

Network Connected Temp/Humidity Data Logger

# TR-700W Series

The image displays two Thermo Recorder TR-700W data loggers in the foreground. The logger on the left shows a temperature of 70.1°C, and the one on the right shows a humidity of 70.2%. Both loggers feature a digital display, a red REC/STOP button, and a black DISPLAY button. The background shows a software interface with a tree view of devices, a table of device details, and two line graphs showing temperature and humidity data over time.

Base Unit Name	Device Name	Device ID
Northfield	Northfield	14432
TandD Office (RTR-500)	TandD Office (RTR-500AW)	4448
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4449
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4450
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4451
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4452
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4453
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4454
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4455
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4456
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4457
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4458
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4459
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4460
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4461
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4462
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4463
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4464
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4465
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4466
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4467
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4468
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4469
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4470
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4471
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4472
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4473
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4474
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4475
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4476
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4477
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4478
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4479
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4480
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4481
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4482
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4483
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4484
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4485
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4486
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4487
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4488
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4489
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4490
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4491
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4492
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4493
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4494
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4495
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4496
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4497
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4498
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4499
TandD Office (RTR-500AW)	TandD Office (RTR-500AW)	4500

# 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.

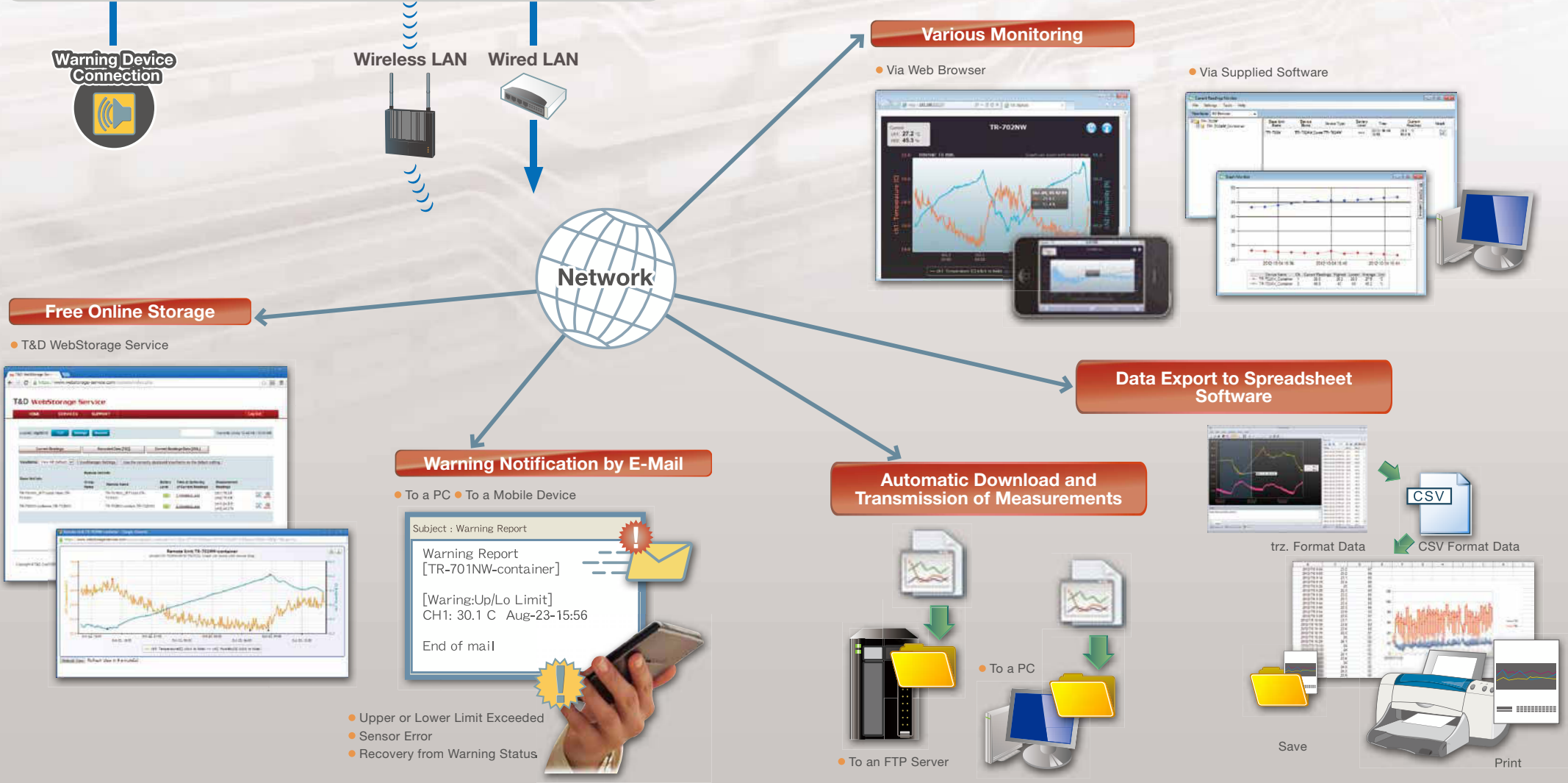
**Data Loggers** Measure & Record • Temperature • Humidity



