Network Connected Temp/Humidity Data Logger

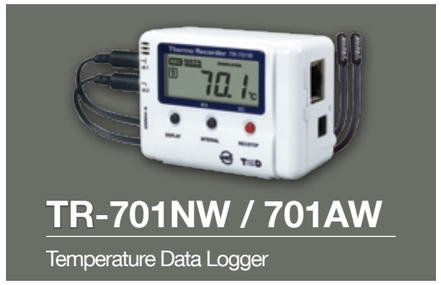
TR-700W Series

Monitor Temperature and Humidity Data Anytime...Anywhere!

Our TR-700W Series Data Loggers are for measuring and recording temperature and humidity. They are designed to be used over a LAN network (wired or wireless) thereby allowing the user to monitor data and warnings from a PC or mobile device. Recorded data can also be periodically sent by e-mail or FTP; making it possible to check data without the need for an on site PC.

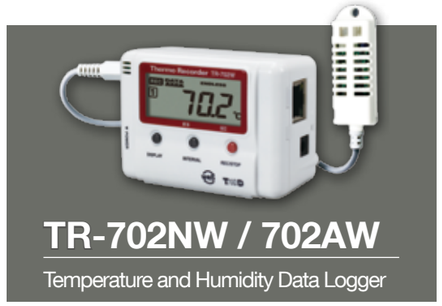
Data Loggers Measure & Record

- Temperature
- Humidity



TR-701NW / 701AW

Temperature Data Logger



TR-702NW / 702AW

Temperature and Humidity Data Logger

Warning Device Connection

Wireless LAN

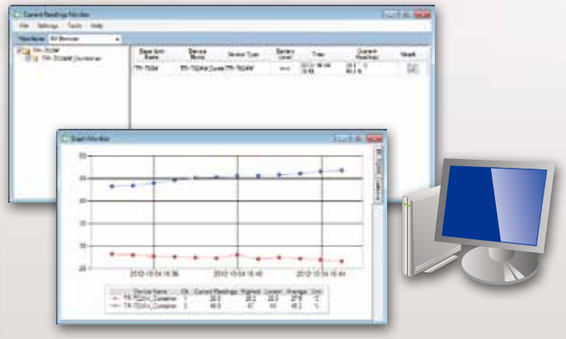
Wired LAN

Network

Various Monitoring

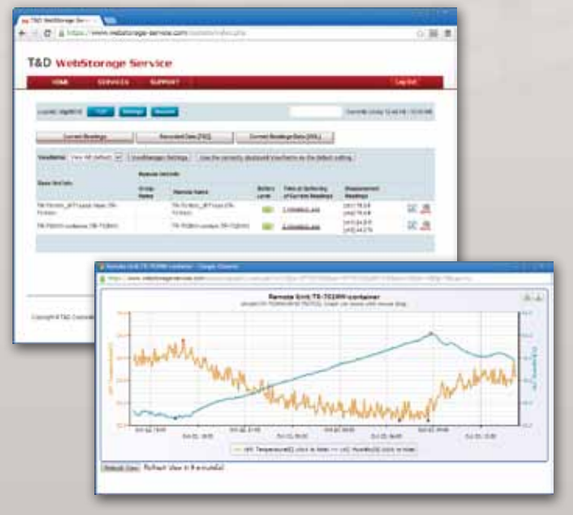
- Via Web Browser

- Via Supplied Software



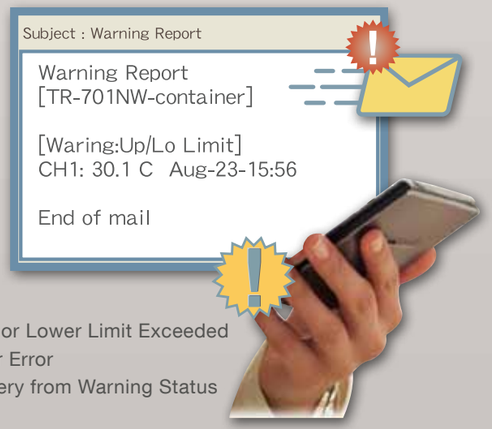
Free Online Storage

- T&D WebStorage Service



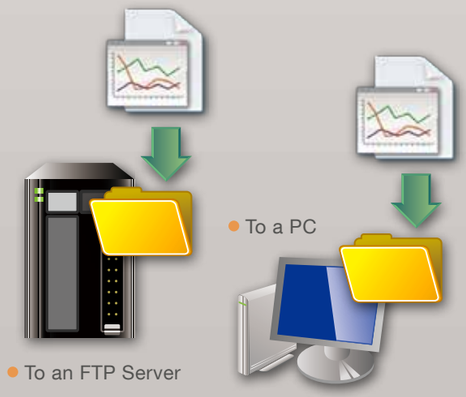
Warning Notification by E-Mail

- To a PC
- To a Mobile Device



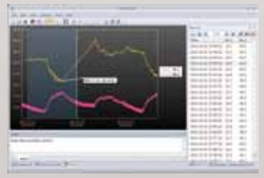
- Upper or Lower Limit Exceeded
- Sensor Error
- Recovery from Warning Status

Automatic Download and Transmission of Measurements



