

GEN X- RM ADD-ON VVT SYSTEM CONTROLLER

SUBMITTAL



GEN X-RM **System Controller** **To Expand System Capability**

DESCRIPTION

The *GEN X-RM* is a microcontroller based, auto change-over Universal Gas/Electric or Heat Pump system controller (Part # GEN X-RM). The *GEN X-RM* controls units that communicate with the GEN X system that will control a zoned 2H/2C Gas/Electric unit or 3H/2C zoned Heat Pump unit and communicates with and supports up to 20 zones per GEN X-RM, utilizing pressure dependent, modulating dampers and wireless thermostats. GEN X-RM communicates with the GEN X communications hub via (RS485) communication loop and is accessed through the mobile app via your mobile phone, tablet or the internet.

The *GEN X-RM* gathers information every 60 seconds from each damper board while the wireless thermostats communicate with the system over a 3-wire data link directing control based decisions to the HVAC equipment.

The *GEN X-RM* is powered with an independent 24 V 40VA transformer which also powers all dampers in the system. Power from the controller, along with a 3-wire twisted pair communications loop, is daisy chained damper to damper to streamline installation and system communications.

The *GEN X-RM* is equipped with integrated capacity control and High and Low temperature limits to protect compressors and heat exchanger. Supply 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 the APP based communications hub which shall interact and initiate control decisions with the *GEN X* system controller and each wireless thermostat or remote sensor in the system.

TECHNICAL DATA

Electrical

Supply Voltage: 24vac

Power consumption: 0.7 VA

Inputs:

24vac

2 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: 3 wire Plenum rated twisted pair Zonex Wire

Enclosure Dimensions: 6 ¼" x 4 ¼" x 1"

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