



说明书材质要求: 105g 有光铜版纸	说明书成品尺寸: 75*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: 骑马钉	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

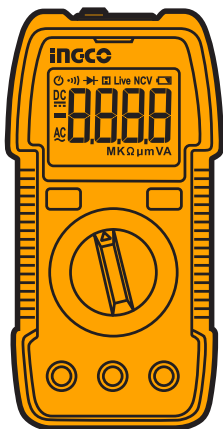
更改记录	1. 新制作				
	0724.V01	2024.7.19	QQY		
	版本号	日期	设计师		

ingco

www.ingco.com

**PRODUCT
MANUAL**

DIGITAL MULTIMETER



DM36002



Original Instructions

GENERAL TOOL SAFETY WARNINGS**Safety statement**

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

It requires that you must be careful during the execution of the operation. If incorrectly perform the operation or do not follow the procedure, it may damage the instrument or equipment. In the circumstances that such conditions are not met or not fully understood, please do not continue to perform any operation indicated by the caution mark.

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

It requires that you must pay attention during the execution of this operation. If incorrectly perform the operation or do not follow the procedure, it may result in personal injury or casualties. In the circumstances that such conditions are not met or not fully understood, please do not continue to perform any operation indicated by the warning mark.

 **WARNING!**

This symbol indicates conditions and operations

that are dangerous to the user.

The instrument is designed according to the requirements of the international electrical safety standard IEC61010-1 for the safety requirements of the electronic testing instruments. The design and manufacture of instruments strictly comply with the requirements of IEC61010-1 CAT.III 600V over voltage safety standards and pollution level 2.

Safety operation specifications

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
- 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 is any crack or plastic damage in the instrument case. If you do, do not use it 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.
- The instrument shall be used in accordance with the specified measurement category, voltage or current rating.
- 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 zero line or the ground line firstly, then connect the live wire; but when disconnecting, please disconnect the live wire firstly, then disconnect the zero line and ground line.
- 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.

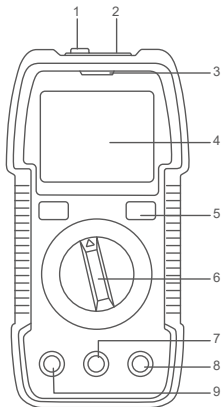
CAT. III	Category III measurement is suitable for testing and measuring the circuit connected to the power distribution part of the building's low-voltage power supply installation.
CAT. IV	Category IV measurement is suitable for testing and measuring circuits connected to the power supply of the building's low-voltage power supply installation.

INTENDED USE

True RMS high performance digital multimeter. The new display and function layout show clearer and better user experience. It is the best choice for professional electricians, enthusiasts or families.

SPECIFICATIONS

Instrument panel



Components

- | | |
|----------------------|-----------------------------------|
| 1. NCV probe | 6. Function knob |
| 2. Flashlight | 7. COM Input socket |
| 3. Red / green light | 8. Other measurement input socket |
| 4. LCD display | 9. 10A current Input socket |
| 5. Function keys | |

General 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
- Fuse protection:
mA: F400mA/250V fuse
10A: F10A/250V fuse
- Sampling rate: about 3 times/second.
- Display: 4000 counter readout. Automatically display the unit symbols according to the shift of the measurement function.
- 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 requirement: 2 x 1.5V AAA batteries.
- Dimension: 151mm x 75mm x 46mm.

FUNCTIONAL OPERATIONS

FUNC Key

When there are multiple measuring functions on a gear, the FUNC. key switch function is adopted.

Data hold

Press “HOLD” key, enter data hold mode/cancel data hold mode.

Backlight function

Long press  to turn on/off backlight.

Flashlight

Press  key and hold for more than 2 seconds to turn on/off the flashlight.

Automatic shutdown

- Turn on the power  for about 15 minutes without any operation, and the instrument panel will automatically shut down to save battery energy. After automatic shutdown, press the button and the instrument panel will return to working mode.