**TR-701NW / 701AW**  
Temperature Data Logger



**TR-702NW / 702AW**  
Temperature and Humidity Data Logger



Subject : Warning Report

Warning Report  
[TR-701NW-container]

[Warning:Up/Lo Limit]  
CH1: 30.1 C Aug-23-15:56

End of mail

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

# 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

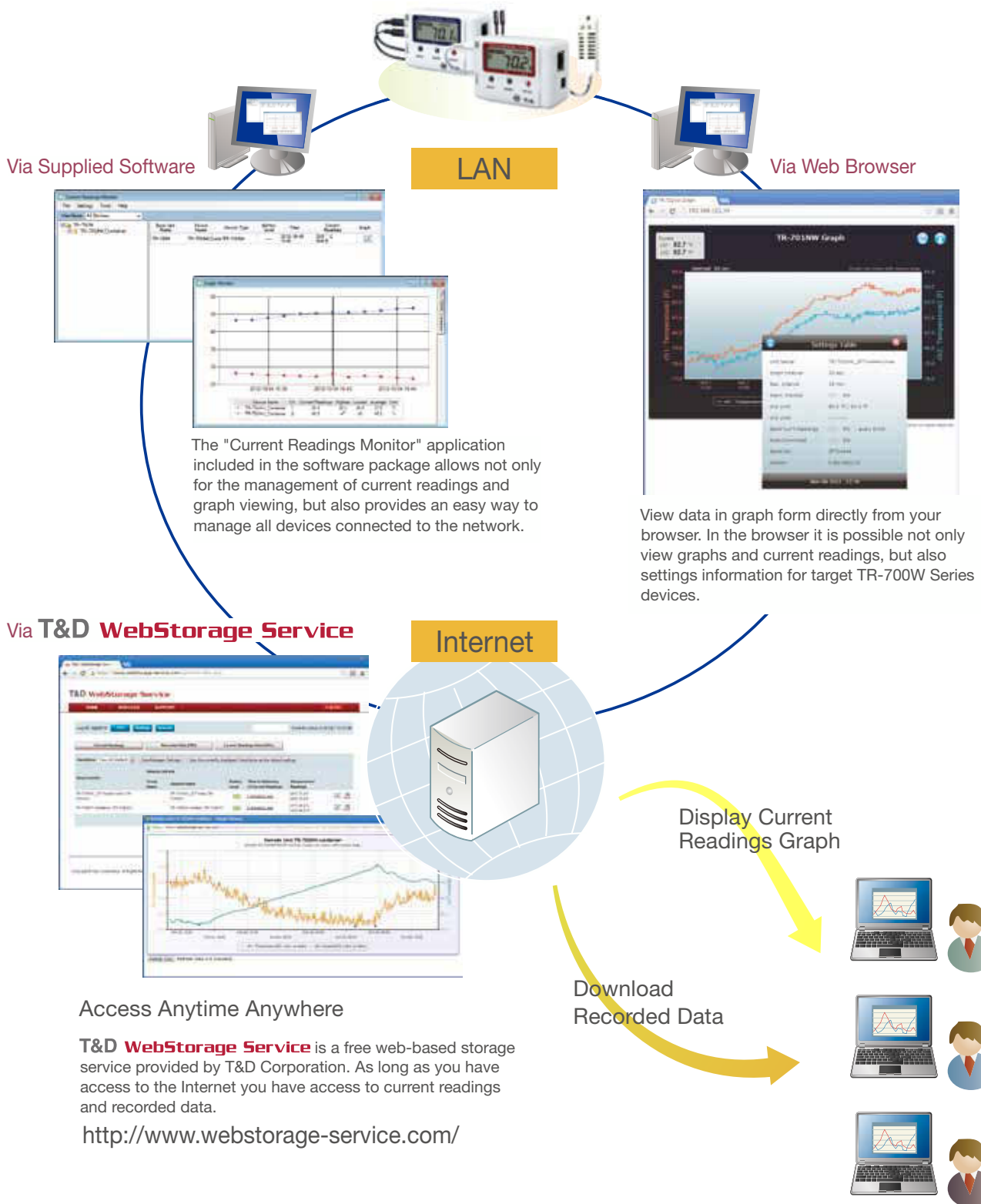


## High Precision Temperature (1ch) / Humidity (1ch) Wireless LAN Type

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

# 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/>



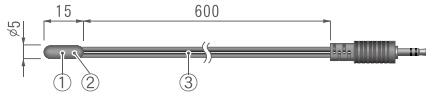
**Temperature Sensor for TR-701NW / 701AW**

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**

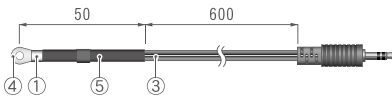
Cable Length: 0.6 m  
Response Time (90%):  
Approx. 190 sec. (in air)



**Screw-down Sensor**

**TR-0206**

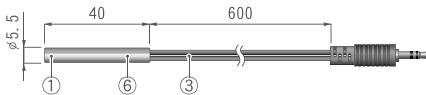
Cable Length: 0.6 m  
Response Time (90%):  
Approx. 210 sec. (in air)



**Stainless Protection Sensor**

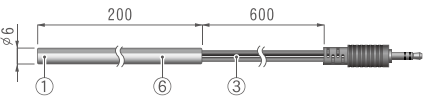
**TR-0306**

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



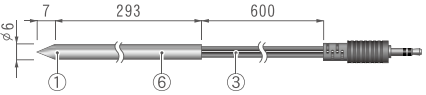
**TR-0406**

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



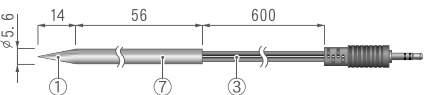
**TR-0506**

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)



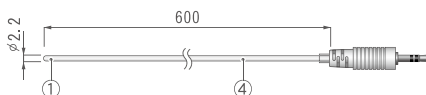
