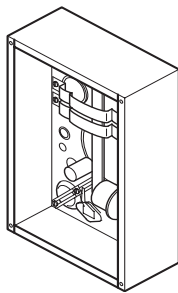


Single Setpoint Room Thermostats

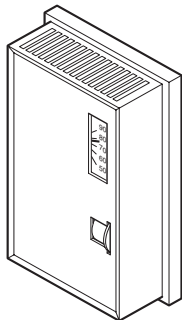
For proportional temperature control of pneumatic valves and damper actuators to maintain room air temperatures in heating, ventilating, and air conditioning systems.

Features:

- Attractive appearance.
- Branch-line to sensing-element pneumatic feedback for linear, stable operation.
- Available with °F or °C setpoint scales and thermometers.
- Covers supplied with exposed setpoint and thermometer.
- Cover inserts included for:
  - Exposed setpoint only.
  - Blank cover.
- Aspirated versions of certain models available.



TK-1xx1-600  
Aspirated Thermostat



TK-1xx1  
TKR-1xx1

| Model Chart              |                            |                                                |                                        |
|--------------------------|----------------------------|------------------------------------------------|----------------------------------------|
| Model No.                | Dial Markings <sup>a</sup> | Control Action <sup>b</sup><br>Supply Pressure | Type Thermostat                        |
| TK-1001                  | 55 to 85°F                 | Direct Acting                                  | Two pipe                               |
| TK-1001-116              | 13 to 29°C                 |                                                |                                        |
| TK-1001-600              | 55 to 85°F                 |                                                | Aspirated                              |
| TK-1101                  | 55 to 85°F                 | Reverse Acting                                 | Two pipe                               |
| TK-1101-116              | 13 to 29°C                 |                                                |                                        |
| TK-1101-600              | 55 to 85°F                 |                                                | Aspirated                              |
| TK-1301                  | 55 to 85°F                 | Direct Acting<br>15 psig day – 20 psig night   | Two or three pipe with manual override |
| TK-1301-116              | 13 to 29°C                 |                                                |                                        |
| TK-1381                  | 55 to 85°F                 | Reverse Acting<br>15 psig day – 20 psig night  |                                        |
| TK-1601 <sup>c</sup>     | 55 to 85°F                 | Direct Acting<br>15 psig day – 20 psig night   | Two or three pipe with manual override |
| TK-1601-116 <sup>c</sup> | 13 to 29°C                 |                                                |                                        |
| TK-1681 <sup>c</sup>     | 55 to 85°F                 | Reverse Acting<br>15 psig day – 20 psig night  |                                        |

<sup>a</sup> Dial stop pins included to limit dual range on all units.

<sup>b</sup> Direct Acting (D.A.) increases output pressure on temperature rise. Reverse Acting (R.A.) decreases output pressure on temperature rise.

<sup>c</sup> Has second white plastic tube to pass full line pressure (20 psi) at night and 0 psi at day. Used to actuate items such as pressure electric switches.

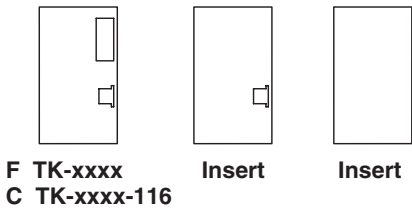


Figure 1 Standard Cover.

## Thermostat Replacement Kits.

| Model No.             | Dial Markings <sup>a</sup> | Control Action <sup>b</sup><br>Supply Pressure    | Type Thermostat                        |
|-----------------------|----------------------------|---------------------------------------------------|----------------------------------------|
| TKR-1001              | 55 to 85°F                 | Direct Acting<br>15 or 20 psig                    | Two pipe                               |
| TKR-1001-116          | 13 to 29°C                 |                                                   |                                        |
| TKR-1101              | 55 to 85°F                 | Reverse Acting<br>15 or 20 psig                   |                                        |
| TKR-1101-116          | 13 to 29°C                 |                                                   |                                        |
| TKR-1201              | 55 to 85°F                 | 15 psig Reverse Acting –<br>20 psig Direct Acting | Two or three pipe with manual override |
| TKR-1281              |                            | 15 psig Direct Acting –<br>20 psig Reverse Acting |                                        |
| TKR-1301              |                            | Direct Acting<br>15 psig day – 20 psig night      |                                        |
| TKR-1381              |                            | Reverse Acting<br>15 psig day – 20 psig night     |                                        |
| TKR-1601 <sup>c</sup> |                            | Direct Acting<br>15 psig day – 20 psig night      |                                        |
| TKR-1681 <sup>c</sup> |                            | Reverse Acting<br>15 psig day – 20 psig night     |                                        |
| TKR-5001              |                            | Direct Acting<br>15 or 20 psig                    | One Pipe                               |

<sup>a</sup> Dial stop pins included to limit dual range on all units.

<sup>b</sup> Direct Acting (D.A.) increases output pressure on temperature rise.  
Reverse Acting (R.A.) decreases output pressure on temperature rise.

<sup>c</sup> Has second white plastic tube to pass full line pressure (20 psi) at night and 0 psi at day. Used to actuate items such as pressure electric switches.

