

# Thermostats

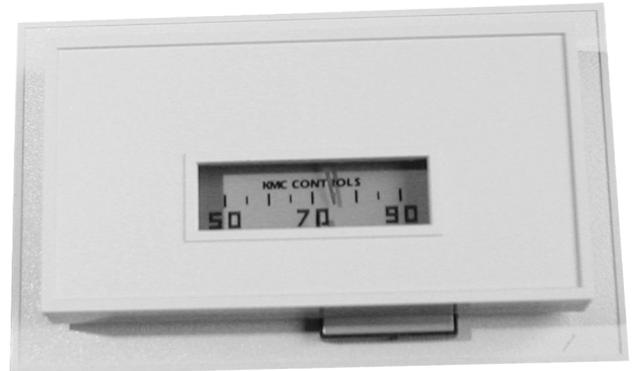


### Description

The CTC-1000 series room thermostats are for use in HVAC systems for the control of pneumatic valves and damper actuators. These units are fully proportional, one-pipe type thermostats which require the use of an external restrictor (HFO-0010 T) in the main air line.

Single setpoint units for either direct-acting or reverse-acting applications, these thermostats offer several mounting methods, including the ability to mount on a 2 x 4 inch electrical box.

The cover design allows for a visible or concealed thermometer, exposed or concealed setpoints, or a blank window. In addition, stops may be ordered which allow a locked setpoint or a restricted adjustment range.



### Features

- ◆ Sensitive bimetal element provides consistent, accurate feedback
- ◆ Direct or reverse acting proportional control of valve or damper actuators
- ◆ Installs in a 2" x 4" electrical box or on a hollow wall.

### Accessories

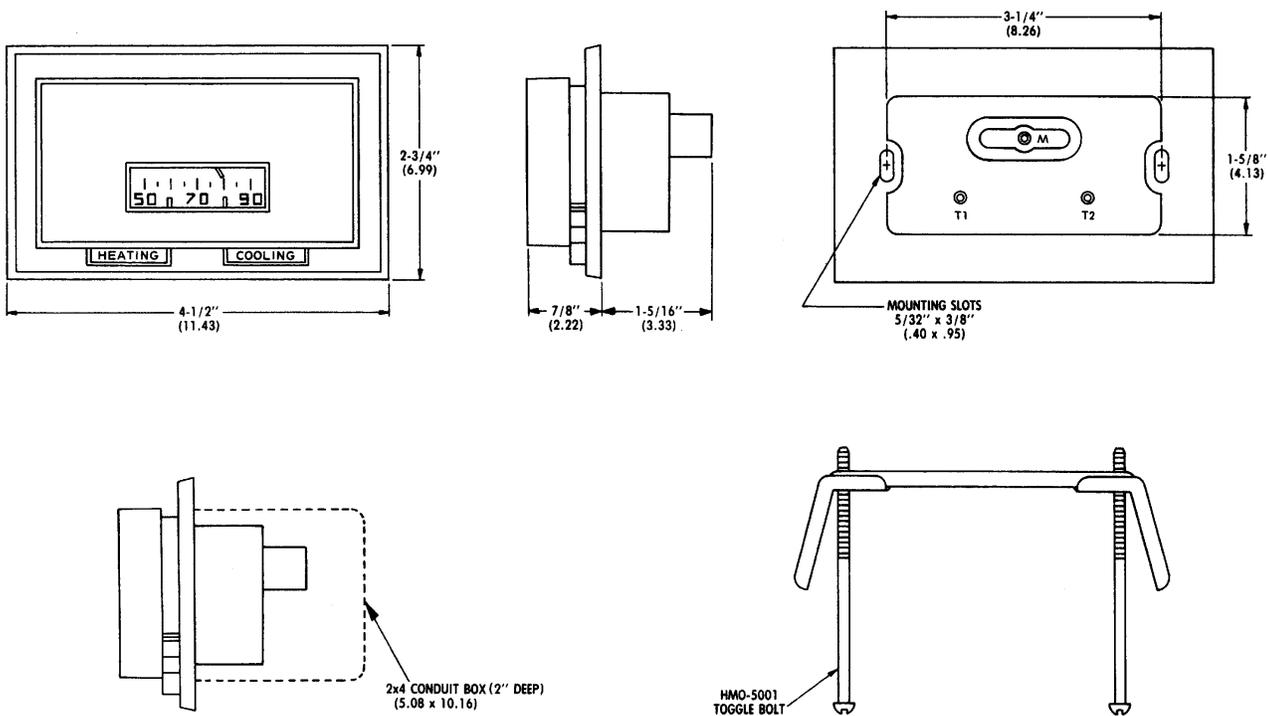
HFO-0010	14.4 scim restrictor Tee
HFO-0026	Blanking Insert
HFO-0027	Setpoint stops
HFO-0024	Tubing kit
HFO-0028	Tubing kit
HMO-5001	Toggle bolt assembly
HMO-5002	Insulating backplate 1-1/8" deep
HMO-5012	Insulating backplate 1-11/16" deep

### Models

CTC-1001-10	°F, Direct Acting (D.A.)
CTC-1001-11	°C, Direct Acting
CTC-1002-10	°F, Reverse Acting (R.A.)
CTC-1002-11	°C, Reverse Acting
CTC-1003-10	°F, D.A. Cooling, R.A. Heating
CTC-1004-10	°F, D.A. Cooling, D.A. Heating
CTC-1005-10	°F, R.A. Cooling, R.A. Heating
CTC-1006-10	°F, R.A. Cooling, D.A. Heating
CTC-1009-10	°F, D.A. Day, D.A. Night
CTC-1010-10	°F, R.A. Day, R.A. Night
CTC-1011-10	°F, D.A. Night, D.A. Day
CTC-1012-10	°F, R.A. Night, R.A. Day

## Details

All dimension in inches (mm).



## Specifications

### Supply Pressure Range

20 psig (138 kPa) operating,  
supplied through restrictor,  
30 psig (207 kPa) maximum

**Setpoint Range** 55° to 85° F (13° to 29° C)

**Proportional Band** 4° F (2.2° C)

**Cover types** Full cover furnished

### Material

Housing	Light Almond ABS
Thermometer	Bi-metal

**Weight** 3 oz. (85 grams) without  
packing

### Temperature Limits

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

## !CAUTION

Pneumatic devices **MUST** operate with **CLEAN, DRY**, control air. Any other medium will result in the device's eventual failure.

**KMC Controls, Inc.**

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### **Description**

The CTC-1500 Series room thermostats are for use in HVAC systems for the control of pneumatic valves and damper actuators. These units are fully proportional, main-air thermostats.

