

# DTGE4A GAS/ELECTRIC CONTROLLER

## SUBMITTAL



## **DTGE4A** *Gas/Electric Controller*

### DESCRIPTION

The DTGE4A is a microprocessor based, auto changeover two stage gas/electric system controller. The DTGE4A supports up to four zones utilizing pressure dependent, two position motorized dampers. Mode management is vote initiated, based upon first called first served, with an opposite mode caller to initiate a changeover sequence. Upon a thermostat call for the opposite mode, a 5 to 25 minute adjustable cycle timer is initiated in an attempt to satisfy current mode callers. Upon time completion, a successive three-minute purge cycle is initiated prior to mode changeover.

The DTGE4A stages two compressor and two gas/electric heat outputs based upon time and temperature conditions. In the heat mode, W2 will energize after W1 has run for a minimum of 4 minutes and with a LAT of HI limit minus 25° or less. W2 will terminate when the LAT is greater than HI limit. W1 will terminate when the LAT is greater than 145°F., or when all heat calls are satisfied.

In the cool mode, Y2 will energize after Y1 has run for a minimum of 8 minutes and with a LAT greater than an adjustable low limit plus 12°F. Y2 will terminate when the LAT is less than an adjustable low limit plus 5° F. Y1 will terminate when the LAT is less than the adjustable low limit or when all cool calls are satisfied.

### TECHNICAL DATA

#### **Electrical:**

**Supply Voltage:** 24vac

**Power consumption:** 3.0 VA

#### **Inputs:**

- Digital leaving air temperature sensor
- 4- digital / mechanical heat pump thermostats

#### **Outputs:**

- 5- SPST dry contacts, 12A @ 120vac

#### **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:**

**Dimensions:** 6" H x 9 3/4" W x 1 1/2" D

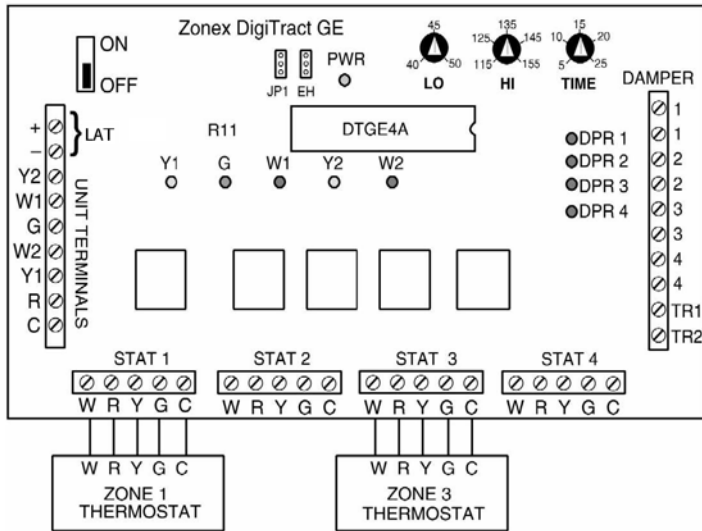
### ORDERING INFORMATION

<b>Part No.</b>	<b>Description</b>
DTGE4A	DigiTract two stage gas / electric controller

Rev.8/21/15

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## TERMINAL FUNCTIONS



### OUTPUTS:

#### Equipment terminal strip

- +/- Nominal 5V DC to leaving air sensor, LAT
- W2- Auxiliary heat relay output
- G- Fan relay output
- Y1- Compressor first stage output
- Y2- Compressor second stage output
- W1- Heating output
- R- 24vac input from equipment transformer
- C- 24vac common input from equipment transformer

## FEATURES

- Intelligent time and temperature staging
- On board leaving air temperature control
- Auto changeover controller (adjustable)
- Supports 2-4 zones
- Uses standard 18 gauge thermostat wire
- 24vac operation
- Automatic purge mode
- Supports two speed or two independent compressors
- LED status indicators for all system functions
- Dampers can be slaved for larger air volume requirements
- Commercial and residential application
- Initiate Auto / On fan control from any thermostat

### Damper terminal strip

- 1/1-4/4- 24vac output to power close damper
- TR1- 24vac damper power input, from external transformer
- TR2- 24vac damper common, from external transformer

### THERMOSTAT INPUTS:

- R- 24vac input
- C- 24vac common (not required with all thermostats)
- G- Fan relay input
- Y- Cooling / heating input
- W- Heating input