

BACplus-IP

PROGRAMMABLE
DIGITAL CONTROLLER

STRATO BRAND



DESCRIPTION

- ▶ The BACplus-IP is a digital controller fully programmable with a variety of combinations of input/output configurations using modular boards.
- ▶ It supports communication protocols such as BACnet IP, BACnet MS/TP and Modbus/RTU.
- ▶ It is BACnet BTL certified in appliance with B-AAC (BACnet Advanced Application Controller) standards.

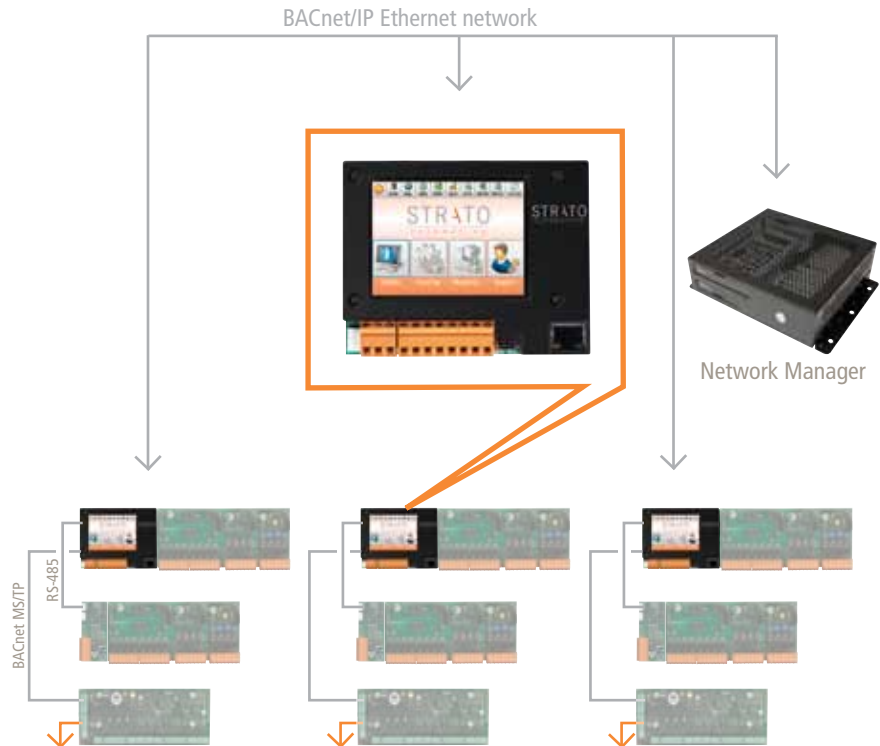
AVANTAGES

- ▶ High resolution colour touch screen allows you to see and lock all the control points of its subnetwork in real-time.
THE USER CAN CHOOSE TO USE THE KEYBOARD FOUND ON THE TOUCH SCREEN OR A WEB BROWSER FOR THE INITIAL CONFIGURATION OF THE CONTROLLER (NETWORKING AND GENERAL INFORMATION).
- ▶ Allows you to have a modular layout of the inputs/outputs and is compatible with Strato Automation EXP series expansion boards.
- ▶ Quick assembly of the modular boards using a snap track system.
THANKS TO ITS MODULARITY, THIS CONTROLLER OFFERS TAILORED SOLUTIONS ACCORDING TO THE ACTUAL NEEDS OF THE PROJECT.
- ▶ Greatly increases the capacity of the logical outline network and enables integration with third party products.
- ▶ Greater flexibility in programming.
- ▶ Removable terminals that are at a 45° angle to facilitate the connections.
- ▶ Mini USB connection for easy access to the BACnet MS/TP network.

APPLICATION

► The BACplus-IP modular controller has many utilities, such as:

- To control air handling units of all sizes.
- To control boilers, valve actuators, temperatures, etc.
- To control chillers, cooling of medium and low temperatures.
- To control all other HVAC equipment.
- To manage energy consumption.
- A router and a BACnet network manager.



TECHNICAL SPECIFICATIONS

POWER SUPPLY

- **Supply voltage:** 24 VAC \pm 15%, 50/60 Hz
- **Protection:** Replaceable 2.0A fuses (type TR5)
- **Current consumption:** 6 VA typical, 48 VA Max
- **Max. wire size:** 14 awg

INTEROPERABILITY

- **Communication:** BACnet/IP, BACnet MS/TP and Modbus RTU
- **BACnet Profile:** B-AAC (BACnet Advanced Application Controller)
- **Connection speed:**
 - BACnet MS/TP: 9600, 19 200, 38 400, 76 800 and 115 200 bps
 - Expansion (I/O boards): own protocol at 115 200 bps
 - Ethernet: 10/100 Mb/s

