

**1. Safety warnings**

This clamp sensor has been designed and tested according to IEC61010-1. Safety Requirements for Electrical Measuring Apparatus, and delivered in the best condition after passing quality control tests. This instruction manual contains warnings and safety rules which have to be obeyed by the user to ensure safe operation of the clamp sensor and to maintain it in safe condition. Therefore, read through these operating instructions before starting to use the clamp sensor.

**WARNING**

Read through and understand the instructions contained in this manual before starting to use the clamp sensor.

1. Keep the manual at hand to enable quick reference whenever necessary.
2. The clamp sensor is to be used only in its intended applications.
3. Understand and follow all the safety instructions contained in the manual.
4. It is essential that the above instructions are adhered to. Failure to follow the above instructions may cause injury, clamp sensor damage and/or damage to equipment under test. KRYOTSU is not liable for any damage resulting from the mishandling of the clamp sensor.

The symbol △ indicates the condition on the clamp sensor, means that the user must refer to the related parts in the manual for safe operation of the clamp sensor. It is essential to read the instructions wherever the △ symbol appears in the manual:

- **△ DANGER** : is reserved for conditions and actions that are likely to cause serious or fatal injury.
- **△ WARNING** : is reserved for conditions and actions that can cause serious or fatal injury.
- **△ CAUTION** : is reserved for conditions and actions that can cause injury or instrument damage.

**DANGER**

Do not make measurements in a circuit in which electrical potentials exceed the following values exist: 300 V in CAT II environment and 600 V in CAT II or lower environment.

Use the sensor only as specified; otherwise, the protection supplied by the sensor can be compromised and damage itself or lead to a serious accident. Always verify the proper operation on a well-known power source before starting to use the sensor.

**WARNING**

- Do not disassemble, install substitute parts or make any modification to the clamp sensor. Return the clamp sensor to your local KYORITSU distributor for repair or re-calibration in case of suspected faulty operation.
- Do not use the clamp sensor or the sensor head is wet or water, otherwise, electrical shock accident may occur.
- Comply with the local and national safety code and use the protective gears to avoid personal injury.

**CAUTION**

- Do not drop or pinch the cord. It may damage the jacket of the cable.
- Do not expose the clamp sensor to direct sunlight, high temperature, humidity or dust. It may cause deformation or insulation degradation and cannot meet the original specification.
- Do not give shocks, such as vibration or drop, which may damage the clamp sensor, during transport or use.
- Use a damp cloth with water or neutral detergent for cleaning the clamp sensor. Do not use abrasive or solvents. Equipment storing or handling environment should be such that does not cause product damage or loss of shape.
- Never make measurements in the vicinity of strong magnetic environments (e.g. transformers, high-current circuits or wireless machines). The latest firmware is available on our website.

**5. Specifications**

- **Model name**: KEW-8133
- **Applicable standards**:
  - Power Quality Analyzer
- **Power on the measuring instrument**:
  - CAT II : Electrical circuits of equipment connected to an AC mains power via a power cord. Power supply of 300V or less in CAT II shall be used if the mains power is 300V or less in CAT II environment.
  - CAT III : Electrical circuits of equipment connected to an AC mains power via a power cord. Power supply of 300V or less in CAT III shall be used if the mains power is 300V or less in CAT III environment.
  - CAT IV : Electrical circuits of equipment connected to an AC mains power via a power cord. Power supply of 300V or less in CAT IV shall be used if the mains power is 300V or less in CAT IV environment.
- **Applicable measuring instrument**: KEW 6305, KEW 6315
- **Meaning of symbols on the clamp sensor**: is applied to.

**6. Operating instructions**

- **Never make measurements in circuits in which electrical potentials exceed the following values exist: 300 V in CAT IV and 600 V in CAT III or lower environment.
- **Note**
  - This sensor has been specifically designed and dedicated to our Power meter KEW 6305 and Power quality analyzer KEW 6315. It cannot be used with the other our products such as KEW 5010/5020.

**4.1 Measurement method**

1. Connect the output terminal to the input terminal on the measuring instrument.
2. Power on the measuring instrument.
3. Lock the Joint screw to the following illustrations.

![Diagram]

Measurement Category:

To ensure safe operation of measuring instruments, IEC 61010 establishes safety standards for various electrical environments, categorized as 0 to CAT IV, and called measurement categories. Higher-numbered categories correspond to electrical environments requiring higher safety margins of measurement error, and therefore, this clamp sensor will not perform as intended in CAT II or lower environments.

Measurement Category:

- **O (None)**:
  - Circuits which are not directly connected to the mains power supply.
  - This sensor has been specially designed and dedicated to our Power meter KEW 6305 or KEW 6315. Only use in CAT II environment.

- **CAT II**:
  - Electrical circuits of equipment connected to an AC electrical output by a power cord. Power supply of 300 V or less in CAT II shall be used if the mains power is 300 V or less in CAT II environment.

- **CAT III**:
  - Primary electrical circuits of the equipment connected directly to the distribution panel, and feeders from the distribution panel to outlets.

- **CAT IV**:
  - The circuit from the service drop to the service entrance, and to the power meter and primary over-current protection device (distribution panel).

![Diagram]

**6-2 Connecting with KEW 6305/KEW 6315**

Before connecting this sensor with KEW 6305 or KEW 6315, confirm that the internal firmware version is newer than the one listed in the following table, otherwise, this sensor cannot be used with. The latest firmware is available on our website.

**Model** | Firmware version
--- | ---
KEW 6305 | V1.50 or later
KEW 6315 | V1.50 or later

For the detailed settings of the clamp sensor, please refer to the instruction manual for the applicable model.

**7. Storage**

Wind the cable of the sensor as shown below and lock the joint. Wind the lock cable in the same way and store them in the carrying bag.

![Diagram]

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