

Integration Layer Device

BACnet Portable Network Router

WC-RP12/GC-RP11

【Description】

The WC/GC-RP. series is a portable network router that meets the BACnet B-BC level. It has a router function. Users can realize BACnet Ethernet or BACnet/IP communication layer information and BACnet MS/TP Transparent transmission of information, each MS/TP network can connect up to 32 on-site controllers. It can be used with any BACnet device or software, and it allows other devices to modify its BACnet object value; the portable design makes it easy for system engineers to test and adjust the BACnet network in any situation. Contains commonly used standard BACnet objects, which can be used as the most economical educational tool when first contacting the BACnet system. Among them, WC-RP also has a Web Server function, which can be used with BACsoft page editing software to edit the monitoring webpage, so that the user's monitoring system can easily and quickly have the remote monitoring function through WC-RP.



【Features】

- Made in accordance with the BACnet Building Controller (B-BC) communication protocol formulated by the American Heating, Refrigeration and Air-Conditioning Association (ASHRAE).
- It can realize the transparent transmission of data between 3 different BACnet networks (BACnet Ethernet/BACnet IP/BACnet MS/TP)
- WC-RP12 built-in Linux web embedded (Web Embedded) operating system and data record analysis management system, users can obtain real-time and historical energy consumption information through the web browser of the 3C device. It can also be used with AIRTEK's dedicated mobile phone App operation (Android system), so that the monitoring system has a more convenient and comfortable operating environment and interface when monitoring the system through a mobile phone.
- The data analysis chart has various types such as pie chart, bar chart, trend chart, dot matrix chart, step line chart, etc. The reports provide annual reports, monthly reports, weekly reports, etc.
- Different Types. Users can set the data source and format of various required analysis charts and report combinations through the web page to meet various application requirements.
- With Web server function, you can set network-related parameters through the Browser; WC-RP12 can edit the monitoring page upload to realize the application of the web monitoring system (web page editing requires the AIRTEK HMIkit editing tool).
- Built-in 10/100M Ethernet interface, can choose BACnet Ethernet or BACnet/IP communication layer communication.
- Built-in MS/TP master and servant token communication interface, with 2,500Vrms anti-interference potential isolation design, Peer to Peer data transmission and sharing function and the ability to read and write external objects, which can read a single or multiple Pen data (DS-RP-A/DS-RPM-A) and the ability to change the value (DS-WP-A).
- It has functions of common HVAC functions such as enthalpy, dew point temperature, PID control, and advanced mathematical functions such as logarithm, trigonometric function, and root sign.
- (Function calculation function needs to be equipped with AIRTEK DDC program editing software)
- It has common BACnet objects such as digital software point (BV), analog software point (AV), schedule, alarm notification, trend record, etc., and standard BACnet software can easily realize the data reading/writing of the above objects, including WC-RP12 With the AIRTEK WC-Recorder tool, the saved data can be converted into Excel files and saved to the PC for use as long-term data storage and analysis.
- WC-RP12 has E-mail and Line alarm push function; different alarms can be set and notified to different E-mail and Line users.
- WC-RP12 has a JSON data conversion function, which can set the BACnet information in the system to the corresponding JSON format for reading, facilitating information integration between the BACnet system and the third-party cloud/big data analysis software platform.
- WC-RP12 has Foreign Device capability, which can log in to BBMD to achieve Internet connection function.
- WC-RP12 has EIMnet, which can be connected to the expansion I/O module of AIRTEK as a simple physical input/output control.
- Small size, easy to carry, and use micro USB as the power input, you can directly use the computer's USB port for power supply, with a USB power converter, it can also be powered by 110~220VAC. It is convenient for testing, installation and use in any occasion.
- Panel mounting accessories are also included. If necessary, you can also use accessories for panel mounting settings.

【Specification】

Model	Power	Ethernet Port	MS/TP Port	EIMnet Port	Web Page Setting	Web Monitor	AV	BV	Schedule	Alarm	Notification	Trend log	Data Analysis	SD Card
WC-RP12	3VA	1	1	1	O	O	50	50	5	5	2	5	O	O
GC-RP11	2VA	1	1	x	O	X	50	50	5	5	2	5	X	X

Power supply : Micro USB interface, 5 VDC power supply.

Processor : 32-bit high-speed arithmetic microprocessor (MCU), containing 128K SRAM, 32K FRAM and 1024K Flash memory space.

Ethernet : 10/100M Ethernet, you can choose to support BACnet Ethernet or BACnet/IP two network layer protocols. When connecting to an external network, a physical firewall must be installed.

MS/TP : RS-485 communication interface, built-in anti-interference isolator with rated isolation voltage of 2,500Vrms and maximum working isolation voltage of 560Vpeak. It can be connected to 32 field controllers, the communication rate is 9,600/19,200/38,400/76,800 BPS can be selected, and the transmission distance is 1,200 meters.

EIMnet : RS-485 communication interface, up to 4 AIRTEK EIM I/O expansion modules can be connected.

