) and 0.09% (1051/1052)
- Large display for 50,000 counts (1061/1062) and 6,000 counts (1051/1052)
- Dual display for double indication for AC and DC, V and Hz, etc.
- True-RMS measurements
- DC+AC TRMS measurement (1061/1062)
- Wide AC frequency bandwidth from 10Hz to 100kHz (1062)
- True-RMS or MEAN value detection mode can be selected (1052/1062)
- Peak hold response time of 250μs (1062)
- Low-pass filter for motor drive measurements (except for 1061)
- Low power Ω for resistance measurements on sensible electronic circuits by a low and safe test current (1062)
- User calibration function
- Sensor mode (1051, 1052)

Safe and Durable Design. Wide Operating Temperature. Safety design for industrial use

- Complies with IEC 61010-1 CAT. IV 600V, CAT. III 1000V
- Safety shutters to prevent incorrect test leads' insertion in current terminals
- Very wide operating temperature range: -20°C to 55°C (1061/1062), -10°C to 55°C (1051/1052)
- High specs UL standard fuses for extra safety

Reliable support for data management * except for 1051

- Large internal memory can store up to 10,000 data in Logging mode, 100 data manually saved (max.)
- Test data can be transferred to a PC or directly to a printer (Optional accessories are required)
- Data management with the software DMM application
- Power source: R6 (1.5V) × 4 (Auto power off: approx. 20 minutes)
- Dimensions: Approx. 192 (L) × 90 (W) × 49 (D) mm (1051/1052) / Approx. 192 (L) × 90 (W) × 49 (D) mm (1061/1062)
- Weight: Approx. 560g

CLAMP METERS

AC Analogue Clamp Meters

2608A

2805

AC Digital Clamp Meters

2031

2007A

2017/2027

2040

2002PA/2002R

							
	φ33 ℃ Resolution 0.2A	φ35 Resolution 0.2A	φ24 Resolution 0.01A	φ33 Resolution 0.1A	φ33 Resolution 0.1A	φ33 Resolution 0.1A	φ55 Resolution 0.1A
AC A	6/15/60/150/300A	6/20/60/200/600A	20/200A	400/600A	200/600A	600A	400/2000A
AC V	150/300/600V	150/300/600V		400/750V	200/600V	6/60/600V	40/400/750V
DC V	60V					600mV/6/60/600V	40/400/1000V
Ω	1/10kΩ	2kΩ		400/4000Ω	200Ω	600Ω/6/60/600kΩ/6/60MΩ	400Ω/4/40/400kΩ
Continuity buzzer				●	●	●	●
Frequency						10/100Hz/1/10kHz	
DUTY						●	
Diode test						●	
NCV						●	
Frequency response	50/60Hz	50/60Hz	40Hz~1kHz	40~400Hz	45Hz~1kHz (2017) 40Hz~1kHz (2027)	40~400Hz	40Hz~1kHz
Data hold	●	●	●	●	●	●	●
Peak hold							●
Auto zero						●	
Auto power off			●	● (Auto sleep)		● (Auto sleep)	
Analogue output							●
Applicable standards	IEC 61010-1 CAT. III 300V CAT. II 600V IEC 61010-031 IEC 61010-2-032		IEC 61010-1 CAT. III 300V	IEC 61010-1 CAT. III 300V CAT. II 600V IEC 61010-031 IEC 61010-2-032	IEC 61010-1 CAT. III 600V IEC 61010-031	IEC 61010-1 CAT. IV 600V IEC 61010-031 IEC 61010-2-032	IEC 61010-1 CAT. III 600V CAT. II 1000V IEC 61010-031 IEC 61010-2-032
Power source	R6P×1	R6P×1	LR-44×2	R03×2	6F22×1	R03×2	R6P×2
Battery life			100h	200h	200h	30h	150h (2002PA) 80h (2002R)
Dimensions (L) × (W) × (D) mm	193×78×39	220×83×40	147×58.5×26	195×78×36	208×91×40	243×77×36	247×105×49
Weight (Approx.)	275g	390g	100g	260g	400g	300g	470g

