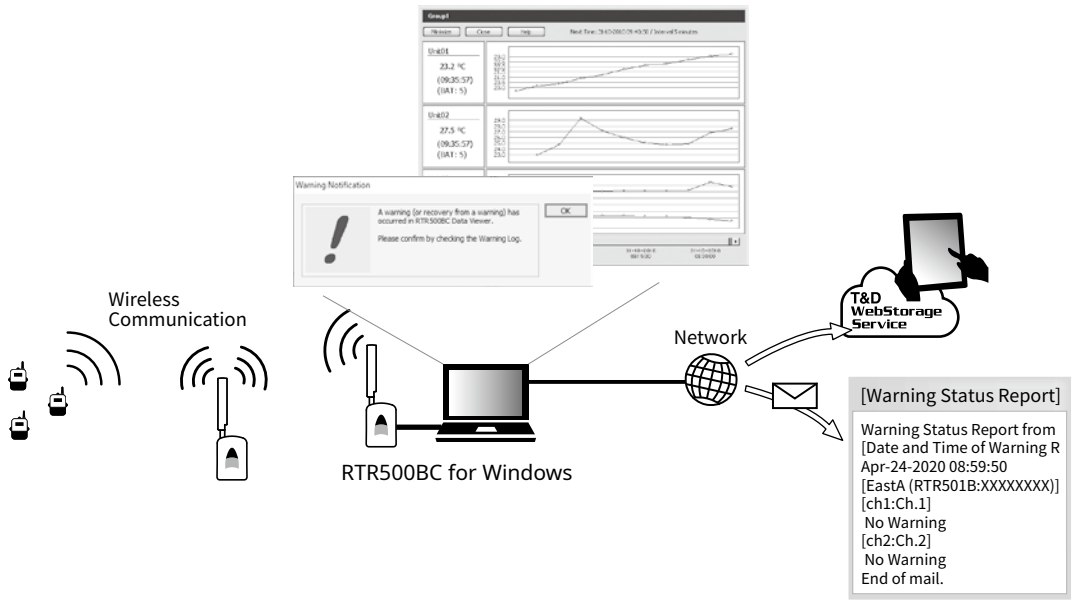
Nov. 2022

Wireless Base Station

RTR500BC Features and Specs

Data Transfer	Data Monitoring	Warnings	Warning Notification
USB	T&D WebStorage Service, Local PC	Set Limit Exceeded / Sensor Error / Communication Error etc...	E-mail Software

RTR500BC is a wireless data collector (Base Unit) that collects recorded data from data loggers (Remote Units) using short range wireless communication. Connected to a PC via USB and with our Windows software, it enables data download and transfer, real-time monitoring as well as monitoring for warnings. It can also be used as a wireless repeater for our RTR500B/RTR-500 Series.



Auto-Download of Recorded Data

By using the software running on a PC, it is possible to automatically download recorded data from loggers to a PC at a set interval. Downloaded data can then be automatically uploaded to our free cloud service or your FTP server.

Monitoring Function

The current readings and trend graph displayed on a PC allows for real-time monitoring. If the set limit for each Remote Unit is exceeded, a warning will be notified on the PC screen as well as via email. As recipients of warning, up to four email addresses can be set.

Easily Manage Up to 20 Groups x 32 Loggers

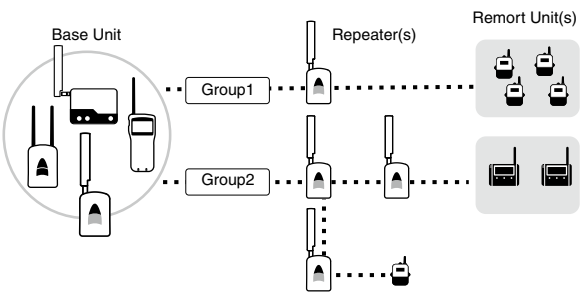
In each group it is possible to manage up to 32 data loggers (remote units), and up to 30 repeaters can be added to each group.

* Note: For RTR-574 and 576, registration of one unit will be counted as two units.

* Communication DLL specs for the RTR500B Series, as well as, file formats for Current Readings Files and Recorded Data Files (XML) are available free of charge to our customers. These allow you to integrate our products into your own applications and systems.

Use a Repeater to Expand Communication Range

The wireless communication range between a base and a remote unit, if unobstructed and direct, is about 150 meters (500 ft). This range can be extended by using the RTR500BC as a repeater.



RTR500BC Specifications

	RTR500BC
Compatible Devices	Remote Units: RTR501B / 502B / 503B / 505B / 507B RTR-501 / 502 / 503 / 507S / 574 / 576 / 505-TC / 505-Pt / 505-V / 505-mA / 505-P (Including L Type and S Type) RTR-602S / 602L / 602ES / 602EL, RTR-601-110 / 601-130 / 601-E10 / 601-E30 (*1) Repeaters: RTR500BC, RTR-500
Maximum Number of Registrations	Remote Units: 32 units (*2) x 20 groups Repeaters: 30 units x 20 groups
Communication Interfaces	Short Range Wireless Communication <For US> Frequency Range: 902 to 928MHz RF Power: 7mW Transmission Range: About 150 meters (500 ft) if unobstructed and direct <For EU> Frequency Range: 869.7 to 870MHz RF Power: 5mW Transmission Range: About 150 meters if unobstructed and direct Bluetooth 4.2 (Bluetooth Low Energy) (*3) USB 2.0 (Mini-B connector) Optical Communication (proprietary protocol) Serial Communication (RS-232C) (*4)
Communication Time	Data Download Time (for 16,000 readings) Via wireless communication: Approx 2 minutes The same amount of time should be added for each Repeater.
Communication Protocol (*5)	SMTP (TLS 1.2 supported), FTP
Power (*6)	USB Bus Power, AA Alkaline Battery LR6 x 2, AC Adaptor (AD-06A1 or AD-06C1), External Battery (DC 9-38V) with the Connection Adaptor (BC-0204)
Battery Life (*7)	As a Repeater: Approx 6 months (When downloading full data once a day from one Remote Unit with one Repeater)
Dimension	H 96 mm x W 65.8 mm x D 24.4 mm (excluding antenna) Antenna Length: 135 mm
Weight	Approx. 80 g
Operating Environment	Temperature: -10 to 60°C (when using AA batteries) / -30 to 60 °C (when using AC adaptor) Humidity: 90 %RH or less (no condensation)
Accessories	Antenna CSR-0011, USB Mini-B Cable US-15C, Manual Set (Warranty Included)

*1: Customers wishing to use the RTR500BC as a Base Unit in conjunction with the RTR-601 series devices, please contact your local distributor for the communications protocol specifications to write your own software.
*2: For RTR-574 and RTR-576, registration of one unit will be counted as two units.
*3: Bluetooth is available when using the RTR500BW or RTR500BM as a Base Unit and making device settings in the mobile app (T&D 500B Utility).
*4: Customers wishing to write their own software, please contact your local distributor for the serial communications protocol specifications. (Note: Optional serial communication cable TR-07C is also required.)
*5: The protocol is implemented in the software RTR500BC for Windows.
*6: When using the RTR500BC as a Base Unit. it works on the USB bus power and it is not necessary to use another power source.
*7: Battery life depends on several factors, including ambient temperature, radio environment, frequency of communication, and quality of the battery being used. All estimates are based on operations carried out with a new battery and are in no way a guarantee of actual battery life.
The specifications listed above are subject to change without notice.