



## Datasheet

# Zone Controller (PL-C1000-VAV)

## Description

The ProLon C1000 VAV series zone controllers are designed for variable air volume zoning systems. The built-in microprocessor offers precise digital control to maximize performance. The outputs and control sequences are all fully configurable, either locally or remotely, using free software or from the digital room sensor. A remote actuator (floating or modulating) connects to the C1000 VAV for damper control. When in a network, the C1000s can share information such as the occupancy state, the demand, the supply temperature and more.

## Features

- Proportional integral (PI) control loops maximize performance
- Designed to use single or multiple outboard damper actuators (floating / modulating)
- Up to 4 digital outputs and 1 analog output, all protected with resettable fuses
- Supports Modbus and BACnet protocols
- Remote monitoring and configuration with FREE ProLon Focus software
- Stand-alone or networked (up to 127 nodes)
- Configurable sequences for radiant floor and duct heater
- Works with or without a flow sensor
- Monitoring and configuration from a digital sensor
- Quick and easy installation using detachable numbered terminal blocks
- Possibility of multiple actuator control
- FlexiZone system facilitates multiple zone management by evaluating the average weighted demand of the zones using customized groups

## Technical Specifications

**Supply:** 24 VAC  $\pm$ 10%, 50/60 Hz, Class 2

**Power:** 2 VA (consumption), 32 VA (input)

**Inputs:** Room – thermistor 10K  
Duct – thermistor 10K  
Setpoint – potentiometer 0-10K  
Optional flow sensor  
External clock – dry contact  
Override – dry contact  
Digital room sensor

**Flow sensor:** 0-3000 ft/min

**Digital outputs:** 4 triac outputs, 10-30 VAC source or sink, 300 mA max (resettable fuse), ON/OFF or pulsed, heating/cooling

**Analog output:** 0-10 VDC, 40 mA max (resettable fuse), modulating, ON/OFF or pulsed, heating/cooling

**Indication lights (LED):** State of each output / Communication / Power / State of microprocessor

**Microprocessor:** PIC18F6722, 8 bits, 40 MHz, 128KB FLASH memory

**Casing:** Molded ABS, UL94-HB

**Communication:** 1x Modbus RTU (RS485) or BACnet MS/TP (RS485) up to 127 nodes, 1 RS485 port for digital sensor or computer interface

**Baud rate:** 9600, 19200, 38400, 57600, 76800, 115200

**Connection:** Removable screw-type terminal blocks (16 AWG max) and RJ45 modular jack

**Dimensions:** 6.5" x 5.3" (165 mm x 135 mm)

**Environment:** 32-122 °F (0-50 °C) Non-Condensing

**Certification:** RoHS, FCC part 15: 2012 class B