Single setpoint units for either direct-acting or reverse-acting applications, these thermostats offer several mounting methods, including the ability to mount on a 2 x 4 inch electrical box.

The cover design allows for a visible or concealed thermometer, exposed or concealed setpoints, or a blank window. In addition, stops may be ordered which allow a locked setpoint or a restricted adjustment range.



### **Features**

- ◆ Sensitive bimetal element provides consistent, accurate feedback
- ◆ Direct or reverse acting proportional control of valve or damper actuators
- ◆ Dual units have individual setpoints
- ◆ Installs in 2" x 4" electrical box or on a hollow wall.

### **Accessories**

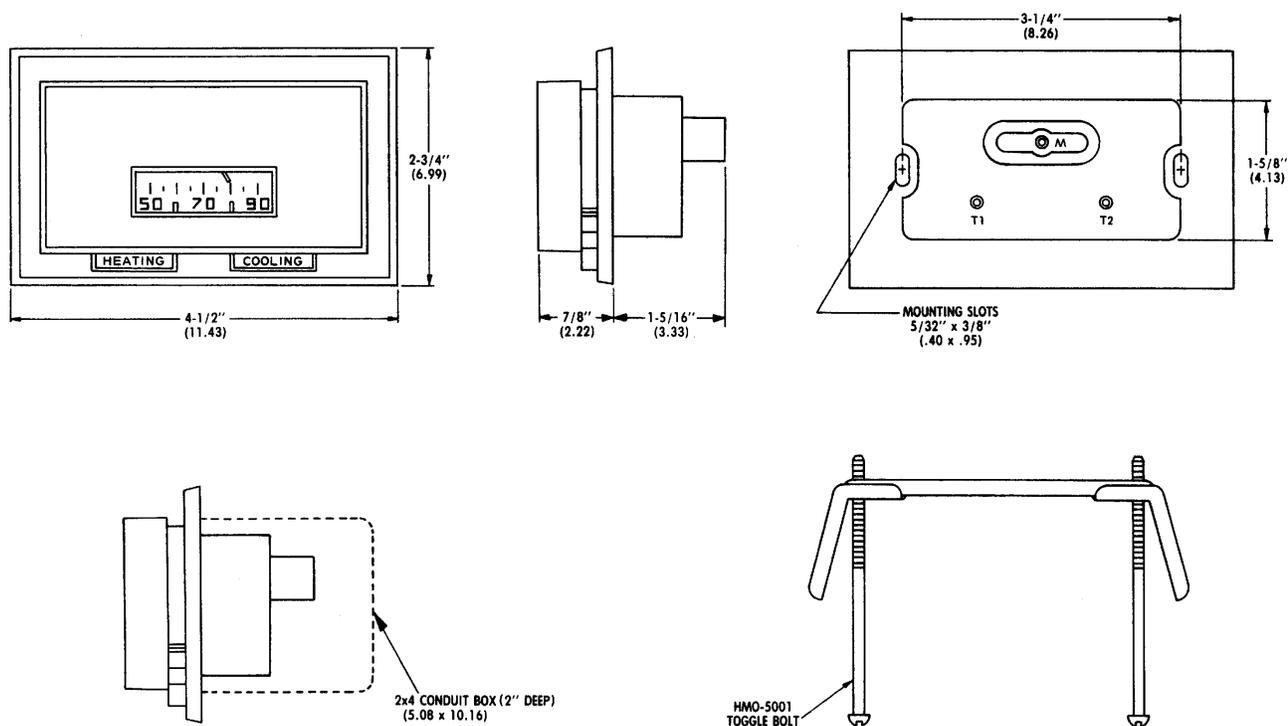
HFO-0026	Blanking Insert
HFO-0027	Setpoint stops
HFO-0024	Tubing kit
HFO-0028	Tubing kit
HMO-5001	Toggle bolt assembly
HMO-5002	Insulating backplate 1-1/8" deep
HMO-5012	Insulating backplate 1-11/16" deep

### **Models**

CTC-1501-10	°F, Direct Acting (D.A.)
CTC-1501-11	°C, Direct Acting
CTC-1502-10	°F, Reverse Acting (R.A.)
CTC-1502-11	°C, Reverse Acting
CTC-1503-10	°F, D.A. Cooling, R.A. Heating
CTC-1504-10	°F, D.A. Cooling, D.A. Heating
CTC-1505-10	°F, R.A. Cooling, R.A. Heating
CTC-1506-10	°F, R.A. Cooling, D.A. Heating
CTC-1509-10	°F, D.A. Day, D.A. Night
CTC-1510-10	°F, R.A. Day, R.A. Night
CTC-1511-10	°F, D.A. Night, D.A. Day
CTC-1512-10	°F, R.A. Night, R.A. Day

## Details

All dimensions in inches (mm).



## Specifications

### Supply Pressure Range

20 psig (138 kPa)  
30 psig (207 kPa) maximum

### Air Consumption

CTC 1501, 1502 20.2 scim @ 20 psig (.33 l/m)  
CTC 1503–1512 43.2 scim @ 20 psig (.66 l/m)

**Setpoint Range** 55° to 85° F (13° to 29°)

**Proportional Band** 4° F (2.2° C)

**Cover types** Full cover furnished

### Material

Housing Beige/almond ABS  
Thermometer Bi-metal

**Weight** 4 oz. (113 grams) without packing

### Temperature Limits

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

## !CAUTION

Pneumatic devices **MUST** operate with **CLEAN, DRY**, control air. Any other medium will result in the device's eventual failure.

### KMC Controls, Inc.

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### Description

The CTC-1611 and 1612 thermostats are designed for proportional control of pneumatic valve and damper actuators used in HVAC systems. A highly sensitive bimetal element with feedback is used for accuracy and stability. An external restrictor is required in the supply line.

Select model for direct or reverse acting proportional action. The throttling range is factory set and field adjustable.

Item is pictured *with* optional cover and scale plate assembled. See CTC-1600 Series Thermostat Accessories in the Condensed Catalogue for styles.



### Features

- ◆ Sensitive bimetal element provides consistent, accurate feedback
- ◆ Direct or reverse acting proportional control of valve or damper actuators
- ◆ Field adjustable throttling range

### Models

CTC-1611	Direct Acting
CTC-1612	Reverse Acting

### !CAUTION

Pneumatic devices **MUST** operate with **CLEAN, DRY**, control air. Any other medium will result in the device's eventual failure.