- Pressing and holding the " " key and then turning on the instrument power will cancel the automatic shutdown function. After shutting down, restart to restore the automatic shutdown function.

Measurement operation

DC voltage measurement

- 1) Turn the knob to " "
- 2) Insert the red probe in " " socket, insert the black probe in "COM" socket.
- 3) Choose the appropriate range.
- 4) Contact the probe to the measured circuit (connect to the measured power supply or circuit in parallel), measure the voltage.
- 5) Read the measurement result.

WARNING!

- 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.
- Test the known voltage with the meter before use, confirm the instrument function is intact.

AC Voltage measurement

- 1) Turn the knob to “**V**”
- 2) Insert the red probe in “**VΩmA**” socket, insert the black probe in “COM” socket.
- 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.

⚠ WARNING!

- 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.
- Test the known voltage with the meter before use, confirm the instrument function is intact.

DC current measurement

- 1) Turn the knob to  shift
- 2) Insert the red probe in “” socket or 10A Socket, insert the black probe in “COM” socket.
- 3) Disconnect the power of the tested circuit; connect the meter to the circuit under test, then turn on the circuit power supply.

4) Read the measurement result

⚠ WARNING!

- Pay special attention to safety when measuring high voltage to avoid electric shock or personal injury.
- Before use, test the known voltage with an instrument to confirm that the instrument is functioning properly.
- look out:
- To avoid damaging instruments or equipment, please check the fuse before measurement and ensure that the measured current does not exceed the rated maximum current; Use the correct input terminal.

Resistance measurement

- 1) Turn the knob to “  ”
- 2) Insert the red probe in “  ” socket, insert the black probe in “COM” socket.
- 3) Choose the appropriate range.
- 4) Contact the probe to the measured circuit or resistance, measure the resistance.
- 5) Read the measurement result.

⚠ 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.

On/Off measurement

- 1) Turn the knob to  and switch  to the On/Off measurement function.
- 2) Insert the red probe into the  input terminal and the black probe into the COM input terminal.
- 3) Ensure that the power supply to the measured circuit has been cut off, and then place the probe in contact with both ends of the measured circuit or resistor.
- 4) If the measured resistance or the resistance value of the circuit is less than about 30 Ω , the buzzer will emit a warning sound and the green indicator light will be illuminated at the same time; The display screen displays the resistance value of the tested circuit.

⚠ 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.

Diode measurement

- 1) Turn the knob to  and Switch to diode measurement function according to "  " key.
- 2) Insert the red probe in "  " socket, insert the black probe in "COM" socket.
- 3) Touch the diode anode with the red probe, the black probe contacts the diode cathode.
- 4) Read the measurement result.

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

NCV test

- 1) Turn the knob to the **NCV Live**
- 2) Then NCV probe gradually approaches the detected point.
- 3) When the meter senses weak AC signals, the green indicator lights up, while the beeps send out slow dips.

- 4) When the meter senses strong AC signals, the red indicator lights up, while the beeps send out fast dips.

5)

WARNING!

In order to avoid possible accidents such as electric shock or personal injury, please follow the safety regulations.

Live test

- 1) Turn the knob to the **NCV Live** shift, and Switch to live test function according to "FUNC." key. Meter will display "LIVE".
- 2) Insert the red probe in "**→mAμA**" socket, Then the probe contact to the test point
- 3) When the meter senses weak AC signals, the green indicator lights up, while the beeps send out slow dips.
- 4) When the meter senses strong AC signals, the red indicator lights up, while the beeps send out fast dips.

 WARNING! In order to avoid possible accidents such as electric shock or personal injury, please follow the safety regulations.

Battery test

- 1) Turn the knob to battery test and select the appropriate range.
- 2) Insert the red probe in “mA μ A” socket, insert the black probe in “COM” socket.
- 3) Touch the positive with the red probe, the black probe contacts the negative.
- 4) Read the measurement result.

