KUSAM-MECO®
An ISO 9001:2015 Company

400A AC DIGITAL CLAMPMETER
MODEL-KM 1001

KM 1001 Digital Clampmeter is completely portable, 3½ Digit LCD display meter. This Clampmeter is designed for us in the Laboratory, Field servicing, at home, under any circumstance where high current measurement is required. This meter is built with a design of finger guard which ensures safety operating & electronic overload protection for all function & range. In addition, a carrying case is available for easy portability of the meter & avoiding damage. Rugged Fire retardant & Shock Resistant casing.

Preliminary Data

GENERAL SPECIFICATIONS :

- **Display :** 3½ Digit 2000 counts LCD with automatic polarity indication.
- **Measuring Method :** Dual-slope integration A/D converter system.
- **Over range indication.**
- **Over load protection :** Protected by PTC in the resistance range.(protection upto 500V AC RMS).
- **Data Hold function :** the hold & release for all display data is performed alternatively by "D.H" push switch..
- **Low battery indication :** The "BATTERY" symbol is displayed when the battery voltage drops below accurate operating level.
- **Continuity function.**
- **Power Supply :** 9V Alkaline or carbon-zinc battery.
- **Operating Temperature & Humidity :** 0°C ~ 50°C; 80% max. R.H.
- **Storage Temperature & Humidity :** -20°C ~ 60°C; 80% max. R.H.
- **Accessories :** User Manual, Battery & Carrying case.

ELECTRICAL SPECIFICATIONS :

AC CURRENT

Range	Resolution	Accuracy
20 A	0.1 A	±(1.5% rdg + 4 dgts)
200 A		
400 A		

RESISTANCE

Range	Resolution	Accuracy
50 Ω ~ 2000 Ω	1 Ω	±(1.0% rdg + 2 dgts)

AC VOLTAGE

Range	Resolution	Accuracy
600 V	1 V	±(1.5% rdg + 4 dgts)

DC VOLTAGE

Range	Resolution	Accuracy
600 V	1 V	±(1.0% rdg + 2 dgts)

All Specifications are subject to change without prior notice.

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G-17, Bharat Industrial Estate, T. J. Road, Sewree (W), Mumbai - 400 015. INDIA.
Sales Direct.: 022-24156638, **Tel. :** 022-24124540, 24181649, **Fax :** 022-24149659
Email : kusam_meco@vsnl.net, **Website :** www.kusamelectrical.com

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400A AC DIGITAL CLAMPMETER
MODEL - KM 1001

1.Introduction

We thank you very much for your purchasing our product. Electronic measuring instruments produced by us are high technology products under strict quality control. We guarantee exceptional precision and reliability. This clamp meter is completely portable, 3 1/2 digit LCD display Meter. This clamp meter is designed for use in the laboratory, field servicing, at home, educational institutes. It should not be used under any circumstance where high energy current measurement is required.

This meter is built with a design of finger guard which ensures safety operating; a rugged case that is shock resistant and fire retardant: and electronic overload protection for all function and range.

In addition, a carrying case is available for easy portability of the meter and avoiding damage.

2. Safety Information:

This clamp meter has been designed according to EN61010 concerning electronic measuring instruments with a test category (CAT II 600V) and pollution 2 and safety requirements for hand-held current clamps to electronical measurement and test. Follow all safety and operating instruction to ensure that the meter is used safely and is kept in good operating condition.

2.1 Preliminary

1. While using the meter, observe all normal safety rules concerning :

Protection against the damage of electric shock.

Full compliance with safety standard can be guaranteed only if used with test leads supplied.

2. During use

- Never exceed the protection limit values indicated in the specifications for each range of measurement.
- When the meter is linked to measurement circuit, do not touch unused terminals.
- When the value scale to be measured is unknown, set the range selector at the highest position.
- Before rotating the selector to change function, disconnect test leads from the circuit under testing.
- Never perform resistance measurements on live circuits.
- When the jaw is opened and while the conductor is under testing, ',our fingers must keep behind the barriers indicator.
- Never ground yourself when taking electrical measurement, do not touch exposed metal pipes, outlets, fixtures, etc., which might be at ground potential. Keep your body isolated from ground by using dry clothing, rubber shoes, or any approved insulating material.

3. Symbols

⧈ Double insulation, protection class III.

⚠ Warning: this symbol indicated where cautionary or other information is found in the manual.

⚠ Caution: risk of electric chock. This symbol indicates where cautionary or other information is found in the manual,

⏚ Ground terminal.

3. GENERAL SPECIFICATIONS:

- **Display:** 3 1/2 digit (2000 counts) LCD, with automatic polarity indication.
- **Over-range indication:** Display shows "1".
- **Over load protection:** Protected by PTC in the resistance range. (protection up to 500V AC RMS).
- **DATA HOLD function:** The hold and release for all display data is performed alternatively by "D.H" push switch.
- **Low battery indication:** The "⊟" symbol is displayed when the battery voltage drops below proper operating level.
- **Continuity function.**
- **Power supply:** 9V Alkaline or carbon-zinc battery (6F22, NEAD 1604 type or equivalent).
- **Operating temperature and Humidity:** 0°C to 50°C; 80%max. RH.
- **Storage temperature and Humidity:** -20°C to 60°C; 80%max. RH.