### Accessories

HFO-0010	14.4 scim restrictor "T"
HFO-0027	Setpoint stops
HFO-0028	Tubing kit; 3/32" ID
HMO-5023	Drywall mounting kit
HMO-5024	2" x 4" almond backplate w/ alum. trim
HMO-5026	2" x 4" white backplate w/ alum. trim
HMO-5030	2" x 4" almond backplate w/ matching trim

HMO-5031	2" x 4" white backplate w/ matching trim
HPO-0047-10	°F Horizontal scale plate
HPO-0048-10	°F Vertical scale plate
HPO-0049-11	°C Horizontal scale plate
HPO-0050-11	°C Vertical scale plate
HPO-1320	Label strip

### ABS COVERS

HPO-1501	Blank; almond color
HPO-1502	Blank; white color
HPO-1511	Window; almond color
HPO-1512	Window; white color

### METAL COVERS

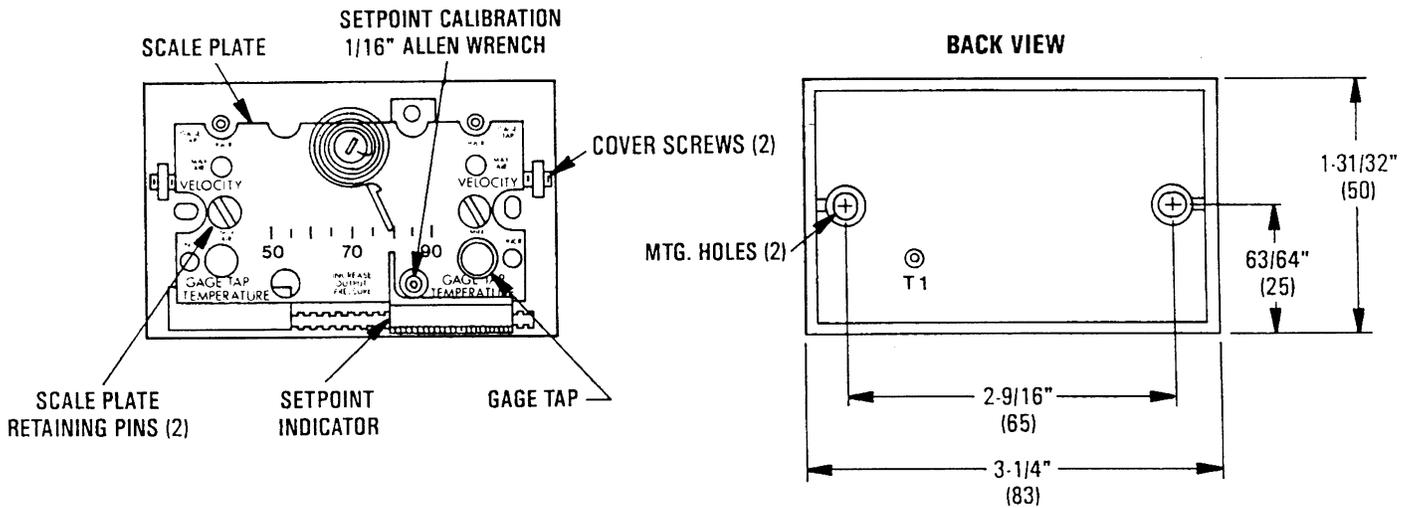
HPO-1503	Blank; brushed aluminum finish
HPO-1504	Blank; painted white
HPO-1505	Blank; brushed brass finish
HPO-1506	Blank; painted almond
HPO-1513	Window; brushed aluminum finish
HPO-1514	Window; painted white
HPO-1515	Window; brushed brass finish
HPO-1516	Window; painted almond

### UNIVERSAL UPGRADE KITS

HMO-5500	Almond, for competitive brands
HMO-5501	White, for competitive brands

## Details

All dimensions in inches (mm).



## Specifications

<b>Setpoint Range</b>	55° to 85° F (13° to 29°)
<b>Throttling Range</b>	3° to 12° F (1.7° to 6.7° C) factory set @ 3° F, field adjustable up to 12° F
<b>Calibration</b>	9 psig (62 kPa) branch pressure
<b>Air Supply Pressure</b>	20 psig (138 kPa); 30 psig (207 kPa) maximum supplied through 14.4 scim (3.9 mL/s) restrictor sold separately
<b>Material</b>	Black ABS
<b>Weight</b>	3 oz. (85 grams)
<b>Temperature Limits</b>	
Operating	40° to 120° F (4° to 49° C)
Shipping	-40° to 140° F (-40° to 60° C)

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# CTC-1621, 1622

## Two-Pipe Pneumatic, Room Thermostat

### Direct and Reverse Acting

### Description

The CTC-1621 and 1622 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 CTC'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 unit is pictured *with* optional cover and scale plate. These items may be ordered separately or in a value package (CTC-162X-103) that includes the most commonly ordered accessories.



### Features

- ◆ Sensitive bimetal element and pilot bleed relay provide consistent, accurate feedback
- ◆ Direct or reverse acting, 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

### Accessories

HFO-0027	Setpoint stops
HFO-0028	Tubing kit; 3/32" ID
HMO-5023	Drywall mounting kit
HMO-5024	2" x 4" almond backplate w/ alum. trim
HMO-5026	2" x 4" white backplate w/ alum. trim
HMO-5030	2" x 4" almond backplate w/ matching trim
HMO-5031	2" x 4" white backplate w/ matching trim

HPO-0047-10	°F Horizontal scale plate
HPO-0048-10	°F Vertical scale plate
HPO-0049-11	°C Horizontal scale plate
HPO-0050-11	°C Vertical scale plate
HPO-1320	Label strip

### ABS COVERS

HPO-1501	Blank; almond color
HPO-1502	Blank; white color
HPO-1511	Window; almond color
HPO-1512	Window; white color