- To an FTP Server
- To a PC

Data Export to Spreadsheet Software



trz. Format Data

CSV

CSV Format Data

Save

Print

Lineup

Network Connected Data Loggers

TR-701NW

Temperature (2ch) Wired LAN Type

Measurement Range
−40 to 110°C (Supplied Sensor)
−60 to 155°C (Optional Sensors: Fluoropolymer Coated Type)
Temperature Sensor TR−0106 Included

TR-701AW

Temperature (2ch) Wireless LAN Type

Measurement Range
−40 to 110°C (Supplied Sensor)
−60 to 155°C (Optional Sensors: Fluoropolymer Coated Type)
Temperature Sensor TR−0106 Included

TR-702NW

Temperature (1ch) / Humidity (1ch) Wired LAN Type

Measurement Range
Temperature: 0 to 55°C / Humidity: 10 to 95%RH
Temperature/Humidity Sensor THA−3151 Included

TR-702AW

Temperature (1ch) / Humidity (1ch) Wireless LAN Type

Measurement Range
Temperature: 0 to 55°C / Humidity: 10 to 95%RH
Temperature/Humidity Sensor THA−3151 Included

TR-702NW-H

High Precision Temperature (1ch) / Humidity (1ch) Wired LAN Type

Measurement Range
Temperature: −30 to 80°C / Humidity: 0 to 99%RH
Temperature/Humidity Sensor HHA−3151 (high precision type) Included

TR-702AW-H

High Precision Temperature (1ch) / Humidity (1ch) Wireless LAN Type

Measurement Range
Temperature: −30 to 80°C / Humidity: 0 to 99%RH
Temperature/Humidity Sensor HHA−3151 (high precision type) Included

