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–1011–10 °F, D.A. Night, D.A. Day
- CTC–1012–10 °F, R.A. Night, R.A. Day

Specifications and design subject to change without notice.
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.
**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**

♦ Sensible 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–1504–10 °F, D.A. Cooling, D.A. Heating
- CTC–1506–10 °F, R.A. Cooling, D.A. Heating
- CTC–1511–10 °F, D.A. Night, D.A. Day

Specifications and design subject to change without notice.
### 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

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### Temperature Limits

**Operating**

- 40° to 120° F (4° to 49° C)

**Shipping**

- -40° to 140° F (-40° to 60° C)

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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.

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**KMC Controls, Inc.**

19476 Industrial Drive

New Paris, IN 46553

574.831.5250

www.kmccontrols.com
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 60°F Horizontal scale plate
- HPO–0048–10 60°F Vertical scale plate
- HPO–0049–11 10°C Horizontal scale plate
- HPO–0050–11 10°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

Specifications and design subject to change without notice.
### Specifications

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

**Throttling Range**  
3° to 12° F (1.7° to 6.7° C)  
Factory set @ 3° F, field adjustable up to 12° F

**Calibration**  
9 psig (62 kPa) branch pressure

**Air Supply Pressure**  
20 psig (138 kPa);  
30 psig (207 kPa) maximum supplied through 14.4 scim (3.9 mL/s) restrictor sold separately

**Material**  
Black ABS

**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)

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KMC Controls, Inc.  
19476 Industrial Drive  
New Paris, IN 46553  
574.831.5250  
www.kmccontrols.com
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 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

**Specifications and design subject to change without notice.**
Specifications

Setpoint Range 55° to 85° F (13° to 29°),
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 psig (62 kPa) branch
pressure

Air
Supply Pressure 20 psig (138 kPa);
30 psig (207 kPa) maximum
Capacity 200 scim (55 mL/s)
Consumption 20 scim (5.5 mL/s)

Material Black ABS
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)

!CAUTION

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

Specifications and design subject to change without notice.
**Specifications**

- **Setpoint Range**: 55° to 85° F (13° to 29°)
- **Throttling Range**: 3° to 12° F (1.7° to 6.7° C)
  - Factory set @ 3° F, field adjustable up to 12° F
- **Deadband Pressure**: 8 psig (55 kPa), field adjustable
- **Air**
  - **Supply Pressure**: 20 psig (138 kPa); 30 psig (207 kPa) maximum
  - **Capacity**: 200 scim (55 mL/s)
  - **Consumption**: 20 scim (5.5 mL/s)
- **Material**: Black ABS
- **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)

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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.
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

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTC–1643</td>
<td>Direct acting at upper 16 psig and lower 25 psig setpoint</td>
</tr>
<tr>
<td>CTC–1644</td>
<td>Reverse acting at upper 16 psig and lower 25 psig setpoint</td>
</tr>
<tr>
<td>CTC–1645</td>
<td>Reverse acting at upper 16 psig setpoint, direct acting at lower 25 psig setpoint</td>
</tr>
<tr>
<td>CTC–1646</td>
<td>Direct acting at upper 16 psig setpoint, reverse acting at lower 25 psig setpoint</td>
</tr>
</tbody>
</table>

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

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.

Specifications and design subject to change without notice.
### Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Setpoint Range</strong></td>
<td>55° to 85° F (13° to 29°)</td>
</tr>
<tr>
<td><strong>Throttling Range</strong></td>
<td>3° to 12° F (1.7° to 6.7° C) factory set @ 3° F, field adjustable up to 12° F for both bimetals</td>
</tr>
<tr>
<td><strong>Calibration</strong></td>
<td>9 psig (62 kPa), branch pressure</td>
</tr>
<tr>
<td><strong>Indexing</strong></td>
<td>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</td>
</tr>
<tr>
<td><strong>Air</strong></td>
<td></td>
</tr>
<tr>
<td>Supply Pressure</td>
<td>16/25 psig (119/173 kPa); 30 psig (207 kPa) maximum</td>
</tr>
<tr>
<td>Capacity</td>
<td>200 scim (55 mL/s)</td>
</tr>
<tr>
<td>Consumption</td>
<td>20 scim (5.5 mL/s)</td>
</tr>
</tbody>
</table>

### 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

### Material
- Black ABS

### Weight
- 4 oz. (113 grams)

### 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.

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**KMC Controls, Inc.**
19476 Industrial Drive
New Paris, IN 46553
574.831.5250
www.kmccontrols.com
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.