### METAL COVERS

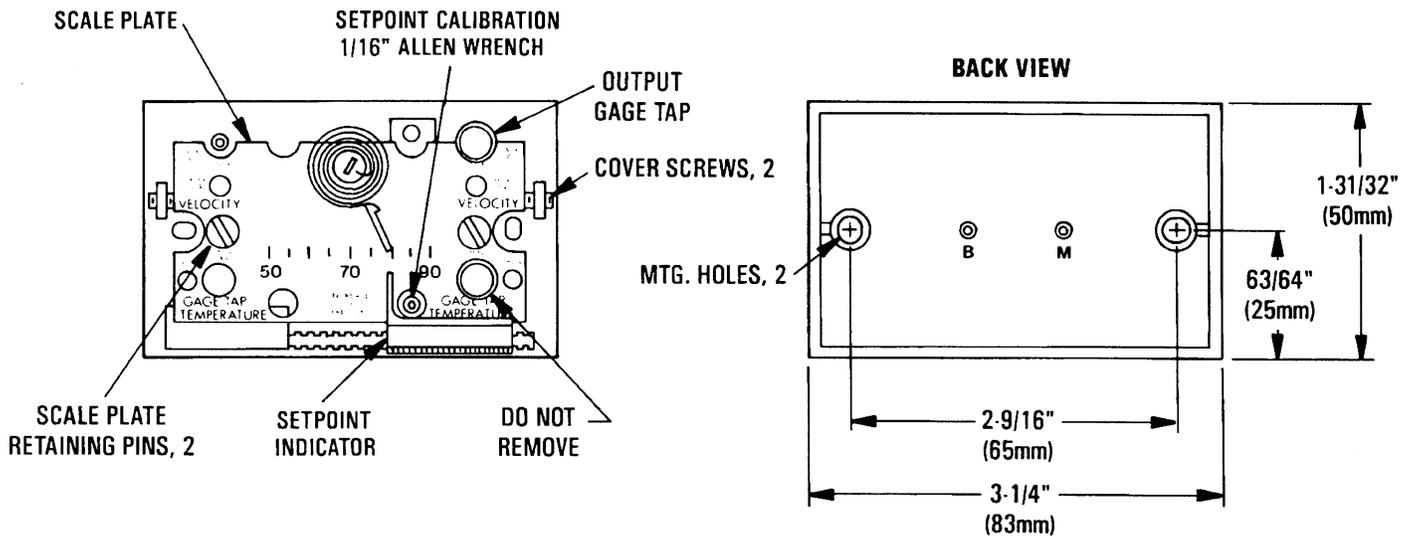
HPO-1503	Blank; brushed aluminum finish
HPO-1504	Blank; painted white
HPO-1505	Blank; brushed brass finish
HPO-1506	Blank; painted almond
HPO-1513	Window; brushed aluminum finish
HPO-1514	Window; painted white
HPO-1515	Window; brushed brass finish
HPO-1516	Window; painted almond

### UNIVERSAL UPGRADE KITS

HMO-5500	Almond, for competitive brands
HMO-5501	White, for competitive brands

## Details

All dimensions in inches (mm).



## !CAUTION

Pneumatic devices **MUST** operate with **CLEAN, DRY**, control air. Any other medium will result in the device's eventual failure.

## Specifications

<b>Setpoint Range</b>	55° to 85° F (13° to 29°), adjustable via slider; adjuster may be concealed and locked or limited
<b>Throttling Range</b>	3° to 12° F (1.7° to 6.7° C) factory set @ 3° F, field adjustable up to 12° F
<b>Calibration</b>	9 psig (62 kPa) branch pressure
<b>Air</b>	
Supply Pressure	20 psig (138 kPa); 30 psig (207 kPa) maximum
Capacity	200 scim (55 mL/s)
Consumption	20 scim (5.5 mL/s)
<b>Material</b>	Black ABS
<b>Weight</b>	3 oz. (85 grams)
<b>Temperature Limits</b>	
Operating	40° to 120° F (4° to 49° C)
Shipping	-40° to 140° F (-40° to 60° C)

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### Description

The KMC CTC-1631 and 1632 thermostats provide proportional control of pneumatic valve and damper actuators in HVAC systems. A highly sensitive bimetal element and pilot bleed relay provide stable, accurate feedback. Additionally, the CTC 1631/32 provides increased energy efficiency through an adjustable temperature deadband span (no energy use for heating or cooling between two setpoints).

Models are available in either direct or reverse proportional action. The CTC's throttling range is factory set and field adjustable. Setpoints are adjusted using sliders that can be locked or limited using setpoint stops (HFO-0027). A variety of optional scale plates and covers are available for both models.

### Features

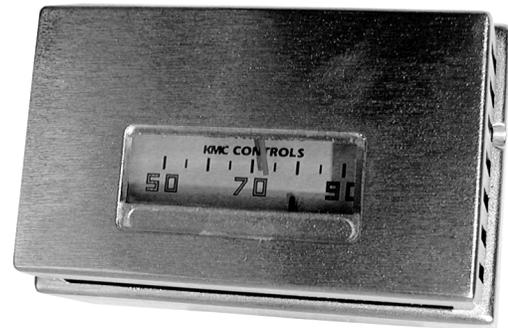
- ◆ Deadband for increased energy efficiency
- ◆ Sensitive bimetal element and pilot bleed relay provide consistent, accurate feedback
- ◆ Direct or reverse acting proportional control of valve or damper actuators
- ◆ Field adjustable throttling range

### Models

CTC-1631	Direct acting
CTC-1632	Reverse acting

### Accessories

HFO-0027	Setpoint stops
HFO-0028	Tubing kit; 3/32" ID
HMO-5023	Drywall mounting kit
HMO-5024	2" x 4" almond backplate w/ aluminum trim
HMO-5026	2" x 4" white backplate w/ aluminum trim
HMO-5030	2" x 4" almond backplate w/ matching trim
HMO-5031	2" x 4" white backplate w/ matching trim



HPO-0047-10	°F Horizontal scale plate
HPO-0048-10	°F Vertical scale plate
HPO-0049-11	°C Horizontal scale plate
HPO-0050-11	°C Vertical scale plate
HPO-1320	Label strip

### ABS COVERS

HPO-1501	Blank; almond color
HPO-1502	Blank; white color
HPO-1511	Window; almond color
HPO-1512	Window; white color