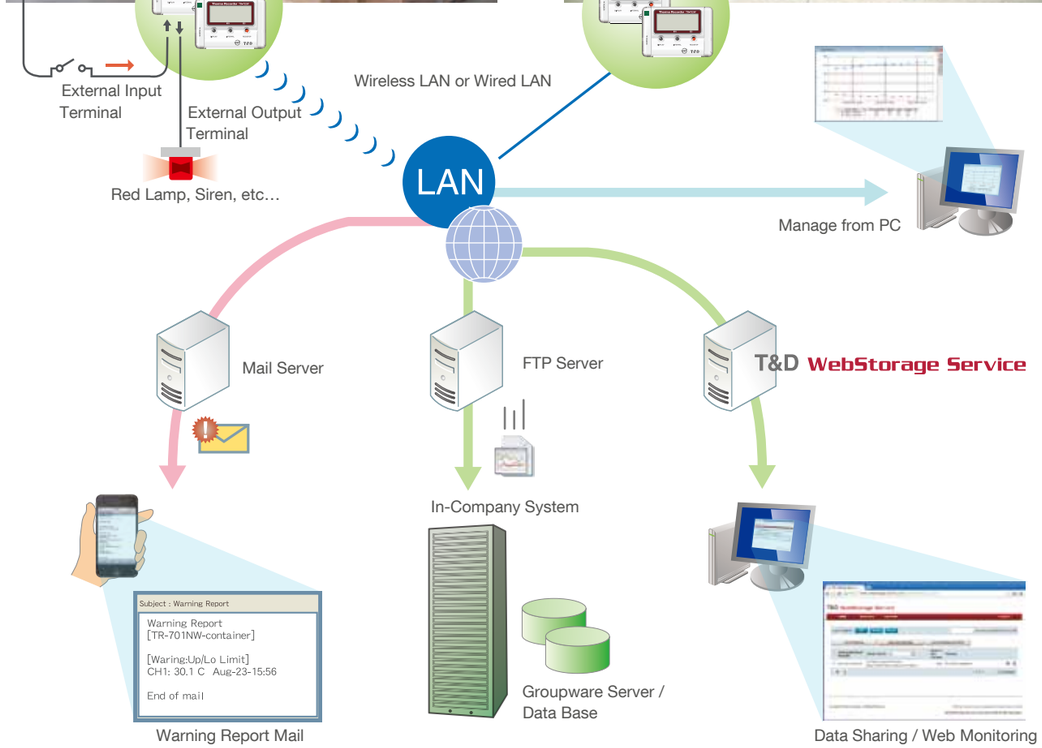
- The system is designed to allow for the automatic sending of recorded data to an e-mail or FTP server without the need for a PC.
- The warning monitoring function with notification via e-mail or external contact ensures that important warnings are never missed by those nearby or far away.
- Registering with our "T&D WebStorage Service" makes it possible to view current readings on a PC or mobile device.
- Current readings can be monitored via in-company LAN.
- Being able to make and change settings via a network provides increased flexibility.

Application Examples

- For Recording and Monitoring Temperature and Humidity in Warehouses and Buildings
- For Preservation and Prevention of Deterioration of Exhibits in Museums and other Exhibit Forums
- For Collecting Temperature and Humidity Data in Factories over a Wireless LAN
- For Managing Temperature and Humidity in Server Rooms