**Temperature Sensor for TR-701NW / 701AW: Fluoropolymer Coated Type**

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**

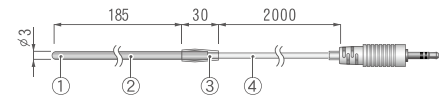
Cable Length: 0.6 m  
Response Time (90%):  
Approx. 80 sec. (in air)  
/ Approx. 7 sec. (in agitated water)



**Stainless Protection Sensor**

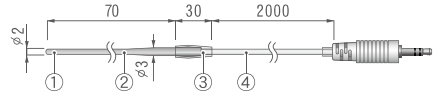
**TR-1220**

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)



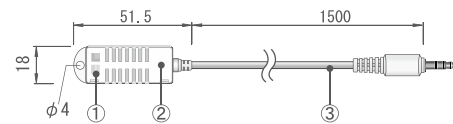
**Temperature / Humidity Sensor for TR-702NW / 702AW**

**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.

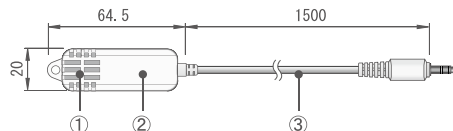


**High Precision Temperature/Humidity Sensor**

**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.

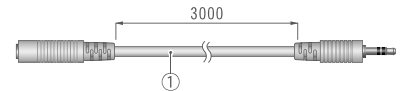


**Other**

**Sensor Extension Cable**

**TR-1C30**

Cable Length: 3 m



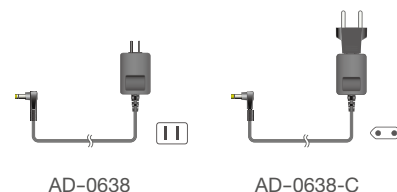
Materials	① Vinyl Chloride Coated Electrical Wire
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**Memo:** Only one extension cable per temperature sensor. Using an extension cable may lead to measurement errors of 0.3°C at room temperature, and 0.5°C at -50°C. Possible to use up to three extension 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



## TR-700W Series - Specifications

### 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, SNMP, 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 x W 78 x 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.