AC/DC Digital Clamp Meters

2010

2033

2037

2046R

2055/2056R

2003A

2009A

Fork Current Tester

2300R

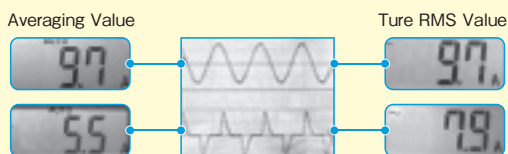
								
	φ7.5 Resolution AC 0.1mA Resolution DC 0.001A	φ24 Resolution AC/DC 0.01A	φ33 Resolution AC/DC 0.1A	φ33 ℃ Resolution AC/DC 0.1A	φ40 ℃ Resolution AC/DC 0.1A	φ55 Resolution AC/DC 0.1A	φ55 Resolution AC/DC 0.1A	φ10 Resolution AC/DC 0.1A
AC A	200mA/2/20A	40/300A	400/600A	600A	600/1000A	400/2000A	400/2000A	100A
DC A	2/20A	40/300A	400/1000A	600A	600/1000A	400/2000A	400/2000A	100A
AC V			40/400/600V	6/60/600V	6/60/600V	400/750V	40/400/750V	
DC V			40/400/600V	600mV/6/60/600V	600mV/6/60/600V	400/1000V	40/400/1000V	
Ω			400/4000Ω	600Ω/6/60/600kΩ/6/60MΩ	600Ω/6/60/600kΩ/6/60MΩ	400/4000Ω	400/4000Ω	
Continuity buzzer			●	●	●	●	●	
Frequency			3000Hz	10/100Hz/1/10kHz	10/100Hz/1/10kHz		10~4000Hz	
DUTY				●	●		●	
Diode test				●	●			
Capacitance test				●	● (2056R)			
NCV				●	●			
Frequency response	DC, 40Hz~2kHz	DC, 20Hz~1kHz	DC, 10Hz~1kHz	DC, 40~400Hz	DC, 40~400Hz	DC, 40Hz~1kHz	DC, 30Hz~1kHz	50/60Hz
Data hold		●	●	●	●	●	●	●
Peak hold			●	●	● (2056R)	●	●	
MAX/MIN				●	●			
Auto zero		●	●	●	●	●	●	●
Auto power off		● (Auto sleep)	● (Auto sleep)	●	● (2056R:Auto sleep)	● (Auto sleep)	● (Auto sleep)	●
Analogue output	●					●	●	
Applicable standards		IEC 61010-1 CAT. III 300V IEC 61010-2-032	IEC 61010-1 CAT. III 600V IEC 61010-031	IEC 61010-1 CAT. IV 600V IEC 61010-031 IEC 61010-2-032	IEC 61010-1 CAT. IV 600V IEC 61010-031 IEC 61010-2-032	IEC 61010-1 CAT. IV 600V CAT. III 1000V IEC 61010-031 IEC 61010-2-032	IEC 61010-1 CAT. III 600V CAT. II 1000V IEC 61010-031 IEC 61010-2-032	IEC 61010-1 CAT. III 300V
Power source	6LR61×1	LR-44×2	6LR61×1	R03×2	R03×2	R6P×2	6F22×1	R03×2
Battery life	20h (DC) 40h (AC)	10h	15h	10h	35h (2055) 10h (2056R)	100h	15h	46h (ACA) 52h (DCA)
Dimensions (L) × (W) × (D) mm	142×64×26 153×23×18 (Sensor)	147×59×25	208×91×40	243×77×36	254×82×36	250×105×49	250×105×49	161.3×40.2×30.3
Weight (Approx.)	220g	100g	450g	300g	310g	530g	540g	110g

CLAMP METERS

Leakage Clamp Meters

	2412	2413F/2413R	2417	2431	2432	2433/2433R	2434
							
AC A	20/200mA/ 2/20/200/500A	200mA/ 2/20/200/1000A	200/2000mA/ 20/200/500A	20/200mA/200A	4/40mA/100A	40/400mA/400A	400mA/4/100A
AC V	600V						
Ω	200 Ω						
Effect of external stray magnetic field ϕ 15mm 100A	10mA AC max.	10mA AC max.	10mA AC max.	10mA AC max.	2mA AC max.	10mA AC max.	20mA AC max.
Frequency	●	●	●	●	●	●	●
Frequency response	40~400Hz	40Hz~1kHz	40Hz~1kHz	40~400Hz	40Hz~1kHz	40Hz~1kHz	40~400Hz
Data hold	●	●	●	●	●	●	●
Peak hold		●			●	●	
Auto power off	●		●	●	●	●	● (Auto sleep)
Analogue output	●	●					
Water proof			●				
Applicable standards		IEC 61010-1 CAT. III 300V IEC 61010-2-032	IEC 61010-1 CAT. III 300V IEC 61010-2-032	IEC 61010-1 CAT. III 300V IEC 61010-2-032	IEC 61010-1 CAT. III 300V IEC 61010-2-032	IEC 61010-1 CAT. III 300V IEC 61010-2-032	IEC 61010-1 CAT. III 300V IEC 61010-2-032
Power source	6F22 \times 1 or AC adaptor	6F22 \times 1	6F22 \times 1	LR-44 \times 2	R03 \times 2	R03 \times 2	R03 \times 2
Battery life	100h	35h (2413F) 60h (2413R)	50h	15h	40h	40h (2433) 24h (2433R)	150h
Dimensions (L) \times (W) \times (D) mm	209 \times 96 \times 45	250 \times 130 \times 50	209 \times 96 \times 45	149 \times 60 \times 26	185 \times 81 \times 32	185 \times 81 \times 32	169 \times 75 \times 40
Weight (Approx.)	450g	570g (2413F) 600g (2413R)	450g	120g	290g	270g	220g

True RMS (Root Mean Square value) measurement



When load current is not affected by the distortion, both averaging value type and true RMS (root mean square) type clamp meters show the almost same value of about 10A with constant waveform as the above displaysamples. However, when load current is affected by some distortions such as inverter, etc..., averaging value type clamp meter indicates 5.5A instead of 9.7A and true RMS type clamp meter indicates 7.9A instead of 9.7A with irregular waveform. Accordingly, true RMS type clamp meter is recommendable for the measurement of the equipment with inverter control devices. Due to the use of thyristors, invert-

ers and other energy-saving controllers in recent electric wiring, current waveforms often include harmonic components and are distorted compared to sinusoidal waves (50/60Hz). The kyoritsu true RMS value tester is able to measure distorted waveforms using true RMS since waveforms are being internally calculated continuously. In contrast, when measurements are made with an averaging value tester, errors are generated in the measurement value because the tester cannot continuously track distorted waveforms.

