

SPABOY KCT-36

SPABOY KCT-36 Split Core AC Current Sensor Instruction Manual

1. INTRODUCTION

The SPABOY KCT-36 is a high-performance split core AC current sensor designed for non-invasive measurement of alternating current. Its split-core design allows for easy installation around existing conductors without the need to disconnect the circuit. This sensor is ideal for applications requiring accurate current monitoring up to 600 Amperes, providing a 1.5V output signal proportional to the measured current.

2. SAFETY INFORMATION

- Always ensure the power to the circuit being measured is **OFF** before installing or removing the sensor to prevent electrical shock.
- Do not exceed the maximum rated current of 600 Amperes.
- Do not use the sensor in wet or damp conditions.
- Ensure all connections to the measurement device are secure and correct.
- This device is intended for use by qualified personnel.

3. PACKAGE CONTENTS

- One (1) SPABOY KCT-36 Split Core AC Current Sensor

4. SETUP AND INSTALLATION

1. **Power Off:** Before beginning, ensure the power to the electrical conductor you intend to measure is completely turned off and locked out.
2. **Open Sensor:** Locate the latch mechanism on the side of the KCT-36 sensor. Gently press or slide the latch to open the split core.
3. **Position Conductor:** Carefully place the electrical conductor (cable or busbar) through the opening of the sensor. Ensure the conductor is centered within the sensor's aperture for accurate readings.
4. **Close Sensor:** Close the split core firmly until the latch mechanism clicks into place, indicating a secure closure. A proper closure is critical for accurate measurements.

5. **Connect Output:** Connect the sensor's output terminals to your compatible measurement device (e.g., ammeter, data logger, PLC input). Refer to your measurement device's manual for correct wiring and input impedance requirements. The sensor provides a 1.5V output.
6. **Restore Power:** Once the sensor is securely installed and connected, you may safely restore power to the circuit.



The image displays two SPABOY KCT-36 split core AC current sensors. These black, rectangular devices feature an openable core design, allowing them to be clamped around an electrical conductor without breaking the circuit. One sensor clearly shows the label 'KCT-36 Ratio: 600A / 60mA Class: 0.5', indicating its specifications.

5. OPERATING INSTRUCTIONS

Once the KCT-36 sensor is correctly installed and connected to a suitable measurement device, it will automatically begin to sense the AC current flowing through the conductor. The sensor generates an analog voltage output proportional to the measured AC current.

- The sensor is rated for a maximum primary current of 600 Amperes.
- The output signal is 1.5V, which corresponds to the full-scale measurement.
- Refer to the documentation of your connected measurement device for details on how to interpret and scale the 1.5V output signal to display the actual current in Amperes.

6. MAINTENANCE

- Keep the sensor clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Avoid exposing the sensor to excessive moisture or corrosive environments.

- Periodically inspect the sensor casing and output cable for any signs of damage, cracks, or wear.
- Do not attempt to disassemble or repair the sensor. Refer any issues to qualified service personnel.

7. TROUBLESHOOTING

- **No Reading or Incorrect Reading:**

- Ensure the power to the circuit is on and current is flowing.
- Verify that the sensor's split core is fully closed and latched.
- Check all connections between the sensor and your measurement device for proper wiring and secure contact.
- Confirm that your measurement device is correctly configured to accept a 1.5V input signal and is scaled appropriately.
- Ensure the conductor is properly centered within the sensor's aperture.

- **Intermittent Readings:**

- Check for loose connections.
- Inspect the sensor cable for damage.

8. SPECIFICATIONS

Specification	Value
Model Number	KCT-36
Maximum Primary Current	600A AC
Output Voltage	1.5V (Full Scale)
Item Weight	1.76 ounces
Package Dimensions	0.39 x 0.39 x 0.39 inches
Assembly Required	No
Number of Pieces	1

9. WARRANTY AND SUPPORT

This SPABOY KCT-36 Split Core AC Current Sensor comes with a standard manufacturer's warranty. For specific warranty terms, technical assistance, or support, please contact your point of purchase or the manufacturer directly. Please have your product model number and purchase date available when contacting support.