### METAL COVERS

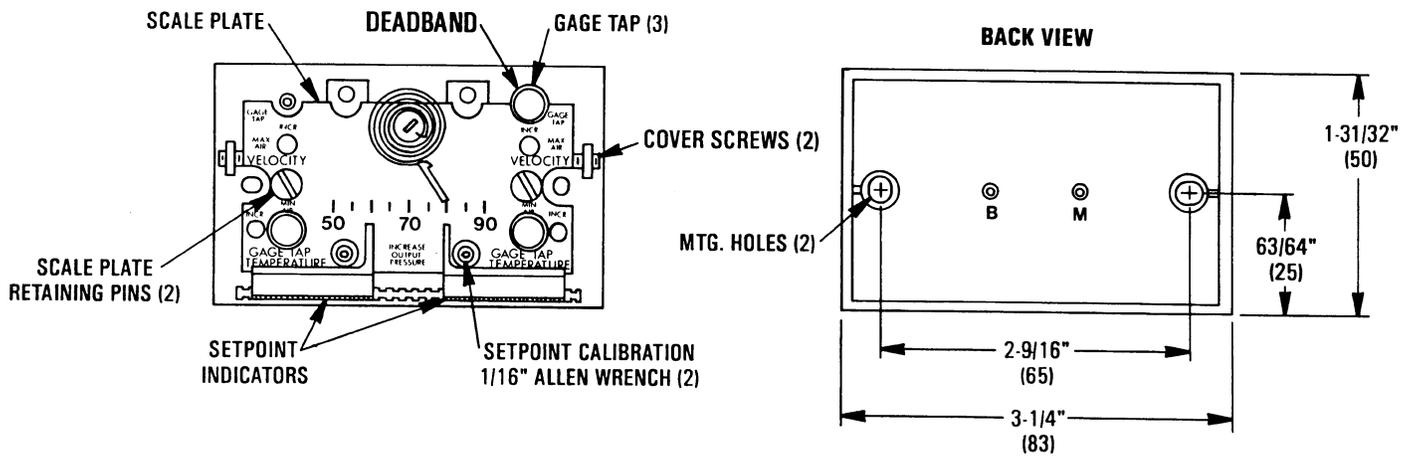
HPO-1503	Blank; brushed aluminum finish
HPO-1504	Blank; painted white
HPO-1505	Blank; brushed brass finish
HPO-1506	Blank; painted almond
HPO-1513	Window; brushed aluminum finish
HPO-1514	Window; painted white
HPO-1515	Window; brushed brass finish
HPO-1516	Window; painted almond

### UNIVERSAL UPGRADE KITS

HMO-5500	Almond, for competitive brands
HMO-5501	White, for competitive brands

## Details

All dimensions in inches (mm).



## Specifications

<b>Setpoint Range</b>	55° to 85° F (13° to 29°)
<b>Throttling Range</b>	3° to 12° F (1.7° to 6.7° C) factory set @ 3° F, field adjustable up to 12° F
<b>Deadband Pressure</b>	8 psig (55 kPa), field adjustable
<b>Air</b>	
Supply Pressure	20 psig (138 kPa); 30 psig (207 kPa) maximum
Capacity	200 scim (55 mL/s)
Consumption	20 scim (5.5 mL/s)
<b>Material</b>	Black ABS
<b>Weight</b>	3 oz. (85 grams)
<b>Temperature Limits</b>	
Operating	40° to 120° F (4° to 49° C)
Shipping	-40° to 140° F (-40° to 60° C)

## !CAUTION

Pneumatic devices **MUST** operate with **CLEAN, DRY**, control air. Any other medium will result in the device's eventual failure.

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### Description

The CTC-1640 Series thermostats provide proportional control of pneumatic valve and damper actuators in two-temperature (day/night, summer/winter) HVAC systems. Two highly sensitive bimetal elements, with feedback, and a pilot bleed relay provide stability and accuracy.

Remote indexing in the CTC-1640 Series is provided by dual main air supply levels. The first temperature control occurs when the main air supply pressure is 16 psig. The second temperature control is tripped when the main air pressure is 25 psig.

Models are available with either direct or reverse proportional action. The CTC's throttling range is factory set and field adjustable. Setpoints are adjusted using sliders that can be locked or limited using setpoint stops (HFO-0027). A variety of optional scale plates and covers are available for both models.

### Features

- ◆ Dual main air levels provide remote indexing between two temperature settings
- ◆ Sensitive bimetal element and pilot bleed relay provide consistent, accurate feedback
- ◆ Available in direct or reverse acting models
- ◆ Field adjustable throttling range

### Models

CTC-1643	Direct acting at upper 16 psig and lower 25 psig setpoint
CTC-1644	Reverse acting at upper 16 psig and lower 25 psig setpoint
CTC-1645	Reverse acting at upper 16 psig setpoint, direct acting at lower 25 psig setpoint
CTC-1646	Direct acting at upper 16 psig setpoint, reverse acting at lower 25 psig setpoint



Special dual main models are also available. Indicate these models by adding a suffix:

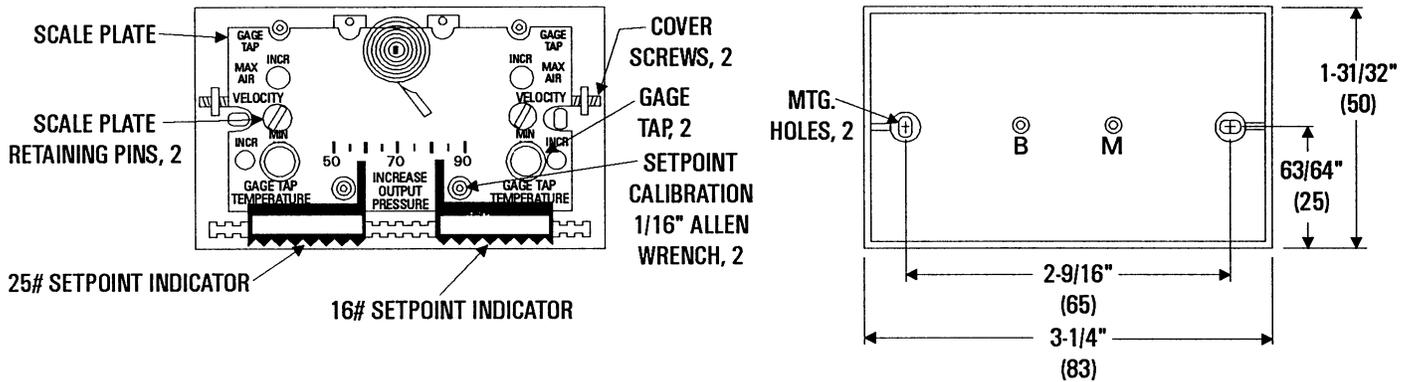
CTC-164X-23	Upper setpoint is 13 psig, and lower setpoint is 18 psig
CTC-164X-25	Upper setpoint is 15 psig, and lower setpoint is 22 psig.

### Accessories

HFO-0027	Setpoint stops
HFO-0028	Tubing kit; 3/32" ID
HMO-5023	Drywall mounting kit
HMO-5024	2" x 4" almond backplate w/ aluminum trim
HMO-5026	2" x 4" white backplate w/ aluminum trim
HMO-5030	2" x 4" almond backplate w/ matching trim
HMO-5031	2" x 4" white backplate w/ matching trim
HPO-0047-10	°F Horizontal scale plate
HPO-0048-10	°F Vertical scale plate
HPO-0049-11	°C Horizontal scale plate
HPO-0050-11	°C Vertical scale plate
HPO-1320	Label strip
HPO-1501	Blank; almond color
HPO-1502	Blank; white color
HPO-1511	Window; almond color
HPO-1512	Window; white color
HPO-1503	Blank; brushed aluminum finish

## Details

All dimensions in inches (mm).



