



Two-Pipe, Pneumatic, Room Thermostats

Description and Application

These thermostats are designed for proportional control of pneumatic valve and damper actuators in HVAC systems. They utilize a highly sensitive bimetal element with feedback and a pilot bleed relay for accuracy and stability.

Models are available with with direct or reverse proportional action. The thermostat's throttling range is factory-set and is field adjustable. Setpoints are adjusted using sliders which can be locked or limited using setpoint stops (HFO-0027).

The thermostats require a scale plate assembly and cover. These items may be ordered separately or in a value package (CTC-162X-103) that includes the most commonly ordered accessories (see the Models and Accessories sections).

Specifications

Setpoint Range 55 to 85° F (13 to 29° C), ad-

justable via slider (adjuster may be concealed and locked

or limited)

Throttling Range 3 to 12° F (1.7 to 6.7° C) factory

set @ 3° F, field adjustable up

to 12° F

Calibration 9 psi (62 kPa) branch pressure

Air

Supply Pressure 20 psi (138 kPa),

30 psi (207 kPa) maximum

Output Capacity 200 scim (55 mL/s) Consumption 20 scim (5.5 mL/s)

Material Black flame-retardant plastic

Weight 3 oz. (85 grams)

Temperature Limits

Operating 40° to 120° F (4° to 49° C)
Shipping -40° to 140° F (-40° to 60° C)





(Shown with Horizontal Scale Plate and Light Almond Cover Installed)

Features

- Sensitive bimetal element and pilot relay provide consistent, accurate feedback
- Direct or reverse acting (see the Models section), proportional control of valve or damper actuators
- ♦ Field-adjustable throttling range

Models 1

CTC-1621	Direct acting
CTC-1621-103	Direct acting, value package*
CTC-1622	Reverse acting
CTC-1622-103	Reverse acting, value package*

*Thermostat value packages contain the necessary components to allow replacement of most Barber-Colman, Johnson Controls, L&G-P, or Robertshaw/ Invensys thermostats. They also offer easy ordering of just one part number to furnish all necessary components and mounting hardware for vertically (only) mounted thermostats. In addition to a CTC-1621 or CTC-1622 base, the packages contain these accessories:

HPO-0048-10	°F vertical scale plate
HPO-1511	Light almond, full window, ABS thermostat cover
HMO-5030	Light almond backplate kit with decorative matching plate
HPO-1320	Label strip
HFO-0027	Setpoint stops strip

Accessories

Backplate kit (allows thermostat to be mounted to 2x4 handy box, includes 2 #6-32 screws and decorative matching 2.75 x 4.5" plate):

HMO-5024 Light almond w/ aluminum trim

HMO-5026 White w/ aluminum trim

HMO-5030 Light almond

HMO-5031 White

Thermostat **scale plates** (includes 2 each HPO-0046 scale plate pins):

HPO-0047-10 ° F, horizontal HPO-0048-10 ° F, vertical HPO-0049-11 ° C, horizontal HPO-0050-11 ° C, vertical

Thermostat covers, blank:

HPO-1501 Light almond ABS plastic HPO-1502 White ABS plastic HPO-1503 Brushed aluminum

Thermostat covers, full window:

HPO-1511	Light almond ABS plastic	
HPO-1512	White ABS plastic	
HPO-1513	Brushed aluminum	

Miscellaneous accessories:

HFO-0027	Setpoint stop strip, 4 "stops" per
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strip

HFO-0028 Tubing kit, 3/32" ID

HMO-5023 Mounting strap for mounting

on hollow walls, includes 2 #6-32 x 2" screws and "template"

printed on envelope

HPO-0044 Replacement thermostat cover

screws

HPO-0046 Replacement scale plate pins
HPO-1320 Replacement label strip (1 fur-

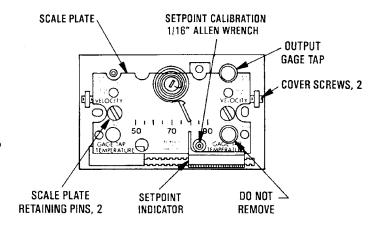
O-1320 Replacement label strip (1 furnished with each cover), 3 labels

per strip (for day/night, summer/winter or heating/cooling

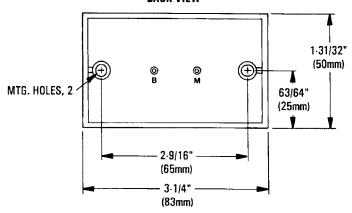
indication)

Dimensions and Details

All dimension are in inches (mm)



BACK VIEW



Cover Height (not shown) = 1-7/8" (47 mm)

A CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

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