



说明书材质要求：105g 有光铜版纸	说明书成品尺寸：71.5*105mm
第一：专色用6级防晒油墨+CMYK油墨要求： 1.PANTONE137C专色油墨(专色用6级防晒油墨)： 如果自己配色，油墨配比为：酒联中黄(防晒)2000g 酒联金红(防晒)225g 2.C色油墨：酒联天蓝墨 3.M色油墨：酒联金红墨 4.Y色油墨：pantone123C专色油墨 5.K色油墨：酒联黑墨	第二：特别注意： 1.印刷时看样请参考我司提供的实物样品颜色。不得偏色 2.137C的专色不得参考C=0,M=35,Y=90,K=0对应的四色 色谱颜色来看样印刷 Pantone 137C Black（两色印刷）
折叠方式：风琴折（20P以下 两风导折）/ 骑马钉（20P以上 两骑马钉） 特殊情况：16P/20P：风琴折 + 对折	备注：

特别注意：此页内容不印刷

风琴折 + 对折 页面顺序

16P 页面顺序

9	10	11	封面
12	13	14	封底

1	2	3	4
5	6	7	8

20P 页面顺序

11	12	13	14	封面
15	16	17	18	封底

1	2	3	4	5
6	7	8	9	10

更改记录	1. 新制作			
	0724.V01	2024.7.17	xi	
	版本号	日期	设计师	

INGCO

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**PRODUCT
MANUAL**

DIGITAL AC CLAMP METER



DCM66001



GENERAL TOOL SAFETY WARNINGS

Safety statement

CAUTION!

The design and manufacture of clamp meters conform to IEC 61010-1, IEC 61010-2-032, IEC 61010-030 International Electrical Safety Standards, and Compliance with IEC 61010 CAT.III 600V measurement category and pollution grade 2.

WARNING!

Read this manual before using the instrument.

Safety operation specifications

“**WARNING**” mark indicates the condition and operation which may cause danger to users.

“**CAUTION**” mark refers to the condition and operation which may cause damage to the instrument or equipment.

Safe working regulations

WARNING!

In order to avoid possible electric shock or personal injury and other safety accidents, please abide by the following specifications:

- Please read this manual carefully before using

the instrument, and pay special attention to safety warning information.

- Strictly observe the operation of this manual and use this instrument. Otherwise, the protection function of the instrument may be damaged or weakened
- Please be careful if the measurement exceeds 30V AC true RMS, 42V AC peak or 60V DC. There may be danger of electric shock at this kind of voltage
- Voltage applied between terminals or between each terminal and grounding point shall not exceed the rated value.
- By measuring the known voltage to check whether the meter work is normal, if it is not normal or damaged, do not use it again
- Before using the instrument, please check whether there are cracks in the instrument shell or plastic parts damaged. If so, please do not use again.
- Before using the instrument, please check whether the probe is cracked or damaged. If so, please replace the same type and the same electrical specifications

- Do not exceed the lowest rated Category of Measurement (CAT) rating in products, probes or accessories
- Do not measure the current when the probe is inserted into the input jack
- Don't work alone
- Please comply with local and national safety code. Wear personal protection equipment (such as approved rubber gloves, masks and flame retardant clothes, etc.) to prevent being damaged by electric shock and electric arc due to exposed hazardous live conductor
- When it shows low battery indicator, please replace the battery in time in case of any measurement error
- Do not use the instrument around explosive gas, steam or in wet environment.
- When using the probe, please put your fingers behind the finger protector of the probe
- When measuring, please connect the neutral wire or the ground wire firstly, then connect the live wire; When disconnecting, please disconnect the live wire firstly, then disconnect the neutral wire and ground wire

- Before opening the outer cabinet or battery cover, please remove the probe on the instrument. Do not use the instrument in the circumstances that the instrument is taken apart or battery cover is opened
- It only meets the safety standards when the instrument is used together with the supplied probe. If the probe is damaged and needs to replace, the probe with same model number and same electrical specifications must be used for replacement.