Factory and Storage Temperature and Humidity Management

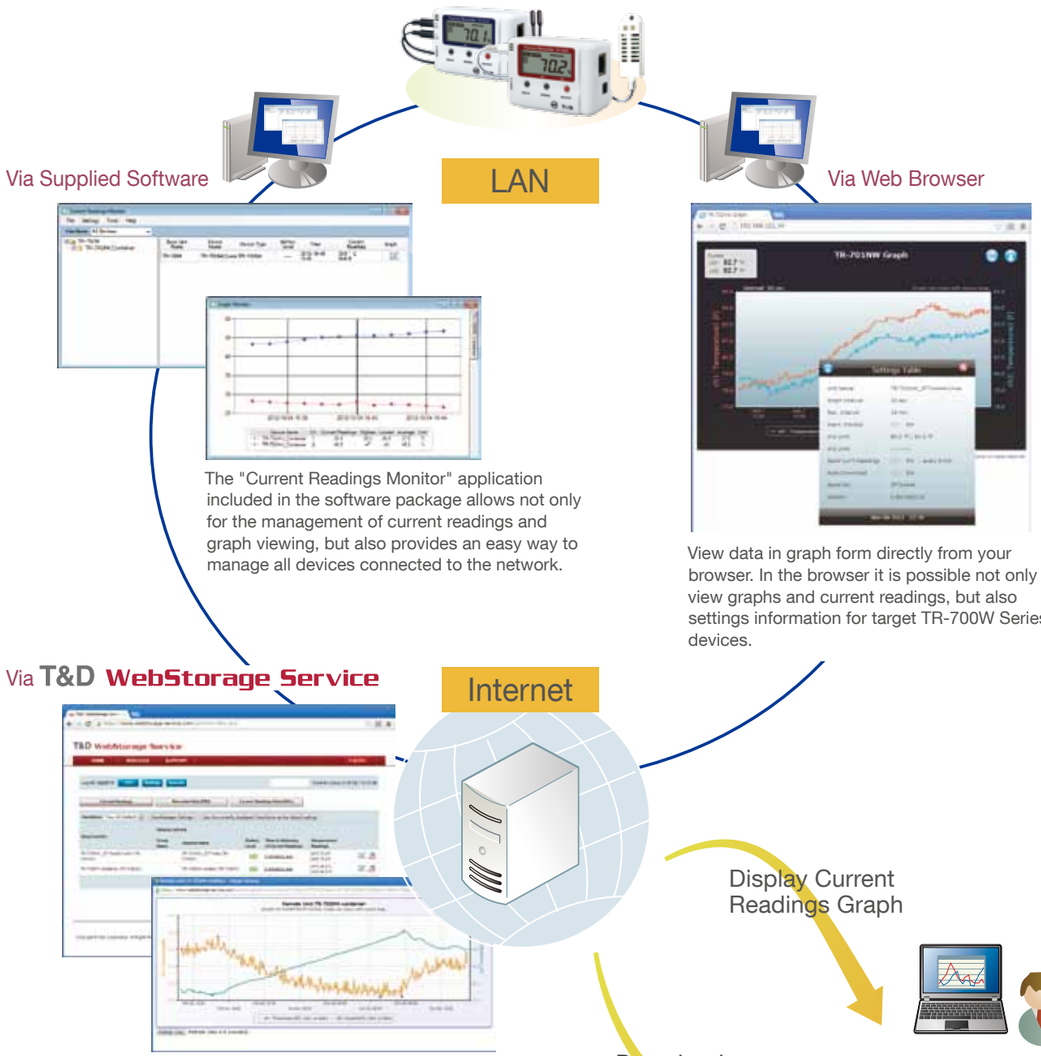
Museum and Archival Temperature and Humidity Management



Features

Remote Monitoring / Warning Monitoring

Full Lineup of Monitoring Functions



The "Current Readings Monitor" application included in the software package allows not only for the management of current readings and graph viewing, but also provides an easy way to manage all devices connected to the network.

View data in graph form directly from your browser. In the browser it is possible not only view graphs and current readings, but also settings information for target TR-700W Series devices.

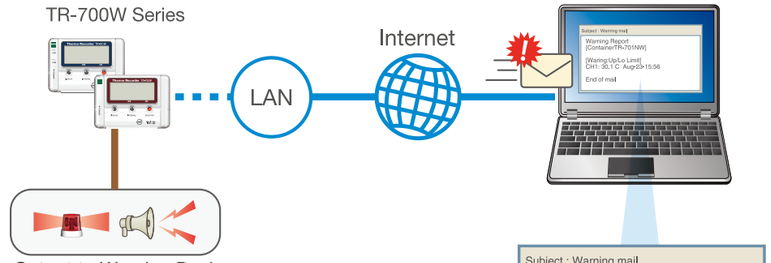
Access Anytime Anywhere

T&D WebStorage Service is a free web-based storage service provided by T&D Corporation. As long as you have access to the Internet you have access to current readings and recorded data.

http://www.webstorage-service.com/

Be "In the Know Now"! Get Warning Notifications Without Delay.

Variety of Warning Notifications provides Reliable Oversight



Output to Warning Device
It is possible to connect to an external device to notify when a warning has occurred.

E-mail

Upper Limit / Lower Limit Exceeded
Settings can be made in each Data Logger for "Upper and/or Lower Limits" and well as for "Judgement Time". This ensures that every instantaneous exceeding is not counted as a warning.

Sensor Error
This type of notification helps prevent loss of measurements due to sensor disconnection, malfunction or wire breakage.