(Compared to the true RMS value tester, measurement values for the averaging value generate more than 30% errors in some cases.)

Crest Factor

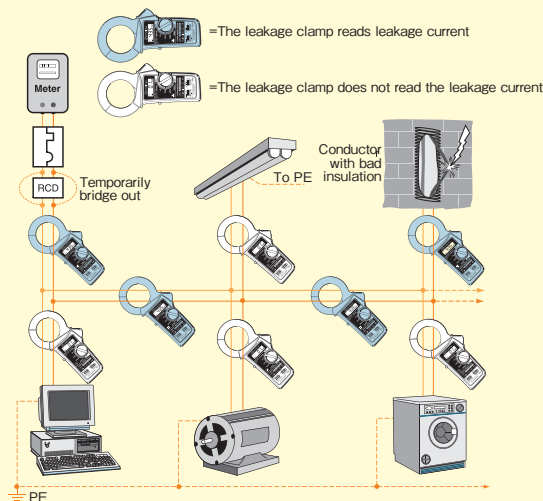
The ratio of peak value to root mean square value, expressing the dynamic range. The crest factor on an undistorted sinusoidal wave is 1.41. Any value outside of this means that the waveform is considered to be distorted.

The KEW leakage clamp meters way to use

If the RCD trips, it should be temporarily "bridged out". Simply clamp the leakage clamp meter around both phase and neutral conductors on the supply side of the RCD (for 3-phase systems, all three live conductors and the neutral conductor should be enclosed). The instrument display will then directly read the leakage current to earth in the installation with a high resolution. Suppose the display reads 43.5 mA, simply tracing the leakage current the fault will be found. In the fig there is a practical example how to trace the fault measuring the leakage current.

Normally, using this tracing system the fault will be found but sometimes the earth leakage current will not be caused exclusively by low insulation resistance.

In fact could happen that performing an insulation test there is not a low value of insulation resistance even if the RCD still trips!



EARTH TESTERS

MODEL 4102A



CE

MODEL 4105A



CE

MODEL 4200



TRUE RMS CE

4102A

4105A

4200

Conductor size			φ 32mm
True RMS			●
Earth resistance	12/120/1200Ω	20/200/2000Ω	20/200/1200Ω
Earth voltage	30V AC	200V AC	
AC A			100/1000mA/10/30A
Noise check			●
Memory function			●100 data
Applicable standards	IEC 61010-1 CAT.Ⅲ 300V Pollution degree 2 IEC 61010-031 IEC 61557-1, 5 IEC 61326-1 IEC 60529(IP54)	IEC 61010-1 CAT.Ⅲ 300V Pollution degree 2 IEC 61010-031 IEC 61557-1, 5 IEC 61326-1 IEC 60529(IP54)	IEC 61010-1 CAT.Ⅳ 300V Pollution degree 2 IEC 61010-031 IEC 61326 IEC 60529(IP40)
Power source	R6P (AA) (1.5V) × 6	R6P (AA) (1.5V) × 6	R6P (AA) × 4 or LR6 (AA) × 4
Dimensions (L) × (W) × (D)mm	105×158×70	105×158×70	246×120×54
Weight(Approx.)	600g	550g	780g

Earth Resistance & Resistivity Tester

KEW 4106

NEW



CE

Earth Resistance Measurements with 4, 3 and 2 Wires Earth Resistivity (ρ) Measurement using WENNER method

- High test current up to 80mA yielding resolution of 0.001Ω on 2Ω range
- Advanced filtering method (based on FFT Fast Fourier Transform) reduces noise interference for obtaining stable measurements.
- Automatic and Manual selection of the test current frequency in four bands (94/105/111/128Hz). In Automatic mode, KEW4106 will select the most suitable frequency.
- Several sub-results can be shown on the display: Resistance of the auxiliary earth spikes, Frequency of test current, Voltage and frequency of interference (noise), Residual resistance R_k , etc.
- Warning for excessive noise and high auxiliary earth spikes resistance.
- Large graphic display with backlight for readings in poorly illuminated areas.
- Up to 800 measurement results can be saved in the memory and recalled on the display.
- The stored results can be transferred to a PC using the "KEW Report" software and a USB adaptor (8212-USB) which are included.
- Applicable standards: IEC 61010-1 CAT.Ⅲ 300V, CAT.Ⅳ 150V Pollution degree 2, IEC 61010-031, IEC 61557-1,5, IEC 61326-1 (EMC), IEC 60529(IP54)
- Power source:DC12V: sizeAA manganese dry battery (R6P) × 8
(Auto power off: approx. 5 minutes)
- Dimensions:167(L) × 185(W) × 89(D)mm
- Weight:Approx. 900g

