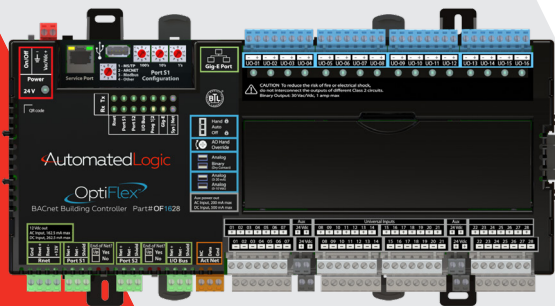


OPTIFLEX™ OF1628

BACNET BUILDING CONTROLLER AND ROUTER



Automated
Logic

CONTROLLER FOR THE WEBCTRL® BUILDING AUTOMATION SYSTEM

The OptiFlex BACnet Building Controller model OF1628 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 OF1628 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
- Standard library of control programs available for most unitary equipment and zone applications
- Supports EIKON® graphical programming software, an object oriented tool that provides complete flexibility for any custom control sequence that you need
- Supports Automated Logic communicating ZS sensors, which are available in a variety of zone and equipment sensing combinations
- Supports OptiPoint™ touchscreen interfaces for managing and troubleshooting the connected equipment easily and for occupant engagement
- Supports OptiPoint smart valves and accessories
- Supports live, visual displays of control logic, helping operators troubleshoot and optimize system operation

Hardware Features

- 1000 Mbps Ethernet BACnet/IP, BACnet/Ethernet, and/or Modbus TCP/IP
- Supports 200 Modbus points for system integration
- Uses non-volatile memory to store control programs and historical data, eliminating the need for batteries
- Capacitor-backed real-time clock keeps time in the event of power failure for at least three days
- USB port for local device updates; hard-wired and wireless service connections
- Large termination strips for easy installation
- Firmware upgrades can be performed remotely
- DIN rail or screw mounting
- Can be installed in mechanical rooms, equipment boxes, or almost any other weather-tight location



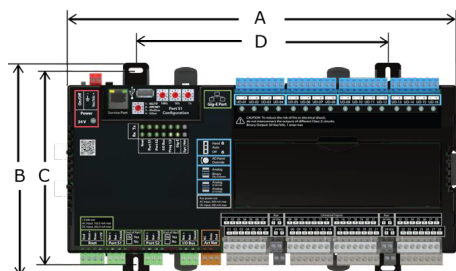
The WebCTRL building automation system gives you the ability to understand your building operations and analyze the results. Integrate environmental, energy, security and safety systems into one powerful management tool that helps you reduce energy consumption, increase occupant comfort, and achieve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

SPECIFICATIONS



Part #	OF1628 OptiFlex™ BACnet building controller and router
BACnet Conformance	Conforms to the BACnet Building Controller (B-BC), BACnet Router (B-RTR) Standard Device and BACnet Broadcast Management Device (B-BBMD) as defined in BACnet 135. Tested to and listed to Protocol Revision 14 (135-2012). BTL Listing PLCS WPSCert Conformance Certificate
BACnet Objects	Maximum number of BACnet objects: 12,000 depending upon available memory.
Power	24 Vac ±15%, 50–60 Hz, 100 VA; 24 Vdc ±10%, 48 W
Control Programs	Maximum number of control programs: 999 depending upon available memory.
Third-Party Integration	Supports up to 1,500 third-party BACnet points, and 200 Modbus points depending upon available memory.
BAS Primary Port	10/100/1000 BaseT Ethernet port for BACnet/IP and/or BACnet/Ethernet and/or Modbus TCP/IP communication
Serial Port 1	High-speed EIA-485 port for communication with either of the following: • A BACnet MS/TP network at 9,600 to 115,200 bps • A Modbus at 1,200 to 115,200 bps
Serial Port 2	Electrically isolated EIA-485 port for communication with either of the following: • A BACnet MS/TP network at 9,600 to 115,200 bps • A Modbus at 1,200 to 115,200 bps
Rnet Port	12VDC @ 260mA supporting: -Up to 5 ZS sensors - freely mix ZS zone, ZS duct, ZS immersion and ZS outdoor sensors -OptiPoint™ IAQ displays and OptiPoint equipment interfaces
Act Net Port	Supports Act Net communicating devices such as actuators and OptiPoint smart valves
USB Service Port	Supports OptiPoint IAQ Display and OptiPoint Equipment Interface support (configuration wireless service access) firmware updates and controller recovery via USB drive
USB Comm Port	Supports communicating expansion modules
Universal Inputs	28 channels electronically configured to any of the following input types
	Dry Contact OR Pulse Counting inputs up to 40Hz OR Voltage (0-10 Vdc) OR Current (0-20 mA) OR Thermistor Precon Type II 10kΩ OR Precon Type III 10kΩ OR Carrier YSI 5kΩ OR S-5700-850 10kΩ w/ 11kΩ shunt RTD Platinum RTD TS-8000 1kΩ @ 32°F (0.00385 TCR) OR Platinum RTD 1kΩ @ 32°F (0.00375 TCR) OR Nickel-iron RTD 1kΩ @ 70°F, 699 Ω @ -40°F OR Balco (Nickel-iron) TS8000 RTD 1kΩ @ 70°F, 779 Ω @ -40°F 24VDC auxiliary output - 200mA max. (AC power input) OR 500 mA max. (DC power input)
Universal Outputs	D/A Resolution (analog out) 12 bits; 16 channels configurable to any of the following output types: Voltage (0-10 Vdc) OR Current (0-20 mA) OR Relay contacts, potential free, normally open, rated 24VAC/DC @ 1 Amp (resistive) Hand/Auto/Off override switches for all outputs Potentiometer for manual adjustment of all analog outputs Status LED for all outputs
Expanders	Supports up to 9 FIO expanders
Environmental Range	-40°F to 158°F (-40 to 70°C), 10–90% relative humidity, non-condensing
Physical	UL94-5VA plenum rated enclosure for installation in plenum (or other space for environmental air) in accordance with NEC Section 300.22 (c) and (d)
Memory	4 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
Real Time Clock	Real-time clock keeps track of time in the event of a power failure for at least 3 days
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 Electro-magnetic Compatibility Regulations 2016 – Gov.UK and RoHS for Electrical and Electronic Equipment 2012.
Plastic Rating	Fire-retardant plastic ABS, UL94-5VA

• **Figure 1: Physical Dimensions**



Overall dimensions	A: 12.75 in. (32.38 cm)
	B: 6.95 in. (17.68 cm)
	Depth: 2.09 in. (5.31 cm)
Screw mounting dimensions	C: 6.34 in (16.1 cm)
	D: 8.25 in. (20.95 cm)
Weight	2.7 lb. (1.22 kg)

Assembled in the United States