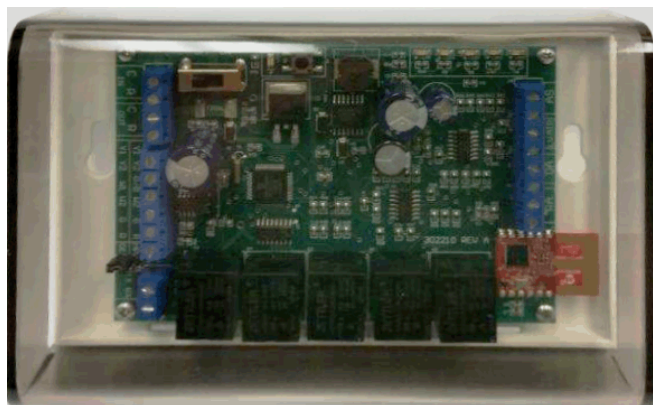


# GEN III SYSTEM CONTROLLER

## SUBMITTAL



## GEN III System Controller

### DESCRIPTION

The *GEN III* is a microcontroller based, auto change-over Universal Gas/Electric or Heat Pump system controller (Part # GEN III). The *GEN III* controls a zoned 2H/2C Gas/Electric HVAC unit or 3H/2C zoned Heat Pump unit and communicates with and supports up to 20 zones, utilizing pressure dependent, modulating dampers and wireless thermostats.

The *GEN III* gathers information every 60 seconds from each damper board while the wireless thermostats communicate with the system over a two-wire data link directing control based decisions to the HVAC equipment.

The *GEN III* is powered with one 24 V 40VA transformer, which also powers all dampers in the system. Power from the controller, along with a two-wire twisted pair communications loop, is daisy chained damper to damper to streamline installation and system communications.

The *GEN III* is equipped with integrated capacity control and High and Low temperature limits to protect compressor and heat exchanger. Outside air and return Air sensors are also provided. The HVAC unit is staged based on leaving air temperature and time. Auto changeover operation is vote based, predicated on a first call, first served majority wins on changeover algorithm.

Additional control strategies are established on a Monitor Thermostat which shall interact and initiate control decisions with the *GEN III* system controller.

### TECHNICAL DATA

#### **Electrical**

**Supply Voltage:** 24vac

**Power consumption:** 0.7 VA

#### **Inputs:**

24vac

3 Temperature Sensing Thermistors

#### **Outputs:**

24vac

5 SPST dry contacts, 1A @ 24vac

**Fuse protection:** Use Fused Transformer

#### **Environmental**

**Operating temperature:** 32 to 160° F (0 to 71° C)

**Operating humidity:** 10-95%, non-condensing

**Storage temperature:** 0 to 160° F (-18 to 71° C)

#### **General**

**Communications:** 2 wire twisted pair - Belden 8740

**Enclosure Dimensions:** 6 ¼" x 4 ¼"x1"

10/1/15