INSULATION/CONTINUITY TESTERS

3005A



CE

3007A



CE

3021/3022/3023



CE

3131A



CE

3132A



CE

Test voltage	250/500/1000V	250/500/1000V	125/250/500/1000V (3021) 50/100/250/500V (3022) 100/250/500/1000V (3023)	250/500/1000V	250/500/1000V
Measuring ranges	20M/200M/2000MΩ	20M/200M/2000MΩ	4.000~2000MΩ	100M/200M/400MΩ	100M/200M/400MΩ
200mA continuity ranges	20/200/2000Ω	20/200/2000Ω	40.00/400.0Ω	2/20Ω	3/500Ω
AC voltage ranges	600V AC	600V AC	20-600V AC/DC		600V AC
Continuity test current	● (200mA)	● (200mA)	● (200mA)	● (200mA)	● (210mA)
1mA rated insulation test current	●	●	●	●	●
LIVE circuit warning	●	●	●	●	●
Illuminated scale		●	●	●	
Lock-down test button for continuous operation	●	●	●	●	●
Test lead resistance zero adjustment	●	●	●	●	●
Applicable standards	IEC 61010-1 CAT. III 300V IEC 61557 IEC 60529 (IP54)	IEC 61010-1 CAT. III 300V IEC 61557 IEC 60529 (IP54)	IEC 61010-1 CAT. III 600V IEC 61557 IEC 60529 (IP40)	IEC 61010-1 CAT. III 300V IEC 61557 IEC 60529 (IP54)	IEC 61010-1 CAT. III 600V IEC 61557 IEC 60529 (IP54)
Power source	R6P (AA) (1.5V) × 8	R6P (AA) (1.5V) × 8	R6P (AA) (1.5V) × 6 or LR6 × 6	R6P (AA) (1.5V) × 6	R6P (AA) (1.5V) × 6
Dimensions (L) × (W) × (D) mm	185 × 167 × 89	185 × 167 × 89	105 × 158 × 70	185 × 167 × 89	106 × 160 × 72
Weight (Approx.)	970g	990g	600g	860g	560g

INSULATION TESTERS

3165/3166



3144A/3145A/3146A/3161A



CE

3315/3316



CE

3321A/3322A/3323A



CE

Test voltage	500V (3165) 1000V (3166)	250/500V (3144A) 125/250V (3145A) 50/125V (3146A) 15/500V (3161A)	125/250/500/1000V (3315) 50/125/250/500V (3316)	250/500/1000V (3321A) 125/250/500V (3322A) 25/50/100V (3323A)
Measuring ranges	1000MΩ (3165) 2000MΩ (3166)	50/100MΩ (3144A) 20/50MΩ (3145A) 10/20MΩ (3146A) 20/100MΩ (3161A)	20/50/100/2000MΩ (3315) 10/20/50/100MΩ (3316)	50/100/2000MΩ (3321A) 20/50/100MΩ (3322A) 10/10/20MΩ (3323A)
AC voltage ranges	600V	600V (3144A, 3161A) 300V (3145A, 3146A)	600V	600V
1mA rated insulation test current		●	●	●
Illuminated scale		●	●	●
Test leads with remote control switch		●	●	●
Applicable standards		IEC 61010-1 CAT. III 300V	IEC 61010-1 CAT. III 600V	IEC 61010-1 CAT. III 600V
Power source	R6P (AA) (1.5V) × 4	R6P (AA) (1.5V) × 4	R6P (AA) (1.5V) × 6	R6P (AA) (1.5V) × 6
Dimensions (L) × (W) × (D) mm	90 × 137 × 40	90 × 137 × 40	105 × 158 × 70	105 × 158 × 70
Weight (Approx.)	330g	340g	520g	520g

HIGH VOLTAGE INSULATION TESTERS

MODEL 3121/3122/3123



MODEL 3124



MODEL 3125



CE

	3121	3122	3123	3124	3125
Test voltage	2500V	5000V	5000/10000V	1k~10kV/1000V	500/1000/2500/5000V
Measuring ranges (Automatic change)	2GΩ/100GΩ (autoranging)	5GΩ/200GΩ (autoranging)	5GΩ/200GΩ 10GΩ/400GΩ (autoranging)	1.6GΩ/100GΩ (autoranging) 100MΩ	0.0~999MΩ/0.0~1.99MΩ/ 0.0~99.9MΩ/0.0~1000GΩ
Voltage measurement					30~600V AC/DC
Polarization index measurement					●
Lock-down test button for continuous operation	●	●	●	●	●
Auto-discharge function				●	●
Dual resistance scales	●	●	●	●	
Applicable standards					IEC61010-1 CAT.Ⅲ 600V
Power source	R6P (AA) (1.5V) × 8	R6P (AA) (1.5V) × 8	R6P (AA) (1.5V) × 8	Ni-Cd rechargeable battery (1.2V) × 8	DC12V:LR14×8
Dimensions (L) × (W) × (D)mm	200×140×80	200×140×80	200×140×80	200×140×80	205×152×94
Weight (Approx.)	1kg	1kg	1kg	1.5kg	1.8kg

KEW 3128

NEW



CE

Test voltage up to 12kV, Resistance up to 35TΩ,
Short-Circuit current up to 5mA.

