



## Datasheet

# FlexIO Controller (PL-C1050-FLX)

## Description

The C1050 Flexio is a general purpose HVAC controller whose inputs and outputs can be individually configured for use in various applications. Unlike most Prolon controllers, the Flexio is not aimed at a specific HVAC sequence or piece of equipment, and instead can be used to perform any outlying functions that are not usually covered by existing Prolon devices. Outputs can be configured to respond to a variety of standard HVAC input signal types, ranging from temperatures, pressures, gas, tank level, flow, speed, voltages, currents, power and more.

## Features

- Many input types available: Temperature, Dry Contact, Pressure, Gas, Humidity, Current, Voltage, Power, Level, Speed and Flow.
- Configurable names and display options for each input and output
- Configurable scales for pressure and gas inputs accommodates any sensor
- Outputs can act based on any local input, or on data received from a network master
- Can receive up to 5 different occupancy states from an NC2000, allowing for versatile lighting control
- Various output logic sequences are available: ON/OFF, PI Loop, Direct or Reverse acting, Pulsed
- Outputs can be interlocked with each other
- Outputs can be automatically overridden based on outside temperature and/or occupancy
- Operates standalone or can be integrated into a Prolon network
- Outputs can be configured to maintain a fixed setpoint or a variable setpoint based on a reset curve.
- 2 outputs can be linked together with Lead/Lag and Backup capabilities.

## Technical Specifications

- **Supply:** 24 VAC  $\pm 10\%$ , 50/60 Hz, Class 2
- **Power:** 2 VA (consumption), 32 VA (input)
- **Inputs:** 3 analog inputs with individually configurable signal ranges (thermistor, dry contact, 0-5 VDC, 1-5 VDC, 0.5-4.5 VDC, 0-10VDC), and 1 digital input
- **Digital Outputs:** 4 triac outputs, 10-30 VAC source or sink, 300 mA max (resettable fuse)
- **Analog Output:** 1 output 0-10 VDC / 2-10 VDC / 0-5 VDC, 40 mA max (resettable fuse)
- **Indication lights (LED):** State of each output / Communication / Power / State of microprocessor
- **Microprocessor:** PIC18F6722, 8 bits, 40 MHz, 128Ko FLASH memory
- **Casing:** Molded ABS, UL94-HB
- **Communication:** Modbus RTU (RS485), up to 127 nodes.
- **Baud Rates:** 9600, 19200, 38400, 57600, 76800, 115200
- **Connection:** Removable screw-type terminal blocks (16 AWG max)
- **Dimensions:** 6.2" x 5.2" x 2.5" (157 mm x 132 mm x 64 mm)
- **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