- 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**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTC–1653</td>
<td>Direct acting at upper 16 psig, and lower 25 psig setpoint</td>
</tr>
<tr>
<td>CTC–1654</td>
<td>Reverse acting at upper 16 psig, and lower 25 psig setpoint</td>
</tr>
</tbody>
</table>

**Accessories**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFO–0027</td>
<td>Setpoint stops</td>
</tr>
<tr>
<td>HFO–0028</td>
<td>Tubing kit; 3/32” ID</td>
</tr>
<tr>
<td>HMO–5023</td>
<td>Drywall mounting kit</td>
</tr>
<tr>
<td>HMO–5024</td>
<td>2” x 4” almond backplate w/ aluminum trim</td>
</tr>
<tr>
<td>HMO–5026</td>
<td>2” x 4” white backplate w/ aluminum trim</td>
</tr>
<tr>
<td>HPO–0047–10</td>
<td>°F Horizontal scale plate</td>
</tr>
<tr>
<td>HPO–0048–10</td>
<td>°F Vertical scale plate</td>
</tr>
<tr>
<td>HPO–0049–11</td>
<td>°C Horizontal scale plate</td>
</tr>
<tr>
<td>HPO–0050–11</td>
<td>°C Vertical scale plate</td>
</tr>
<tr>
<td>HPO–1320</td>
<td>Label strip</td>
</tr>
</tbody>
</table>

**ABS COVERS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPO–1521</td>
<td>Local indexing; almond color</td>
</tr>
<tr>
<td>HPO–1522</td>
<td>Local indexing; white color</td>
</tr>
<tr>
<td>HPO–1511</td>
<td>Window; almond color</td>
</tr>
<tr>
<td>HPO–1512</td>
<td>Window; white color</td>
</tr>
</tbody>
</table>

**METAL COVERS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPO–1523</td>
<td>Local indexing; brushed aluminum finish</td>
</tr>
<tr>
<td>HPO–1524</td>
<td>Local indexing; painted white</td>
</tr>
<tr>
<td>HPO–1525</td>
<td>Local indexing; brushed brass finish</td>
</tr>
<tr>
<td>HPO–1526</td>
<td>Local indexing; painted almond</td>
</tr>
</tbody>
</table>

Specifications and design subject to change without notice.
**Specifications**

- **Setpoint Range**: 55° to 85° F (13° to 29°)
- **Throttling Range**: 3° to 12° F (1.7° to 6.7° C) factory set @ 3° F, field adjustable up to 12° F for both bimetals
- **Calibration**: 9 psig (62 kPa), branch pressure
- **Indexing**: 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**: 16/25 psig (119/173 kPa); 30 psig (207 kPa) maximum
- **Capacity**: 200 scim (55 mL/s)
- **Consumption**: 20 scim (5.5 mL/s)
- **Material**: Black ABS
- **Weight**: 4 oz. (113 grams)
- **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.

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**KMC Controls, Inc.**

19476 Industrial Drive
New Paris, IN 46553
574.831.5250
www.kmccontrols.com
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

- Mounting: Element horizontal, port “A” up
- Connections: 3/16”(5 mm) fittings for 1/4” (6 mm) OD polyethylene tubing
- Material: Polycarbonate and brass
- Port Markings: “A” - NO; closed above 75° F (24° C)
  “B” - NC; closed below 70° F (21° C)
  “C” - Common (filtered)
- Weight: 2 oz. (57 grams)
- 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.

CTC–4001, 4004
3-Way Switching, Duct Thermostats

KMC Controls, Inc.
19476 Industrial Drive
New Paris, IN 46553
574.831.5250
www.kmccontrols.com

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Specifications and design subject to change without notice.
**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 units 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 |

**CAUTION**

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

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

KMC Controls, Inc.
19476 Industrial Drive
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062-035-108
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, 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**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTC–5501-10</td>
<td>Direct acting, °F, ash white</td>
<td>Ash white</td>
</tr>
<tr>
<td>CTC–5501-11</td>
<td>Direct acting, °C, ash white</td>
<td>Ash white</td>
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<tr>
<td>CTC–5502-10</td>
<td>Reverse acting, °F, ash white</td>
<td>Ash white</td>
</tr>
<tr>
<td>CTC–5502-11</td>
<td>Reverse acting, °C, ash white</td>
<td>Ash white</td>
</tr>
<tr>
<td>CTC–5511-10</td>
<td>Direct acting, °F, light almond</td>
<td>Light almond</td>
</tr>
<tr>
<td>CTC–5511-11</td>
<td>Direct acting, °C, light almond</td>
<td>Light almond</td>
</tr>
<tr>
<td>CTC–5512-10</td>
<td>Reverse acting, °F, light almond</td>
<td>Light almond</td>
</tr>
<tr>
<td>CTC–5512-11</td>
<td>Reverse acting, °C, light almond</td>
<td>Light almond</td>
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</tbody>
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**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.

 specifications and design subject to change without notice.
Details

All dimensions are in inches (mm).

Specifications

Supply Pressure
- 20 psig (137 kPa) operating
- 30 psig (207 kPa) maximum

Air Consumption
- 20.16 scim @ 20 psig
  (5.50 mL/s)

Range
- 60° to 90° F (15° to 32° C)

Proportional Band
- 4° F (2.2° C)

Material
- Ash white or light almond ABS,
  UL Flame Class 94 HB

Weight
- 1.5 oz. (42.5 grams)

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