Graphic representation on large backlight display.

- Microprocessor controlled high voltage insulation resistance tester with diagnostic functions.
- Suitable for analyzing the insulation characteristics of cables, transformers, motors, generators, high-pressure switches, insulators, wiring installations, etc.
- Graphic representation of the insulation resistance and leakage current versus time on large display with bar graph and backlight.
- Internal memory can store about 43,000 data (max).
- Data communication function:
Dedicated application software KEW Windows and special USB adaptor KEW 8212-USB are included as standard accessories.

Test voltage	500/1000/2500/5000/10000/12000V
Measuring ranges	500G/1/2.5/5/35TΩ
Voltage measurement	30~600V AC/DC
Current measurement	5.0nA~2.40mA
Capacitance measurement	5.0nF~50.0μF
Polarization index measurement	●
Lock-down test button for continuous operation	●
Auto-discharge function	●
Applicable standards	IEC 61010-1 CAT.Ⅳ 600V IEC 61010-031, IEC61326 IEC 60529(IP64): with the lid closed
Power source	Rechargeable lead storage battery (12V) *Charging time: approx. 8 hours / AC power supply (100V~240V, 50/60Hz)
Dimensions (L)x(W)x(D)mm	330× 410× 18 *Instrument and hard case
Weight(Approx.)	9kg

VOLTAGE TESTERS

KEW 1700

KEW 1710



CE

1700



CE

1710

Voltage test	LED	12/24/50/120/230/400/690V
	LCD	— 300V (7.0...299.9) / 0.1V 690V (270...759) / 1V
Single-pole phase test	100~690V AC (45~100Hz) 180~690V AC (100~400Hz)	
Phase rotation test	Three-phase 4-wire system 200~690V phase-to-phase (100~400V earth-to-phase) AC 50/60Hz	
Continuity test	0~400kΩ+50%	
Applicable standards	IEC 61010-1 CAT. III / IV 600V IEC 61243-3 CAT. II 690V Pollution degree 2 IEC 60529 (IP65)	
Power source	LR03×2	
Dimensions (L) × (W) × (D) mm	241.5 × 68.5 × 28.5	
Weight (Approx.)	230g	

LOOP/PSC TESTERS

MODEL 4116A

MODEL 4118A/4120A



CE

4116A



CE

4118A/4120A

Loop impedance ranges	20/200/2000Ω	
AC test current	25A/2.3A/15mA	
AC test period	20/40/280ms	
PSC ranges		200/2000A/20kA
Automatic RCD lock circuit		● (4120A)
Display mains voltage before test	●	
Visual indication of correct wiring status	●	
Lock-down test button for continuous operation	●	
Voltage	110~260V ±2%rdg±4dgt	
Operation voltage	230V +10%, -15%	
Applicable standards	IEC 61010-1 CAT. III 300V IEC 61010-031 IEC 61557-1, 3 IEC 60529 (IP54)	
Dimensions (L) × (W) × (D) mm	185 × 167 × 89	
Weight (Approx.)	750g	750g (4118A) 960g (4120A)

RCD TESTERS

MODEL 5406A

KEW 5410



CE

5406A



CE

5410

Rated tripping current	10/20/30/200/300/500mA	15/30/50/100mA (×5) 15/30/50/100/200/500mA (×1, ×1/2, AUTO)
Fault condition settings	×1/2, ×1, ×5, ×DC, AUTO	×5, ×1, ×1/2, AUTO
Trip current duration	1000ms, 200ms (×5)	200ms (×5), 2000ms (×1, ×1/2) 300ms × 15 steps (AUTO)
Voltage measurement		80 ~ 450V
Lowest resolution	1ms	1ms
0 and 180 degree phase angle switch	●	●
Constant current testing	●	●
Check operation of DC sensitive breakers	●	
Lock-down test button for continuous operation	●	●
Contact voltage measurement		●
Test with two wires only	230V +10%/-15% 50Hz	100V±10% 200V+32%/-10%, 400V±10% (50/60Hz)
Applicable standards	IEC 61010-1 CAT. III 300V IEC 61010-031 IEC 61557-1, 6 IEC 60529 (IP54)	IEC 61010-1 CAT. III 300V / CAT. II 400V IEC 61010-031 IEC 61557-1, 6 IEC 60529 (IP54)
Dimensions (L) × (W) × (D) mm	186 × 167 × 89	186 × 167 × 89
Weight (Approx.)	800g	965g

