

OPTIFLEX™ OFBBC-NR

BACNET BUILDING CONTROLLER



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The OFBBC-NR provides the speed, power, memory, and I/O flexibility needed for the most demanding control applications in the industry. Capable of controlling multiple pieces of HVAC equipment simultaneously, this robust BACnet controller can support complex control strategies.



KEY FEATURES AND BENEFITS

Application Features

- Designed to address HVAC applications including complex central plants
- Graphically programmed through the EIKON® programming software, an object oriented tool that provides complete flexibility for any custom control sequence
- Supports Automated Logic's ZS communicating sensors, available in a variety of zone and equipment sensing options
- Enables live, visual displays of control logic, which uses real time operational data and aids in optimizing and troubleshooting system operations

BACnet Features

- Conforms to the following device profiles:
 - BACnet Building Controller (B-BC)
 - BACnet BBMD (B-BBMD)
- Supports BACnet Foreign Device Registration (FDR)

System Benefits

- Connects seamlessly to the [WebCTRL building automation system](#)
- Multiple serial communication ports to share data across a wide range of building subsystems

Hardware Features

- Supports Gig-E, 1000 Mbps, BACnet IP and DHCP IP addressing
- Local Access Ethernet port at 100 Mbps for system startup and troubleshooting
- Supports up to 9 FIO expanders in panel configuration or remotely mounted for scalable solutions (180 I/O total)
- Provides direct connect for power and communication for up to 7 FIO expansion modules when using a DC power supply
- All programs and historical data stored in non-volatile memory, eliminating the need for batteries
- Capacitor-backed real-time clock keeps time in the event of power failure or network interruption for up to three days
- Communications expansion port for future communication option cards
- Supports 200 Modbus points for system integrations
- USB port for local device updates
- DIN rail or screw mounting



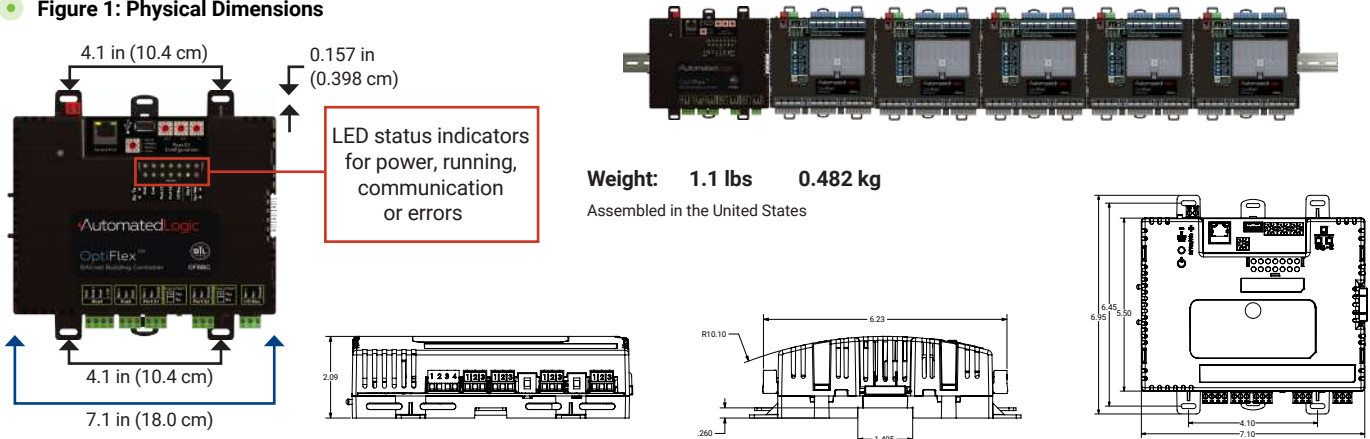
The WebCTRL building automation system gives you the ability to understand your building operations and analyze the results. Integrate environmental, energy, security and safety systems into one powerful management tool that helps you reduce energy consumption, increase occupant comfort, and achieve sustainable building operations.

SPECIFICATIONS



Part #	OFBBC-NR OptiFlex BACnet Building Controller
BACnet Conformance	Conforms to the BACnet Building Controller (B-BC) and BACnet Broadcast Management Device (B-BBMD) as defined in BACnet 135. Tested to and listed to Protocol Revision 14 (135-2012).
Control Programs	Maximum number of control programs: 999 depending upon available memory.
BACnet Objects	Maximum number of BACnet objects: 12,000 depending upon available memory.
Third-Party Integration	Supports up to 1,500 third-party BACnet points, and 200 Modbus points depending upon available memory.
Power	24 Vac ±10%, 50–60 Hz, 50 VA 26 Vdc ±10%, 15 W
Communication	
Gig-E Port	10/100/1000 BaseT Ethernet port for BACnet/IP and/or BACnet/Ethernet and/or Modbus TCP/IP communication on the Ethernet at 10, 100, or 1000 Mbps, full duplex
Serial Port 1	For communication with either of the following: • A BACnet MS/TP network at 9,600 to 115,200 bps • A Modbus serial network at 9,600 to 115,200 bps
Serial Port 2	For communication with the following: • A Modbus serial network at 9,600 to 115,200 bps
Service Port	Ethernet port at 10 or 100 Mbps for system start-up and troubleshooting
Rnet Port	Supports Up to 15 ZS wireless and/or ZS sensors, and one Equipment Touch or OptiPoint™ interface
XNet Port	Supports up to 6 MEx expanders
Expanders	Supports up to 9 FIO expanders or 6 MEx expanders, but no more than 9 expanders total
Microprocessor	32-bit ARM Cortex-A8, 600 MHz, processor with multi-level cache memory, two Ethernet controllers, and USB 2.0 host port
Memory	16 GBs eMMC Flash memory and 256 MB DDR3 DRAM. User data is archived to non-volatile Flash memory when parameters are changed, every 90 seconds, and when the firmware is deliberately shutdown or restarted
Real Time Clock	Real-time clock keeps track of time in the event of a power failure for at least 3 days
Protection	Device is protected by 2 replaceable, fast acting, 250 Vac, 2A, 5 mm x 20 mm glass fuses The power and network ports comply with the EMC requirements EN50491-5-2
Compliance	United States: FCC compliant to Title CFR47, Part 15, Subpart B, Class A. UL Listed, File E143900; CCN PAZX, UL916, Energy Management Equipment; AS/NZS: RCM Mark 61000-6-3; Canada: UL Listed File E143900, CCN PAZX7, CAN/CSA C22.2 No. 205 Signal Equip., Industry Canada Compliant, ICES-003, Class A; CE Mark Compliant with 2014/30/EU, and RoHS Compliant: 2015/863/EU; UKCA Mark compliant with Electromagnetic Compatibility Regulations 2016 – Gov.UK and RoHS for Electrical and Electronic Equipment 2012.
Plastic Rating	Fire-retardant plastic ABS, UL94-5VA
Mounting	DIN rail mounting or screw mounting
Environmental Range	-40°F to 158°F (-40 to 70°C), 10–90% relative humidity, non-condensing

● **Figure 1: Physical Dimensions**



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