

2 ch Temperature/Voltage Measurement Unit

WM2000TA



Measures Temperatures, Voltages of Rotating/ Moving Object

Features of Measurement Unit

Real-time Simultaneous Measurement at a Maximum of 200 points

By utilizing the advantage of wireless measurement, maximum of 200 points (100 units) * can be measured simultaneously in real time.

* When sampling time is less than 1 sec, 60 points (30 units).

Compact Body Housing 2 channels

High density mounting technology makes units even smaller and enables 2 channels to be installed in 1 unit. It contributes to space saving at installation sites and improves efficiency of operation.

Contains Two Functions, Temperature and Voltage Measurement

Temperature or voltage can be measured on each channel, providing flexible measurement in various environments required by diverse applications.

Wider Targets of Measurement with Voltage-Output Type Sensors

Various kinds of physical quantity can be measured such as humidity, pressure, wind speed, or illumination by attaching voltage-output type sensors.

Expansion of Measurement Environment

The measurement area will be extended to diverse environments such as area near water or hot temperature area using Water-proof Attachment or Heat-resistant Case.

Features of AirLogger™

Dramatically Improve Efficiency

Various measurement units wirelessly send measurement data to your PC for display and saving. The fully wireless design of AirLogger™ dramatically boosts efficiency by freeing users from the constraints of working with data cables.

Work in Various Fields

The compact AirLogger™ units without cables enable easy measurement for formerly difficult-to-measure targets such as rotating or moving objects or inside of various sizes of space or enclosed spaces.

Installed Internal Memory Stores Measurement Data

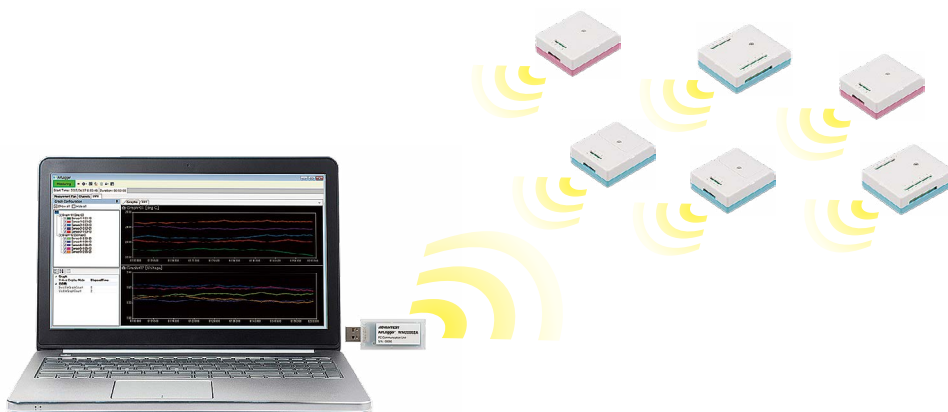
When the radio wave is weak and data transfer is unstable, the internal memory can store measurement data which can be retrieved and displayed after measurement.

Software Switch Function

The power switch has been removed from the measurement unit. Units can now be turned on/off from your PC. Smooth measurement instructions reduce wasted time. The power off status is standby mode with ultra-low power consumption, reducing power consumption of battery.

Simultaneous Measurement by Combining Diverse Types of Measurement Units

One PC Communication Unit of WM2000 series can receive measurement data from diverse types of measurement units such as temperature, voltage, strain or acceleration. They can be combined depending on use cases, making the AirLogger™ even more convenient.



Major Specifications

[2 ch Temperature/Voltage Measurement Unit]

| | | |
|---|--|--|
| Measurement ch/unit | 2 ch | |
| Size | 54.5 × 45 × 17.5 (mm) | |
| Weight | 36 g (Include battery) | |
| Communication frequency | 2.4 GHz wireless communication | |
| Communication distance | Max 30 m | |
| Measurement interval | 100 msec, 200 msec, 500 msec, 1 sec, 2 sec, 10 sec, 1 min, 5 min, 10 min | |
| Number of simultaneous connection / 1 PC Communication Unit | Measurement interval 1 sec or more: Max 100 units Less than 1 sec: Max 30 units Mixed: Max 70 units (Less than 1 sec: 30 + 1 sec or more: 40) | |
| Power supply | Lithium primary battery | |
| Environmental operation range | Temperature: -40 to below +100°C* *In the United States, -40 to 90°C (Same value when Water-proof Attachment is used) Humidity: 5 to 80% RH (no condensation) (When Heat-resistant Case is used: Equivalent to 5 min, under 300°C environment) | |
| Resistance against vibration | Equivalent to JIS_D1601_Type 1_Type C | |
| Dust proof/waterproof performance | IP54 or equivalent (When Water-proof Attachment is used) | |
| Thermocouple temperature measurement | Applicable thermocouple | Type K, Type T, Type J |
| | Measurement range | K: -200 to +1300°C T: -200 to +400°C J: -200 to +1000°C |
| | Measurement resolution | 0.1°C |
| Voltage measurement | Measurement range | ±12 V |
| | Measurement resolution | -100 mV to 100 mV: 10 μV -1 V to 1 V: 100 μV -12 V to 12 V: 1 mV |
| | Absolute maximum rating | ±15 V |
| Water-proof Attachment | Size: 64.5 x 66.1 x 21 (mm) Material: Polycarbonate | |
| Heat-resistant Case (Optional) | Size: 120 x 130.6 x 46 (mm) (include metal fittings) Weight: 550 g | |