## Accessories

HPO-1504	Blank; painted white
HPO-1505	Blank; brushed brass finish
HPO-1506	Blank; painted almond
HPO-1513	Window; brushed aluminum finish
HPO-1514	Window; painted white
HPO-1515	Window; brushed brass finish
HPO-1516	Window; painted almond

## Specifications

<b>Setpoint Range</b>	55° to 85° F (13° to 29°)
<b>Throttling Range</b>	3° to 12° F (1.7° to 6.7° C) factory set @ 3° F, field adjustable up to 12° F for both bimetals
<b>Calibration</b>	9 psig (62 kPa), branch pressure
<b>Indexing</b>	Remote via change in main air supply pressure; right-horizontal/ top-vertical @ 16 psig (110 kPa) ±1 psig (6.9 kPa); left-horizontal/ bottom-vertical @ 25 psig (173 kPa) ±1 psig
<b>Air</b>	
Supply Pressure	16/25 psig (119/173 kPa); 30 psig (207 kPa) maximum
Capacity	200 scim (55 mL/s)
Consumption	20 scim (5.5 mL/s)

<b>Material</b>	Black ABS
<b>Weight</b>	4 oz. (113 grams)
<b>Temperature Limits</b>	
Operating	40° to 120° F (4° to 49° C)
Shipping	-40° to 140° F (-40° to 60° C)

## !CAUTION

Pneumatic devices MUST operate with CLEAN, DRY, control air. Any other medium will result in the device's eventual failure.

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# CTC-1653, 1654

## Two/Three-Pipe, Two-Temperature Pneumatic, Room Thermostats with Local Indexing

### Description

The KMC CTC-1653 and 1654 thermostats provide proportional control of pneumatic valve and damper actuators in two-temperature (day/night, summer/winter) HVAC systems. Two highly sensitive bimetal elements, with feedback, and a pilot bleed relay provide stability and accuracy.

The CTC-1640's remote indexing is provided by dual main air supply levels. Local indexing is through push-button control. The first temperature control occurs when the main air supply pressure is 16 psig. The second temperature control is selected when the main air pressure is 25 psig. When 25 psig is supplied the local push-buttons allow switching between 16 psig and 25 psig modes.

Models are available in either direct or reverse proportional action. The CTC's throttling range is factory set and field adjustable.

Adjustable setpoints can be locked or limited using setpoint stops ( HFO-0027). A variety of optional scale plates and covers are available for both models.

### Features

- ◆ Dual main air levels provide remote indexing between two temperature settings, push-button provides local indexing
- ◆ Sensitive bimetal element and pilot bleed relay provide consistent, accurate feedback
- ◆ Available in direct or reverse acting models
- ◆ Field adjustable throttling range

### Models

CTC-1653	Direct acting at upper 16 psig, and lower 25 psig setpoint
CTC-1654	Reverse acting at upper 16 psig, and lower 25 psig setpoint
<b>Special Dual Main Models:</b>	
CTC-1653-23	Direct acting at upper 13 psig, and lower 18 psig setpoint
CTC-1654-23	Reverse acting at upper 13 psig, and lower 18 psig setpoint



CTC-1653-25	Direct acting at upper 15 psig, and lower 22 psig setpoint
CTC-1654-25	Reverse acting at upper 15 psig and lower 22 psig setpoint

### Accessories

HFO-0027	Setpoint stops
HFO-0028	Tubing kit; 3/32" ID
HMO-5023	Drywall mounting kit
HMO-5024	2" x 4" almond backplate w/ aluminum trim
HMO-5026	2" x 4" white backplate w/ aluminum trim
HPO-0047-10	°F Horizontal scale plate
HPO-0048-10	°F Vertical scale plate
HPO-0049-11	°C Horizontal scale plate
HPO-0050-11	°C Vertical scale plate
HPO-1320	Label strip

### ABS COVERS

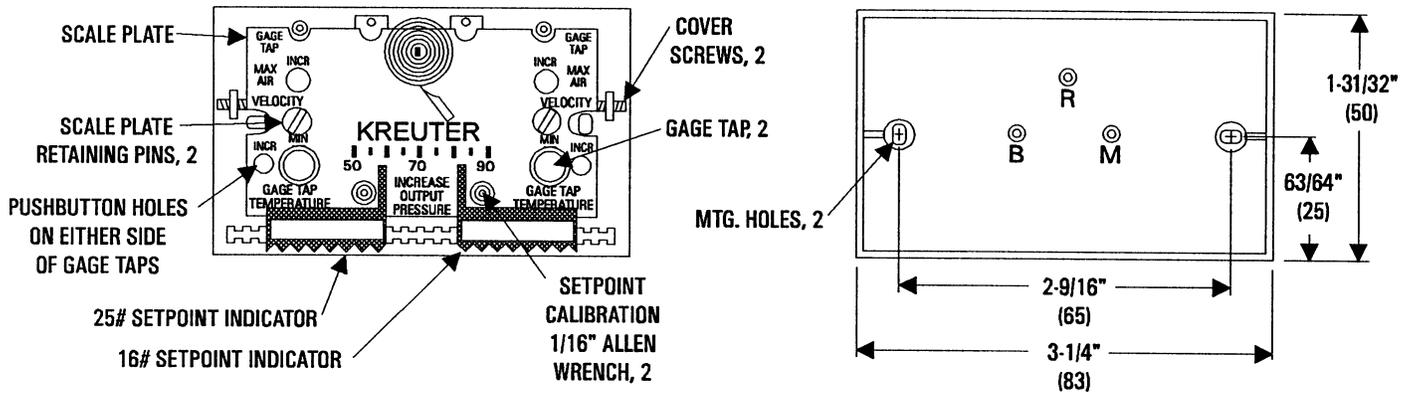
HPO-1521	Local indexing; almond color
HPO-1522	Local indexing; white color
HPO-1511	Window; almond color
HPO-1512	Window; white color

### METAL COVERS

HPO-1523	Local indexing; brushed aluminum finish
HPO-1524	Local indexing; painted white
HPO-1525	Local indexing; brushed brass finish
HPO-1526	Local indexing; painted almond

## Details

All dimensions in inches (mm).