- **IP Addressing:** Via touch screen or web browser

- **Max number of BACnet objects:** 202

COMPONENTS & PERFORMANCES

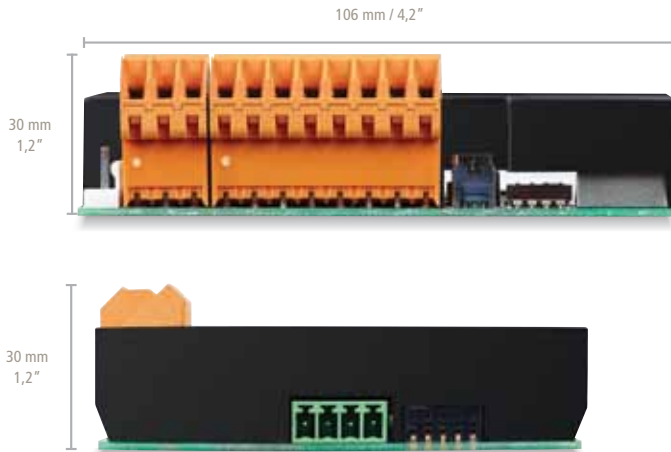
- **Microprocessor:** STM32 (ARM Cortex™ M4) 32 bits
- **CPU speed:** 180 MHz
- **Memory:**
 - Flash: 2 MB non-volatile (user's application program)
 - RAM: 256 KB
 - SRAM (externe): 2 MB
 - Micro SD card: with the possibility to add a Micro SD card (up to 32 GB).
- **Real-time clock (RTC):** Yes, without battery

► Lights:

- 7 D.E.L. green: MS/TP (TX, RX), AUX (TX, RX), EXP (TX/RX) and power supply.
- 2 D.E.L. green and orange: Ethernet connectivity.

► Communication ports:

- 1 x BACnet MS/TP (RS-485)
- 1 x Modbus (RS-485)
- 1 x EXPANSION I/O série EXP (RS-485)
- 1 x Ethernet RJ-45
- 1 x mini USB (RS-485, same as BACnet MS/TP port).



HOUSING & DIMENSIONS

- ▶ **Material:** PC+ABS Bayblend FR3010
- ▶ **Housing colour:** Noir
- ▶ **Terminal colour:** Orange
- ▶ **Mounting/installation type:** On a Snap Track system (3.25" L)

USER INTERFACE

- ▶ **Display type:** ACL (QVGA) touch screen
- ▶ **Resolution:** 320 L x 240 H pixels
- ▶ **Display area:** 3.2" (81 mm) diagonal, 2.55 L x 1.91" H (64.8 x 48.6 mm)
- ▶ **Browser menu:** IP address configuration, general information on the controller, manual intervention by the user, personal password, access via a utility VNC wireless connection.

OPERATION SYSTEM

- ▶ **Operation temperature:** 0°C to 45°C (32°F to 113°F)
- ▶ **Stocking temperature:** -30°C to 70°C (-22°F to 158°F)
- ▶ **Relative humidity:** 0% to 90% without condensation

CERTIFICATIONS

- ▶ **UL** (Can & USA)
UL 916 Energy Management Equipment
(pending)
- ▶ Web communication interface

ACCESSIBILITY: VIA WEB BROWER (USER'S PREFERENCE).

- ▶ **Accessibility:** Via web browser (user's preference).
- ▶ **Security:**
 - User: admin
 - Password: strato
(Information may be changed)

Menus: Configuration, Expansion (I/O), Advanced, Status, Security, Debug, Upgrade.

Configuration Expansion (I/O) Advanced Status Security Debug Upgrade

Device Instance	825
BACnet/IP UDP Port	bac0
BACnet/IP Network	1
MAC Address	00:1E:CO:AB:D7:11
IP Address	192.168.10.181
Subnet Mask	255.255.0.0
IP Gateway	192.168.1.3
SOL Server	192.168.10.200
MS/TP Router	<input checked="" type="radio"/>
MS/TP MAC	0
MS/TP Network	825
Max. Masters	50
Max. Info. Frames	25
MS/TP Baudrate	76800
MS/TP Tolerance	<input type="radio"/> Strict <input checked="" type="radio"/> Lenient
Modbus Router	<input type="radio"/>
Modbus OSP Key	0
Modbus Baudrate	38400
Poll Frequency	1000 mSec.
DLM Revision	2.004
Firmware Revision	4.213
<input type="button" value="Save Changes"/>	

BACplus-IP

CONFIGURATION



COMPATIBILITY

Other compatible products of the Strato brand, EXP series:

EXP-I/O



EXP-8AI



EXP-4AO



EXP-4BO



EXP-4BOR

