

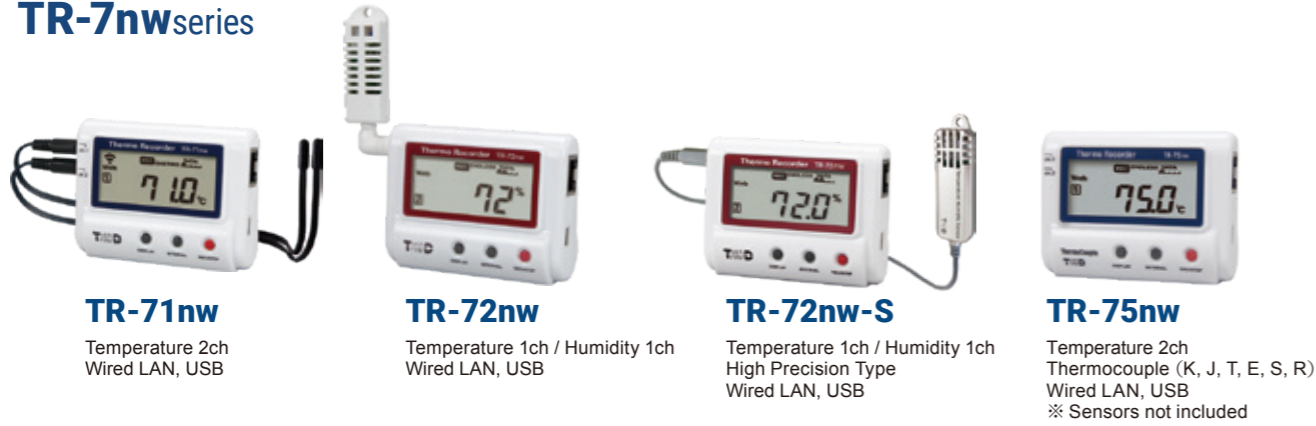


Thermo Recorder

TR-7nw series

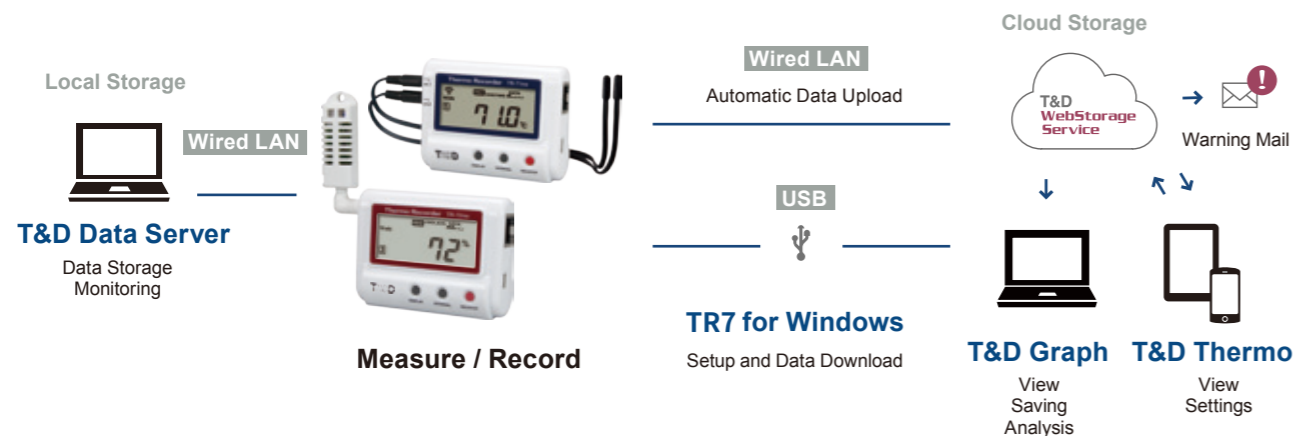
Wired LAN Connection
for
Stable, Reliable, and Trustworthy
Communication

TR-7nwseries



Data transmission via wired LAN ensures **stable** and **reliable** transfer to T&D's **cloud service** (**T&D WebStorage Service**) where your important data can then be accessed from **anywhere** at **anytime**. **Simple** direct USB connection to PC also allows for easy downloading and viewing of data, as well as, total control over logger settings.

Best of all T&D software and cloud storage service is **FREE** of charge!



