Safe and Durable Design. Wide Operating Temperature.

- Complies with IEC 61010-1, CAT III 600V, CAT IV 1000V
- Safety shutters to prevent incorrect test leads’ insertion in current terminals
- Terminal shutters are opening or closing being linked with the rotation of the function switch.

Reliable support for data management

- Large internal memory to store test data
- Data can be transferred to a PC or directly to a Printer
- Data management with the software DMM Application software

Wide Operating Temperature.

- Terminals for the current measurements (μA, mA, A)
- Operation of the Safety Shutters
  - Safety shutters closed
  - Safety shutters open

Terminal shutters are opening or closing being linked with the rotation of the function switch.

Versatile Multimeters

Top Class Multimeters

For Electrical and Electronic Troubleshooting

For Laboratory and Industrial Use

Versatile Multimeters

- Measurement areas called Categories, shortly indicated with CAT
- These Categories start from O to CAT IV
- In particular IEC 61010-1 standard defines also the safety standards.
- To protect us against overvoltage spikes, we must use instruments that meet the requirements for high protection standards.
- For measurements performed at "Battery warning" display
- For measurements at "OL" display

Data analysis with Excel

- Data can be transferred to Excel** and saved as CSV file.
- Real-time transferring permits the saving of a considerable amount of data.
- Real-time data can be transferred and shown on a PC.

Complies with IEC 61010-1, CAT IV 1000V

- Stored data of internal memory can be monitored by PC.
- Logging interval can set from 1 sec. to 30 min.

KEW1061: 1,000 data in Logging mode, 100 data manually saved.

KEW1062: 10,000 data in Logging mode, 100 data manually saved.

Safety Warnings

- For inquiries or orders:

KYORITSU ELECTRICAL INSTRUMENTS WORKS, LTD.
2-11-20, Nakane, Meguro-ku, Tokyo, 152-0031 Japan
Phone:+81-3-3723-0131
Fax:+81-3-3723-0152
E-mail:info-eng@kew-ltd.co.jp
www.kew-ltd.co.jp
## High Accuracy, High Performance and Reliable Measurements

### Top Accuracy
- 0.005% basic DC accuracy for KEW 1051/1052.
- 0.005% basic AC accuracy for KEW 1051/1052.

### Dual Display
- KEW 1051/1052: 5,000 counts, Flange graph with 51 segments.
- KEW 1061/1062: 6,000 counts, Bar graph with 31 segments.

### Advanced Functions

#### Auto Calibration Function
Calibration and adjustment are possible by simple operation of DMM keys.

#### One-Pass Filter
New technology enables the adjustment for the frequency bandwidth characteristic.

#### DC/AC TRMS Measurement
Select the reading mode in the presence of superimposed DC component.

#### Top Accuracy
Ensures accurate readings, avoiding errors (if up to 5%) which can occur when non-orthogonal waveforms are measured, by using common non-linear loads such as PCs, inverters, switch-mode power supplies, etc. are measured.

#### DC/AC TRMS Measurement
Accurately TRMS measurements at the presence of superimposed DC component.

### Peak Hold function
The peak value is held on the display just by re-moving the test leads from the circuit under test. Users can remain their concentration on the measuring point without the need to press the key several times.

### Duty Cycle Ratio measurement
The duty cycle is displayed in percentage (%).

### Peak Off function
The instantaneous peak values can be easily captured by moving the test leads from the circuit under test. Users can remain their concentration on the measuring point without the need to press the key several times.

### Operating Environment
- Temperature: -20°C to +55°C.
- Relative Humidity: 90% or less (no condensation).
- Dimensions: Approx. 192(L) x 90(W) x 49(D)mm.
- Weight: Approx. 1.1kg.
- Power supply: IEC 61010, CAT III 600V, CAT IV 300V.