THE SYMBOLS IN INSTRUCTION MANUAL

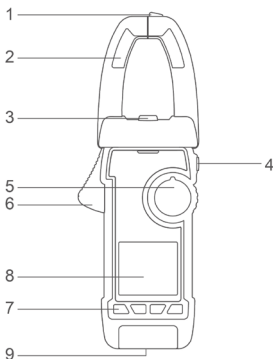
	High voltage warning
	AC (Alternating current)
	DC (Direct current)
	AC or DC
	Warning message
	Ground
	Fuse
	Double insulation or reinforced insulation protection
	Low battery
	Conforms to European Union directives
	This additional product label indicates that this electrical/electronic product must not be discarded in household waste.

INTENDED USE

The new generation of high-performance digital clamp meters make your work easier, more efficient and safer. It can measure AC/DC voltage, AC current, resistance, continuity, diode, capacitance, frequency, NCV, LIVE, etc.

SPECIFICATIONS

Instrument panel



Components

- | | |
|------------------|-------------------------|
| 1. NCV probe | 6. Trigger |
| 2. Clamp | 7. Function key |
| 3. Flashlight | 8. Display screen |
| 4. Data hold key | 9. Measuring input jack |
| 5. Knob switch | |

Technical specifications

- Environment condition of using:
CAT.III 600V
Pollution level: 2
Altitude < 2000m
Working environment temperature and humidity:
0~40°C (<80% RH, <10°C non condensing).
Storage environment temperature and humidity:
-10~60°C (<70% RH, remove the battery).
- Temperature coefficient:
0.1× accuracy/°C (<18°C or >28°C).
- MAX. Voltage between terminals and earth ground: 600V
- Sampling rate: about 3 times/second.
- Display: 4000 counts.
- Over range indication: it displays "OL".
- Low battery indication: when the battery voltage

is lower than the normal working voltage, " will be displayed.

- Input polarity indication: automatically display “-”.
- Power: 3 x 1.5V AAA batteries.

FUNCTIONAL OPERATIONS

: Function select

: MAX/MIN

: Backlight

: Flashlight

: Data hold

Other function

- Max/Min measurement: press  key view Maximum and Minimum, press  key and keep more than 2 seconds to exit the maximum and minimum measurements.
- Backlight: press  key to turn on or off the backlight.
- Flashlight: press  key to turn on or off flashlight.
- Data hold: press  key to turn on or off data hold function.

- Auto power off:
No operation in 15 minutes. The meter will turn off power automatically to save battery energy. After automatic power off, press any key to restore the working state.
If you press the **FUNC** key and keep, then turn on the meter power, the automatic shutdown function will be cancelled. Reboot can restore automatic shutdown function.

Measurement operation

AC Current measurement

- 1) Turn the knob to **~**, and select proper range (4A, 40A or 600A).
- 2) Then press the trigger to open the clamp, clamp the conductor to be tested, slowly release the trigger until the clamp are completely closed, and determine whether the conductor to be tested is clamped in the center of the pliers, if the conductor is not in the center of the pliers, additional errors will occur.
- 3) Read the measurement results from the display screen.

⚠ WARNING!

- When measuring high voltage, pay special attention to safety, so as not to be subjected to electric shock or personal injury.
- In order to ensure the measurement accuracy, the measured conductor must be placed in the center of the clamp, otherwise additional errors will occur.

AC/DC Voltage measurement

- 1) Turn the knob to $\tilde{V}$ gear, and press the **FUNC** button to switch the AC or DC voltage measurement function.
 - 2) Insert the red probe in "INPUT" jack, insert the black probe in "COM" jack.
 - 3) Contact the probe to the measured circuit (connect to the measured power supply or circuit in parallel), measure the voltage.
 - 4) Read the measurement result on the screen.
- The voltage above 600V can't be measured; otherwise, the instrument may be damaged.
 - Pay special attention to safety when measuring high voltage to avoid electric shock or personal injury.