Recovery from Warning Status
Notifications are sent to show that loggers have returned to normal.

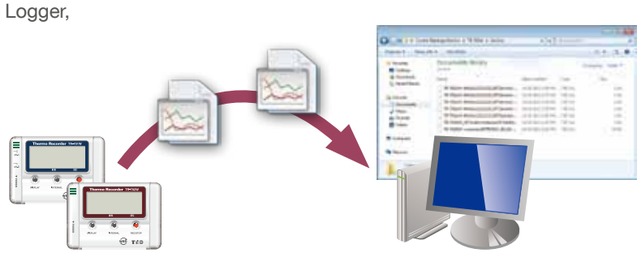
Range of Notification Tools means "No Miss" Management

Via E-mail

With Onsite External Alarm Device

Auto-Send and Storage of Measurements

- By making Settings in the TR-700W Series Data Logger, it is possible to periodically have recorded data automatically sent via FTP or E-mail.
- By useing the supplied "Current Readings Monitor" application, it is possible to have recorded data automatically saved to a folder in your PC.

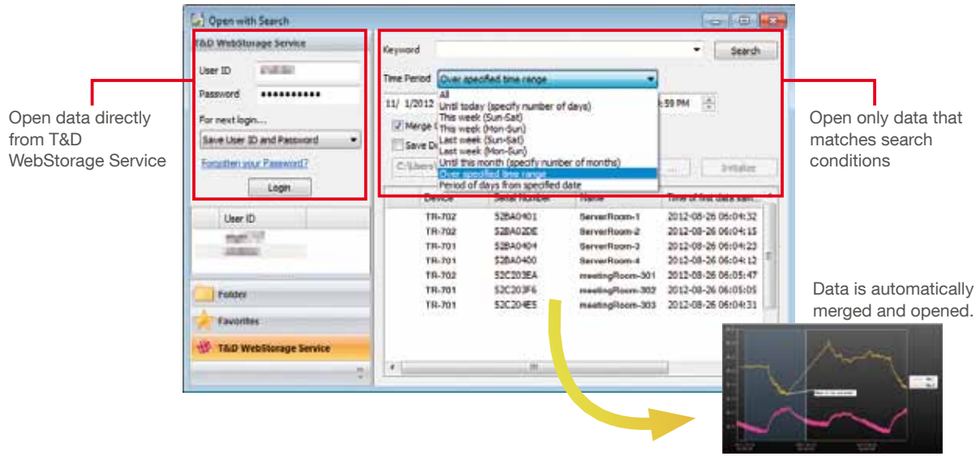


High Performance Analysis Tool: T&D Graph

Our new easy-to-use high performance software "T&D Graph" gives you all the power you need for effective management and analysis of recorded data. It can also be used in conjunction with **T&D WebStorage Service**.

Open Only the Data you Need

It is possible to specify search conditions to find and open only the data you want from all recorded data stored in a local folder or in the **T&D WebStorage Service**. The merging of multiple sets of data is also possible.