<p>T&D Data Server</p> <p>Local server application for receiving, storing, and monitoring data on intranet.</p>	<p>TR7 for Windows</p> <p>PC software for making/changing settings and data download via USB.</p>
<p>T&D Graph</p> <p>High-performance graph tool that can read large numbers of data files into the same graph, merge data, and save data in various ways.</p> <p>Compatible with T&D WebStorage Service / T&D Data Server.</p>	<p>T&D Thermo (iOS / Android)</p> <p>Mobile application for viewing data in a graph and checking / changing settings via T&D WebStorage Service.</p> <p>Also supports alarm push notifications.</p>

Specification	TR-71nw	TR-72nw	TR-72nw-S	TR-75nw		
Measurement Channels	Temperature 2ch	Temperature 1ch, Humidity 1ch	Temperature 1ch, Humidity 1ch	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)	-	-	-	-
	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 (*3)
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) Type K, J, T, E : ±(0.5 °C + 0.3 % of reading) at -100°C or above Type 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	Type K, J, T, E: 0.1°C Type S, R: Approx. 0.2°C
Responsiveness	Response Time (90%): Approx. 190 sec.	Response Time (90%): Approx. 7 min.		Response Time (90%): Approx. 7 min.		-
Logging Capacity	8,000 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)					
LCD Display Items	Measurements (fixed or alternating display), Recording Status, Recording Mode, Battery Warning Mark, etc.					
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	Wired LAN Communication 100BASE-TX/10BASE-T (RJ45 Connector) Protocol : HTTP(*4), DHCP, DNS 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, PoE IEEE 802.3af (*5)					
Battery Life (*6)	Approx. 10 days to 1.5 years (depends on Auto-upload interval)					Approx. 10 days to 1 year (depends on Auto-upload interval)
Dimensions	H 58 mm x W 78 mm x D 26 mm					
Weight	Approx. 55 g					
Operating Environment	Temperature: -10 to 60°C(*7) , 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	(Sensor not provided)		
	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					

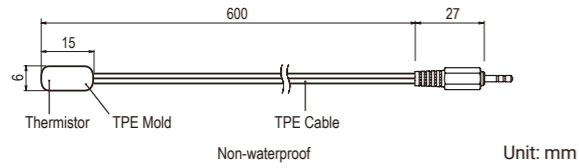
*1: We do not handle the sale of Thermocouple sensors. Compatible wire sizes are as follows. Single Wire : Ø0.32 to Ø0.65 mm (AWG 28 - 22), Twisted Wire : 0.08 to 0.32 mm2 (AWG 28 - 22), Ø0.12 mm or more in diameter, Stripping Length : 9 to 10 mm
 *2: When Auto Upload is used frequently, the measurement 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: HTTP client. Proxy supported.
 *5: When using PoE, use of STP (shielded) cables may cause PoE failure or device malfunction. We strongly recommend using UTP cables.
 *6: Battery life in the table above is for two AA Alkaline type batteries, and 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.
 *7: -10 to 45°C when using external power.
 *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.

Temperature Sensors for TR-71nw

Measurement Range: -40 to 110°C
Accuracy: Avg. ±0.3°C at -20 to 80°C, Avg. ±0.5°C at -40 to -20°C / 80 to 110°C
Note: Can be extended by 3 meters with the Extension Cable TR-1C30 / TR-5C10

TPE Resin-Shielded Sensor

TR-0106



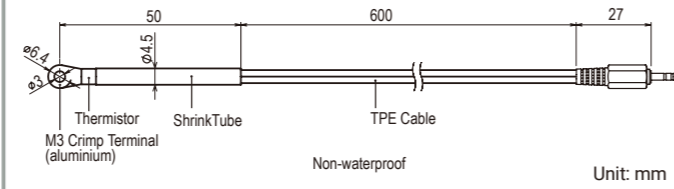
Unit: mm



Response Time (90%): Approx. 190 sec. (in air)
Waterproof Capacity: None

Screw-down Sensor

TR-0206



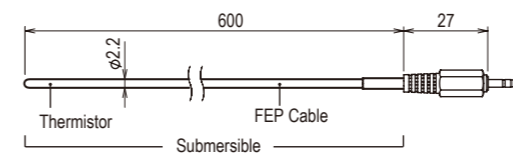
Unit: mm



Response Time (90%): Approx. 210 sec. (in air)
Waterproof Capacity: None

Fluoropolymer Coated Sensor

TR-1106



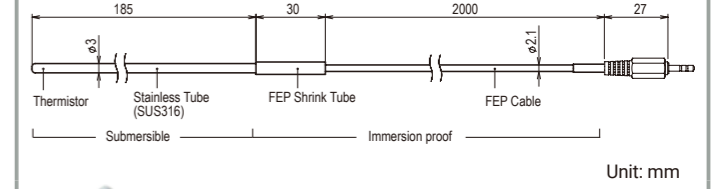
Unit: mm



Response Time (90%): Approx. 80 sec. (in air)
Approx. 7 sec. (in agitated water)
Waterproof Capacity: Submersible