### Specifications

#### KEW 1051/1052
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Voltage</td>
<td>0.09% basic DC accuracy for KEW 1051/1052.</td>
</tr>
<tr>
<td>AC Voltage</td>
<td>0.02% basic DC accuracy for KEW 1061/1062.</td>
</tr>
<tr>
<td>Current</td>
<td>0.7V (that is the typical junction voltage drop of semi-conductors).</td>
</tr>
<tr>
<td>Response Time</td>
<td>2 sec max. at 600V DC.</td>
</tr>
<tr>
<td>CMRR</td>
<td>60dB or more DC to 60Hz (Rs=1kΩ).</td>
</tr>
<tr>
<td>Accuracy</td>
<td>4 counts or less is corrected to 0.</td>
</tr>
<tr>
<td>Sub-display</td>
<td>5000 counts.</td>
</tr>
<tr>
<td>Main-display</td>
<td>50000 counts.</td>
</tr>
<tr>
<td>Temperature, Capacitor, Continuity Check, Diode Test</td>
<td>0.12μV/μA 440mA</td>
</tr>
<tr>
<td>Voltage</td>
<td>5.0000V</td>
</tr>
<tr>
<td>Current</td>
<td>1.5+1O</td>
</tr>
<tr>
<td>Resistance</td>
<td>60MΩ</td>
</tr>
<tr>
<td>Resistance (LP)</td>
<td>7.5Ω</td>
</tr>
<tr>
<td>Measurement cycle</td>
<td>192(L) x 90(W) x 49(D)mm</td>
</tr>
</tbody>
</table>

#### KEW 1061/1062
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Voltage</td>
<td>0.09% basic DC accuracy for KEW 1051/1052.</td>
</tr>
<tr>
<td>AC Voltage</td>
<td>0.02% basic DC accuracy for KEW 1061/1062.</td>
</tr>
<tr>
<td>Current</td>
<td>0.7V (that is the typical junction voltage drop of semi-conductors).</td>
</tr>
<tr>
<td>Response Time</td>
<td>2 sec max. at 600V DC.</td>
</tr>
<tr>
<td>CMRR</td>
<td>120dB or more 50/60Hz (Rs=1kΩ).</td>
</tr>
<tr>
<td>Accuracy</td>
<td>4 counts or less is corrected to 0.</td>
</tr>
<tr>
<td>Sub-display</td>
<td>50000 counts.</td>
</tr>
<tr>
<td>Main-display</td>
<td>50000 counts.</td>
</tr>
<tr>
<td>Temperature, Capacitor, Continuity Check, Diode Test</td>
<td>0.12μV/μA 440mA</td>
</tr>
<tr>
<td>Voltage</td>
<td>5.0000V</td>
</tr>
<tr>
<td>Current</td>
<td>1.5+1O</td>
</tr>
<tr>
<td>Resistance</td>
<td>60MΩ</td>
</tr>
<tr>
<td>Resistance (LP)</td>
<td>7.5Ω</td>
</tr>
<tr>
<td>Measurement cycle</td>
<td>192(L) x 90(W) x 49(D)mm</td>
</tr>
</tbody>
</table>

### Measurement Function

#### One-Pass Filter
- AC measurement can be limited to low frequency, helping for instance voltage measurements in the presence of variable-speed motor drives or inverters.
- The low-pass filter can be switched OFF.

### Selection of the reading mode
Selective TRMS or MEAN measurement. The presence of distortion on an AC signal can be confirmed if the measured TRMS and MEAN values are different.

### Bar graph
- The DMM measures the output voltage of an external signal generator, which is variable, that is the output from a signal generator.
- In the secondary display, while the primary display can still show the full of the measured signal (e.g., AC, mA, Volts, Hz) according to the conversion ratio chosen.

### Duty Cycle Ratio measurement
- The duty cycle is displayed in percentage (%).
- The duty cycle ratio is calculated by dividing the integral and peak values by the fundamental frequency of the input signal.
- The duty cycle ratio is calculated by dividing the integral and peak values by the fundamental frequency of the input signal.

### Relative and Percentage calculation
- Can calculate and display Relative values or Percentage (%) against the reference measurement value.
Safe and Durable Design.
Wide Operating Temperature.

- Compliant with IEC 61010-1, CAT III 600V, CAT IV 1000V.
- Safety shutters to prevent incorrect test leads’ insertion in current terminals.
- Terminal shutters are opening or closing being linked with the rotation of the function switch.
- Test data can be transferred to a PC or directly to a Printer.
- Large internal memory to store test data.
- Over molding case: Made by “Electromer”, a superior shock sustainable material. Perfectly fits to hand.
- Fuses rated at 1000V with 30kA of breaking capacity.

Operation of the Safety Shutters

- Safety shutters are opening or closing being linked with the rotation of the function switch.
- Terminal shutters are opening or closing being linked with the rotation of the function switch.

