

HEAT PUMP THERMOSTATS

for 1 & 2 Compressor Applications



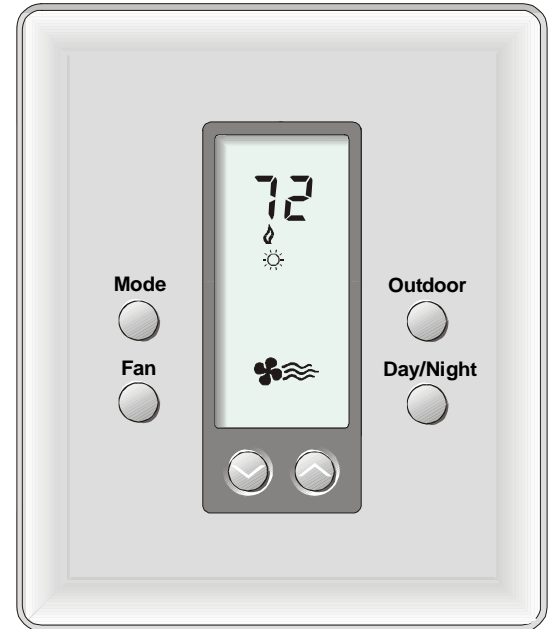
HP21-NX 2 Heat / 1 Cool

HP32-NX 3 Heat / 2 Cool

(using XBUS Protocol)

GENERAL DESCRIPTION

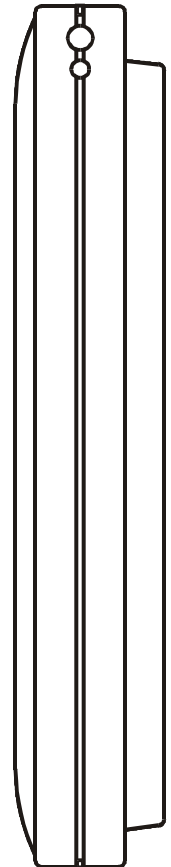
The HP21-NX and HP32-NX communicating thermostats are designed for new or replacement commercial or residential heat pump applications. The Net/X thermostats represent the latest in solid-state surface mount electronics and manufacturing techniques incorporated into an extremely low-profile, ultra-slim white ABS plastic case. Both units offer "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 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
- One LED light available for emergency heat status indication
- Automatic changeover from heat-to-cool and cool-to-heat
- 2°F (1°C) minimum Heat/Cool separation
- Complete control and status via any of NetworkThermostat's interfaces
- 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

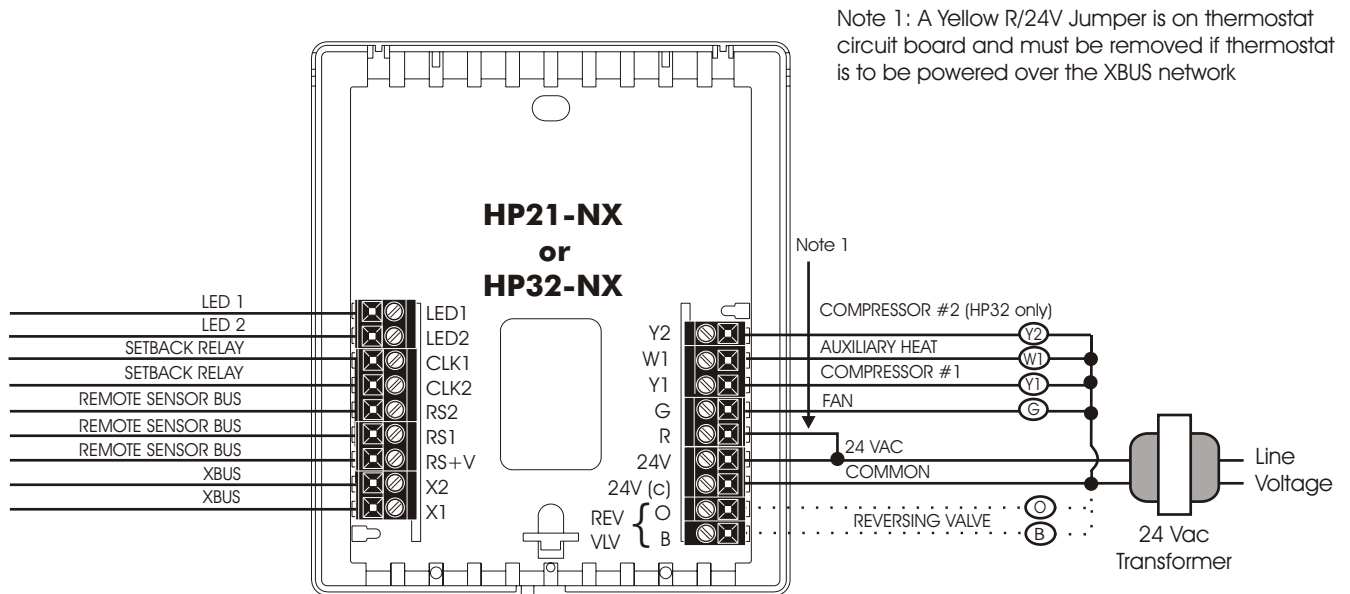
Note : Specifications subject to change without notice.



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 volt., W1-aux heat, Y1-compressor stage 1, G-fan, O/B-reversing valve cool/heat, LED1-light, LED2-light HPT-2 only Y2-compressor stage 2
Power Terminations :	24V - power, 24V(c) - power common
Communication Terminations :	X1 - comm(+), X2 - comm(-)
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



OUTPUT TERMINAL FUNCTIONS

LED1	Free light for status or function indication	Y2	Energizes compressor for second stage heating or cooling, HP32 only
LED2	Free light for status or function indication	W1	Energizes Auxiliary Heat as second stage heating or Emergency Heat
CLK1	Dry contact closure input for setback	Y1	Energizes compressor with a call for heating or cooling
CLK2	Dry contact closure input for setback	G	Energizes fan circuit with a call for heating or cooling
RS2	Remote indoor, outdoor and/or wet	R	Independent Switching Voltage
RS1	location sensor	24V	24Vac
RS+V	Power for remote sensors	24V(c)	24Vac Common
X2	Communications bus input/output	O	Energizes the reversing valve in cooling mode
X1	Communications bus input/output	B	Energizes the reversing valve in heating mode