

# I/O ZONE 583 - Programmable Controller

The I/O Zone 583 controller delivers powerful control and communication features all in a compact, economical package. Highly flexible, yet easy-to-use programming tools allow customization for a wide variety of small equipment applications. Fully capable of operating in a 100% stand-alone control mode, the I/O Zone 583 can connect to a Building Automation System (BAS) using any of today's most popular protocols, such as BACnet®, Modbus® RTU, N2, and LonWorks®. The I/O Zone 583 also supports communication to OEMCtrl's line of intelligent space sensors and keypad/display units.

## Key Features and Benefits

### Communications:

- Rnet Sensor Network/Local Access Port
- Configurable 485/232 Communication Port

This port is used to allow integration with a Building Automation System (BAS). A dip switch is used to choose the active protocol between BACnet, Modbus RTU, N2, and \*LonWorks. (\*Note: LonWorks requires additional plug-in card for full support.)

### I/O Control:

- I/O point count: 16 Total > 5 Binary Outputs (relayed), 8 Inputs (6 Universal Inputs and 2 optional adjustment POTS), plus 3-Analog Outputs
- Binary Outputs rated at 1 Amp resistive / 24 VAC
- Inputs configurable for Thermistor or Dry Contact, inputs 1 & 2 also configurable for 0-5 VDC
- LED indication of binary outputs for operational validation

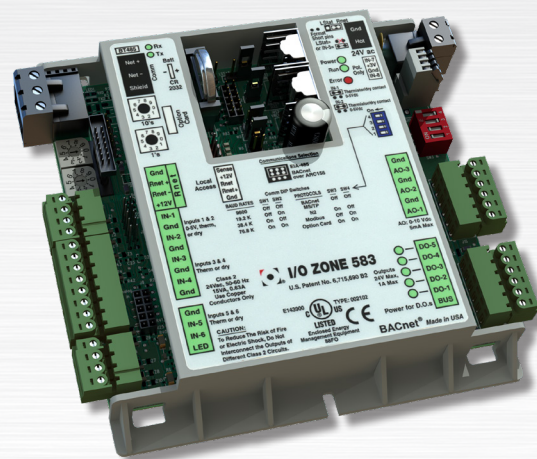
### Programmability / Servicability:

- Custom-programmable using our powerful EIKON® graphic programming tool. The EIKON tool allows you to create graphic control sequences for your application, which can be fully simulated off-line (with the EIKON simulation tool).
- Support for "Live Logic", the ultimate diagnostic tool, allows for real-time troubleshooting of the control logic while the equipment is running.
- Built-in support through an Rnet port for OEMCtrl's custom-configurable keypad display units including the Equipment Touch 4.3" touchscreen, ZS intelligent communicating sensors, and for local laptop access.

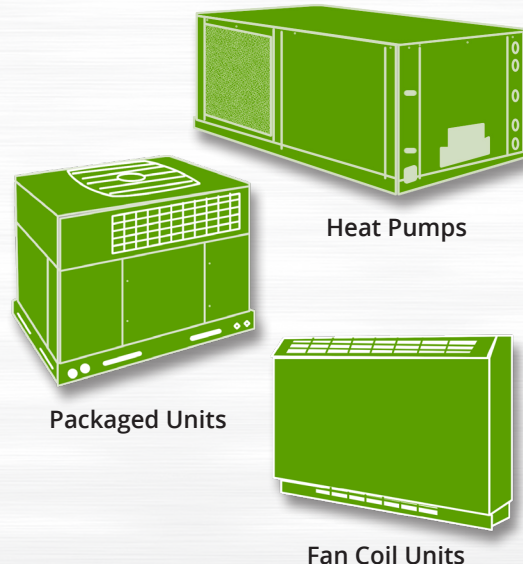
### Performance:

- Powerful, high-speed 16-bit microprocessor with 4MB Flash memory and 1MB of battery-backed RAM. Memory upgrades can be downloaded locally via the Rnet port or remotely via the network - no chip replacements necessary.
- On-board battery-backed real-time clock is standard, thus enabling full stand-alone scheduling capabilities, as well as historical trend data storage, and alarm event time-stamping.

## I/O Zone 583



## Application Samples

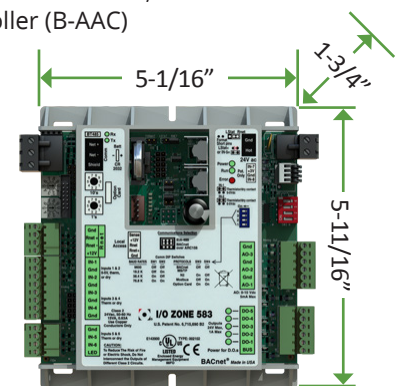


ASHRAE BACnet™

OEMCtrl®

# Specifications

Power	24 Vac $\pm$ 10%, 50-60 Hz, 15 VA (0.63 A) power consumption (26 VA with BACview attached), 26 Vdc (25 V min, 30 V max), Single Class 2 source only, 100 VA or less
Physical	Rugged GE C2950 Cyclopy plastic housing Weight: 0.6 lb. (0.27 kg)
Operating Range	0°F to 130°F (-17.8° to 54.4°C); 10 to 90% relative humidity, non-condensing
Binary Outputs	5 binary outputs, relay contacts rated at 1 A resistive @ 24 Vac; configured as dry contact, normally open
Universal Inputs	8 configurable universal inputs; inputs 1-6 configurable as thermistor or dry contact; inputs 1 and 2 also configurable as 0-5 Vdc type inputs; inputs 7 and 8 are reserved to use with 1k-10 koHm adjustment potentiometers. Resolution of 10 bit A/D
Analog Outputs	3 analog outputs, rated as 0-10Vdc, 5mA (max). 8 bit D/A resolution
Communication Ports	<p><b>BACnet</b> <b>Modbus</b> <b>N2</b></p> <p><b>Port 1:</b> Jumper configurable for ARCNET or EIA-485 communication. In ARCNET mode, the port speaks BACnet (at 156k bps). In EIA-485 mode, the communication protocol and baud rate desired are DIP switch selectable between BACnet MS/TP, Modbus RTU, or N2</p> <p><b>Rnet port:</b> Communicate with ZS sensors and local displays (BACviews and Equipment Touch). Also provides connection for local access from laptop.</p>
Optional Card Port	LonWorks Option Card for connection to Free Topology LON networks (TP/FT-10 Channel)
Status Indication	Visual (LED) status of power, running, and errors. LED indicators for transmit/receive for Port 1 and for all binary outputs
Battery	Lithium 3V coin cell battery, CR2032, provides a minimum of 10,000 hours of data retention during power outages
Protection	Surge and transient protection circuitry for power, communications, inputs and outputs. Module protected by internal solid state Polyswitches on incoming power and network connections. Polyswitches do not need to be replaced as they will reset themselves once the condition that caused them to "trip" returns to normal.
Listed by	UL916 (Canadian Std C22.2 No. 205-M1983), FCC Part 15-Subpart B-Class A, CE EN50082-1997 BTL (BACnet Test Labs) - BACnet Advanced Application Controller (B-AAC)



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