COSINUS® MESSTECHNIK GMBH

KEW 2046R

photo : 2046R

- Very useful for power distribution companies, power utilities and maintenance fields
- Red LED, as “Non Contact Voltage” function, gives warning to the user on the presence of AC voltage
- Double molding gives comfortable feeling in palm
- 6039 counts with Bar Graph display
- Minimum resolution 0.1A

	2046R
AC A	0 - 600.0A ±2.0%rdg±5dgt(50/60Hz) ±3.5%rdg±5dgt(40 - 500Hz)
DC A	0 - 600.0A ±1.5%rdg±5dgt
AC V	6/60/600V(Auto-ranging) ±1.5%rdg±4dgt(50/60Hz) ±3.5%rdg±5dgt(40 - 400Hz)
DC V	600mV/6/60/600V(Auto-ranging) ±1.0%rdg±3dgt
Ω	600Ω/6/60/600kΩ/6/60MΩ(Auto-ranging) ±1%rdg±5dgt(600 - 6M) / ±5%rdg±8dgt(60M)
Continuity buzzer	Buzzer Sounds at 100Ω
Hz	10/100Hz/1/10kHz(Auto-ranging) (Input sensitivity Current:more than 50A[40 - 400Hz] Voltage:more than 1V(6V Range), 4.2V(60V Range), 42V(600V Range)[- 10kHz])
DUTY	0.1 - 99.9% ±2.5%rdg ±5dgt (Pulse width/Pulse cycle)
Capacitance test	400nF/4/40μF(Auto-ranging)
Temperature	-50°C - +300°C(with the use of Temperature probe 8216)
Conductor size	ϕ33
Applicable Standards	IEC 61010-1 CAT Ⅳ 600V IEC 61010-2-032, IEC 61326
Power source	R03 (1.5V)(AAA) × 2 *Continuous measuring time : Approx. 10 hours (Auto power off : Approx. 15 minutes)
Dimension	243(L) × 77(W) × 36(D) mm
Weight	Approx. 300g
Accessories	7066A(Test leads), 9094(Carrying case), R03 × 2, Instruction manual
Optional Accessories	8216(Temperature probe)

KEW 2055/2056R

photo : 2056R

- Very useful for power distribution companies, power utilities and maintenance fields
- Red LED, as “Non Contact Voltage” function, gives warning to the user on the presence of AC voltage
- Double molding gives comfortable feeling in palm
- 6039 counts with Bar Graph display
- Minimum resolution 0.1A

photo : 2055

	2055	2056R
AC A	0 - 600.0/1000A ±1.5%rdg±5dgt(50/60Hz) ±3.0%rdg±5dgt(40 - 400Hz)	0 - 600.0/1000A ±2.0%rdg±5dgt(50/60Hz) ±3.5%rdg±5dgt(40 - 500Hz)
DC A	0 - 600.0/1000A ±1.5%rdg±5dgt	
AC V	6/60/600V(Auto-ranging) ±1.3%rdg±4dgt(50/60Hz) ±3.0%rdg±5dgt(40 - 400Hz)	6/60/600V(Auto-ranging) ±1.5%rdg±4dgt(50/60Hz) ±3.5%rdg±5dgt(40 - 400Hz)
DC V	600mV/6/60/600V(Auto-ranging) ±1.0%rdg±3dgt	
Ω	600Ω/6/60/600kΩ/6/60MΩ (Auto-ranging) ±1%rdg±5dgt(600 - 6M) / ±5%rdg±8dgt(60M)	
Continuity buzzer	Buzzer Sounds at 100Ω	
Capacitance test	–	400nF/4/40μF(Auto-ranging)
Temperature	–	-50 - +300°C (with the use of Temperature probe 8216)
Hz	10/100Hz/1/10kHz(Auto-ranging) (Input sensitivity Current:more than 50A[40 - 400Hz] Voltage:more than 1V(6V Range), 4.2V(60V Range), 42V(600V Range)[- 10kHz])	
DUTY	0.1 - 99.9% ±2.5%rdg ±5dgt (Pulse width/Pulse cycle)	
Conductor size	ϕ40	
Applicable Standards	IEC 61010-1 CAT Ⅳ 600V, IEC 61010-2-032, IEC 61326	
Power source	R03 (1.5V)(AAA) × 2 *Continuous measuring time : Approx. 35 hours (Auto power save : Approx. 15 minutes) (2055) *Continuous measuring time : Approx. 10 hours (Auto power off : Approx. 15 minutes) (2056R)	
Dimension	254(L) × 82(W) × 36(D) mm	
Weight	Approx. 310g	
Accessories	7066A(Test leads), 9094(Carrying case), R03 × 2, Instruction manual	
Optional Accessories	–	8216(Temperature probe)

