

# OPTIFLEX™ OF253A-E2

## BACNET ADVANCED APPLICATION CONTROLLER



## CONTROLLER FOR THE WEBCTRL® BUILDING AUTOMATION SYSTEM

The OptiFlex advanced application controller, model OF253A-E2, is a central component of the WebCTRL system. These controllers are ideal for zone-level temperature and air quality control applications, and feature a built-in flow sensor with a patented flow control algorithm. Factory, pre-engineered ASHRAE Guideline 36 compliant control algorithms reduce energy consumption and increase occupant comfort. Designed to operate in a wide range of environmental conditions, this controller is well suited for equipment boxes, or almost any other weather-tight location.



## KEY FEATURES AND BENEFITS

### Application Features

- Versatile controller suitable for a variety of applications, including zone level temperature, air quality, and energy management
- 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

- Dual high-speed ethernet ports supporting native BACnet over IP; daisy chain, Spanning Tree Protocol (STP) enabled
- Supports hard-wired and wireless service connections
- 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



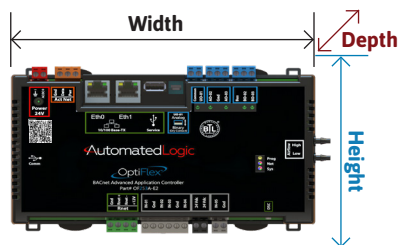
The WebCTRL building automation system gives you the ability to understand your building operations and analyze the results. Integrate environmental, energy, security and safety systems into one powerful management tool that helps you reduce energy consumption, increase occupant comfort, and achieve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

# SPECIFICATIONS



| Part #                  | <b>OF253A-E2</b><br><b>OptiFlex BACnet Advanced Application Controller</b>  |
|-------------------------|---|
| BACnet Conformance      | BTL Tested and conforms to the BACnet Advanced Application Controller (B-AAC) and BACnet Broadcast Management Device (B-BBMD) standard device profiles, as defined in BACnet 135-2001 2012 Annex L, Protocol Revision 14  |
| Power                   | 24Vac +/- 15% , 50 - 60Hz, 55VA   24Vdc +/- 10%, 20W. (80VA / 35W if additional Act Net devices are connected)  |
| Communication           |   |
| BAS Primary Port        | Dual, 10/100 Base T Ethernet ports with built-in fail safe, supporting direct connection or daisy chain topology natively using BACnet/IP   |
| Rnet Port               | 12VDC @ 260mA supporting:<br>-Up to 5 ZS sensors - freely mix ZS zone, ZS duct, ZS immersion and ZS outdoor sensors<br>-OptiPoint HMI devices   |
| Act Net Port            | Supports Act Net communicating devices such as the OptiPoint smart valves   |
| USB Service Port        | Supports OptiPoint HMI devices   configuration   wireless service access   firmware updates and controller recovery via USB drive   |
| USB Comm Port           | For communication with expansion modules  |
| Inputs                  |   |
| Universal               | 5 Universal Inputs electronically configurable to any of the following types: Dry   Pulse Counting  Thermistor   0-10 Vdc   |
| Auxiliary Power         | 24Vdc @ 100mA total current capacity  |
| Outputs                 |   |
| Universal Output        | 1 Output configurable to 0-10 Vdc   PWM 12Vdc @ 80 Hz  Normally Open Dry Contact rated 30Vac/Vdc @ 3.75A  |
| Analog Output           | 2 Analog Outputs 0-10Vdc (D/A Resolution 12 bits)   |
| Digital Output          | 2 Digital Outputs Normally Open Dry Contact rated 30Vac/Vdc @ 3.75 Amps, Max of 100VA / 4.2A per relay bank   |
| Integral Airflow Sensor | Precision differential pressure sensor 0-2 in. H2O, sensitive down to ±0.001 in. H2O. Barbed tapered airflow connections accept 3/16 in. (4.75 mm) I.D. tubing. Allows for readings across the 0–2in. H2O range, accurate to ±5% of full flow at 2 in. H2O  |
| 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 of America: FCC compliant to Title CFR47, Chapter 1, Subchapter A, Part 15, Subpart B, Class B; UL Listed to UL 916, PAZX, Energy Management Equipment; RoHS Compliant: 2011/65/EU ANZ: C-Tick Mark AS/NZS 61000-6-3; Canada: Industry Canada Compliant, ICES-003, Class A cUL Listed UL 916, PAZX, Energy Management Equipment |
| Plastic Rating          | Fire-retardant plastic ABS, UL94-5VA  |

• **Figure 1: Physical Dimensions**



|                | in.            | mm             |
|----------------|----------------|----------------|
| <b>Width:</b>  | <b>7.785</b>   | <b>197.739</b> |
| <b>Height:</b> | <b>4.894</b>   | <b>124.308</b> |
| <b>Depth:</b>  | <b>2.006</b>   | <b>50.952</b>  |
| <b>Weight:</b> | <b>1.6 lbs</b> | <b>0.82 kg</b> |