Reliable support for data management

- Large internal memory to store test data: KEW1051: 10,000 data in Logging mode, 101 data manually saved. KEW1052: 1,000 data in Logging mode, 103 data manually saved. KEW1061: 1,500 data in Logging mode, 103 data manually saved. Logging interval can set from 1 sec. to 30 min.
- Test data can be transferred to a PC or directly to a Printer.
- Real-time data can be transferred to a PC or directly to a Printer.
- USB Communication set (8241): USB adaptor+USB cable+DMM Software.
- Power supply: 2000mAh lithium battery.
- Power supply by an AC adapter: 60V/500mA (8405). Power supply by a battery: 600V/125mA (8406).
- Alligator Clip: CAT 1000V 1set.
- Banana Ø4mm Adjuster Plug 7146 length :190mm.

Troubleshooting

For Electrical and Electronic Troubleshooting

- For inquires or orders:

**Excel is a registered trademark of Microsoft in the USA.**
### High Accuracy, High Performance and Reliable Measurements

**Top Accuracy**
- 0.05% basic DC accuracy for KEW 1051/1052.
- 0.05% basic DC accuracy for KEW 1053/1052.

**Dual Display**
- KEW 1051/1052: 6,000 counts, Bar graph with 31 segments. White back light display.
- KEW 1053/1052: 6,000 counts. Bar graph with 31 segments. White back light display.

**Wide AC Frequency Bandwidth**
- KEW 1051: AC frequency bandwidth from 1kHz to 10MHz.
- KEW 1052: AC frequency bandwidth from 1kHz to 20MHz.

### Advanced Functions

#### User calibration function
Collaboration and adjustment are possible by simple operation of DMM keys.

#### One-pass Filter
Helps to filter low frequency, helping for instantaneous voltage measurements in the presence of variable speed motor drives or inverters.

#### Low-pass filter
Can be set to show the unit of the measured parameter (e.g. \( \pm 0.7V \) that is the typical junction voltage drop of semiconductor components) in the secondary display, while the primary display shows the measured input range. A comparison is made between the measured values and the reference voltage (e.g. \( \pm 0.7V \)).

#### AC measurement
AC measurement can be limited to low frequency, helping for instantaneous voltage measurements in the presence of variable speed motor drives or inverters.

### Selection of the reading mode

#### Auto mode
The DMM measures the output voltage of an external signal source (e.g. voltage, current, temperature, resistances, etc) in the secondary display, while the primary display can select the unit of the measured parameter (e.g. A, mA, V, ohm, etc), according to the conversion ratio chosen.

#### Peak hold function
**Response time:** 25ms
The instantaneous peak values can be easily captured when they appear, namely, is a simplified MIN/MAX/AVG function.

#### Auto hold function
This measured value is held on the display for re-reading the test value from the circuit under test. Users can maintain similar conditions on the measuring point without the need to press the hold key.

#### Relative and Percentage calculation
Can calculate and display Relative Values or Percentage (%) against the reference measurement values.

### TRMS Measurement
Ensures accurate readings, avoiding errors (if up to 50%) which can occur when non-sinusoidal waveforms, created by common non-linear loads such as PCs, heaters, switch-mode power supplies, etc., are measured.

### DC/AC TRMS Measurement
Accurate TRMS measurements also in the presence of superimposed DC components, AC and DC values are displayed simultaneously via dual display.

### Duty cycle ratio measurement
- KeW 1051/1052: 1kHz to 10MHz
- KeW 1053/1052: 1kHz to 20MHz

### Absolute value
KeW 1051/1052: 0.7V
KeW 1053/1052: 1.5V

### Reference resistance value
- KeW 1051/1052: 1000V
- KeW 1053/1052: 500V

### Response time
- KeW 1051/1052: 1 sec max.
- KeW 1053/1052: 2 sec max.

### Test conditions
- Temperature: 23°C ± 5°C
- Humidity: 90% RH max.

### Resistance measurement
- Resolution: 0.1Ω

### Capacitance measurement
- Resolution: 1pF

### Frequency measurement
- Resolution: 1Hz

### Input Impedance
- 10MΩ

### Voltage measurement
- Resolution: 1mV

### Current measurement
- Resolution: 1μA

### Temperature measurement
- Resolution: 0.1°C

### Accuracy
- 0.05% for DC values.
- 0.05% for AC values.
- 0.05% for temperature measurements.

### Specifications

#### DC Voltage Measurement
- Accuracy: ±0.05% of reading ± 1 digit
- Range: 0.01V to 1000V
- Resolution: 0.1mV

#### AC Voltage Measurement
- Accuracy: ±0.05% of reading ± 1 digit
- Range: 0.01mV to 1000V
- Crest factor <1.5V at 1000V range; Crest factor <3 at other range
- Resolution: 0.1mV