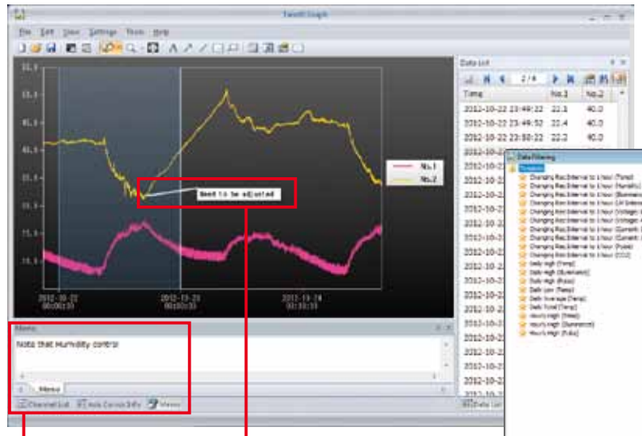


Open data directly from T&D WebStorage Service

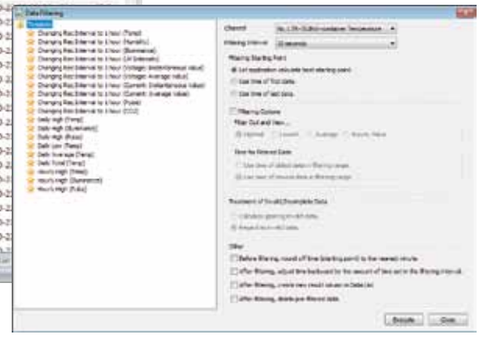
Open only data that matches search conditions

Data is automatically merged and opened.

Analyze



Use the filtering feature to get only the data you want to view and work with. Pre-designed filtering templates are provided; or create your own.

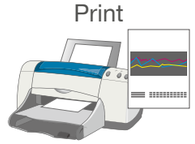


Use the text and figure editing feature to create memos and comments within graphs.

Save / Output

Save

Print



CSV Format Data

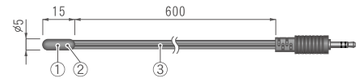
Temperature Sensor for TR-701NW / 701AW

Materials	① Thermistor ② TPE Resin ③ TPE Resin-Shielded Wire ④ M3 Crimp Terminal ⑤ Compaction Tube ⑥ Stainless Pipe (SUS304) ⑦ Stainless Pipe (SUS316)
Temperature Measurement Range	–40 to 110°C
Sensor Temperature Durability	–50 to 115°C
Temperature Measuring Accuracy	Avg. ±0.3°C (–20 to 80°C), Avg. ±0.5°C (–40 to –20/ 80 to 110°C)
Waterproof Capacity	None (Only the stainless pipe is waterproof)

TPE Resin-Shielded Sensor

TR-0106

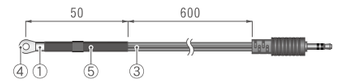
Cable Length: 0.6 m
Response Time (90%): Approx. 190 sec. (in air)



Screw-down Sensor

TR-0206

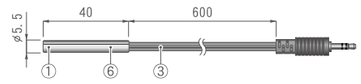
Cable Length: 0.6 m
Response Time (90%): Approx. 210 sec. (in air)



Stainless Protection Sensor

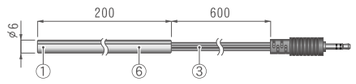
TR-0306

Cable Length: 0.6 m
Response Time (90%): Approx. 11 sec. (in agitated water)



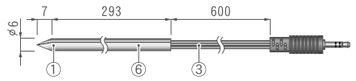
TR-0406

Cable Length: 0.6 m
Response Time (90%): Approx. 15 sec. (in agitated water)



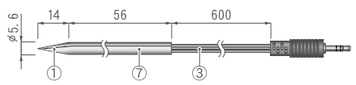
TR-0506

Cable Length: 0.6 m
Response Time (90%): Approx. 10 sec. (in agitated water)



TR-0706

Cable Length: 0.6 m
Response Time (90%): Approx. 11 sec. (in agitated water)



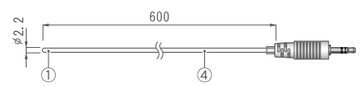
Temperature Sensor for TR-701NW / 701AW: Fluoropolymer Coated Type

Materials	① Thermistor ② Stainless pipe (SUS316) ③ Fluoropolymer Compaction Tube ④ Fluoropolymer-Coated Electrical Wire
Temperature Measurement Range	–60 to 155°C
Sensor Temperature Durability	–70 to 180°C
Temperature Measuring Accuracy	Avg. ±0.5°C (–40 to 80°C), Avg. ±1.0°C (–60 to –40°C / 80 to 100°C), Avg. ±2.0°C (100 to 155°C)
Waterproof Capacity	IPX7 immersion proof (sensor/cable)