Stainless Protection Sensor

TR-1220



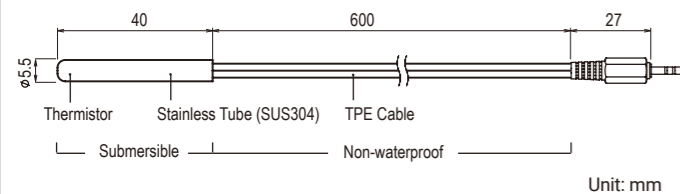
Unit: mm



Response Time (90%): Approx. 150 sec. (in air)
Approx. 7 sec. (in agitated water)
Waterproof Capacity: Submersible (stainless protection tube),
Immersion proof (cable)

Stainless Protection Sensor

TR-0306

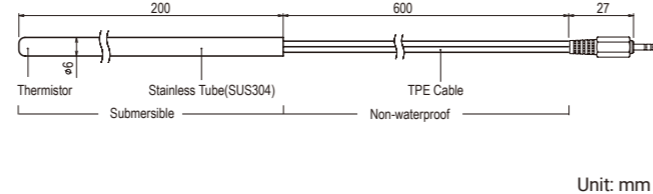


Unit: mm



Response Time (90%): Approx. 11 sec. (in agitated water)
Waterproof Capacity: Submersible (stainless protection tube)

TR-0406

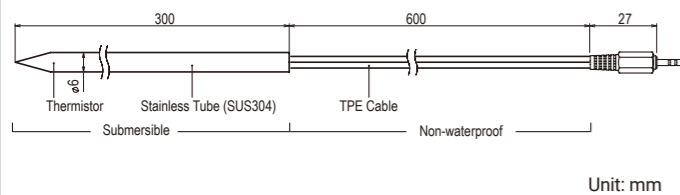


Unit: mm



Response Time (90%): Approx. 15 sec. (in agitated water)
Waterproof Capacity: Submersible (stainless protection tube)

TR-0506

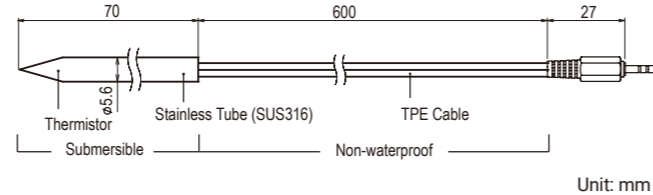


Unit: mm



Response Time (90%): Approx. 10 sec. (in agitated water)
Waterproof Capacity: Submersible (stainless protection tube)

TR-0706

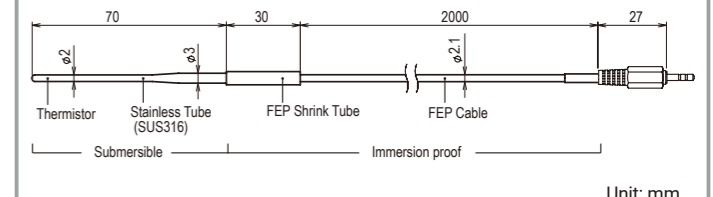


Unit: mm



Response Time (90%): Approx. 11 sec. (in agitated water)
Waterproof Capacity: Submersible (stainless protection tube)

TR-1320



Unit: mm



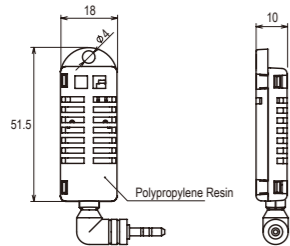
Response Time (90%): Approx. 90 sec. (in air)
Approx. 3 sec. (in agitated water)
Waterproof Capacity: Submersible (stainless protection tube),
Immersion proof (cable)

Temperature-Humidity Sensors for TR-72nw / 72nw-S

Conditions for Use:
Do not expose to condensation, dampness, corrosive gases or organic solvents. Continued use may cause a decrease in the sensor's accuracy and sensitivity even under normal operational conditions.
Note: Can be extended by 9 meters with the Extension Cable TR-1C30 / TR-5C10

