

GAS/ELECTRIC THERMOSTATS

for 1 & 2 Compressor Applications



GE22-N2 2 Heat / 2 Cool (using N2 Protocol)

DIRECT REPLACEMENT FOR: TEC1101-1 (Johnson Controls) & TEC1103-1 (Johnson Controls)

GENERAL DESCRIPTION

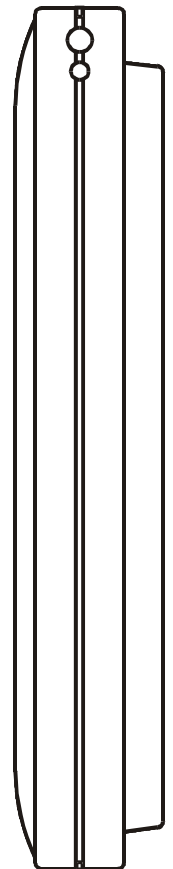
The GE22-N2 communicating thermostats are designed for new or replacement commercial or residential conventional applications when the N2 protocol is required. The TEC-N2 thermostats represent the latest in solid-state surface mount electronics and manufacturing techniques incorporated into an extremely low-profile, ultra-slim white plastic case. The unit offers "user-friendly" control of the heating/cooling equipment along with an easy-to-read vertical LCD that displays complete operating status. An included 2-wire communications port allows complete scheduling, remote control and status with a separate N2 serial interface. A direct-wire, easy-to-install sub-base mounts directly on a standard vertical outlet box or any drywall surface using hardware provided.

Standard Features

- Selectable Celsius or Fahrenheit temperature display
- Fan selector for continuous fan operation
- Built-in anticipation and droop
- Built-in short cycle protection
- Electronic circuitry replaces conventional mechanical anticipator
- Internal switch to lockout the keypad to prevent unauthorized tampering
- Day/Night (Occupied/Unoccupied) button allows setpoint setback for energy savings
- No battery required (maintains last setpoint/mode of operation following power outages)
- Lockable access cover
- Commercial lockout with 1 or 3 hour temporary override; +/- 3°F adjustment during override
- Plenum fan switch
- Two LED lights available for status indication with switchable LCD icons
- Automatic changeover from heat-to-cool and cool-to-heat
- 2°F (1°C) minimum Heat/Cool separation
- Complete control and status via any N2 interface
- Selectable minimum on/off time (2 or 4 minutes)
- HVAC equipment control using dry contact relays
- Optional remote indoor, outdoor, supply air and return air sensing modules

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Note : Specifications subject to change without notice.

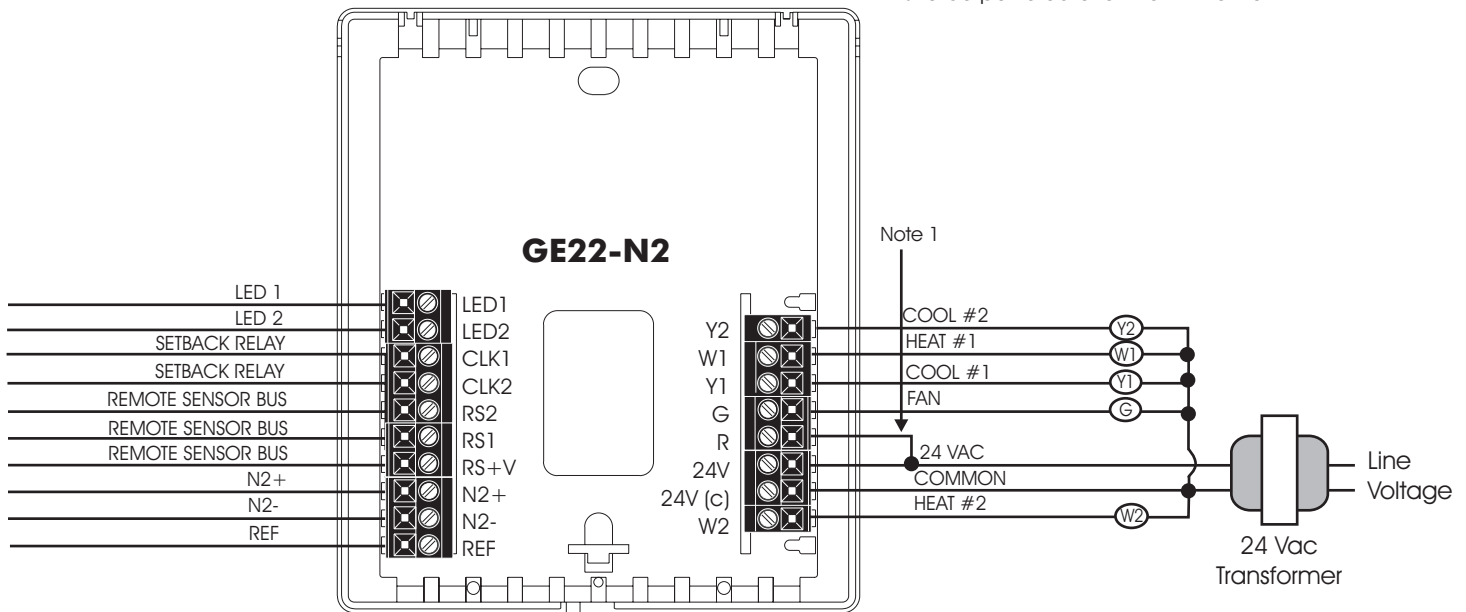


SPECIFICATIONS

Rated Voltage :	20 to 30Vac, DC 24 nominal
Rated A.C. Current :	0.05 to 0.75 Amp continuous per output, with surges to 3 Amps maximum
Rated D.C. Current :	0.0 to 0.75 Amp continuous per output, with surges to 3 Amps maximum
Control Range :	Heating : 38 to 88°F in 1° steps (6 to 30°C in 1° steps) Cooling : 60 to 108°F in 1° steps (16 to 40°C in 1° steps)
Thermostat	
Measurement Range :	28 to 124°F or 0 to 48°C
Control Accuracy :	+/- 1°F @ 68°F (0.5°C @ 20°C)
Minimum Deadband :	(between heating and cooling) 2°F or 1°C
Dimensions :	4.5" H x 4" W x 7/8" D (114mm x 102mm x 22mm)
Equipment Terminations :	R-switching voltage, W1-heat stage 1, Y1-cool stage 1, G-fan, Y2-cool stage 2, W2-heat stage 2
Power Terminations :	24V - power, 24V(c) - power common
Communication Terminations :	N2+, N2-, REF
Sensor Terminations :	RS+V - sensor power, RS1 - comm(+), RS2 - comm(-)
Setback Terminations :	CLK1, CLK2 dry contact closure

NOTE: This thermostat contains electronic circuitry that replaces the conventional mechanical anticipator

Note 1: A Yellow R/24V Jumper is on thermostat circuit board and must be removed if thermostat is to be powered over the N2 network



OUTPUT TERMINAL FUNCTIONS

LED1	Free light for status or function indication	Y2	Energizes on a call for second stage cool
LED2	Free light for status or function indication	W1	Energizes on a call for first stage heat
CLK1	Dry contact closure input for setback	Y1	Energizes on a call for first stage cool
CLK2	Dry contact closure input for setback	G	Energizes the fan circuit
RS2	Remote indoor, outdoor and/or duct sensor	R	Independent Switching Voltage
RS1	duct sensor	24V	24Vac
RS+V	Power for remote sensors	24V(c)	24Vac Common
N2+	N2 Communications bus input/output	W2	Energizes on a call for second stage heat
N1-	N2 Communications bus input/output		
REF	N2 Communications bus input/output		