

Neptra 4500 Series

For Heat Pump/PTAC Applications

Description:

The Neptra 4500 Series of digital controls is equipped with flexible software options that allow the installer (or property owner) to program the control for certain Heat Pump or PTAC applications. In addition, there are a variety of other features that can be programmed, such as comfort limits, cycle rate, etc., and optional remote sensing and setback capabilities are available. (See the model selection chart for details on how to order these options.)

Application:

Designed for water source Heat Pump, PTAC, and PTHP systems with 2 fan speeds. May also be suitable for some fan coil systems.

Note: For highly corrosive environments such as high humidity, salty air, dusty air, etc., it is highly recommended that controls be ordered with conformal coating. (See model selection chart for details on how to order this option.)

Features:

Digital Set Point Display - Set point is displayed at all times.

Automatic Heat/Cool Changeover - Provides precise temperature control. When the room temperature changes 2° above or below the set point the system is activated (4° dead band between heat and cool). Once heat or cool is activated, control will operate with a programmed differential centered at the set point.

Auto 2-Speed Fan Changeover - Provides fast recovery to the temperature set point and quiet operation when room is close to the set point. When room temperature is 4° F from set point the fan operates in high speed. When temperature is 2° - 4° from set point the fan will change to low speed.

Comfort Limits - Field adjustable limits ensure that the room temperature cannot be set at energy wasting extremes.

Economy Set Points - Field adjustable limits ensure that when room is not in use the temperature will not rise or fall beyond a specified point.



Programmable PTAC/PTHP Functions - The thermostat can be configured to operate with different types of PTAC units: Heat Pump, A/C with electric heat, type O or B reverse valve.

Programmable Cycle Rate & Differential - Allows for tighter temperature control by allowing the installer to adjust how frequently the control cycles and how close a differential is required.

Diagnostic Mode - Displays both set point and actual temperature for diagnostic purposes.

°F/°C Selection Switch - User can choose the desired temperature scale.

Selectable Fan Speed (on selected models) - Depending on model, fan speed can be placed in continuous Hi/Lo/Auto.

Optional Remote Sensing - Select models have remote sensing using wall or duct mounted sensors.

Optional Setback Capability - Select models can be remotely placed in setback mode by a dry contact closure.

Customer Service

1-800-782-8412

www.psgcontrols.com

Specifications:

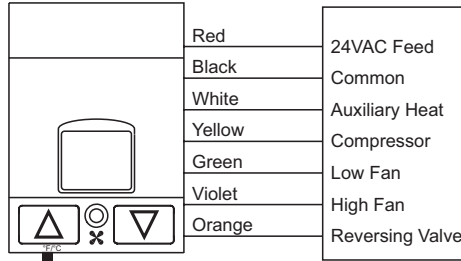
Input Voltage: 24 VAC
 Load Rating: 1 amp/circuit
 Range: 60°F to 85°F
 Accuracy: ±1°F
 Temp. Setting: Push button
 Fan Selection: Push button

Case: Flame retardant, high impact plastic, white or tan
 Cycle Rate: Default 6 cycle/hr.
 (field programmable 1 to 12 - turned off when set to 0)
 Dimensions: 3.5"W x 5.0"H x 1.5"D

Limited one year warranty

Wiring:

The wiring diagram shown is only typical. Detailed wiring diagrams will be outlined in the instruction sheets.



Model Selection:

Build your part number using the drop-down matrix below. For each underlined segment of the generic part number at the top, select from the options indicated in the corresponding box below.

NPK - 4500O # RST

Add a 'K' for **Conformal Coating**

Indicate **Fan Operation:**
K - Continuous fan; programmable for Auto function
U - User selectable High/Low/Auto

Specify Number of Fan Speeds: 1 or 2

Optional Add-ons:
R - Add **Remote Sensing**
S - Add **Setback**
T - Change case color to **Tan**

Example - NPK-4500U2RT =
 HP/PTAC model with conformal coating, user selectable 2-speed fan, and remote sensing in tan color

Consult factory for custom configurations or programming options.

Accessories:

Model #	Description
SB-1*	Subbase without instructions, white plastic
SB-1D*	Subbase with "K" instructions, white plastic
SB-1E*	Subbase with "U" instructions, white plastic
SB-4	Mounting plate for 4x4 gang box, centered, metal
SB-5	Mounting plate for 4x4 gang box, offset, metal
MOLEX Style connectors	Consult factory for custom configurations

* All SB-1 series subbases are left/right reversible