#### DC Current Measurement
- Accuracy: ±0.05% of reading ± 1 digit
- Range: 0.1μA to 10A
- Resolution: 1μA

#### AC Current Measurement
- Accuracy: ±0.05% of reading ± 1 digit
- Range: 0.1μA to 10A
- Crest factor <1.5V at 1000V range; Crest factor <3 at other range
- Resolution: 1μA

#### Resistance Measurement
- Accuracy: ±0.05% of reading ± 1 digit
- Range: 0.1Ω to 10MΩ
- Resolution: 1Ω

#### Capacitance Measurement
- Accuracy: ±0.05% of reading ± 1 digit
- Range: 0.1pF to 10μF
- Resolution: 1pF

#### Frequency Measurement
- Accuracy: ±0.05% of reading ± 1 digit
- Range: 1Hz to 1MHz
- Resolution: 1Hz

#### Temperature Measurement
- Accuracy: ±0.05% of reading ± 1 digit
- Range: -20°C to 100°C
- Resolution: 0.1°C

### High Voltage Protection
- For DC, 1000V rms for five seconds (across input terminals and casing)
- For AC, 8kV rms for five seconds (across input terminals and casing)

### Battery life
- Approximately 120 hours

### Size
- Height (W): 160mm
- Width (D): 85mm
- Depth (H): 36mm

### Weight
- Approximately 560g (including batteries)

### Power supply
- 9.0V 400mA

### Cooling system
- Forced convection

### Accessories
- Carrying case, test leads, battery, instruction manual, warranty card, battery holder.
**DMM SERIES**

### Reliable Measurements

- **Top Accuracy**
  - 0.005% basic DC accuracy for KEW 1051/1052.
  - 0.009% basic DC accuracy for KEW 1061/1062.

- **Dual Display**
  - KEW 1051/1052: 5,000 counts, 20 characters for each display.
  - KEW 1061/1062: 6,000 counts, 31 segments.

- **Wide AC Frequency Bandwidth**
  - KEW 1051: AC frequency bandwidth from 10Hz to 10MHz.
  - KEW 1061: AC frequency bandwidth from 10Hz to 20MHz.

### Advanced Functions

- **Auto Calibration Function**
  - Calibration and adjustment are possible by simple operation of DMM keys.

- **One-pass Filter**
  - Provides the filtered input voltage.

- **Accuracy**
  - The accuracy of the DMM is ±1% or better after zero adjustment (resistance).

- **Frequency Measurement**
  - Measurement range: 10Hz to 20kHz.
  - Accuracy: ±1%.

- **Peak Hold Function**
  - The instantaneous peak value can be easily captured and stored.

- **Auto Hold Function**
  - The measured value is held on the display after removing the test leads from the circuit under test. It can remain stable, even if the value changes during the measurement process.

- **Duty Cycle Ratio Measurement**
  - The duty cycle ratio is displayed in percentage.

- **Relative and Percentage Calculation**
  - Can calculate and display Relative value or Percentage (%) against the reference measurement value.

### TRMS Measurement

- This function uses a test voltage which is lower than the filed voltage.
  - KEW 1051/1052: by 1051, 1052
  - KEW 1061/1062: by 1061, 1062

### DC Input Range

- **Input Range**
  - 0.02+1
  - Manual memory

### SP Input Range

- **Input Range**
  - 1+2
  - 0.5+1

### AC Input Range

- **Input Range**
  - 1+2
  - 5+1

### Other Functions

- **Auto Hold (D•H), Auto Hold (A•H), Peak Hold* (P•H), Range Hold (R•H), Maximum Reading 9999**

### Applicable Standards

- IEC 61010-1 CAT IV 600V, CAT III 1000V

### Storage Temperature and Humidity

- −40 to 70°C, 80% RH or less (no condensation), 70% RH or less at 40 to 55°C.

