OPTIFLEX™ OF022-E2

ADVANCED APPLICATION CONTROLLER

Automated Logic

OptiFlex™

CONTROLLER FOR THE WEBCTRL® BUILDING AUTOMATION SYSTEM

The OptiFlex Advanced Application Controller (OF022-E2) delivers exceptional control for your HVAC equipment, providing advanced temperature and air quality management for most zone-level applications. The OF022-E2 features dual Ethernet ports with built-in fail-safe that supports direct connection or daisy chain topologies using BACnet/IP and has 2 universal inputs and 2 analog outputs. The OF022-E2 operates reliably in a wide range of environments making it ideal for mechanical rooms, equipment boxes, or virtually any weather-tight location.

KEY FEATURES AND BENEFITS

Application Features

- Versatile controller suitable for a variety of applications, including: pump control, unit heaters, and exhaust fans

- Standard library of control programs available for most unitary equipment and zone applications

- Supports EIKON® graphical programming, a tool for creating custom control sequences

- Works with 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

- Supports live, visual displays of control logic to aid in troubleshooting equipment operation

Hardware Features

- Equipped with dual ethernet ports for BACnet/IP, allowing for daisy chain connections, and Spanning Tree Protocol (STP)

- Supports home run, daisy chain and ring IP network topologies

- Capacitor-backed real-time clock keeps time in the event of power failure or network interruption for at least three days

- USB service port for local access: connect PC via a hard-wired connection or wirelessly using a USB-W adapter

- DIN rail or screw mounting

System Benefits

- Connects seamlessly to the WebCTRL building automation system

WebCTRL®

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.
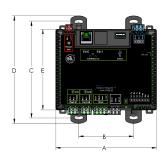
SPECIFICATIONS

Part #	OF022-E2 OptiFlex™ Advanced Application Controller
BACnet Conformance	BTL Tested and conforms to the BACnet Building Controller (B-BC) and BACnet Broadcast Management Device (B-BBMD) standard device profiles, as defined in BACnet 135-2016 Annex L, Protocol Revision 15
Power	24 Vac +/- 10%, 50 - 60Hz, 50VA | 24 Vdc +/- 10%, 18W
Communication	
BAS Port Eth01 / Eth1	Dual, 10/100 Base T, full duplex, Ethernet ports with built-in fail safe
Rnet Port	12 VDC @ 260 mA supporting: -Up to 5 ZS sensors - freely mix ZS zone, ZS duct, ZS immersion and ZS outdoor sensors -OptiPoint™ IAQ touchscreens and OptiPoint equipment interfaces
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 a wireless service adapter
Inputs	
Universal	2 inputs electronically configurable to any of the following types for 0-5 Vdc, 0-10 Vdc: Dry | Pulse Counting | Thermistor
Resolution	12 bit A/D
Pulse Frequency	10 pulses per second. Minimum pulse width (on or off time) required for each pulse is 50 msec.
Outputs	
Analog Output	2 outputs 0-10 Vdc (10 mA max) PWM @80Hz
Resolution	12 bit D/A
Microprocessor	32-bit ARM Cortex-A8, 600MHz, processor with multi-level cache memory
Memory	16GBs eMMC Flash memory and 512 MB DDR3 DRAM (2 MB available)
Status Indicators	LED's indicate status of communications, running, errors, power, and outputs
Environmental Range	-40°F to 158°F (-40 to 70°C), 10–95% relative humidity, non-condensing. The controller can be installed both inside and outside the building envelope. It should be placed in a UL listed enclosure. If installed outside, the enclosure must be suitable for the environmental conditions.
Mounting	35mm DIN rail mounting or screw mounting
Real Time Clock	Real-time clock keeps track of time in the event of a power failure for at least 3 days
Protection	Device is protected by a replaceable, fast acting, 250 Vac, 3A, 5mm x 20mm glass fuse
Compliance	**United States of America:** FCC compliant to Title CFR47, Chapter 1, Subchapter A, Part 15, Subpart B, Class A; UL Listed to UL 916, PAZX7, Energy Management Equipment; **Europe:** RoHS Compliant: 2015/863/EU; **AS/NZS:** RCM Mark, IEC 61000-6-3; **Canada:** Industry Canada Compliant, ICES-003, Class A; cUL Listed UL 916, PAZX, Energy Management Equipment; REACH
Plastic Rating	Fire-retardant plastic ABS, UL94-5VA

Figure 1: Physical Dimensions

Overall	in.	cm
A:	5.51	14.00
D:	5.88	14.93
E:	4.41	11.20
Depth:	2.01	5.11
Mounting		
B:	3.00	7.62
C:	5.29	13.44
Weight:	.75 lbs	0.3402 kg

Assembled in the United States

5-24-2024