

User Manual: DIIOOMIEEU 22mm 2-in-1 Digital Voltmeter Ammeter

Model: B0DP2LWC6Z

Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your DIIOOMIEEU 22mm 2-in-1 Digital Voltmeter Ammeter. This device is designed for accurate measurement of AC voltage and current, featuring a clear digital display for easy readability. Please read this manual thoroughly before use to ensure safe and efficient operation.

The 2-in-1 Digital Voltmeter Ammeter is an electrical component suitable for various applications, including automotive systems and general electrical testing. It measures AC voltage from 50V to 500V and AC current from 0A to 100A, operating at a frequency of 50/60Hz.

Product Overview



Figure 1: Front view of the 2-in-1 Digital Voltmeter Ammeter with its accompanying current transformer (CT). The yellow display shows both voltage and current readings.



Figure 2: Rear view of the voltmeter ammeter, illustrating the wiring terminals for power input and current transformer connection. Note the AD101-22VAM model designation and AC50-500V, 0-100A ratings.

The DIIOOMIEEU 22mm 2-in-1 Digital Voltmeter Ammeter consists of a compact panel-mount display unit and an external current transformer (CT). The display unit features a 22mm diameter, making it suitable for standard panel cutouts. It provides simultaneous digital readings for AC voltage and current. The external CT is used to measure current non-invasively by passing the current-carrying wire through its aperture.

Safety Information

- Always disconnect power before installation or maintenance.
- Ensure proper wiring connections to prevent damage to the device or electrical system.
- Do not exceed the specified voltage (50-500V AC) or current (0-100A AC) ratings.
- This device is designed for AC circuits only. Do not use with DC power.
- Installation should be performed by qualified personnel if you are unsure about electrical wiring.

Setup and Installation

Proper installation is crucial for accurate readings and safe operation. Follow these steps carefully:

1. **Prepare the Panel:** Create a 22mm diameter cutout in your electrical panel or enclosure where the meter will be mounted.
2. **Mount the Meter:** Insert the voltmeter ammeter into the cutout from the front. Secure it in place using the locking ring on the back of the meter.
3. **Connect Power (Voltage Measurement):**



Figure 3: Close-up of the two-pin connector for power input to the meter. This connector typically uses red and black wires.

Connect the two wires from the meter's power input (typically red and black, as shown in Figure 3) to the AC voltage source you wish to measure. The meter is designed for direct connection to the AC line (50-500V AC). Ensure the connections are secure and polarity is not critical for AC voltage measurement.

4. **Connect Current Transformer (Current Measurement):**



Figure 4: The current transformer (CT) with its integrated cable, ready for connection to the meter. The CT is used for non-contact current measurement.

Pass the single wire carrying the current you want to measure through the center hole of the current transformer (CT). The CT has a small two-pin connector that plugs into the corresponding port on the back of the voltmeter ammeter. Ensure the CT is correctly connected to the meter's dedicated current input terminals. Do not connect the CT directly to the main power supply.

5. **Verify Connections:** Double-check all wiring to ensure it is correct and secure before applying power.

Operating Instructions

Once installed and wired correctly, operating the DIIOOMIEEU 2-in-1 Digital Voltmeter Ammeter is straightforward:

1. **Power On:** Apply AC power to the circuit where the meter is connected. The meter's digital display will illuminate.
2. **Read Voltage:** The upper display will show the measured AC voltage in Volts (V).
3. **Read Current:** The lower display will show the measured AC current in Amperes (A).
4. **Normal Operation:** The meter continuously displays real-time voltage and current readings. No further user interaction is typically required during normal operation.



Figure 5: Example of the meter displaying voltage and current readings. The top line shows voltage (e.g., 230V) and the bottom line shows current (e.g., 0.00A).

Maintenance

The DIIOOMIEEU 2-in-1 Digital Voltmeter Ammeter is designed for low maintenance. Follow these guidelines to ensure its longevity:

- **Cleaning:** Use a soft, dry cloth to clean the display and housing. Do not use abrasive cleaners or solvents.
- **Inspection:** Periodically inspect the wiring connections for any signs of looseness or damage. Ensure the current transformer is securely positioned around the wire.
- **Environment:** Ensure the meter is installed in an environment free from excessive dust, moisture, and extreme temperatures, which could affect its performance and lifespan.

Troubleshooting

Problem	Possible Cause	Solution
Meter display is off.	No power supply to the meter or loose connection.	Check power connections to the meter. Ensure AC voltage is within the 50-500V range.
Voltage reads 0V or incorrect.	Incorrect or loose voltage input wiring.	Verify the two power input wires are correctly connected to the AC voltage source.
Current reads 0A or incorrect.	Current transformer (CT) not connected, incorrectly wired, or wire not passed through CT.	Ensure the CT is plugged into the meter. Verify the current-carrying wire passes through the CT's center. Check CT for damage.
Display flickering or unstable readings.	Unstable power supply or electromagnetic interference.	Ensure stable power. Relocate the meter or wiring away from strong electromagnetic fields if possible.

Specifications

Feature	Specification
Model	AD101-22VAM (General Type)

Feature	Specification
Measuring Voltage Range	AC 50-500V
Measuring Current Range	AC 0-100A
Frequency	50/60Hz
Display Type	Digital LED
Panel Cutout Diameter	22mm
Operating Temperature	Not specified (typical for electrical components)
Color (Display)	Yellow (for this specific model variant)

Warranty and Support

Specific warranty information for the DIIOOMIEEU 22mm 2-in-1 Digital Voltmeter Ammeter is not provided in the product details. For warranty claims, technical support, or further inquiries, please contact the seller or manufacturer directly through the platform where the product was purchased.

Always refer to your purchase documentation for details regarding returns, exchanges, and warranty coverage.