4. ELECTRICAL SPECIFICATIONS:

AC CURRENT

Range	Resolution	Accuracy
20 A	0.1 A	±(1.5% rdg + 4 dgts)
200 A		
400 A		

AC VOLTAGE

Range	Resolution	Accuracy
600 V	1 V	±(1.5% rdg + 4 dgts)

DC VOLTAGE

Range	Resolution	Accuracy
600 V	1 V	±(1.0% rdg + 2 dgts)

RESISTANCE

Range	Resolution	Accuracy
50 Ω ~ 2000 Ω	1 Ω	±(1.0% rdg + 2 dgts)

5. OPERATING INSTRUCTION :

5.1 Measuring Current:

1. Set function knob to the proper AC A Range. Press the trigger to open the jaws and clamp on to one conductor only. The transformer jaws pick up the AC current flowing through the conductor.
2. When only the figure "1" displayed, it indicates over range situation and the higher range has to be selected.
3. The reading will be indicated on the display.

NOTE:

(1) Jaws should he completely closed while taking a reading.

(2) The most accurate reading will be obtained by the conductor across center of the transformer jaws.

5.2 AC Voltage Measurement :

1. Set the function knob to the AC V range.
2. Connect the black test lead to the "COM" terminal and red test lead to the "V/Ω" terminal. You can now place the test probes to the source or load under measurement.
3. When only the figure "1" is displayed, it indicates over range situation disconnect the test leads immediately to avoid damage to the meter.

⚠ To avoid electrical shock, hazard or damage to the meter, do not attempt to measure voltage that might exceed AC 600V RMS.

5.3 DC Voltage Measurement :

1. Set the function knob to the DC V range.
2. Connect the black test lead to the "COM' terminal and red test lead to the "V/Ω" terminal. You can now place the test probes to the source or load under measurement.
3. The polarity of red lead connection will be indicated along with the voltage value.
4. When only the figure "1" is displayed, it indicated over range situation disconnect the test leads immediately to avoid damage to the meter

⚠ To avoid electrical shock, hazard or damage to the meter, do not attempt to measure voltage that might exceed DC 600V.

5.4 Resistance Measurement :

1. Set the function knob to the "•))20000Ω" range
2. Connect the black test lead to the "COM" terminal and red test lead to the V/Ω terminal.
3. Verify that the power to the circuit under test is off. Connect test lead to the circuit to make measurement.

NOTE: If the resistance being measurement exceeds, the maximum value of the range selected or the input is not connected, an over range indication "1' will be displayed

⚠ WARNING

(1) Attempting resistance or continuity measurements on live circuits can cause electrical shock, damage to the meter and damage to the equipment under test.

(2) Resistance measurement must be made on de-energized circuit.

5.5 Continuity Test

1. Set the function knob to the "•))20000Ω" range.
2. Connect the black test lead to the "COM" terminal and red test lead to the "V/Ω" terminal.
3. Connect the test probes across two points of the circuit under testing. If continuity exists BUZZER will sound.

6. Maintenance :

Maintenance consists of periodic cleaning and battery replacement. The exterior of the meter can be cleaned with a dry clean cloth to remove any oil, grease. Never use liquid solvents or abrasives

Replacing Battery :

When the meter displays the sign "⊟", the battery must be replaced to maintain proper operation. Remove the battery cover of case. replace the exhausted battery with new one.

⚠ WARNING

To avoid electrical chock, disconnect the test leads and any input signals before replacing the battery. Replace only with same type of battery.

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E-mail : kusam_meco@vsnl.net, **Website :** www.kusamelectrical.com

MUMBAI

TEST CERTIFICATE

DIGITAL MULTIMETER

This Test Certificate guarantees that the product has been inspected and tested in accordance with the published specifications.

The instrument has been calibrated by using equipment which has already been calibrated to standards traceable to national standards.

MODEL NO. **KM 1001**

SERIAL NO. _____

DATE: _____

QC
KUSAM-MECO
PASS

ISO 9001
REGISTERED

WARRANTY

Each “KUSAM-MECO” product is warranted to be free from defects in material and workmanship under normal use & service. The warranty period is one year (12 months) and begins from the date of despatch of goods. In case any defect occurs in functioning of the instrument, under proper use, within the warranty period, the same will be rectified by us free of charges, provided the to and fro freight charges are borne by you.

This warranty extends only to the original buyer or end-user customer of a “KUSAM-MECO” authorized dealer.

This warranty does not apply for damaged Ic’s, fuses, disposable batteries, carrying case, test leads, or to any product which in “KUSAM-MECO’s” opinion, has been misused, altered, neglected, contaminated or damaged by accident or abnormal conditions of operation or handling.

“KUSAM-MECO” authorized dealer shall extend this warranty on new and unused products to end-user customers only but have no authority to extend a greater or different warranty on behalf of “KUSAM-MECO”.

“KUSAM-MECO’s” warranty obligation is limited, at option, free of charge repair, or replacement of a defective product which is returned to a “KUSAM-MECO” authorized service center within the warranty period.

THIS WARRANTY IS BUYER’S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. “KUSAM-MECO” SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, INCLUDING LOSS OF DATA, ARISING FROM ANY CAUSE WHATSOEVER.

All transaction are subject to Mumbai Jurisdiction.

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