



Thermo Recorder **TR7A**series



TR7A series

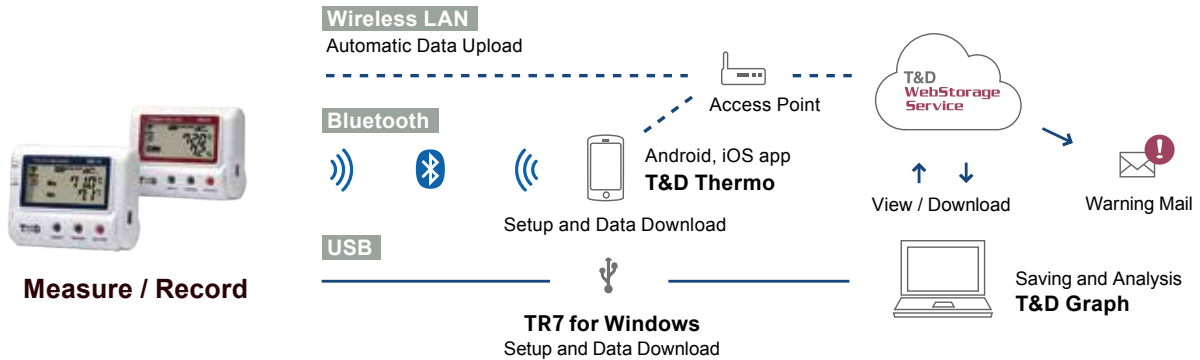


TR71A
Temperature 2ch
Compliant with VFC Guidelines

TR72A
Temperature 1ch
Humidity 1ch

TR72A-S
Temperature 1ch
Humidity 1ch
High-Precision type

TR75A
Temperature 2ch
Thermocouple (K,J,T,E,S,R)*
Ultra Low Temperature
Compliant with VFC Guidelines
*Sensors not included



Measure / Record

For Easy Worldwide Access and Notification

Our new TR7A includes multi-communication methods and auto-upload of data to the cloud function plus a new array of features and functions.



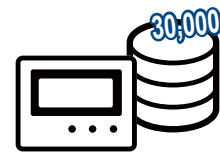
Two Tier Display Plus Warning Notification

View Measurements of Two Channels
View Upper and Lower Limit Alarms



MAX / MIN Display

Automatic clearing at regular intervals,
so you can see the max/min values for each day.



Large Storage Capacity 30,000 readings per channel

Can store up to 3.5 years of data in the device



Improved Storage Performance

Even if battery power is completely gone,
no recorded data will be lost.



Improved Security

Network communication with server via HTTPS
Planned WPA2-EAP support for Wireless LAN



For Vaccine Temperature Management

[Vaccine Mode] settings for VFC
compatible models TR71A/75A
TR75A for ultra-low temperature

Specification		TR71A	TR72A	TR72A-S		
Measurement Channels		Temperature 2ch	Temperature 1ch, Humidity 1ch	Temperature 1ch, Humidity 1ch		
Sensor		Thermistor	Thermistor	Polymer Resistance	Thermistor	Polymer Resistance
Measurement Units		°C, °F	°C, °F	%RH	°C, °F	%RH
Measurement Range	Internal Sensor	-10 to 60°C (*1)	-	-	-	-
	External Sensor	-40 to 110°C (Supplied Sensor) -60 to 155°C (Optional Sensor: Fluoropolymer Coated Type)	0 to 55 °C	10 to 95 %RH	-25 to 70 °C	0 to 99 %RH (*2)
Accuracy		(Supplied Sensor) 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
Measurement Resolution		0.1°C	0.1 °C	1 %RH	0.1 °C	0.1 %RH
Responsiveness		(Supplied Sensor) Response Time (90%): Approx. 190 sec.	Response Time (90%): Approx. 7 min.		Response Time (90%): Approx. 7 min.	
Logging Capacity		30,000 data sets (One data set consists of readings for all channels.)				
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)				
Measurement Mode (TR71A/75A only)		Normal Mode: Max/Min values and ALM display based on the readings on the LCD Vaccine Mode (*3): Max/Min values and ALM display based on the recorded values				
LCD Display Items		Measurements, ALM Display, Recording Status, Recording Mode, Battery Warning Mark, Communication Status, etc. - Measurements: Ch1 & Ch2 current values / Ch1 Max & Min values / Ch2 Max & Min values - Display Pattern: Alternating or Fixed display				
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		Wireless LAN Communication IEEE 802.11b/g/n (2.4GHz only) Security: WPA/WPA2-PSK(AES/TKIP) WPS 2.0 : Push Button Configuration Protocol (*4): HTTP, HTTPS, SNTP, DHCP, DNS Bluetooth Communication Bluetooth 4.2 (Bluetooth low energy) USB Communication USB 2.0 (Mini-B connector)				
Power		Battery: AA Alkaline LR6 x 2, AA Ni-MH x 2 External: USB Bus 5V 200mA, AC Adaptor AD-05A2 or AD-05C2				
Battery Life (*5)		Approx. 10 days to 15 months (*6)(*7)				
Dimensions		H 58 mm x W 78 mm x D 26 mm				
Weight		Approx. 55 g				
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-3001 x 1	High Precision Temperature-Humidity Sensor SHA-3151 x 1		
		AA Alkaline Battery LR6 x 2, Registration Code Label, USB Mini-B Cable US-15C, Manual Set (Warranty Included)				
Software (*8)		PC Software (Windows) TR7 for Windows T&D Graph T&D Data Server Mobile Application (iOS, Android) T&D Thermo				