PORTABLE APPLIANCE TESTERS

MODEL 6200/6202

KEW 6201A



CE

6200/6202



CE

6201A

Protective conductor	+20Ω/-20Ω	15Ω
Insulation resistance	20/200MΩ (500V)	20MΩ (250/500V)
Leakage current	20mA	20mA
Contact current	2mA	
AC voltage	180~260V	207~264V
Current consumption	16A AC (6202 only)	
Applicable standards	DIN VDE 0701-1 (240):2000 DIN VDE 0702:2004 IEC61010-1 CAT. III 300V Pollution degree 2 IEC60950 IEC61326-1	AS/NZS 3760:2003 IEC61010-1 CAT. III 300V Pollution degree 2 IEC61326-1
Source voltage	230V±10%	240V±10%
Dimensions (L) × (W) × (D) mm	185 × 167 × 89	185 × 167 × 89
Weight (Approx.)	1000g	1200g

PHASE INDICATORS

With open phase checker

MODEL 8030

MODEL 8031

With fused test leads

KEW 8031F

Standard type



CE

CE type

Standard type



CE

CE type



CE

8030

8031

8031F

Operational voltage	200~480V AC	110~600 V AC	
Fuse			● (0.5A/600V)
Time limit for continuous	200V : within 60 minutes 480V : within 4 minutes	>500V : within 5 minutes	
Frequency response	20~400Hz	50/60Hz	
Applicable standards	IEC 61010-1 CAT.Ⅲ 300V Pollution degree 2 (CE Type)	IEC 61010-1 CAT.Ⅲ 600V Pollution degree 2 (CE Type)	IEC 61010-1 CAT.Ⅲ 600V Pollution degree 2
Withstand voltage	2200V AC for 1 minute	5550V AC for 1 minute	
Cord	1m (R: red S: white T: blue)	1.5m (R: red S: white T: blue)	
Dimensions	82 (L) × 59 (W) × 23 (D) mm	106 (L) × 75 (W) × 40 (D) mm	
Weight (Approx.)	200g	350g	

Non-Contact Safety Phase Indicator

KEW 8035

NEW



CE

Safe testing without direct contact with live wires!!!

- New technology permits safe testing, without the need of direct contact between probes and live wires.
- The insulated crocodile clips can clip insulated cables from $\phi 2.4$ to 30mm.
- Phase rotation is indicated by the rotary illumination of LEDs and logical audible tones.
- The instrument can be fixed to a metal panel via the magnet on the back side.
- Super brightness function permits clear LED's indication even in sunshine.

Operational voltage	70~1000V AC
Fuse	—
Time limit for continuous	Approx. 100 hours (Auto power off in about 10 min.)
Frequency response	45~66Hz
Applicable standards	IEC 61010-1 CAT.Ⅳ 600V, CAT.Ⅲ 1000V Pollution degrees. 2, IEC 61326, IEC 61557-1,-7
Withstand voltage	6880V AC for 5 seconds
Cord	70cm (R(U) : red S(V) : white T(W) : blue)
Dimensions	112(L) × 61(W) × 36(D)mm
Weight (Approx.)	380g (batteries included)

LOGGERS

Leak Logger

MODEL 5000/5001



- The leakage current value of 1 to 3 channels can be measured with the leakage clamp sensors, and 60,000 data can be stored
- Continuous measurement time
 - ◆ Standard type: About 25 days (5000) ◆ Long life type: About 40 days (5001)
- Direct data transmission to PC by USB connection
- The present time, recording intervals, the start of recording, the recording method, the name of monitoring site and the comment can be set by using supplied software
- The leakage clamp sensor can be connected up to three channels
- 4 recording modes are available for insulation monitoring
 - ◆ Continuous recording mode: 15 kinds of setting at recording interval from 1 second to 60 minutes
 - ◆ Event recording mode: Frequency is confirmed at a momentary current value of the leak occurrence and time
 - ◆ The maximum value recording mode: Easy finding of intermittent leak
 - ◆ Capture recording mode: The observation of the shape of waves is simply possible by sampling one millisecond
- Applicable standards: IEC 61010 CAT. III 300V Pollution degree 2, IEC 61326 (EMC Standard)
- Power source: Alkaline battery LR6 × 4 (5000) / Alkaline battery LR6 × 6 (5001)
- Dimensions: 111 (L) × 60 (W) × 36 (D) mm (5000) / 111 (L) × 60 (W) × 42 (D) mm (5001)
- Weight: Approx. 255g (5000) / Approx. 315g (5001)

