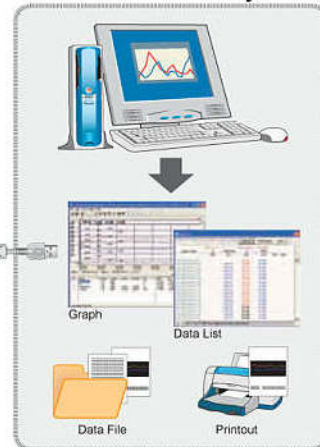# Thermo Recorder TR-7U Series

Our TR-7U Series of Data Loggers is comprised of compact, battery operated, highly portable data loggers which are designed with an array of features and functions. These ultra-reliable loggers make it a snap to measure and record a wide variety of measurement items; the application possibilities are endless.

## Measure and Record

**TR-71Ui**
Temperature

**TR-72Ui**
Temperature, Humidity

**TR-73U**
Barometric Pressure,
Temperature, Humidity

**TR-74Ui**
Illuminance, UV,
Temperature, Humidity

**TR-77Ui**
Temperature, Humidity
(High Accuracy Wide Range Model)

## Connect

USB Cable

## Download and Analyze

Graph

Data List

Data File

Printout

## USB Connection

Our easy-to-use USB computer connection makes things not only simple, but allows the user to connect several Units at the same time.

## Large Storage Capacity: 8,000 Readings

Each data logger can record and store up to 8,000 readings (One reading is a set of data which includes measurements for that unit type's number of channels). If set at a recording interval of 60 minutes, it gives the user one year's worth of measurements.

## Accurate, Compact, Lightweight and Affordable

Our exclusive technology has allowed T&D to design and manufacture a high performance yet affordable and compact Unit (55 × 78 × 18 mm, 62 g).

## Easy Operation via Front Buttons

It is possible to start and stop recording and to make or change recording interval settings by using buttons on the face of the Unit.

## Ready to Use - All in One Package

All-in-One Package: Simply connect to a PC via supplied USB cable, carry out a few easy settings and measurement and recording can be started.

## Reliable Data Protection

With the reliable data protection function we have removed the worry about losing data when battery power becomes low.

**When Battery Power is Low:**
When the battery power becomes low, a battery life warning signal will appear in the Unit's LCD display to show the low battery power status. If within a short time the battery is changed, measurement and recording will not be interrupted and there will be no data loss. If the battery power becomes even lower the Unit will automatically go into sleep mode. In sleep mode, measurement and recording will stop and protect recorded data until this point for the following 2 - 3 months.

**When Switch is OFF:**
Even if the power has been turned off, the recorded data will be saved.

NOTE   If the battery is further left unchanged even after the Unit has entered sleep mode, or if the battery is left out of the Unit for some time, all recorded data will be lost.

## Product Line-up

| Unit Type | TR-71Ui | TR-72Ui |
|---|---|---|
| Temperature | -40 to 110°C | 0 to 50°C |
| Humidity | -- | 10 to 95%RH |
| Barometric Pressure | -- | -- |
| Illuminance | -- | -- |
| UV Intensity | -- | -- |
| Storage Capacity | 8,000 (2ch) | 8,000 (2ch) |
| Battery Life | About 1 year | About 1 year |

* The measurement range shown here is only for when using the sensor included in the package. For detailed product specifications, please see page 8.
* Battery life varies depending upon the type of battery, the battery performance, the measuring environment, and the frequency of communication. If infrared communication is set to be permitted, battery life will be shortened.

# Specifications

| Unit Type | TR-71Ui | TR-72Ui | | | | |
|---|---|---|---|---|---|---|
| Measurement Channels | Temperature (2 Ch) *1 | Temperature (1 Ch) | Humidity (1 Ch) | | | |
| Measurement Range Internal Sensor | -10 to 60°C | -10 to 60°C | - | | | |
| Attached Sensor | -40 to 110°C | 0 to 50°C | 10 to 95%RH | | | |
| Optional Sensor | -60 to 155°C | -40 to 110°C | - | | | |
| Measuring Accuracy (Attached Sensor) | Avg. ±0.3°C (-20 to 80°C)<br>Avg. ±0.5°C (-40 to -20 / 80 to 110°C) | | ±5%RH (at 25°C 50%RH) | | | |
| Measurement / Display Resolution | 0.1°C | 0.1°C | 1%RH | | | |
| Sensor Materials | Thermistor | Thermistor | Macromolecular Humidity Sensor | | | |
| Storage Capacity | 8,000 Readings (One reading is a set of data which includes measurements for that unit type's number of channels.) | | | | | |
| Recording Interval | Total of 15 choices: 1, 2, 5, 10, 15, 20, 30 sec. / 1, 2, 5, 10, 15, 20, 30, 60 min. | | | | | |
| Recording Mode | Endless (Overwrite oldest data when capacity is full), One-time (Stop recording when capacity is full) | | | | | |
| LCD Display Items | Measurements / Recording Status / Battery Life Warning / Amount of Recorded Data / Unit of Measurement | | | | | |
| Power | AA Alkaline Battery (LR6) × 1 | | | | | |
| Battery Life | About 1 year *2 | | | | | |
| Data Back-up | Activated when battery power is low or when switch is off (About 1 year) | | | | | |
| Communication Interface | USB Communication / Serial (RS-232C) Communication / Infrared Communication | | | | | |
| Infrared Communication | IrPHY 1.2 low power | | | | | |
| Communication Time | When downloading a Unit at full storage capacity:<br>  USB Communication: about 8 sec. / Infrared Communication: about 55 sec. (TR-57DCi) | | | | | |
| Dimensions / Weight of Main Unit | H55 × W78 × D18 mm / About 62 g (Including one AA battery) | | | | | |
| Operating Environment | Temperature: -10 to 60°C / Humidity: 90%RH or less (no condensation) | | | | | |
| Attached Sensor | TR-0106 × 2<br>(TEP Resin-coated sensors) | TR-3100 × 1 (Temp / Humidity Sensor) | | | | |
| Accessories Included | AA Alkaline Battery (LR6) × 1 / USB Communication Cable (US-15C) × 1 / User's Manual × 2 / Software Set × 1 | | | | | |