Fluoropolymer Coated Sensor

TR-1106

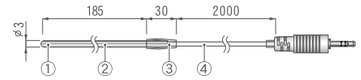
Cable Length: 0.6 m
Response Time (90%): Approx. 80 sec. (in air) / Approx. 7 sec. (in agitated water)



Stainless Protection Sensor

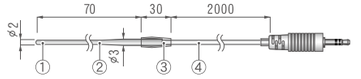
TR-1220

Cable Length: 2 m
Response Time (90%): Approx. 150 sec. (in air) / Approx. 7 sec. (in agitated water)



TR-1320

Cable Length: 2 m
Response Time (90%): Approx. 90 sec. (in air), Approx. 3 sec. (in agitated water)



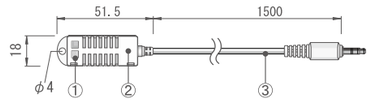
Temperature / Humidity Sensor for TR-702NW / 702AW

Temperature / Humidity Sensor

THA-3151

Cable Length: 1.5 m

Materials	① Temp/Humidity Sensor ② Polypropylene Resin ③ Vinyl Chloride Coated Electrical Wire
Conditions for Use	Do not expose to condensation, dampness, corrosive gases or organic solvents.

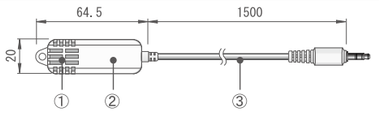


High Precision Temperature/Humidity Sensor

HHA-3151

Cable Length: 1.5 m

Materials	① Temp/Humidity Sensor ② Polycarbonate ③ Vinyl Chloride Coated Electrical Wire
Conditions for Use	Do not expose to condensation, dampness, corrosive gases or organic solvents.

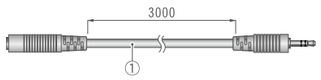


Other

Sensor Extension Cable

TR-1C30

Cable Length: 3 m



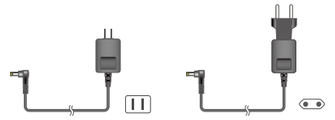
Materials	① Vinyl Chloride Coated Electrical Wire

Memo: Only one extension cable per temperature sensor. Using an extension cable may lead to measurement errors of 0.3°C at room temperature, and 0.5°C at –50°C.
Possible to use up to three extension cables per temperature/humidity sensor.

AC Adaptor

AD-0638 or AD-0638-C

Cable Length: 1.8 m
Input Voltage: AC100 to 240V 50/60Hz
Output Voltage: DC6V 500mA



