



## Datasheet

# Zone Controller (PL-C1050-VAV)

## Description

The ProLon C1050 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 C1050 VAV for damper control. When in a network, the C1050 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)
- **Dimensions:** 6.2" x 5.2" x 2.5" (157mm x 132mm x 64mm)
- **Weight:** 0.85 lbs (0.39 kg)
- **Environment:** -4 to 122 °F (-20 to 50 °C) Non-Condensing
- **Certification:** UL916 Energy Management Equipment, CAN/CSA-C22.2, RoHS, FCC part 15: 2012 class B