- ① 2 ch Temperature/Voltage Measurement Unit
- ② Water-proof Attachment (standard accessory)
- ③ PC Communication Unit (sold separately)
- ④ Heat-resistant Case (sold separately)

Other Specifications

[PC Communication Unit]

(Sold separately)

| | | |
|-------------------------|--------------------------------|--|
| Outer dimensions | 50 × 23.5 × 8.3 (mm) | |
| Weight | 11 g | |
| Power supply | From PC mainframe | |
| Connection to PC | USB interface | |
| Communication frequency | 2.4 GHz wireless communication | |
| Install PC environment | Specifications | CPU: Intel Celeron processor 1.6 GHz or higher Memory: 2 GB (including memory used by the OS) Remaining storage of space: 10 MB or less (program size) Display: Minimum size 8-inch, Minimum XGA (1024 x 768) |
| | OS | Windows7, Windows8 (8.1), Windows10 |
| | Interface | USB 2.0 compliant |

* Windows is a registered trademark of Microsoft Corporation in the U.S. and/or other countries.

Products

[2 ch Temperature/Voltage Measurement Unit]

| | | |
|------------------|----------------|-----------------|
| Measurement Unit | 1 unit/1 set | WM2000TA-000-01 |
| Measurement Unit | 5 units/1 set | WM2000TA-000-05 |
| Measurement Unit | 10 units/1 set | WM2000TA-000-10 |

Standard Accessories: A lithium primary battery and a water-proof attachment for each unit

- Sensors, PC Communication Unit and PC are not included.
- To use these measurement units, at least one PC Communication Unit is required to be installed in a PC.

[PC Communication Unit]

| | | |
|-----------------------|--------------|-----------------|
| PC Communication Unit | 1 unit/1 set | WM2000ZA-000-01 |
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Standard accessories: One set of software, one set of instruction manual

- A CD-ROM drive is required to install the standard accessory software.

[Options]

| | | |
|-------------------------|--------------------------|-----------------------------|
| Calibration Certificate | 1 measurement unit/1 set | A7090-2000-TA ^{*1} |
|-------------------------|--------------------------|-----------------------------|

^{*1} Please order certificate sets of the numbers of necessary measurement units.
(e.g. To order certificates for five measurement units, order 5 sets)

| | | |
|-------------------------------------|----------------|-----------------------------|
| Replacement lithium primary battery | 10 units/1 set | A7010-L10-010 ^{*2} |
| Replacement lithium primary battery | 50 units/1 set | A7010-L10-050 ^{*2} |

^{*2} Commonly usable with the same series 7 ch Temperature/Voltage Measurement Unit (WM2000TB), and Strain Measurement Unit (WM2000SA).

| | | |
|------------------------------------|----------------|-----------------------------|
| Replacement Water-proof Attachment | 10 units/1 set | A7030-A00-010 ^{*3} |
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^{*3} Commonly usable with the same series Strain Measurement unit (WM2000SA).

| | | |
|---------------------|--------------|-----------------------------|
| Heat-resistant Case | 1 case/1 set | A7030-B00-001 ^{*4} |
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^{*4} Commonly usable with the same series 7 ch Temperature/Voltage Measurement Unit (WM2000TB)

| | | |
|-----------------------------|-----------------|-------|
| Thermocouple Cable (Type K) | 5 meter/1 cable | A7020 |
|-----------------------------|-----------------|-------|

- Note that the communication may become unstable or the communication distance may become shorter depending on the radio wave environment and obstacles during use.
 - This product can be used in Japan, China, Vietnam, United States, EU, Thailand.
 - In the United States, the temperature range is -40°C to 90°C in compliance with US safety standards.
 - Specifications and external appearance in this brochure may change without notification.
 - Products are not fault-tolerant and are not designed or intended for any use requiring fail-safe performance in which the failure of a Product could lead to death, serious personal injury, or severe physical and environmental damages (collectively, "High Risk Activities"), such as the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, weapons systems and/or direct life-support machines.
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