AD-0638 AD-0638-C

Specifications

	TR-701NW / 701AW	TR-702NW / 702AW		TR-702NW-H / 702AW-H	
Sensor (External)	TR-0106	THA-3151		HHA-3151 (High-Precision Type)	
	Thermistor	Thermistor	Polymer Resistance	Platinum Resistance	Electrostatic Capacitance
Measurement Channels	Temperature 2ch	Temperature 1ch	Humidity 1ch	Temperature 1ch	Humidity 1ch
Measurement Units	°C °F	°C °F	%RH	°C °F	%RH
Measurement Range	–40 to 110°C (Supplied Sensor) –60 to 155°C (Optional Sensor: Fluoropolymer Coated Type)	0 to 55°C	10 to 95 %RH	–30 to 80°C	0 to 99 %RH
Accuracy	Avg. ± 0.3°C [–20 to 80°C] Avg. ± 0.5°C [–40 to –20 / 80 to 110°C]	±0.5°C	±5%RH [at 25°C, 50%RH]	±0.3°C [0 to 50°C] ±0.5°C [all other temperatures]	±2.5%RH [at 25°C, 10 to 85%RH] ±4.0%RH [at 25°C, 0 to 10% or 85 to 99%RH] At temperatures other than 25°C and ≥ 0°C, add ±0.1%RH per degree of difference from 25. Humidity Hysteresis: ±1.5%RH or lower *1
Measurement Resolution	0.1°C	0.1°C	1%RH	0.1°C	0.1%RH
Responsiveness	Thermal Time Constant: Approx. 75 sec. Response Time (90%): Approx. 190 sec.	Response Time (90%): Approx. 7 min.		Response Time (90%): Approx. 7 min.	Response Time (90%): Approx. 20 sec.
Logging Capacity	8,000 data sets (One data set consists of readings for all channels in that type of unit.)				
Recording Interval	Select from 15 choices: 1, 2, 5, 10, 15, 20, 30 sec. or 1, 2, 5, 10, 15, 20, 30, 60 min.				
Recording Mode	Endless (Overwrite oldest data when capacity is full)				
LCD Display Items	Measurements (alternating display), Power Warning Mark, etc.				
Communication Interfaces	- TR–701NW/702NW: Wired LAN RJ45 Connector 100 Base-TX / 10 Base-T AutoMDI / MDI-X - TR–701AW/702AW: Wireless LAN Internal wireless LAN antenna IEEE 802.11b / g WEP / WPA-TKIP / WPA2-AES - USB Communication (For Setup)				
External Output Terminal	<Alarm Output Terminal> Voltage when OFF: AC/DC less than 50V Current when ON: less than 0.1 A Resistance when ON: about 35Ω				
Communications Protocol	HTTP, SMTP (POP before SMTP, SMTP-AUTH <LOGIN>), FTP, SNTP, DHCP, DNS				
Power	Main Power: AC Adaptor (AD–0638 or AD–0638-C) / Backup Power: Coin Type Lithium Battery (CR–2032) *2				
Data Backup *3	Approx. 3 months (backup battery only without AC adaptor)				
Dimensions	H 55 × W 78 ×D 37 mm				
Weight	TR–701NW / 702NW / 702NW-H : Approx. 82 g TR–701AW / 702AW / 702AW-H : Approx. 80 g (including battery, excluding sensor)				
Operating Environment	Temperature: –10 to 60°C / Humidity: 90%RH or less (no condensation)				
Accessories	Temperature Sensor (TR–0106) x 2	Temperature/Humidity Sensor (THA–3151) x 1		High Precision Temperature/Humidity Sensor (HHA–3151) x 1	
Common Accessories	USB Communication Cable (US–15C), LAN Cable (LN–20W: For TR–701NW/702NW only), AC Adaptor (AD–0638 or AD–0638-C), Coin Type Lithium Battery (CR–2032), Software (CD-ROM), Manual Set (Warranty Included)				
Software	TR-700W for Windows				
Compatible OS *4 *5	Microsoft Windows 8 32/64 bit, English Microsoft Windows 7 32/64 bit, English Microsoft Windows Vista 32 bit (SP1 or later), English Microsoft Windows XP 32 bit (SP3 or later) English				

*1: When used in environments where temperature and humidity are over the values of 50°C 75%, 60°C 50%, 70°C 35%, and 80°C 25%, sensor hysteresis may fluctuate by values greater than ±1.5%RH. Under certain circumstances, it may take some time to return to normal measurement capability.
*2: The supplied lithium battery is for data backup during power failure and for emergency use only. Note that network communication cannot occur when using the battery only.
*3: Battery life varies depending upon the ambient temperature and the battery performance. All estimates are based on operations carried out with a new battery and are in no way a guarantee of actual battery life.
*4: For installation, it is necessary to have Administrator (Computer Administrator) rights.
*5: If you are using Windows 8, please note that our software is designed to be used in "Desktop" mode only.
The specifications listed above are subject to change without notice.

M · E · M · O

T&D Website For product information, software update and FAQ ;
http://www.tandd.com/

Caution regarding safety
For safe operation carefully read instructions before using the product.

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Distributor

T&D Corporation
817-1 Shimadachi, Matsumoto, Nagano 390-0852, Japan
Please send your inquiries to:
E-mail : sales@tandd.com
Facsimile : (+81) 263-40-3152

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