NOTE: 1.5V range Load resistance: 30 Ω

9V range Load resistance: 300 Ω

Accuracy specifications

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: $\pm$ (% reading + word)

DC Voltage

Range	Resolution	Accuracy
400mV	0.1mV	$\pm(0.5\%+3)$
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
400V	0.1V	$\pm(1.0\% +3)$
600V	1V	

Input impedance: 10M Ω

Overload protection: 600V

Maximum input voltage: 600V

Frequency response: 10Hz ~1 kHz, TRMS

DC Current

Range	Resolution	Accuracy
40mA	0.01mA	$\pm(1.2\%+3)$
400mA	0.1mA	
10A	0.01A	

Overload protection: μ A/mA: F400mA/250V fuse

A: F10A/250V fuse

Maximum input current: μ A/mA: 400mA; A: 10A

When measuring large current, continuous measurement should be no longer than 15 seconds

Resistance

Range	Resolution	Accuracy
400Ω	0.1Ω	±(1.0%+3)
4kΩ	0.001kΩ	
40kΩ	0.01kΩ	
400kΩ	0.1kΩ	
4MΩ	0.001MΩ	±(1.2%+3)
40MΩ	0.01MΩ	

Overload protection: 250V

Diode

	Forward DC current is about 1mA Reverse DC voltage is about 2.5V Overload protection:250V It displays the approximate forward voltage value of the diode.
---	--

Continuity

	Open circuit voltage is about 0.5V Overload protection:250V The resistance is <30, the buzzer will sound and the indicator light is green. When the resistance >30 and <60, the buzz does not ring, the indicator light is red.
---	---

MAINTENANCE&CLEAN

Clean

If there's dust on the terminal or the terminal is wet, it may cause measurement error. Please clean the instrument according to the steps below:

- 1) Switch off the power supply of the instrument, and remove the test probe.
- 2) Turn over the instrument and shake out the dust accumulated in the input socket. Wipe the outer cabinet with a damp cloth and mild detergent, do not use abrasive or solvent. Wipe contacts in each input socket with a clean cotton swab soaked in alcohol.

⚠ WARNING! Please always keep the inside of the instrument clean and dry to avoid electric shock or instrument damage.

Replace battery

- 1) Turn off the power supply of the instrument, and remove the probe on the instrument.
- 2) Use screwdriver to unscrew screws fixing the battery cover, remove the battery cover.
- 3) Remove old batteries, replace with new batteries of the same specifications. Please note the polarity of the battery according to the positive and

negative polarity marks inside of the battery cover.

- 4) Install the battery cover to its original position, fix and lock the battery cover with screws.

WARNING!

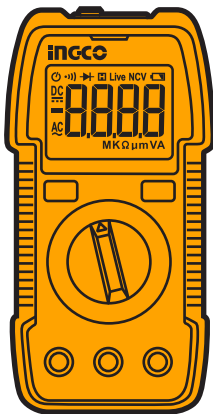
- **To prevent electric shock or personal injury caused by error reading, please replace the battery promptly when the battery power is low. Please do not make battery short circuit or reverse battery polarity to discharge the batteries.**
- **To ensure safety operation and product maintenance, when the instrument will not be used for an extended period of time, please remove the batteries to avoid any product damage caused by battery leakage.**

Replace fuse

- 1) Turn off the power supply of the instrument, and remove the probe on the instrument.
- 2) Use screwdriver to unscrew screws fixing the back cover, and remove the back cover.
- 3) Remove the burnt fuse, replace with new fuse of the same specifications, and ensure that the fuse is clamped in the safety clip.
- 4) Install the back cover, fix and lock it with screws.

⚠ WARNING!

To avoid possible electric shock, personal injury or instrument damage, please use the fuse with same specifications or specified specifications.



MADE IN CHINA 0724.V01

NEWWAY TECHNOLOGY (SUZHOU) CO., LIMITED