Current & Voltage Logger

KEW 5010/5020



- 3 channel inputs for the simultaneous recording of leakage current, load current and voltage
- Large capacity for storing 60,000 data points
- Power quality analysis. (only on KEW 5020)
- Lowpass filter will filter out the harmonics.
- Recorded data will be retained even if the batteries are exhausted or replaced due to the presence of a nonvolatile memory (guaranteed for 10 years)
- Supplied with the user friendly software "KEW LOG Soft 2". This permits editing, analysis and graphical display of data.
- The recorded data is downloadable onto a PC via USB cable.
- Variation of the measured voltage and current data can be confirmed simultaneously on the PC display monitor.
- The clamp sensor and / or voltage sensors can be connected to any of the 3 channels
- 4 recording modes make various measurements possible
 - ◆ Normal recording mode: For monitoring power line status or an intermittent leakage.
 - ◆ Trigger recording mode: For observing an irregular operation of an ELCB/RCD, an irregular current/voltage.
 - ◆ Capture recording mode: For observing waveforms easily.
 - ◆ Power quality analysis mode: For monitoring and observing voltage fluctuations.
- Applicable standards: IEC 61010 CAT. III 300V Pollution degree 2, IEC 61326 (EMC standard)
- Power source: DC 6V: Alkaline battery (LR6) × 4 pcs / External supply DC 9V (Special AC adaptor)
- Dimensions: 111 (L) × 60 (W) × 42 (D) mm
- Weight: Approx. 265g

SENSOR SERIES

Load Current type

KEW 8121

KEW 8122

KEW 8123

Leakage Current & Load Current type

KEW 8146

KEW 8147

KEW 8148



Leakage Current type

MODEL 8141

MODEL 8142

MODEL 8143

Voltage Sensor

KEW 8309



Floating voltage can be measured

※ Floating voltage: phase to phase voltage not grounded



POWER METERS

Compact Power Meter MODEL 6300



CE **TRUE RMS**

- 12 kinds of power measurements
 - ◆ Voltage (RMS) ◆ Current (RMS) ◆ Active power ◆ Apparent power ◆ Reactive power
 - ◆ Power factor ◆ Active energy ◆ Apparent energy ◆ Reactive energy ◆ Frequency
 - ◆ Demand measurement ◆ Current flowing on the neutral line (Only on 3 phase 4 wire measurement)
- 4 types wiring system
 - ◆ 1 phase-2 wire (1ch), (2ch), (3ch) ◆ 3 phase-3 wire ◆ 1 phase-3 wire ◆ 3 phase-4 wire
- Recording internal can be set between 1 second for 1 hour
- Demand function for Energy-Saving measurements
- Internal non-volatile memory for non-stop recording up to 10 days
- Accepts removable compact flash memory up to 1GB for non-stop recording up to 5years
- Display 3 different data simultaneously on large screen
- Direct communication with PC by USB connection
- Double power supply system AC line and form alkaline battery with approx. 7 hours of battery life
- Applicable standard: IEC 61010-1 CAT. III 600V
- Power source: LR6 × 6 (Battery life approx. 7h)
- Dimensions: 175 (L) × 120 (W) × 65 (D) mm
- Weight: Approx. 800g

Power Quality Analyzer KEW 6310



CE **TRUE RMS**

- 12 kinds of power measurements for power control and applicable to power quality control including harmonics analysis.
- One click easy-to-use operation helps complicated setting and processing of large data through the setting/analyzing software provided as accessory.
- Direct communication with PC via USB cable
- Built-in Input/Output function of external signal enables the signal transmission to alarms.
- 2-way power supply by AC and battery, and nickel hydrogen battery usable with rechargeable function.
- Pull/Insert of CF card possible whenever on recording under the function of memory backup device (1GB usable).
- Can monitor insulation at leakage current by using optional leak clamp sensors.
- Built-in print screen function enables to record display screen (Records 512 screens by using CF card: 1 screen 40KB).
- Can display waveform and vector, and can confirm the wiring connection, too.
- Applicable standards: IEC 61010-1 CAT. III 600V Pollution degree 2, IEC 61010-031, IEC 61326
- Power source: AC 100V ~ 240V ± 10% (45 ~ 65Hz)
 - Alkaline size AA battery LR6 (9V 1.5V × 6) or Ni-MH (HR15-51)
- Dimensions: 175 (L) × 120 (W) × 68 (D) mm
- Weight: Approx. 900g

SENSOR SERIES

Load Current type

KEW 8129

8129-01 (for 1ch) 8129-02 (for 2ch) 8129-03 (for 3ch)



Applicable Model

Sensor Applicable Model	8141 8142 8143 ※4	8146 8147 8148 ※4	8121 8122 8123	8129	8124 8125 8126 8127 8128	8309	8325F
5000	●						
5001	●						
5010	●	●	●	●※2	●※1		
5020	●	●	●	●※3	●※1	●	
6300					●		
6310	●	●		●	●		●

<1~3: Can use with after the following serial numbers.>
 ※1 No.02637~(8125)、No.00151~(8126)、No.00181~(8127)
 ※2 No.8029792~(8129)
 ※3 No.8031560~(8129)
 ※4: Cannot be used for power measurement