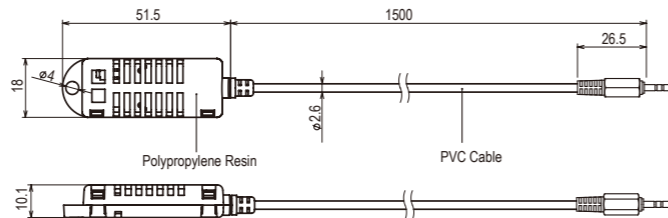
Temperature-Humidity Sensor

THA-3001



Unit: mm

THA-3151



Unit: mm



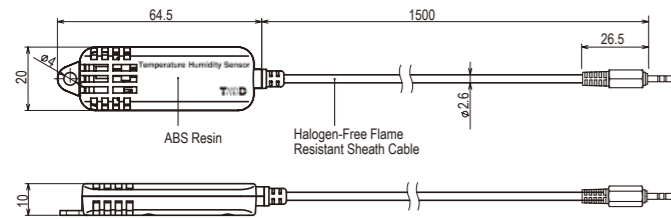
Measurement Range: Temperature 0 to 55°C
Humidity 10 to 95%RH
Accuracy: Temperature: ±0.5°C
Humidity: ±5%RH at 25°C, 50%RH
Response Time (90%): Approx. 7 min.



Measurement Range: Temperature 0 to 55°C
Humidity 10 to 95%RH
Accuracy: Temperature ±0.5°C
Humidity ±5%RH at 25°C, 50%RH
Response Time (90%): Approx. 7 min.

High Precision Temp-Humidity Sensors

SHA-3151



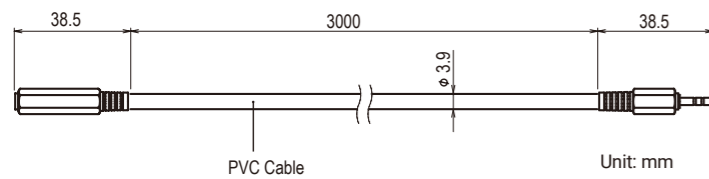
Unit: mm



Measurement Range: Temperature -25 to 70°C
Humidity 0 to 99%RH
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.
Accuracy:
Temperature ±0.3°C at 10 to 40°C
±0.5°C all other temperatures
Humidity ±2.5%RH at 15 to 35°C, 30 to 80%RH
Response Time (90%): Approx. 7 min.
Long Term Stability: ±1%RH/yr, ±0.1°C/yr

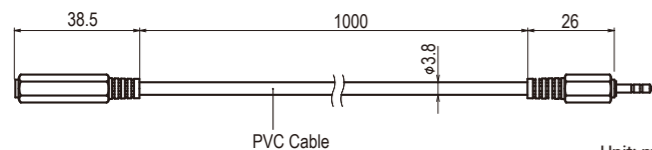
Sensor Extension Cables

TR-1C30



Unit: mm

TR-5C10



Unit: mm

Temperature Durability: -25 to 60°C
Waterproof Capacity: None
Compatible Sensors:
Temperature Sensor/ TR-1106, TR-1220, TR-1320, TR-0106, TR-0206, TR-0306, TR-0406, TR-0506, TR-0706
Temp-Humidity Sensor/ THA-3001, THA-3151, SHA-3151
Conditions for Use:
Temperature sensors can use up to 3 meters of extension cables. Temp-Humidity sensors can use up to 9 meters of extension cables.

AC Adaptors

AD-05A2

AC Adaptor (FCC)



USB Mini-B Type
Input: AC 100 - 240 V
Output: DC 5 V, 1 A
Frequency: 50 / 60 Hz
Cable Length: 1.5 m
Plug Type: A
Compatible Devices: Data Logger
TR-71nw / 72nw / 72nw-S / 75nw

AD-05C2

AC Adaptor (CE)



USB Mini-B Type
Input: AC100-240V
Output: DC5V, 1A
Frequency: 50 / 60 Hz
Cable Length: 1.5 m
Plug Type: C
Compatible Devices: Data Logger
TR-71nw / 72nw / 72nw-S / 75nw

Note: When using with TR7 Series the logger body will become hot. Also note that the data logger itself will generate heat and the internal sensor will measure a temperature higher than actual; we recommend using an external temperature sensor.

Wall Attachment

TR-07K2



Included Items:
Lock Screws for fastening to wall,
Double-Sided Adhesive Tape

Communication Cable

US-15C

For Communication with PC



USB Mini-B Type
Cable Length: 1.5m

Software for Purchase

S0-TD1

T&D Software



Software Included:
RTR500BW for Windows (US/EU)
RTR500BM for Windows (US/EU)
RTR500BC for Windows (US/EU)
RTR-500DC for Windows (US/EU)
RTR-600 Settings Utility (US)
TR7 for Windows
CO2 Recorder for Windows
Illuminance UV Recorder for Windows
MCR for Windows
T&D Recorder for Windows
T&D Data Server
T&D Graph

Note: Optional DVD-ROM that contains the Windows software for current T&D products. Software can be downloaded from T&D's Website, but for those who prefer, a DVD is available for purchase.

tandd.com



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