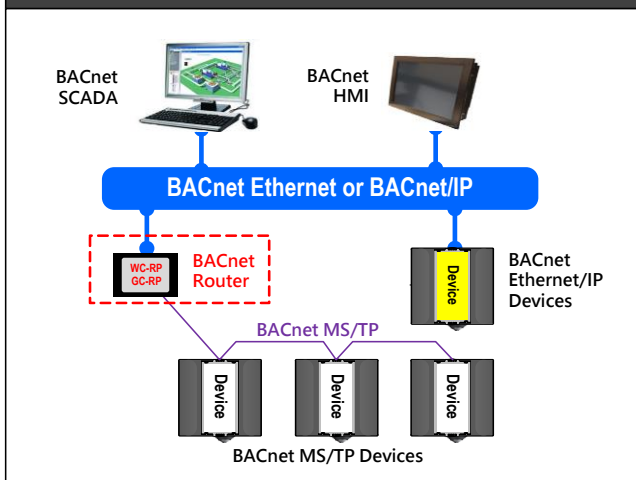
Environment : 0~50°C, 20~90%RH non-condensing.

Certificate : Comply with RoHS environmental protection standards.

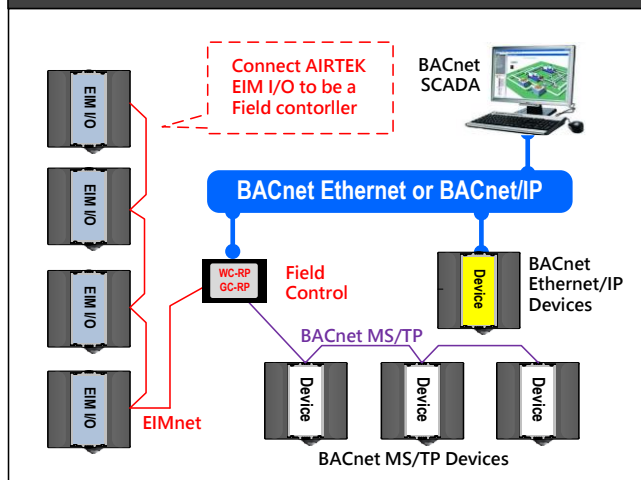
Product Size : 101^W x 62^H x 32^D (mm)

【Network】

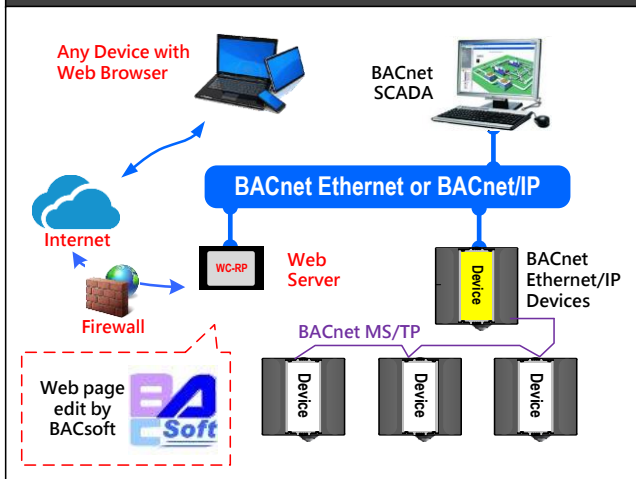
BACnet Ethernet to RS-485 Data Router



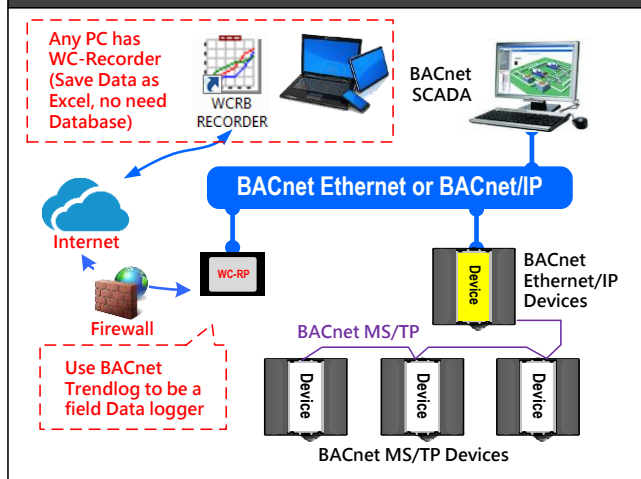
Easy I/O control(with EIM I/O module)



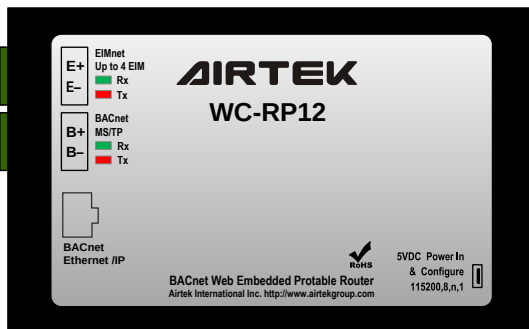
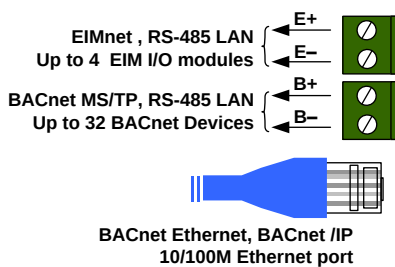
Web Browser system monitor(with HMIkit,WC-RP only)



System Data logger (with WC-Recorder,WC-RP only)



【Wiring】



Dimension : 101 * 62 * 32(mm)

Micro USB connector,
Power Input with 5VDC &
Configure Port, RS-232