MODEL 8128



MODEL 8127



MODEL 8126



MODEL 8125



MODEL 8124



Flicker Sensor KEW 8325F



Can measure Flicker in combination with KEW 6310

MULTI FUNCTION TESTERS

MODEL 6010A

KEW 6010B

MODEL 6011A

KEW 6016

MODEL 6017/6018

MODEL 6050



NEW

6010A

6010B

6011A

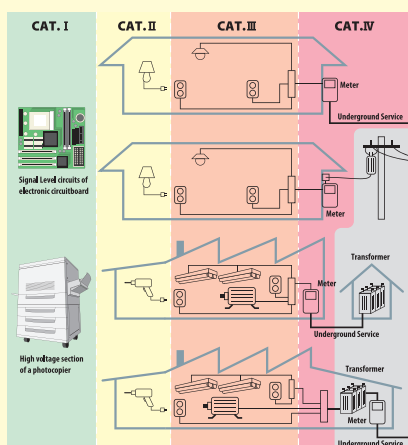
6016

6017/6018

6050

Continuity	20/200Ω (Auto-Ranging)	20/200Ω (Auto-Ranging)	20/200/2000Ω (Auto-Ranging)	20/200/2000Ω (Auto-Ranging)	—	—
Insulation	20/200Ω (Auto-Ranging)	20/200MΩ (Auto-Ranging)	20/200MΩ (Auto-Ranging)	20/200/2000MΩ (Auto-Ranging)	20M/50M/100MΩ (6017) 50M/100M/2000MΩ (6018)	—
Test voltage	500V	500/1000V	250/500/1000V	250/500/1000V	125/250/500V (6017) 250/500/1000V (6018)	—
Loop impedance	20/2000Ω	20/2000Ω	20/200/2000Ω	20/200/2000Ω	—	20/200/2000Ω
RCD	x1/2, x1:5/15/50/150/500mA Fast:150mA	x1/2, x1:10/30/100/300/500mA Fast:150mA DC:10/30/100/300/500mA Auto Ramp: Goes up by 10% from 20% to 110% of IΔn. 300ms×10	x1/2, x1:10/30/100/300/500/1000mA x5:10/30/100/300mA	x1/2, x1:10/30/100/300/500/1000mA x5:10/30/100mA RAMP:10/30/100/300/500mA	—	x1/2, x1:10/30/100/300/500/1000mA x5:10/30/100mA DC:10/30/100/300/500mA AUTO RAMP:10/30/100/300/500mA
PSC	—	—	200/2000A/20kA	2000A/20kA	—	20/2000A/20kA
Earth resistance	—	—	—	20/200/2000Ω	12/120/1200Ω	—
Earth voltage	—	—	—	—	60V AC	—
AC voltage	100~250V AC	100~250V AC	100~250V AC	25~500V AC	600V AC	100~260V AC
Fault current ranges	—	—	—	2000A/20kA	—	—
Contact voltage reading	—	100V	—	—	—	100V
Phase rotation testing	—	—	—	50~500V	—	—
Mains frequency measurement	—	—	—	●	—	—
200mA continuity test current	●	●	●	●	—	—
Auto discharges	●	●	●	—	●	—
Test leads with remote control switch	—	—	—	●	●	—
LIVE circuit warning	●	●	●	●	●	●
Memory	—	—	—	● (1000data)	—	—
Communication	—	●	—	●	—	●
Applicable standards	IEC 61010-1 CAT. III 300V IEC 61557 IEC 60529 (IP50)	IEC 61010-1 CAT. III 300V Pollution degree 2 IEC 61557 IEC 60529 (IP40)	IEC 61010-1 CAT. III 300V Pollution degree 2 IEC 61557 IEC 60529 (IP54)	IEC 61010-1 CAT. III 300V Pollution degree 2 IEC 61010-031 IEC 61557 IEC 60529 (IP40)	IEC 61010-1 CAT. III 600V Pollution degree 2 IEC 61010-031 IEC 61557	IEC 61010-1 CAT. III 300V IEC 61557 IEC 60529 (IP54)
Power source	R6P (AA) (1.5V) × 8	R6 or LR6 × 8	LR6 (1.5V) × 8	LR6 × 8	LR6 (1.5V) × 8	R6P (1.5V) × 8
Dimensions (L) × (W) × (D) mm	175 × 115 × 86	175 × 115 × 86	130 × 183 × 100	136 × 235 × 114	130 × 183 × 100	186 × 167 × 89
Weight (Approx.)	780g	840g	1100g	1350g	1000g	980g

OVERVOLTAGE CATEGORIES (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 on the left shows some area examples of measurement categories.

Measurement category	Description	Examples
CAT. I	For measurements performed on circuits not directly connected to MAINS.	Signal level circuits of electronic PCB, etc.
CAT. II	For measurements performed on circuits directly connected to the low voltage installation.	Appliances, portable equipment, etc.
CAT. III	For measurements performed in the building installation.	Distribution board, circuit breaker, etc.
CAT. IV	For measurements performed all the source of the low-voltage installation.	Overhead wire, cable systems, etc.

Safety Warnings : Please read the "Safety Warnings" in the instruction manual supplied with the instrument thoroughly and completely for correct use. Failure to follow the safety rules can cause fire, trouble, electrical shock, etc. Therefore, make sure to operate the instrument on a correct power supply and voltage rating marked on each instrument.

For inquiries or orders :



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In consideration of the environment, soy ink was used in this publication. ● The contents of this leaflet are subject to change without notice.

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