

OPTIFLEX™ OF253A-E2

BACNET ADVANCED APPLICATION
CONTROLLER (UL 864, 10TH ED. COMPLIANT)



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.

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SPECIFICATIONS



Part #	OF253A-E2 OptiFlex BACnet Advanced Application Controller (UL 864, 10th Ed. Compliant)
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	24 Vac Nom (-15 to +10%), 50/60Hz, 55VA 24 Vdc (-15 to +10%), 20W
Communication	
BAS Primary Port	10/100 Base T, full duplex, Ethernet ports for BACnet/IP and/or BACnet/Ethernet communication
Rnet Port	12VDC @ 260mA supporting: Up to 5 wireless and/or ZS sensors ; One Equipment Touch or OptiPoint interface * Not to be used within a Smoke Control application
Act Net Port	Supports up to 5 Act Net communicating devices *Restricted to same room use, and wired within conduit
Service Port	USB 2.0 host port for setting up the controller and troubleshooting through a local connection to a computer, connecting to the OptiPoint interface, or the Automated Logic wireless service adapter
Comm Port	For future use.
Aux 24V+DC	8 terminals supplies 24 Vdc to external I/O devices, max 200mA (powered by AC) or max 500mA (powered by DC)
Inputs	
Universal	5 inputs configurable to any of the following types: dry contact, pulse counter, thermistor 0-5 Vdc, 0-10 Vdc
24 Vdc Terminal	24 Vdc to external I/O devices, max 100mA
Outputs	
Universal Output	1 output configurable to 0-10 Vdc PWM 12Vdc @ 80 Hz Normally Open Dry Contact rated 30 Vac/Vdc @ 3.75A
Analog Output	2 analog outputs 0-10Vdc (10 mA max)
Binary Output	1 bank of 2 N.O. binary outputs rated 30 Vac/Vdc @ 3.75 amps. Each bank limited to 100VA / 4.2A
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 ±3% of full flow at 2 in. H2O
Microprocessor	32-bit ARM Cortex-A8, 600MHz, processor with multi-level cache memory
Memory	8 GBs eMMC Flash memory and 256 MB DDR3 DRAM (2 MB available)
Real Time Clock	Real-time clock keeps track of time in the event of a power failure for up to 3 days
Protection	Protected by a single, fast acting 5 mm x 20 mm glass fuse for power
Compliance	United States: FCC compliant to Title CFR47, Chapter 1, Subchapter A, Part 15, Subpart B, Class B; UL Listed to UL 916, PAZX, Energy Management Equipment, UUKL certified (UL864 10th edition compliant); RoHS Compliant: 2015/863/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, REACH Compliant
Environmental Range	32 to 120°F (0 to 49°C), 93% relative humidity, non-condensing
Physical	Fire-retardant plastic ABS, UL94-5VA
Mounting	5mm DIN rail mounting or screw mounting

● **Figure 1: Physical Dimensions**



	in.	cm
Width:	7.78	19.77
Height:	5.88	14.94
Depth:	2.00	5.09
Weight:	1.2 lbs	0.54 kg



1150 Roberts Boulevard, Kennesaw, Georgia 30144
770-429-3000 • Fax 770-429-3001 | automatedlogic.com | A Carrier Company

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