

RTR-505-TC / 505-Pt / 505-V / 505-mA / 505-P

RTR-505-TC / RTR-505-TCL: Thermocouple



Measurement Range

K: -199 to 1300 °C
 J: -199 to 750 °C
 T: -199 to 400 °C
 S: -20 to 1700 °C

Measuring Accuracy*

Cold Junction Compensation
 Module temperature at 10 to 40°C: $\pm 0.3^\circ\text{C}$, At other temp: $\pm 0.5^\circ\text{C}$
 Thermocouple Measurement
 Type K, J, T: $\pm 0.3^\circ\text{C} + 0.3\%$ of reading
 Type S: $\pm 1^\circ\text{C} + 0.3\%$ of reading

Note:*Sensor error is not included.

Input Module TCM-3010 (Included)



Polyamide (black) Vinyl Coated Electrical Wire

[Unit: mm]

RTR-505-TC is a type of Data Logger supplied with the Input Module which supports the following types of thermocouple sensors: K, J, T, and S. It is possible to measure and record temperature in a range of -199 to 1700°C.

Application Examples

boiler



- For temperature recording of combustion furnaces and blast furnaces
- Recording boiler temperatures
- For temperature management when curing concrete

RTR-505-Pt / RTR-505-PtL: Pt



Measurement Range

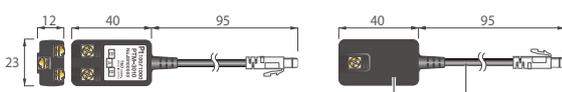
-199 to 650°C

Measuring Accuracy*

Module temperature at 10 to 40°C: $\pm 0.3^\circ\text{C} + 0.3\%$ of reading
 At other temp: $\pm 0.5^\circ\text{C} + 0.3\%$ of reading

Note:*Sensor error is not included.

Input Module PTM-3010 (Included)



Polyamide (black) Vinyl Coated Electrical Wire

[Unit: mm]

RTR-505-Pt is a Data Logger which supports Pt100 (3-wire / 4-wire) and Pt1000 (3-wire / 4-wire) sensors.

Application Examples



- For temperature recording of cooking equipment such as pans, fryers, and ovens
- For temperature management of refrigerated and frozen goods
- Managing temperature for blood transport

RTR-505-V / RTR-505-VL: Voltage



Measurement Range

0 to 22 V

Measuring Accuracy*

Module temperature at 10 to 40°C: $\pm 0.5\text{mV} + 0.3\%$ of reading
 At other temp: $\pm 1\text{mV} + 0.5\%$ of reading

Note:*Sensor error is not included.

Input Module VIM-3010 (Included)



Polyamide (black) Vinyl Coated Electrical Wire

[Unit: mm]

RTR-505-V is a Data Logger designed to measure and record voltage signals from various types of sensors and measuring devices. Two types of recording method (instantaneous or average) are available to be chosen from. It is equipped with a preheat function that transmits a preheat signal synchronized with the recording interval to turn sensors or other devices ON and OFF.

Application Examples



- For water level, flow, density, pH, pressure, and power
- Recording measurements taken from various measuring instruments such as flow meters, power meters, and analyzers
- Recording and managing measurement signals from various devices and equipment

RTR-505-mA / RTR-505-mAL: 4-20mA



Measurement Range
0 to 20mA (Operational up to 40mA)

Measuring Accuracy*
Module temperature at 10 to 40°C: ± 0.05mA + 0.3% of reading
At other temp: ±0.1mA + 0.3% of reading

Note:*Sensor error is not included.

Input Module AIM-3010 (Included)



Polyamide (black) Vinyl Coated Electrical Wire

[Unit: mm]

RTR-505-mA is a Data Logger designed to measure and record 4-20mA signals from various types of sensors and measuring devices. Two types of recording method (instantaneous or average) are available to be chosen from.

