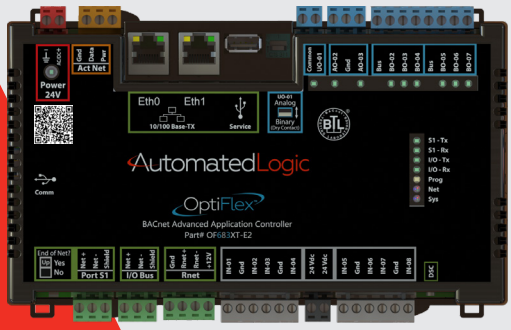
OPTIFLEX™ OF683XT-E2

ADVANCED EQUIPMENT CONTROLLER



Automated Logic

CONTROLLER FOR THE WEBCTRL® BUILDING AUTOMATION SYSTEM

The OptiFlex advanced equipment controller, model OF683XT-E2, is ideal for small equipment control applications such as fan coil units, heat pumps, and advanced zone control applications requiring direct connection or daisy chain topology over BACnet/IP or BACnet/MSTP and integration of devices such as VFDs, electric meters, lighting systems and Modbus occupancy sensors.

OptiFlex™

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 ethernet ports support daisy chain BACnet over IP; Spanning Tree Protocol (STP) enabled
- Supports 50 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

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.

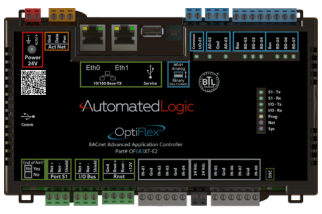
SPECIFICATIONS

Part #	OF683XT-E2 OptiFlex Advanced Equipment Controller
BACnet Conformance	Conforms to the BACnet Advanced Application Controller (B-AAC) and BACnet Broadcast Management Device (B-BBMD) profiles as defined in Annex L of the BACnet standard. It is certified to the BACnet standard ISO 16484-5 protocol revision 1.14 and protocol revision 14 (135-2012). The product supports multiple data link layers including BACnet/IP (Annex J), MS/TP, Ethernet, and ARCNET (see BTL listing page https://www.bacnetinternational.net/btl/index.php?m=11 for details).

If this Feature is Not Used	Power Consumption is Reduced by:	Notes *The NGZN is rated for 55 VA power supply. This table addresses power consumption, not power rating.
+12V_RNET	10 VA	Power consumption can be considered to scale linearly with current loading on the +12V_RNET port (0 to 260 mA)
USB Service Port	10 VA	Power consumption can be considered to scale linerarly with current loading on each USB port (0 to 500 mA) 200 mA should be provisioned on one USB port for local access/USB stick functionality. This corresponds to 4 VA.
USB Comm Port	10 VA	
24V_AUX Supply	8 VA	Power consumption can be considered to scale linearly with current loading on the 24V_AUX port (0 to 100 mA)
A01	1 VA	"Unused" = open circuit / no physical load on hardware
A02	1 VA	
ActNet Power	-	Note that loading on the ActNet port is **additional** to on-board consumption (and rating)

Communication	
BAS Primary Port	10/100 BaseT, full duplex, Ethernet ports for BACnet/IP and/or BACnet/Ethernet, or Modbus TCP/IP communication
Serial Port 1	Communication with either of the following: BACnet MSTP network at 9,600 to 115,200 bps; Modbus serial network at 9,600 to 115,200 bps. Supports up to 50 Modbus points.
I/O Bus Port	Supports one (1) OFX48 expander
Rnet Port	12 VDC @ 260 mA supporting: Up to 10 wireless and/or ZS sensors - freely mix ZS zone, ZS duct, ZS immersion and ZS outdoor sensors; One 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	For future use
Inputs	
Universal	8 Universal Inputs configurable for 0-5 Vdc, 0-10 Vdc (Dry |Thermistor | Pulse Counter) Resolution: 12 bit A/D
24 Vdc Terminal	24 Vdc to external I/O devices @ 100 mA
Outputs - with 12 bit D/A resolution	
Universal Output	1 Output configurable to 0-10 Vdc | PWM 12 Vdc @ 80 Hz | Normally Open Dry Contact rated 30Vac/Vdc @ 3.75A
Digital Outputs	6 Digital Outputs Normally Open Dry Contact rated 30Vac/Vdc @ 3.75 Amps, Max of 100VA / 4.2A per relay bank
Analog Outputs	2 Analog output, 0–10 Vdc (10 mA max)
Environmental Range	-40°F to 158°F (-40 to 70°C), 10–95% relative humidity, non-condensing
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 up to 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 Electromagnetic Compatibility Regulations 2016 – Gov.UK and RoHS for Electrical and Electronic Equipment 2012.
Enclosure	Fire-retardant plastic ABS, UL94-5VA

Figure 1: Physical Dimensions



	in.	cm
Width:	7.78	19.76
Height:	5.88	14.94
Depth:	2.00	5.08
Weight:	1.2 lbs	0.54 kg

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