KYOWA IM-A-1507 March 2026

READ BEFORE USING THE PRODUCT

IEPE Accelerometer Unit

CTRS-IEPE010A

Thank you for purchasing this KYOWA's product.
Read this document and instruction manual carefully in order to make full use of the high-performance capabilities of the product. Do not use the product in methods other than described in this document and instruction manual.

The contents of this instruction manual are subject to change without notice.
For the latest information, refer to the KYOWA website.
Be sure to abide by the safety precautions and other notes provided in this document and instruction manual.

Standard Accessories

After unpacking the box, make sure the following parts are enclosed:

Name	Quantity
"READ BEFORE USING THE PRODUCT" document	1
"Terms and Conditions of New Product Warranty" document	1
Stack-connector caps (for female)*	1
Stack-connector caps (for male)*	1

*It is mounted on CTRS-IEPE010A at the time of shipment.

Product Overview

The CTRS-100 series is a data recorder system that supports standalone data acquisition.
By combining various measurement units and expansion units, you can increase the number of measurement channels and expand the functions, enabling a system configuration that meets your measurement needs.
In addition, because it is compact and lightweight and has excellent vibration and shock resistance, it can be used in a variety of measurement environments.

CTRS-IEPE010A is a measurement unit with an analog front end for IEPE accelerometer/voltage measurement. This instrument is equipped with 4 input channels. Since it can supply the constant current power required for IEPE accelerometer, it can be used by directly connecting IEPE accelerometer. It can also measure voltage.

Safety Precautions (Be sure to read the safety precautions before use.)

This product complies with the specifications listed in "Product Specifications" in the instruction manual. Avoid using the product in environments that depart from the applicable specifications. Failure to observe this precaution may result in malfunctions.

●Prior to use

To ensure safe use of this product, be sure to read the safety precautions before use. Kyowa Electronic Instruments Co., Ltd., assumes no liability for any damage resulting from the user's failure to comply with the safety precautions.
The following symbol is used to help ensure safe use of the product:

⚠	Indicates the operator must refer to an explanation in the INSTRUCTION MANUAL in order to avoid the risk of injury or death of personnel or damage to the instrument.

●Warning and Caution indicators

The following symbols are used to draw attention to important issues and to help ensure safe use of the product:

⚠ WARNING	Improper use of the system may result in death or severe injury.
⚠ CAUTION	Improper use of the system may result in injury and/or damage to the system.

⚠ WARNING

- **Power supply.**
  To prevent fire hazards, before turning on the product, make sure the power supply voltage specified for the product matches the local line voltage.
- **[GND] terminal.**
  Be sure to connect the [GND] terminal to ground. Failure to do so may result in electric shock, performance degradation, or malfunctions.
- **Environments containing inflammable substances.**
  To prevent the risk of fire and/or explosion, do not use the product in environments containing inflammable gas, vapor, or dust.
- **In the event of problems.**
  If abnormalities such as smoke, abnormal odor, or abnormal noise occur, immediately turn off the power, disconnect the power cable from the main unit, and stop using it.
  Also, do not install the instrument on or near flammable materials to prevent a fire when an abnormality occurs.
- **Attaching and detaching the unit.**
  Be sure to turn off the power before attaching or detaching the unit.
  It may cause an electric shock or malfunction.
- **Fixing screws when connecting units.**
  When connecting units, be sure to tighten the fixing screws. If the screws are not fixed, the connection may be disconnected at an unintended time, resulting in unexpected injury as well as product damage or failure.
- **Connecting and disconnecting cables.**
  Before connecting/disconnecting cables, turn off the power to the instrument and connected devices and ground the GND terminal. Failure to do so may cause an electric shock, performance degradation, or malfunctions.
- **Concomitant use of safety measures.**
  If there is a possibility that a secondary disaster may occur in the system due to a failure of the instrument, be sure to use another technical safety measure.
- **Heating of the chassis.**
  Depending on your environment, the chassis may become very hot.
  To prevent unexpected injuries and accidents, take measures such as heat dissipation when using in such an environment.

⚠ WARNING

- **Do not disassemble or modify the product.**
  Failure to observe this precaution can result in electric shock or malfunctions. Attempting to disassemble or modify the product will invalidate the warranty.
- **About the utility nuts.**
  This instrument has utility nuts (screw holes) that customers can use freely. When using the product, carefully read the precautions in the instruction manual and secure with the specified screw size and tightening torque. Use of screws outside the specified size or tightening outside the recommended tightening torque may cause inadequate fixing or damage to the screws, which may cause not only damage or malfunction of the instrument, but also unexpected injury. Do not do this. When using utility nuts, check the size and safety of the object to be installed before installing.
- **Supported input** (IEPE accelerometer / voltage measurement).
  This instrument supports IEPE accelerometer / voltage measurement. When using an IEPE accelerometer, do not connect anything other than an IEPE accelerometer. Do not input signals outside the input range.
  Failure to do so may cause electric shock, performance deterioration, or failure.

