

# OptiFlex™ BACnet Building Controller

## Programmable BACnet Controller and Router

OFBBC



### 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 communicating sensors, available in a variety of zone sensing combinations, and supports setpoint adjustment and occupancy overrides
- 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)
  - BACnet Router (B-RTR)
- Supports BACnet Foreign Device Registration (FDR)
- Supports BACnet interoperability and routing with and between BACnet IP, BACnet MS/TP and BACnet over ARC156

The Automated Logic® OptiFlex™ BACnet Building Controller is a high-performance, BACnet native direct digital controller and router. As a component of the WebCTRL® building automation system, this controller provides comprehensive control of connected equipment.

The OptiFlex BACnet Building Controller 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.

#### Hardware Features

- Supports Gig-E, 1000 Mbps, BACnet IP and DHCP IP addressing
- Local Access Ethernet port at 100 Mbps for system start-up 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 5 FIO expansion modules
- 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

#### System Benefits

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



The WebCTRL® building automation system gives you the ability to understand your building operations and analyze the results. The WebCTRL system integrates environmental, energy, security and safety systems into one powerful management tool that allows you to reduce energy consumption, increase occupant comfort, and achieve sustainable building operations. Our web-based platform allows building managers to control and access information about their HVAC, lighting, central plant and critical processes on premises or remotely at any time of day.

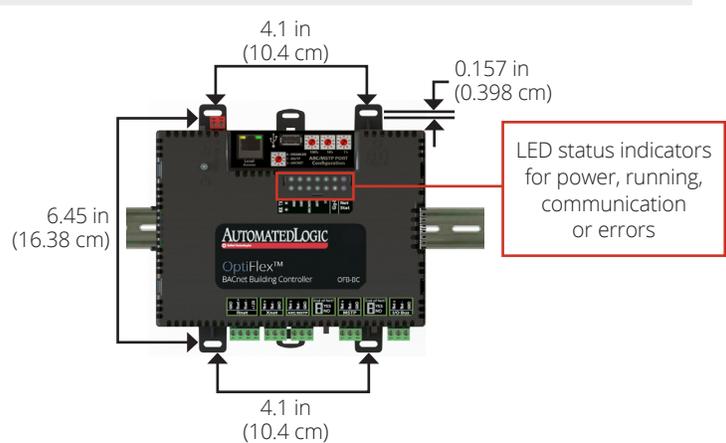


# OptiFlex™ BACnet Building Controller

## Specifications

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Part #	OFBBC
BACnet Conformance	Conforms to the BACnet Building Controller (B-BC) Standard Device, BACnet BBMD (B-BBMD) Device, and BACnet Router (B-RTR) Device as defined in BACnet 135-2001 2012 Annex L and tested to Protocol Revision 12
Control Program Execution	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 $\pm$ 10%, 50-60 Hz, 50 VA   26 Vdc $\pm$ 10%, 15 W
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: <ul style="list-style-type: none"> <li>• A BACnet ARCNET network at 156000 bps</li> <li>• A BACnet MS/TP network at 9600 to 115200 bps</li> <li>• A Modbus network at 1200 to 115200 bps</li> </ul>
Serial port 2	For communication with a BACnet MS/TP network at 9600 to 115200 bps or Modbus network at 1200 to 115200 bps
Service port	Ethernet port at 10 or 100 Mbps for system start-up and troubleshooting
Rnet Port	Supports Communicating ZS Sensors, OptiFlex™ and OptiPoint™ devices
XNet Port	Supports MEx expanders
Expanders	Supports up to 9 FIO expanders and/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 up to 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	<p>United States of America: FCC compliant to Title CFR47, Chapter 1, Subchapter A, Part 15, Subpart B, Class A; UL Listed to UL 916, PAZX, Energy Management Equipment</p> <p>Europe: Mark EN50491-5-2:2009; Part 5-2: EMC requirements for HBES/BACS used in residential, commercial and light industry environment; EN50491-3:2009, Part 3: Electrical safety requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS); Low Voltage Directive: 2014/35/EU</p> <p>RoHS 2011/65/EU RoHS Compliant: 2011/65/EU</p> <p>ANZ: C-Tick Mark AS/NZS 61000-6-3</p> <p>Canada: Industry Canada Compliant, ICES-003, Class A cUL Listed UL 916, PAZX, Energy Management Equipment</p>
Physical	Fire-retardant plastic ABS, UL94-5VA
Mounting	DIN rail mounting or screw mounting
Weight	1 lb. 1 oz. (0.482kg)
Recommended Panel Depth	2 3/4" (7cm)



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