## Specifications

<b>Setpoint Range</b>	55° to 85° F (13° to 29°)
<b>Throttling Range</b>	3° to 12° F (1.7° to 6.7° C) factory set @ 3° F, field adjustable up to 12° F for both bimetals
<b>Calibration</b>	9 psig (62 kPa), branch pressure
<b>Indexing</b>	Remote via change in main air supply pressure; right-horizontal/ top-vertical @ 16 psig (110 kPa) ±1 psig (6.9 kPa); left-horizontal/ bottom-vertical @ 25 psig (173 kPa) ±1 (6.9 kPa)

### Air

Supply Pressure	16/25 psig (119/173 kPa); 30 psig (207 kPa) maximum
Capacity	200 scim (55 mL/s)
Consumption	20 scim (5.5 mL/s)

<b>Material</b>	Black ABS
<b>Weight</b>	4 oz. (113 grams)
<b>Temperature Limits</b>	
Operating	40° to 120° F (4° to 49° C)
Shipping	-40° to 140° F (-40° to 60° C)

## !CAUTION

Pneumatic devices MUST operate with CLEAN, DRY, control air. Any other medium will result in the device's eventual failure.

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### Description

The KMC CTC-4001 and CTC-4004 thermostats are designed as thermally powered, 3-way switching devices for conditioned airstreams of HVAC systems. A signal can be diverted to one of two circuits based on duct temperature. This is useful in applications such as disabling electric heaters when hot air is present in the ductwork.

The factory set-point span of the CTC-4001 is 70° to 75° F (21° to 24° C) and the CTC-4004's is 65° to 70° F (18° to 21° C) allowing the units to sense, and differentiate, between heating and cooling airstreams.

For single duct, heating-cooling change-over on VAV units, install the CTC-4001 or CTC-4004 in the box inlet collar. Supplied with two signals from a heating-cooling thermostat, the CTC-4001 or CTC-4004 can switch the box to the control of the correct signal based on duct temperature.

### Models

CTC-4001	Set-point span 70° to 75° F (21° to 24° C)
CTC-4004	Set-point span 65° to 70° F (18° to 21° C)

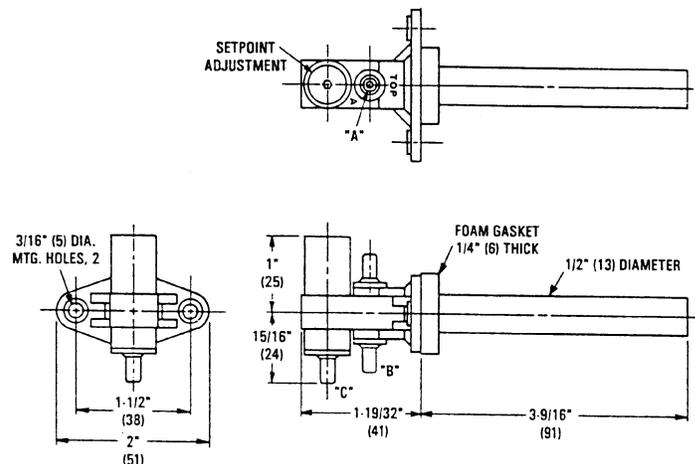
### Specifications

<b>Mounting</b>	Element horizontal, port "A" up
<b>Connections</b>	3/16"(5 mm) fittings for 1/4" (6 mm) OD polyethylene tubing
<b>Material</b>	Polycarbonate and brass
<b>Port Markings</b>	"A" - NO; closed above 75° F (24° C) "B"- NC; closed below 70° F (21° C) "C" - Common (filtered)
<b>Weight</b>	2 oz. (57 grams)
<b>Temperature Limits</b>	
Operating	40° to 120° F (4° to 49° C)
Shipping	-40° to 140°F (-40° to 60°C)



### Details

All dimensions in inches (mm).



### !CAUTION

Pneumatic devices MUST operate with CLEAN, DRY, control air. Any other medium will result in the device's eventual failure.

**KMC Controls, Inc.**

19476 Industrial Drive

New Paris, IN 46553

574.831.5250

www.kmcccontrols.com

## Description

The CTC-4101 thermostat is a fully proportional direct acting, two-pipe, non-bleed pneumatic temperature controller.

A graduated setpoint dial is easily accessed. The unit's non-bleed design prevents air usage except when the pressure of the output signal increases. The thermal sensing system is liquid filled, 47" (119 cm) long and proportionally sensitive over the full length of the element.

The unit includes a main air filter (HFO-0006), mounting bracket and barbed connection for 1/4" (6 mm) O.D. plastic tubing.

## Applications

The CTC-4101 is designed as a low limit control for unit ventilators and air handling units. It may also be used for primary temperature control of coil discharge, or damper control based on temperature.



## Accessories

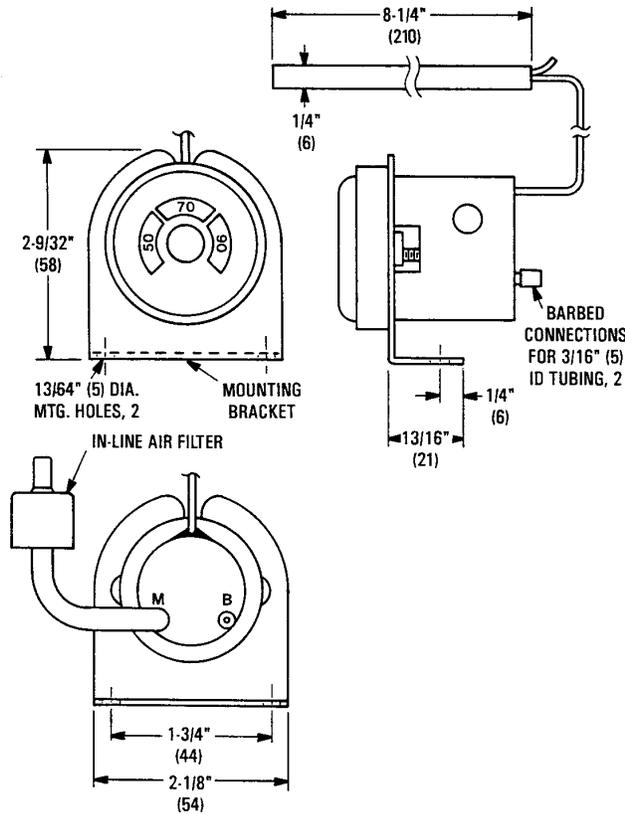
HFO-0006	Main line air filter
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## !CAUTION

Pneumatic devices **MUST** operate with CLEAN, DRY, control air. Any other medium will result in the device's eventual failure.

## Details

All dimensions in inches (mm).



