Data Logger for Cloud Storage

TR-7wf/nw Series Features and Specs

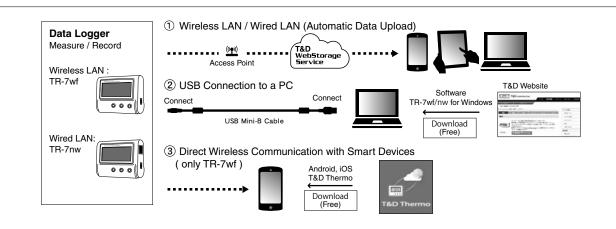| Measurement Items	Data Collection	Data Access	Warning Notification
Temperature Humidity	LAN / USB Connection Direct Communication with Smart phone/Tablet	T&D WebStorage Service, Intranet, Local PC	E-mail

Temperature and Humidity Data Logger made for the Cloud. Recorded data can automatically be uploaded via wireless or wired LAN to our free cloud service "T&D WebStorage Service" where it can be accessed from anywhere you have a connection. It is also possible to connect directly to a PC via USB and the TR-7wf allows for direct wireless communication with smart phones and other portable devices.

Data Logger
Measure / Record

Wireless LAN : TR-7wf

Wired LAN: TR-7nw

① Wireless LAN / Wired LAN (Automatic Data Upload)

Access Point

T&D WebStorage Service

② USB Connection to a PC

Connect — Connect
USB Mini-B Cable

Software TR-7wf/nw for Windows
Download (Free)

T&D Website

③ Direct Wireless Communication with Smart Devices (only TR-7wf)

Android, iOS T&D Thermo
Download (Free)

T&D Thermo

① Automatic Data Upload to Cloud

By using wireless LAN (wf) and wired LAN (nw), the logger automatically uploads the recorded data to T&D WebStorage Service. The uploaded data can be accessed from multiple computers, smartphones and tablets.

* T&D WebStorage Service is a free cloud-based service provided by T&D Corporation. Internet access is required to use the service.

② Easy USB Communication

USB connection to PC allows device setup, data download, graph view and data list view.

* The necessary software can be downloaded free of charge.

③ Direct Communication with Mobile Devices

By using our specialized mobile app, you can directly log on to a TR-7wf in AP mode and download recorded data to your smartphone or tablet, or make device settings for the data logger.

* Direct communication may not work properly with some Android devices.

* This feature requires button operation on the TR-7wf unit for each communication access, therefore cannot be operated remotely.

Model	Measurement Items	Measurement Range	Notes
TR-71wf / nw	Temperature 2ch	–60 to 155 °C	The measurement range depends on the sensor type. Wide selection of optional sensors available
TR-72wf / nw	Temperature / Humidity 1ch Each	0 to 55 °C / 10 to 95%RH	
TR-72wf-S / nw-S	Temperature / Humidity 1ch Each	–25 to 70 °C / 0 to 99%RH	The supplied sensor for the S model provides higher accuracy to ±2.5%RH
TR-75wf / nw	Temperature 2ch (Thermocouple)	–199 to 1760 °C	For use with Thermocouple Sensor Types: K, J, T, E, S, R

Sending Warning Report Mails

Upon receiving warning information from the target device T&D WebStorage Service will send out a warning e-mail to the set recipients

1.5 Years of Operation with just Two Batteries

With just two AA batteries the logger can be used for about 1.5 years.

* Actual battery life is not guaranteed.

Large Logging Capacity: 8000 Data Sets

It is possible to record up to 8000 sets of data measurements in two separate channels. That means at a recording interval of 60 minutes you can keep on recording for one year before reaching capacity.

Easy Operation via Front Buttons

It is possible to start and stop recording, change recording interval, and make the auto-upload setting from the buttons on the face of the logger.

TR-7wf/nw Series - Specifications

	TR-71wf / 71nw	TR-72wf / 72nw		TR-72wf-S / 72nw-S (High-Precision Type)		TR-75wf / 75nw
Measurement Channels	Temperature 2ch	Temperature 1ch, Humidity 1ch		Temperature 1ch, Humidity 1ch (High-Precision Type)		Temperature 2ch
Sensor	Thermistor	Thermistor	Polymer Resistance	Thermistor	Polymer Resistance	Thermocouple: Type K, J, T, E, S, R (*1)
Measurement Units	°C, °F	°C, °F	%RH	°C, °F	%RH	°C, °F
Measurement Range — Internal Sensor	-10 to 60 °C (*2)	-	-	-	-	-
Measurement Range — External Sensor	-40 to 110°C (Supplied Sensor) -60 to 155°C (Optional Sensor)	0 to 55 °C	10 to 95 %RH	–25 to 70 °C	0 to 99 %RH (*3)	K -199 to 1370 °C E -199 to 1000 °C J -199 to 1200 °C S -50 to 1760 °C T -199 to 400 °C R -50 to 1760 °C
Accuracy	Avg. ±0.3°C at −20 to 80 °C Avg. ±0.5°C at −40 to −20 °C 80 to 110 °C	±0.5°C	±5 %RH at 25°C, 50%RH	±0.3°C at 10 to 40 °C ±0.5°C all other temperatures	±2.5 %RH at 15 to 35 °C, 30 to 80 %RH	Thermocouple Measurement (Sensor inaccuracies not included) K, J, T, E : ±(0.5 °C + 0.3 % of reading) at −100°C or above S, R : ±(1.5 °C + 0.3 % of reading) at 100°C or above Cold Junction Compensation ±0.5°C at 10 to 40 °C ±0.8°C other temperatures within the operating environment of the logger
Measurement Resolution	0.1 °C	0.1°C	1 %RH	0.1 °C	0.1 %RH	K, J, T, E : 0.1 °C S, R : approx. 0.2 °C
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.		-

