

# OPTIFLEX™ OF141-E2

OPTIFLEX ADVANCED VAV CONTROLLER



## CONTROLLER FOR THE WEBCTRL® BUILDING AUTOMATION SYSTEM

The OptiFlex advanced VAV controller, model OF141-E2, is a central component of the WebCTRL system. These controllers are ideal for zone-level temperature and air quality control applications. Designed to operate in a wide range of environmental conditions, these controllers are well suited to satisfy the market demands of Variable Air Volume ( VAV ) and Variable Volume and Temperature ( VVT ) applications. Factory, pre-engineered ASHRAE Guideline 36 compliant control algorithms reduce energy consumption and increase occupant comfort.



## 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

- Employs a bright LED locator light to help determine the unit's location and a damper rotation direction, minimizing the need to be in front of the electrical panel, in the ceiling, or at the air stream to assess the controller location or operation of the damper
- Includes 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
- Features a capacitor-backed real-time clock that keeps time in the event of power failure for up to three days
- Includes USB port for local device updates, hard-wired and wireless service connections
- Features large termination strips for easy installation
- Supports remote firmware upgrades



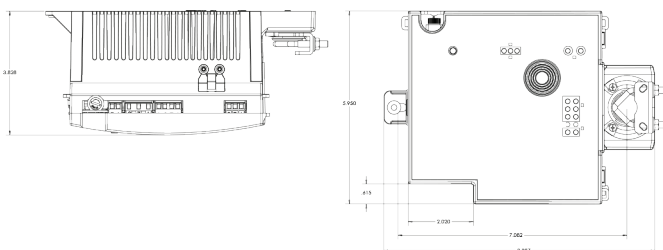
The WebCTRL building automation system gives you the ability to understand your building operations and analyze the results. Integrate environmental, energy, security and safety systems into one powerful management tool that helps you reduce energy consumption, increase occupant comfort, and achieve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

# SPECIFICATIONS



Part #	<b>OF141-E2</b> <b>OptiFlex Advanced VAV 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 15
Power	24Vac +/- 15% , 50 - 60Hz, 50VA   24Vdc +/- 10%, 18W. (75VA / 33W 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: -Up to 5 ZS sensors - freely mix ZS zone, ZS duct, ZS immersion and ZS outdoor sensors -OptiPoint HMI devices
Act Net Port	Supports ZASF-A and up to 2 Act Net communicating devices such as the OptiPoint smart valves
USB Ports	Two (2) USB ports that support OptiPoint HMI devices   controller configuration   wireless service access expander   firmware updates and controller recovery via USB drive
Inputs	
Universal	4 Universal Inputs electronically configurable to the following types: Dry   Pulse Counting  Thermistor   0-10 Vdc
Outputs	
Analog Output	1 Analog Output configurable as 0-10Vdc (12 bit Resolution)   PWM 12Vdc @ 80 Hz
Digital Output	1 Digital Outputs Normally Open Dry Contact rated 30Vac/Vdc @ 3.75 Amps
Integral, Reversible 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 accurate to ±3% of sensor reading
Visual Indicators	Net, Sync, Power, BO, AO, Ethernet (2), and features two (2) programmable, tri-color LEDs. The actuator release button employs a bright LED locator light to help determine the unit’s location and a damper rotation direction, minimizing the need to be in front of the electrical panel, in the ceiling, or at the air stream to assess the controller location or operation of the damper.
Essential Documentation	A QR-code on the controller provides access to the product’s Mac address, serial number, and essential documentation.
Real Time Clock	Real-time clock keeps track of time in the event of a power failure for up to 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: 2015/863/EU ANZ: C-Tick Mark AS/NZS 61000-6-3 Canada: Industry Canada Compliant, ICES-003, Class A cUL, 916, PAZX,Energy Management Equipment, CE mark
Plastic Rating	Fire-retardant plastic ABS, UL94-5VA

**Figure 1: Physical Dimensions**



	in.	cm		in.	cm
<b>Width:</b>	<b>8.367 in.</b>	<b>21.25 cm</b>	<b>Minimum Shaft Diameter:</b>	<b>3/8 in.</b>	<b>.95 cm</b>
<b>Height:</b>	<b>5.95 in.</b>	<b>15.11 cm</b>	<b>Maximum Shaft Diameter:</b>	<b>1/2 in.</b>	<b>1.27 cm</b>
<b>Depth:</b>	<b>3.828 in.</b>	<b>9.72 cm</b>	<b>Minimum Shaft Length:</b>	<b>1 3/4 in.</b>	<b>4.45 cm</b>
<b>Weight:</b>	<b>1.8 lbs</b>	<b>0.82 kg</b>			