Frequency measurement

- 1) Turn the knob to **Hz** gear.
- 2) Insert the red probe in “**INPUT**” jack, insert the black probe in “**COM**” jack.
- 3) Contact the probe to the measured circuit (connect to the measured power supply or circuit in parallel).
- 4) Read the measurement result on the screen.

NOTE: Signals with too low a frequency may not be detected

⚠ CAUTION!

Do not input a frequency signal greater than 10V RMS to avoid measurement mistake.

Resistance measurement

- 1) Turn the knob to Ω gear, switching resistance measurement function by pressing **FUNC** key.
- 2) Insert the red probe in “**INPUT**” jack, insert the black probe in “**COM**” jack
- 3) Contact the probe to the measured circuit or resistance.
- 4) Read the measurement result on the screen.

⚠ WARNING!

When measuring resistance on the line,

disconnect the power supply and discharge all the high-voltage capacitors. Otherwise, the instrument may be damaged and may be struck by electric shocks.

Continuity test

- 1) Turn the knob to  gear, switching continuity test function by pressing  key.
- 2) Insert the red probe in “**INPUT**” jack, insert the black probe in “**COM**” jack
- 3) Contact the probe to the measured circuit or resistance.
- 4) If the resistance or circuit of the measured resistance is less than 30 Ω , the buzzer sounds and the red LED will light up; the screen displays the resistance

WARNING!

When measuring capacitance on the line, disconnect the power supply and discharge all the high-voltage capacitors. Otherwise, the instrument may be damaged and may be struck by electric shocks.

Diode test

- 1) Turn the knob to  gear, switching diode test function by pressing  key.
- 2) Insert the red probe in “**INPUT**” jack, insert the black probe in “**COM**” jack.
- 3) Touch the diode anode with the red probe, the black probe contacts the diode cathode.
- 4) Read the measurement result on the screen.
- 5) If the pen polarity is opposite to the diode polarity, the meter displays "OL", which can be used to distinguish the anode and cathode of the diode.

WARNING!

When measuring diode on the line, disconnect the power supply and discharge all the high-voltage capacitors. Otherwise, the instrument may be damaged and may be struck by electric shocks.

Capacitance measurement

- 1) Turn the knob to  gear.
- 2) Insert the red probe in “**INPUT**” jack, insert the black probe in “**COM**” jack.
- 3) Contact the probe to the measured circuit or

capacitance,

- 4) Read the measurement result on the screen.

WARNING!

When measuring capacitance on the line, disconnect the power supply and discharge all the high-voltage capacitors. Otherwise, the instrument may be damaged and may be struck by electric shocks.

Non-contact AC Voltage detection (NCV)

- 1) Turn the knob to '**NCV/LIVE**' gear.
- 2) Then NCV probe gradually approaches the detected point.
- 3) When the signal of weak electromagnetic field is sensed, the character "--- L" is displayed, and a slow beeping sound, the red indicator blinks slowly.
- 4) When the signal of strong electromagnetic field is sensed, the character "--- H" is displayed, a fast beeping and the red indicator blinks quickly.

Live detection (LIVE)

- 1) Turn the knob to '**NCV/LIVE**' gear, press  key until the "LIVE" Symbol is displayed

- 2) Insert red probe to "INPUT" jack.
- 3) Connect the red probe to the conductor to be tested for measurement.
- 4) When a weak AC signal is detected, the "---L" character is displayed, the buzzer emits a slow beep sound, and the red indicator blinks slowly.
- 5) When a strong AC signal is detected, the "---H" character is displayed, the buzzer gives a quick beep sound, and the red LED indicator light is on.
- 6) In general, the fire line detected at this time.

Precision index

The accuracy applies within one year after the calibration.