*1: 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.

*2: 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.

*3: Vaccine mode complies with the CDC (Centers for Disease Control and Prevention) requirements for vaccine management.

*4: Client function. HTTP(S) proxy supported.

*5: Battery life in the table above is for two AA Alkaline type batteries, and varies depending upon multiple factors including frequency of communication, network 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.

*6: Shows the estimated battery life with Bluetooth ON. It will be 1.2 times longer with Bluetooth OFF.

*7: Shows the estimated battery life with Auto-Upload ON.

*8: Software on CD-ROM is not supplied with the product. Free software download and information on OS compatibility is available on the Software page of our website at tandd.com/software/.

The specifications listed above are subject to change without notice.

Specification		TR75A
Measurement Channels	Temperature 2ch	
Sensor	Thermocouple: Type K, J, T, E, S, R (*1)	
Measurement Units	°C, °F	
Measurement Range	Internal Sensor	-
	External Sensor	Type K : -199 to 1370 °C Type J : -199 to 1200 °C Type T : -199 to 400 °C Type E : -199 to 1000 °C Type S : -50 to 1760 °C Type R : -50 to 1760 °C
Accuracy	Thermocouple Measurement (Sensor inaccuracies not included) Type K, J, T, E : $\pm(0.5\text{ °C} + 0.3\% \text{ of reading})$ at -100°C or above Type S, R : $\pm(1.5\text{ °C} + 0.3\% \text{ of reading})$ at 100°C or above Cold Junction Compensation $\pm 0.5\text{ °C}$ at 10 to 40 °C $\pm 0.8\text{ °C}$ other temperatures within the operating environment of the logger	
Measurement Resolution	Type K, J, T, E : 0.1°C Type S, R : Approx. 0.2°C	
Responsiveness	-	
Logging Capacity	30,000 data sets (One data set consists of readings for all channels.)	
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)	
Measurement Mode (TR71A/75A only)	Normal Mode: Max/Min values and ALM display based on the readings on the LCD Vaccine Mode (*2): Max/Min values and ALM display based on the recorded values	
LCD Display Items	Measurements, ALM Display, Recording Status, Recording Mode, Battery Warning Mark, Communication Status, etc.- Measurements: Ch1 & Ch2 current values / Ch1 Max & Min values / Ch2 Max & Min values - Display Pattern: Alternating or Fixed display	
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	Wireless LAN Communication IEEE 802.11b/g/n (2.4GHz only) Security: WPA/WPA2-PSK(AES/TKIP) WPS 2.0 : Push Button Configuration Protocol (*3): HTTP, HTTPS, SNMP, DHCP, DNS Bluetooth Communication Bluetooth 4.2 (Bluetooth low energy) USB Communication USB 2.0 (Mini-B connector)	
Power	Battery: AA Alkaline LR6 x 2, AA Ni-MH x 2 External: USB Bus 5V 200mA, AC Adaptor AD-05A2 or AD-05C2	
Battery Life (*4)	Approx. 10 days to 15 months (*5)(*6)	
Dimensions	H 58 mm x W 78 mm x D 26 mm	
Weight	Approx. 55 g	
Operating Environment	Temperature: -10 to 60°C , Humidity: 90 %RH or less (no condensation)	
Accessories	(Sensor not provided)	
	AA Alkaline Battery LR6 x 2, Registration Code Label, USB Mini-B Cable US-15C, Manual Set (Warranty Included)	
Software (*7)	PC Software (Windows) TR7 for Windows T&D Graph T&D Data Server Mobile Application (iOS, Android) T&D Thermo	

*1: We do not handle the sale of Thermocouple sensors. Compatible wire sizes are as follows. Single Wire : $\varnothing 0.32$ to $\varnothing 0.65$ mm (AWG 28 - 22), Twisted Wire : 0.08 to 0.32 mm² (AWG 28 - 22), $\varnothing 0.12$ mm or more in diameter, Stripping Length : 9 to 10 mm

*2: Vaccine mode complies with the CDC (Centers for Disease Control and Prevention) requirements for vaccine management.

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