Application Examples



- For water level, flow, density, pH, pressure, and power
- Recording measurements taken from various measuring instruments such as flow meters, power meters, and analyzers
- Recording and managing measurement signals from various devices and equipment

RTR-505-P / RTR-505-PL: Pulse

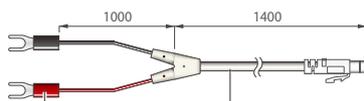


Recording Method
Logging Capacity : 16,000 readings
Capable of counting up to 61,439 pulses per reading

Pulse Response
Max of 3,500 pulses per second

Input Range
Voltage Signals: 0 to 27V
Lo: 0.5V or less, Hi: 2.5V or more
Contact signals also recordable

Input Cable PIC-3150 (Included)

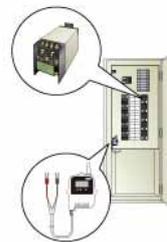


M3.5 Crimp Terminal Vinyl Coated Electrical Wire

[Unit: mm]

RTR-505-P is a Data Logger designed to record the changes in pulse count for contact signals (such as switches, relays, and thermostats) and Lo/Hi voltage signals that occur during a set recording interval. It is also capable of recording the total pulse count from the start of recording.

Application Examples



- Recording output pulse taken from flow meters and power meters
- For recording weather data such as rainfall and wind speed



Product Specifications

Wireless Data Logger

Set Model Number	RTR-505-TC / 505-TCL	RTR-505-Pt / 505-PtL	RTR-505-V / 505-VL	RTR-505-mA / 505-mAL	RTR-505-P / 505-PL
Measurement Items (*1)	Temperature (Type K, J, T, S)	Temperature (Pt100, Pt1000)	Voltage	4-20mA	Pulse
Number of Channels	1 Ch	1 Ch	1 Ch	1 Ch	1 Ch
Recording Intervals	Select from 15 choices: 1, 2, 5, 10, 15, 20 and 30 sec./ 1, 2, 5, 10, 15, 20, 30 and 60 min.				
Logging Capacity	16,000 readings				
Recording Modes (*2)	Endless (Upon reaching logging capacity, the oldest data is overwritten and recording continues) / One Time (Upon reaching logging capacity, recording will automatically stop)				
LCD Displayed Items	Measurement, Recording Status, Recording Mode, Battery Life Warning, Unit of Measurement, Full (Logging Capacity FULL), Sensor Unconnected, Input Module Unconnected, Measurement Range Exceeded, Display Range Exceeded				
Power	Lithium Battery LS14250 (*3) or CR2 x 1 L type: Large Capacity Battery Pack External Power Supply Adapter (sold separately)				
Battery Life (*4)	About 10 months / L type: About 4 years				
Communication Interfaces	Wireless Communication / Optical Communication				
Radio Standard Specifications	FCC Part 15 Section 247 / IC RSS-210 (Frequency Range: 902 to 928MHz)				
Wireless Communication Range	About 150 meters (500 ft) if unobstructed and direct				
Communication Time	When downloading one Remote Unit at full logging capacity Wireless Communication: about 2 min. Optical Communication (at 2400bps): about 160 sec.				
Waterproof Capacity	Splash proof (rated for use in daily life) (*5)				
Dimensions	H62mm x W47mm x D19mm / L type: D46.5mm (excluding protrusions)				
Weight	About 56g / L type: About 109 g (including one lithium battery / excluding sensor part)				
Operating Environment	-30 to 80°C / -20°C to 60°C when using lithium batteries (CR2) sold in stores. (*6) (The operating temperature range and measurement range is -40 to 80°C but wireless communication cannot occur in an environment of less than -30°C.)				
Other	A Base Unit is required separately to download data. (Compatible Base Units: RTR-500, RTR-500NW, RTR-500AW)				

(*1) Measurement items other than Pulse will have different measurement range depending on the Input Module and sensor to be connected. For details, see the User's Manual included with the Input Module.

(*2) When using RTR-500GSM, RTR-500NW or RTR-500AW as a Base Unit, only "Endless" can be selected.

(*3) The included lithium battery (LS14250) is not sold in stores. Please purchase the optional battery set for low-temperature use (TR-11P2) for replacement.

(*4) Battery life varies depending upon the connected Input Module, measuring environment, frequency of communication, Unit settings, and battery performance. For details, see "Estimated Battery Life" in the User's Manual included with the Data Logger.

(*5) This is the waterproof capacity of a Unit with an Input Module connected. Note that sensor connector of the Input Module is not water resistant.

(*6) If you are using a Data Logger in an environment where temperatures may be lower than -20°C or higher than 60°C, we strongly suggest purchasing and using the optional battery set for low-temperature use (TR-11P2).