LCD Display Items	Measurements (fixed or alternating display), Battery Warning Mark, etc.
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) or One Time (Stop recording when capacity is full)
Auto-upload Interval	Select from 15 choices: OFF (No auto-upload), 1, 2, 5, 10, 15, 20, 30 min. or 1, 2, 3, 4, 6, 12, 24 hrs.
Communication Interfaces	TR-7wf: Wireless LAN Communication Standard: IEEE 802.11b (TR-71wf/72wf) / IEEE 802.11b/g/n (TR-75wf) Security (*4) : WEP (64bit/128bit), WPA-PSK(TKIP), WPA2-PSK(AES) WPS 2.0 : Push Button Configuration Protocol: HTTP (*5) , DHCP, DNS TR-7nw: Wired LAN Communication 100BASE-TX/10BASE-T (RJ45 Connector) Protocol: HTTP (*5), DHCP, DNS USB Communication : USB 2.0 (Mini-B connector)
Power (*6)	Battery: AA Alkaline x 2, AA Ni-MH x 2 External: USB Bus 5V 200mA, AC Adaptor AD-05A2 or AD-05C2, PoE IEEE 802.3af (TR-7nw only)

Battery Life (*7)	With LAN communication: Approx. 10 days to 1.5 years Ex: Approx. 10 days when Auto-upload Interval is 1 min, 1 yr when 1 hr, 1.5 yrs when 12 hrs or more Without LAN communication: Approx. 1.5 years	With LAN communication: Approx. 10 days to 1year Ex: Approx. 10 days when Auto-upload Interval is 1 min, 7 mos when 1 hr, 1yr when 12 hrs or more Without LAN communication: Approx. 1 year

Dimensions	H 58 ㎜ x W 78 ㎜ x D 26 ㎜
Weight	Approx. 55 g
Operating Environment	Temperature −10 to 60°C / −10 to 45°C when using external power (TR-7nw only) Humidity 90 %RH or less (no condensation)

Accessories	Temperature Sensor TR-0106 x2	Temperature-Humidity Sensor THA-3001 x1	High Precision Temperature-Humidity Sensor SHA-3151 x1	-
	AA Alkaline Battery LR6 x 2, Registration Code Label, USB Mini-B Cable US-15C, Manual Set (Warranty Included)			

Software Compatible OS (*8)	TR-7wf/nw for Windows / T&D Graph / T&D Data Server (For PC) Microsoft Windows 10 32 / 64 bit Microsoft Windows 8 32 / 64 bit Microsoft Windows 7 32 / 64 bit Microsoft Windows Vista 32 bit SP1 or later (T&D Data Server not compatible) T&D Thermo (For Smart phone, Tablet) Android OS, iOS (For the compatible versions, please refer to our website.)
Display Languages (*9)	English

*1: Compatible wire sizes are as follows.
    Single Wire : φ 0.32 to φ 0.65 ㎜ (AWG 28 - 22), Twisted Wire : 0.08 to 0.32 ㎟ (AWG 28 - 22), φ 0.12 ㎜ or more in diameter, Stripping Length : 9 to 10 ㎜
*2: When Auto Upload is used frequently, the measurement of the internal sensor may rise by around 0.3°C. When using external power, the data logger itself generates heat and the internal sensor will report a temperature much higher than ambient; we recommend using an external temperature sensor in this case.
*3: When continually used in environments with temperatures above 60 °C, accuracy of humidity measurements will decrease over time. Also, humidity cannot be measured at temperatures below −20 °C.
*4: The WPS feature is not available when WEP (64bit/128bit) or WPA-PSK (TKIP) is selected in Access Point Settings. If you wish to use the WPS feature, please select WPA2-PSK (AES) or disable wireless security.
*5: HTTP client. Proxy supported. (for firmware version 1.05 or above for TR-71wf/72wf).
*6: When using external power, the internal temperature of the logger rises.
*7: Battery life varies depending upon multiple factors including frequency of communication, LAN environment, ambient temperature, recording interval, and 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.
*8: For installation, it is necessary to have Administrator (Computer Administrator) rights.
*9: We recommend using an operating system in the same language as the display language. Operation in different languages is not guaranteed.
The specifications listed above are subject to change without notice.