## Specifications

<b>Setpoint Range</b>	40° to 95° F (5° to 35° C)
<b>Proportional Band</b>	4° F (2.2° C)
<b>Supply Pressure</b>	20 psig (138 kPa) Operating 30 psig (207 kPa) Maximum
<b>Air Consumption</b>	20.7 scim (5.52 mL/s)
<b>Action</b>	Direct
<b>Maximum Temp.</b>	131° F (55° C)
<b>Material</b>	
Housing	Aluminum die-cast
Internal Parts	Brass
Setpoint Indicator	Plastic
<b>Bulb</b>	Liquid filled, 47" (119 cm)
<b>Connections</b>	For 1/4" (6 mm) O.D. polyethylene tubing
<b>Weight</b>	9.5 oz. (269 grams)
<b>Temperature Limits</b>	
Operating	40° to 120° F (4° to 49° C)
Shipping	-40° to 140° F (-40° to 60° C)

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### **Description**

CTC-5000 Series Room Thermostats are designed to control pneumatic valves and damper actuators in HVAC systems. The CTC-5000 series is fully proportional, two-pipe relay thermostats which require main air at the thermostat.

These thermostats feature accuracy, and stability, small size, and simple design. The CTC-5000s are single setpoint units intended for direct, or reverse acting applications. The removable cover allows access to the adjustment screw for recalibration. An optional setpoint cover may be added on top to conceal the setpoint adjustment.



### **Features**

- ◆ Fully proportional
- ◆ Available in direct or reverse acting models
- ◆ Easily mounted on flat surfaces or standard handy box

### **Models**

CTC-5501-10	Direct acting, °F, ash white
CTC-5501-11	Direct acting, °C, ash white
CTC-5502-10	Reverse acting, °F, ash white
CTC-5502-11	Reverse acting, °C, ash white
CTC-5511-10	Direct acting, °F, light almond
CTC-5511-11	Direct acting, °C, light almond
CTC-5512-10	Reverse acting, °F, light almond
CTC-5512-11	Reverse acting, °C, light almond

### **Accessories**

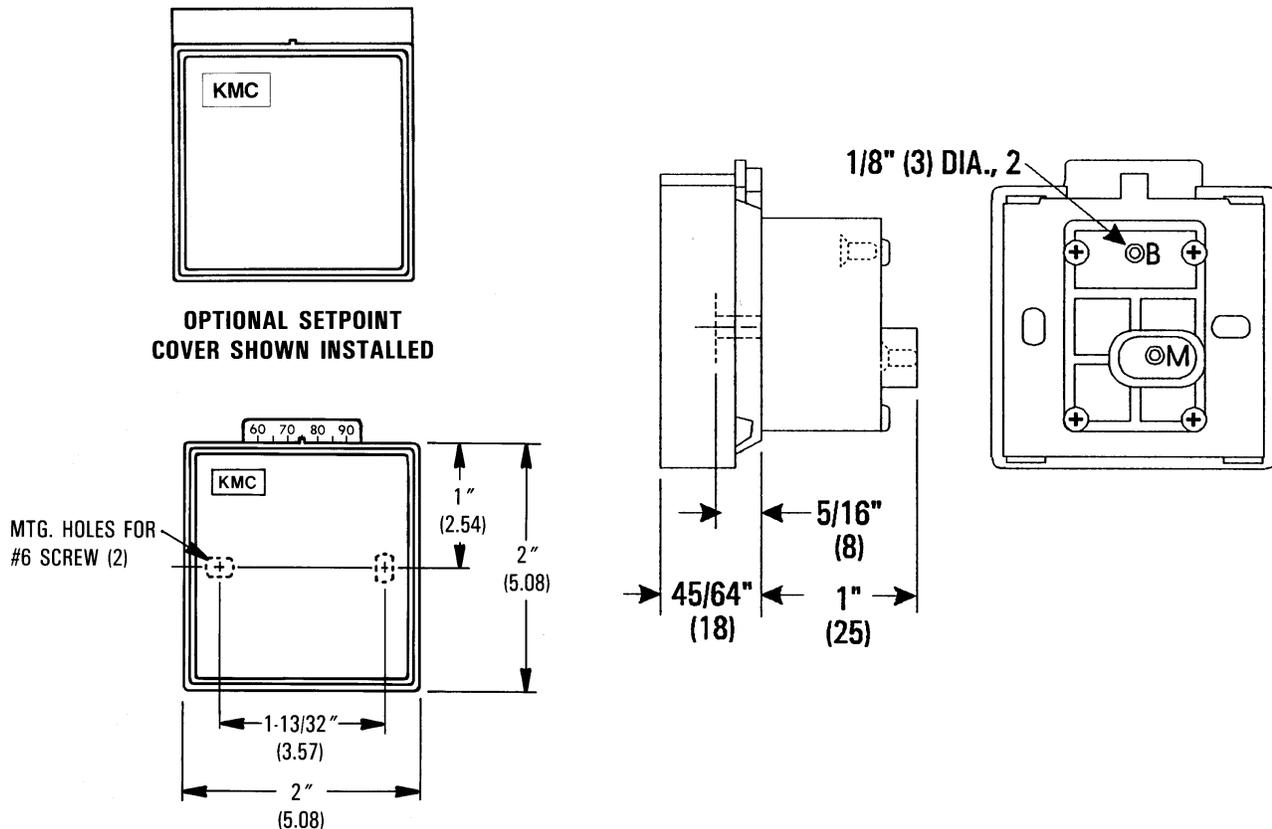
HFO-0028	Tube Assembly Kit
HPO-0031	Setpoint cover, ash white
HPO-0032	Setpoint cover, light almond
HMO-5036	Vertical backplate, light almond
HMO-5037	Vertical backplate, ash white
HMO-5038	Horizontal backplate, ash white
HMO-5039	Horizontal backplate, light almond

### **!CAUTION**

Pneumatic devices **MUST** operate with **CLEAN, DRY**, control air. Any other medium will result in the device's eventual failure.

## Details

All dimensions are in inches (mm).



## Specifications

<b>Supply Pressure</b>	20 psig (137 kPa) operating 30 psig (207 kPa) maximum
<b>Air Consumption</b>	20.16 scim @ 20 psig (5.50 mL/s)
<b>Range</b>	60° to 90° F (15° to 32° C)
<b>Proportional Band</b>	4° F (2.2° C)
<b>Material</b>	Ash white or light almond ABS, UL Flame Class 94 HB
<b>Weight</b>	1.5 oz. (42.5 grams)
<b>Temperature Limits</b>	
Operating	40° to 120° F (4° to 49° C)
Shipping	-40° to 140° F (-40° to 60° C)

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