Reference condition: the environment temperature 18°C to 28°C, the relative humidity is no more than 80% accuracy: $\pm(\% \text{ reading} + \text{word})$

DC Voltage

Range	Resolution	Accuracy
400mV	0.1mV	$\pm(0.5\% \text{reading} + 5 \text{word})$
4V	0.001V	
40V	0.01V	
400V	0.1V	
600V	1V	

Input impedance: 10M Ω

Overload protection: 600V

Maximum input voltage: 600V

AC Voltage

Range	Resolution	Accuracy
4V	0.001V	40~500Hz: $\pm(1.0\% \text{reading} + 5 \text{word})$
40V	0.01V	
400V	0.1V	Other: $\pm(2.0\% \text{reading} + 10 \text{word})$
600V	1V	

Input impedance: 10M Ω

Overload protection: 600V

Maximum input voltage: 600V

Frequency response: 30Hz ~ 1kHz True RMS

AC Current

Range	Resolution	Accuracy
4A	0.001A	45~65Hz: $\pm(2.5\% \text{reading} + 5 \text{word})$
40A	0.01A	
400A	0.1A	Other: $\pm(3.0\% \text{reading} + 10 \text{word})$
600A	1A	

Maximum current: 600A

Frequency response: 40Hz ~ 400Hz; True RMS

Frequency

Range	Resolution	Accuracy
4Hz	0.001Hz	$\pm(1.0\%\text{reading} + 3\text{word})$
40Hz	0.01Hz	
400Hz	0.1Hz	
4KHz	0.001KHz	
40KHz	0.01KHz	
400KHz	0.1KHz	
4MHz	0.001MHz	$\pm(3.0\%\text{reading} + 3\text{word})$
40MHz	0.01MHz	

Resistance

Range	Resolution	Accuracy
400 Ω	0.1 Ω	$\pm(1.0\%\text{reading} + 5)$
4k Ω	0.001k Ω	
40k Ω	0.01k Ω	
400k Ω	0.1k Ω	
4M Ω	0.001M Ω	
40M Ω	0.01M Ω	

Overload protection: 250V

Continuity

	<Approx.30Ω, the buzzer sounds and the red indicator on	Test Voltage Approx. 2V Overload protection: 250V
---	---	---

Diode

	It displays the approximate forward voltage value of the diode.	Test Voltage Approx. 2.8V Overload protection: 250V
---	---	--

Capacitance

Range	Resolution	Accuracy
4nF	0.001nF	±(4.0%reading+5)
40nF	0.01nF	
400nF	0.1nF	
4μF	0.001μF	
40μF	0.01μF	
400μF	0.1μF	
4mF	0.001mF	

Overload protection: 250V

MAINTENANCE&CLEAN

WARNING!

To avoid electric shock, remove the test probe before opening the battery cover or back cover.

General maintenance

- Maintenance and service of this instrument must be carried out by professional qualified maintenance personnel or maintenance department.
- Use wet cloth or mild detergent regularly to clean the shell. Do not use abrasives or solvents. Wipe the contacts in the socket with a clean cotton swab soaked in alcohol.

Battery installation or Replacement

The meter uses three AAA 1.5V batteries. Please install or replace the batteries according to the following steps.

- 1) Turn off the power of the meter and remove the probe
- 2) Use screwdriver to unscrew the screw that fixes the battery cover and remove the battery cover
- 3) Remove the old battery and install the new battery according to the polarity of the battery marked in the battery box

- 4) After installing the new battery, cover the battery cover and lock the screw

 WARNING!

- To avoid the possibility of electric shock or personal injury caused by incorrect reading, replace the battery immediately when the "" sign is displayed on the display screen.
- Please use the same type of batteries, do not use substandard batteries
- In order to ensure safe operation and maintenance of the instrument, please take out the battery when not in use for a long time, in order to prevent damage to the product caused by battery leakage.



MADE IN CHINA 0724.V01

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