KEW CAT. Ⅳ CLAMP METER SERIES

2046R
(Actual Size)

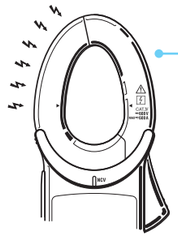
Designed to international safety standard IEC61010-1 CAT. Ⅳ 600V

600V input protection

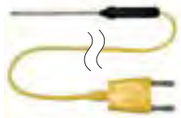
Sleep Function to save battery life

NCV Function

Red LED on the upper area on the Panel lights up at All functions except for OFF when electric field exceeding 100V is detected by the sensor incorporated in the Jaws.
It indicates a presence of voltage in an electrical circuit or equipment without touching them.
NCV Sensor can detect electrical field only from left side jaw.
Put the fixed element (left side) closer to the conductor under test.
Detection against in-wall outlet is impossible.



Temperature measurement, switchable between °C and °F (2046R / 2056R) (with K-type temperature sensor)
8216 Optional Temperature Probe : Range -50~300°C(-58~572°F)



Temperature Probe

With Continuity & Diode Check Function

Capacity measurement of capacitors (2046R / 2056R)

Peak Hold Function enables Peak value measurement of inrush current. (Only at AC A Range)

Data Hold Function

Double molded main body provides comfortable feeling in palm

LCD Backlight function to facilitate working at dimly lit situations (Except 2040)

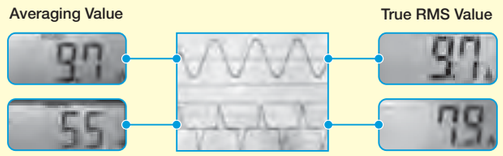
6039 counts with Bar Graph display

REL function to indicate measurement variation (Current, Voltage, Resistance measurement)

MIN/MAX function enables to keep min & max value during measurement

2055/2056R
(Actual Size)

True RMS (Root Mean Square value) Measurement

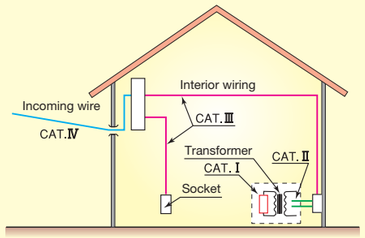


When load current is not affected by the distortion, both averaging value type and true RMS (root mean square) type clamp meters show the almost same value of about 10A with constant wave-form as the above display samples. However, when load current is affected by some distortions such as inverter, etc...,averaging 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 wave-form. Accordingly, true RMS type clamp meter is recommendable for the measurement of the equipment with inverter control devices.
Due to the use of thyristors, inverters 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 a 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.

Measurement categories (Over-voltage categories)



To ensure safe operation of measuring instruments, IEC61010-1 establishes safety standards for various electrical environments, categorized as CAT.Ⅰ to CAT.Ⅳ, and called measurement categories. Higher-numbered categories correspond to electrical environments with greater transient energy (that can be very dangerous), so a measuring instrument designed for CAT.Ⅳ environments can endure greater transient energy than one designed for CAT.Ⅲ or lower.

CAT.Ⅰ : Secondary electrical circuits connected to an outlet through a transformer or similar device. Secondary electrical circuit parts inside equipments like TVs, PCs, Copiers, etc.

CAT.Ⅱ : Primary electrical circuits or equipments connected to an outlet by a power cord. Outlets at more than 10 meters from CAT.Ⅲ source, or at more than 20 meters from CAT.Ⅳ source.

CAT.Ⅲ : Primary electrical circuits of the equipment connected directly to the distribution panel. Switchboards, busbars and feeders from the distribution panel to outlets.

CAT.Ⅳ : The circuit from the service drop to the service entrance, and to the power meter and primary over current protection device (distribution panel). Circuits close to the secondary side of low voltage power transformer.

COSINUS Messtechnik - Ihr Partner für Messlösung in allen elektrischen und physikalischen Anwendungen

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