

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 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), adjustable 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

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:**

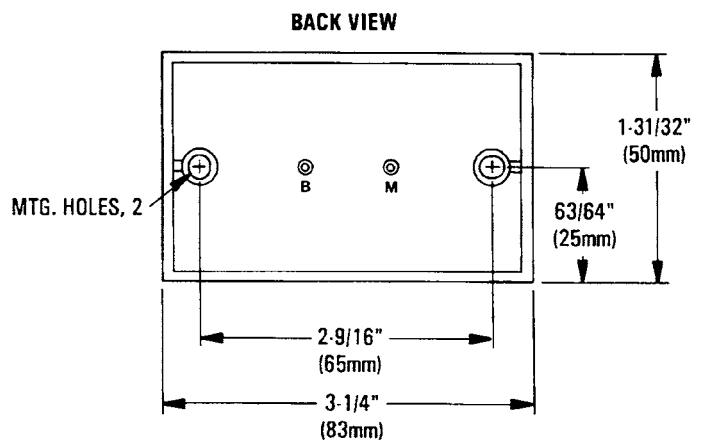
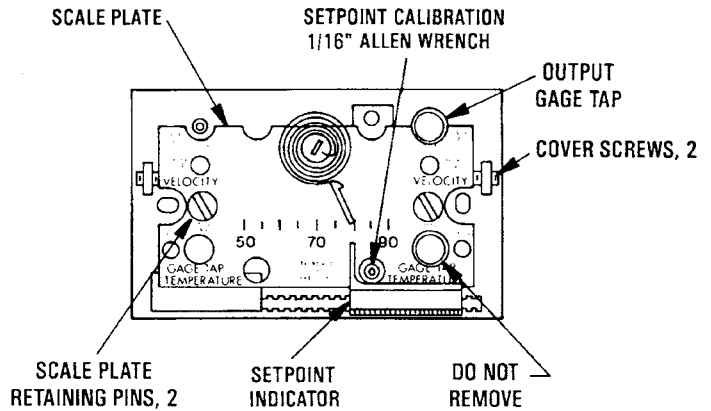
HPO-1511	Light almond ABS plastic
HPO-1512	White ABS plastic
HPO-1513	Brushed aluminum

Miscellaneous accessories:

HFO-0027	Setpoint stop strip, 4 "stops" per 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-0051	Replacement cover window for thermostat (1 furnished with each cover)
HPO-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)



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

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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