Honeywell

BACnet WiFi Adapter
FOR USE WITH CPO-R CONTROLLERS
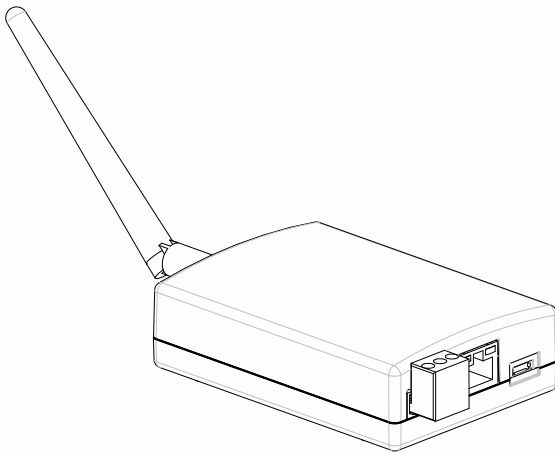
GENERAL INFORMATION

Fig. 1. BACnet WiFi Adapter

The BACnet WiFi Adapter is an electronic hardware module suitable for the connection of BACnet MS/TP to BACnet tools for the purpose of commissioning and problem-solving. See also Fig. 2 for possible scenarios.

To use the RoomUp configuration tool, download it from the Google Playstore - URL: https://play.google.com/store). The commissioning engineer can then exploit the wireless connectivity to the BACnet IP to, e.g., configure the I/O terminals of the CPO-R controller.

The two most-likely commissioning scenarios are as follows (see also Fig. 2):

Scenario #1: Power and BACnet MS/TP via RJ45 Plug

In this scenario, communication between the CPO-R Controller and the RoomUp configuration application on the Android Smart device is effected via a direct connection of the BACnet WiFi Adapter to the RJ45 interface of the CPO-R Controller (from which the BACnet WiFi Adapter also obtains its power).

Scenario #2: Direct Connectivity to BACnet MS/TP Bus

In this scenario, the BACnet WiFi Adapter is wired to the controller's BACnet MS/TP interface and obtains its power from a separate transformer.

FEATURES

- Mobile BACnet MS/TP access point for RoomUp
- BACnet MS/TP to BACnet IP connection
- Integrated router
- Simple one-cable connection to CPO-R controller
- Connection to any BACnet MS/TP system having screw terminals
- Secure WiFi connection using WPA2
- WiFi-protected setup (WPS) for fast device connection
- Long-distance use with external antenna (see **NOTE**)
- Web interface for device configuration

NOTE: Use only original antenna included in shipment.

SPECIFICATIONS

Weight	120 g (without patch cable)
Housing	101 x 71 mm, PPE + PS
Operating range	0…50 °C, 5…95% r.h.
Approvals	CE, UL, FCC, IC
Current consumption	60 mA at 24 VAC (see also **NOTE** below)

NOTE: When connected to the controller's RJ45 connection, the BACnet WiFi Adapter's current consumption must be taken into consideration when budgeting the max. current at the controller's 24 V_{aux} output terminals.
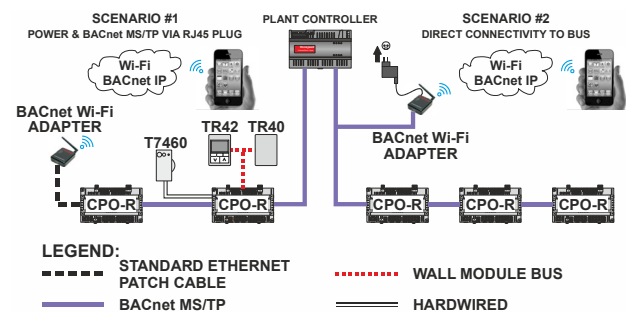
ORDERING INFORMATION