⚠ CAUTION

- **Use the product in a temperature range of -10 to 50 °C.**
  Using the product at temperatures outside of the specified range may lower product performance or result in malfunctions. If the product must be used under direct sunlight or in a cold place, protect the product with a screen or take proper measures to keep it warm.
- **Use the product in a relative humidity range of 20 to 90 %.**
  Using the product in environments in which the relative humidity falls outside the specified range may degrade product performance or result in malfunctions.
- **Take care of condensation after an abrupt change in the environment.**
  Abrupt changes in ambient temperature, such as during transportation, may cause condensation, which can degrade performance or cause malfunctions. Make sure that there is no condensation before using the instrument.
- **Avoid exposing the product to liquid.**
  The product is not waterproof or drip-proof. Ensure that no liquids come into contact with the product; otherwise, electrical leakage or malfunctions may occur.
- **Take care when operating the product in locations where the product may be subject to severe impact or vibration.**
  Continuous vibration or severe impact may result in performance degradation or malfunctions. Also, when using in an environment with impact or vibration, please fix the chassis and connection cable.
- **Avoid using the product in the presence of strong electromagnetic fields.**
  Use the product only in environments in which magnetic fields will not disrupt computer operations. Performance degradation, erratic operation, or malfunctions may occur if the product is used near radio equipment, microwave ovens, electric furnaces, or other equipment generating strong electromagnetic fields.
- **Pay attention to static electricity.**
  It may cause damage due to static electricity. Before touching the equipment, touch a metal object to discharge static electricity.
- **Avoid using the product under poor power supply conditions.**
  Failure to observe this precaution may result in performance degradation, erratic operations, or malfunctions.
  Be sure to use a power supply that does not emit noise or produce risk of instantaneous power outages.
- **Avoid installing sensors near a welding machine or performing measurements near a welding machine.**
  Failure to observe this precaution may result in output abnormalities, erratic operations, or malfunctions.

⚠ CAUTION

- **When using or storing in an environment exposed to dust or corrosive gas, protect the opening with a connector cap.**
  It may cause performance degradation or malfunctions. If dust gets inside, performance decreases. Make sure that dust does not enter during use as well as during storage.
- **If the product is used or stored in a place near the sea, take appropriate measures to protect the product from exposure to outside air.**
  Failure to observe this precaution may result in performance degradation or malfunctions.
- **Please use indoors.**
  For normal and safe use, do not install outdoors.
- **After power is turned OFF, wait at least five seconds before turning ON power once again.**
  If power is turned on again within five seconds or if the power is repeatedly turned ON and OFF, the product may cause performance deterioration or failure due to the inrush current generated by the product being turned on.
- **Allow the product to warm up before use.**
  When switched on, the product will assume operating status in about five seconds. However, the internal electric parts and semiconductors need more time to reach thermal stability. To ensure stable operations, always let the product warm up for about 30 to 40 minutes.
  When performing measurements of several tens of mV or performing measurements for an extended period of time, let the product warm up for 60 minutes.
  If the product is insufficiently warmed up before use, measurement accuracy may fail to meet product specifications.
- **Do not remove SD card while the SD card access LED is lit.**
  Removing the SD card while the SD card access LED is lit may cause data corruption or SD card failure.
- **Do not disconnect the communication cable during data collection.**
  Disconnecting the connected cable during data collection may cause data corruption or product failure.
- **Do not turn off the power during data collection.**
  It may cause data corruption or SD card failure.
- **Do not pull on or apply excessive tension to the cables.**
  Lay the cables with a certain safety margin of length to avoid subjecting the connections to excessive force. Applying excessive tension to a cable may result in abnormal output, conductor damage, or connector damage.
- **Clean the product as needed.**
  When the product becomes dirty, clean with a soft, dry cloth.
- **When using the AC adapter, replace with a new adapter periodically.**
  The optional AC adapter has a limited service life.
  Replace about once every five years.
- **Firmware update**
  Depending on the firmware version of the CTRS-100A main unit, the connected unit may not be recognized. If the connected unit is not recognized, update the firmware of the main unit to the latest version.

Information Service

On our website, you can check the catalogs, instruction manuals, CAD data and update information etc.
The detailed handling method is described in the instruction manual, so please use it after reading the latest instruction manual carefully.

https://product.kyowa-ei.com/en/products/data-loggers/type-s_ctrs-100_series

CTRS-100A
INSTRUCTION MANUAL