### Battery Life

- Approx. 3000 hours.

### Response Time

- 250μs

### Overload Protection

- 50/60Hz 40Hz

### Applicable Standards

- IEC 61010-031, IEC 61326-1

### Specifications

#### General Specifications

- **Model** KEW 1051/1052
- **Versatile Digital Multimeters**
- **KEW 1061/1062**
- **Top-Class Digital Multimeters**

#### Selection Guide

- **Versatile Digital Multimeters**
  - **KEW 1051/1052**
- **Top-Class Digital Multimeters**
  - **KEW 1061/1062**

---

**Top-Class Digital Multimeters** KEW 1061/1062

- **General Specifications**
- **Versatile Digital Multimeters** KEW 1051/1052

---

**Main Features**

- **High Accuracy**
- **High Performance**
- **Reliable Measurements**

**Specifications**

- **Input Range**
  - 0.02+1
  - 1+2
- **Accuracy**
  - ±1%
- **Response Time**
  - 250μs
- **Overload Protection**
  - 50/60Hz 40Hz

**Overrange Indicator**

- “OL”

**Main Display**

- 7-segment display

**Digital Multimeters**

- **Versatile Digital Multimeters** KEW 1051/1052
- **Top-Class Digital Multimeters** KEW 1061/1062

---

**Contact Details**

- For more information, please contact your local distributor or visit our website.
Safe and Durable Design. Wide Operating Temperature.

- **Complies with IEC 61010-1, CAT III 600V, CAT II 1000V**
- **Safety shutters to prevent incorrect test leads’ mention in current terminals**
- **Terminal shutters are opening or closing being lined with the rotation of the function switch.**

Wide Operating Temperature.

Safe and Durable Design.

Reliable support for data management

- **Large internal memory to store test data**
  - KEW1051: 10,000 data in Logging mode, 100 data manually saved.
  - KEW1052: 1,600 data in Logging mode, 100 data manually saved.
  - KEW1061: 1,000 data in Logging mode, 100 data manually saved.
  - KEW1062: 10,000 data in Logging mode, 100 data manually saved.
- **Logging memory**
  - KEW1052: 1,600 data in Logging mode, 100 data manually saved.
  - KEW1062: 10,000 data in Logging mode, 100 data manually saved.
- **USB Communication**
  - USB Communication set 8241: USB adaptor + USB cable + DMM Software

**Operation of the Safety Shutters**

Safety shutters are opened or closed with the rotation of the function switch. Terminals are marked by lines, except for 1051 series.

- **Wide operating temperature range**
  - From -20°C to 60°C for KEW1051/1052
  - From -10°C to 50°C for KEW1061/1062
- **High space UL, standard fuses for extra safety**
  - Fuses rated at 10500 with 30A breaking capacity.
- **Over molding case**

**Included Accessories**

- **Voltage probes**
  - 8121: AC 100A
  - 8122: AC 1000A
- **Current probes**
  - 8146: AC 1000mA
  - 8147: AC 1000mA
  - 8148: AC 1000mA
- **Temperature probes**
  - 8404: Thermocouple Type K
  - 8405: Thermocouple Type K
  - 8406: Thermocouple Type K
- **Other accessories**
  - Banana Ø4mm adjuster plug
  - Alligator Clip 7234
  - USB Communication set 8241: USB adaptor + USB cable + DMM Software

**Certifications**

- **Top Class Multimeters**
- **For Electrical and Electronic Troubleshooting**
- **Top Class Multimeters**
- **For Laboratory and Industrial Use**

**Safety Warnings**

- **For inquires or orders:**
  - KYORITSU ELECTRICAL INSTRUMENTS WORKS, LTD.
  - 2-18-20, Nakane, Meguro-ku, Tokyo, 152-8571 Japan
  - Phone: +81-3-3723-0131
  - Fax: +81-3-3723-0132
  - Email: info@kyoritsu.co.jp
  - www.kew-ltd.co.jp

Please read the “Safety Warnings” in the instruction manual supplied with the instrument thoroughly and completely. Failure to do so may cause personal injury and damage to the instrument and other equipment. Always make sure to operate the instrument in a correct power supply and voltage setting condition or main equipment.