OS no.: BACA-A

OVERVIEW

Fig. 2. System overview
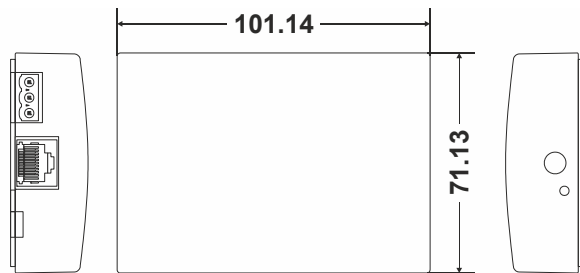
DIMENSIONS

Fig. 3. BACnet WiFi Adapter dimensions (in mm)

RJ45 CONNECTOR (SCENARIO #1)

The BACnet WiFi Adapter features an RJ45 jack which can be connected (using a standard ETHERNET patch cable) to the controller's RJ45 connector. See also Fig. 4.
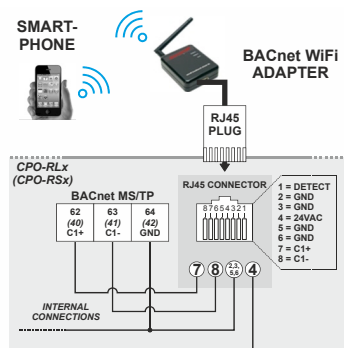

Fig. 4. Connection of BACnet WiFi Adapter (Scenario #1)

> ⚠ **WARNING**

Risk of equipment damage!

► When the BACnet WiFi Adapter is connected to the controller's RJ45 connection, it is powered by the controller. It is then prohibited to simultaneously power the BACnet WiFi Adapter via a wall adapter.
When, on the other hand, the BACnet WiFi Adapter is instead connected to the controller's BACnet MS/TP interface, it is prohibited to simultaneously use an RJ45 plug; instead, the BACnet WiFi Adapter must then be powered by a wall adapter (standard 5-V USB wall adapter with micro USB connector).

BACNET MS/TP INTERFACE (SCENARIO #2)

The BACnet WiFi Adapter features an RS485 interface (terminals C1+, C-, GND) which can be hardwired to the controller's BACnet MS/TP interface (RLx: terminals 62, 63, and 64; RSx: terminals 40, 41, and 42). The wire length affects the baud rate. See Table 1.

Table 1. Baud rate vs. max. wire length

baud rate	max. cable length (L)
9.6 - 76.8 kbps	1200 m
*115.2 kbps	800 m

For information on wire gauge, max. permissible cable length, possible shielding and grounding requirements, and the max. number of devices which can be connected to a bus, refer to standard EIA-485.

WEB PAGES AND FIRMWARE UPDATING

Once you have established (using RoomUp) BACnet MS/TP communication between your PC, your Android Smart device, and the BACnet WiFi Adapter (see also Mounting & Operating Instructions, MU1B-0592GE51), you can type the following IP address into the address bar of the Internet browser on your PC in order to configure the BACnet WiFi Adapter (i.e., to change the MS/TP MAC address of the Adapter, the MS/TP baud rate, the password, etc.):

192.168.2.1/

CYBER SECURITY

To prevent unauthorized system access, after use, the BACnet WiFi Adapter should not be left on site and/or connected with the controller or BACnet bus. Rather, it should be disconnected and stored in a secure place.

APPROVALS, CERTIFICATIONS, ETC.

- CE-approved:
  - EN 60730-1, EN 60730-2-9;
  - EN 301 4891 V1.9.2, EN 301 489-17 V2.2.1;
  - EN 300 328 V1.8.1.
- UL 60730-1, Standard for Automatic Electric Controls for Household and Similar Use, Part 1;
- Complementary UL916 listing;
- CAN/CSA-E60730-1, Standard for Automatic Electrical Controls for Household and Similar Use, Part 1;
- FCC;
- Industry Canada (IC);
- BACnet AAC profile.

Trademark Information

BACnet[TM] is a trademark of ASHRAE Inc.

ComfortPoint[TM] Open is a trademark of Honeywell Inc.

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