## TKR-1xx1 Includes.

| Quantity       | Description                                 |
|----------------|---------------------------------------------|
| 1              | Thermostat                                  |
| 1              | Blank cover insert                          |
| 1              | Cover insert with setpoint cutout           |
| 1 <sup>a</sup> | 1/4 x 5/32 in. barbed fitting               |
| 1 <sup>a</sup> | 5/32 x 5/32 in. barbed fitting              |
| 1 <sup>a</sup> | 1/4 O.D. x 2 in. Tygon tubing               |
| 1 <sup>a</sup> | 1/4 x 1/4 in. compression to tubing fitting |
| 1              | 5/64 in. Allen head cover screw             |
| 1              | 5/64 in. Allen head wrench                  |

<sup>a</sup> Two included in TKR-1xx1; three included in TKR-16xx.

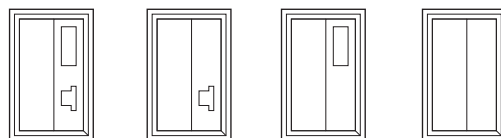


Aspirated model with #6  
spanner head screws  
(requires AT-509)  
**Note:** Not available on  
TK-13xx, 16xx,  
and TKR-xxxx models.

-600

Figure 2 Aspirated Thermostat Cover.

## TK-1xxx Series, TKR-1xxx Series



F -399      -400      -403††      -404††  
C -398      -410      -413††      -414††

†† 5/64 in. Allen screw used to secure cover.

**Figure 3 Options (for quantities of 24 or more of each part number).**  
Add dash number (-xxx) suffix to base part number for desired option.  
For metal covers, specify TK2-xxxx-xxx.

| Specifications                                                 |                                                                                                           |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Thermostat                                                     | Proportional type.                                                                                        |
| Sensing element                                                | Bimetal.                                                                                                  |
| Night setback                                                  | To 20°F (11°C) below day setpoint for Day/Night heating models.                                           |
| Night setup                                                    | To 20°F (11°C) above day setpoint for Day/Night cooling models.                                           |
| Control dial range                                             | Refer to Model Chart.                                                                                     |
| Throttling Range                                               |                                                                                                           |
| TK-1xx1, TKR-1xx1                                              | Adjustable 2 to 10°F/10 psi, factory set at 4°F/10 psi.                                                   |
| Output air signal                                              | 0.5 psig to supply air pressure -0.5 psig.                                                                |
| Action                                                         | Refer to Model Chart.                                                                                     |
| Ambient limits                                                 |                                                                                                           |
| Shipping                                                       | -40 to 150°F (-40 to 65°C). 0 to 98% RH, non-condensing.                                                  |
| Operating                                                      | 40 to 150°F (4 to 65°C). 10 to 98% RH, non-condensing.                                                    |
| Supply air pressure                                            | Clean, oil free, dry air required (reference EN-123).                                                     |
| Nominal                                                        | Refer to Model Chart.                                                                                     |
| Maximum                                                        | 30 psig (207 kPa).                                                                                        |
| Air connections                                                |                                                                                                           |
| Main (black)                                                   | 5/32 in. dia. spring reinforced plastic tube.                                                             |
| Branch (white)                                                 | 5/32 in. dia. spring reinforced plastic tube.                                                             |
| Air consumption for sizing air compressor                      |                                                                                                           |
| TK/TKR-1001, 1001-116, 1101, 1101-116, 12x1, 13x1, TK-1301-116 | 13.8 scim (3.8 mL/s).                                                                                     |
| TK-1001-600, 1101-600, 16x1-116, TK/TKR-16x1                   | 41.5 scim (11.3 mL/s).                                                                                    |
| Air capacity for sizing air mains                              |                                                                                                           |
| TK/TKR-1001, 1001-116, 1101, 1101-116, 13x1, 1301-116          | 16 scim (4.4 mL/s).                                                                                       |
| TK-1001-600, 1101-600                                          | 56 scim (15.3 mL/s).                                                                                      |
| TK/TKR-13x1, 12x1, TK-1301-116                                 | 80 scim (21.8 mL/s).                                                                                      |
| TK/TKR-16x1                                                    | 104 scim (28.4 mL/s).                                                                                     |
| TK/TKR-16x1-116                                                | 144 scim (39.3 mL/s).                                                                                     |
| Cover                                                          | Beige plastic as standard except aspirated versions. Aspirated units have brushed stainless steel covers. |
| Mounting                                                       | Upright position on wall.                                                                                 |

## Specifications (Continued)

### Dimensions

|                                                     |                                                                                                       |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>TK-1xx1, TK-1xx1-116, TKR-1xx1, TKR-1xx1-116</b> | 4-3/8 H x 2-3/4 W x 1-5/8 D in. (111 x 70 x 43 mm).                                                   |
| <b>TK-1xx1-600</b>                                  | Wall Box: 5 H x 3-1/2 W x 2-1/2 D in. (127 x 89 x 64 mm).<br>Cover: 5-1/2 H x 4 W in. (140 x 102 mm). |

### Accessories

| Model No.                                                               | Description                                                                                                |
|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>For two pipe (non-aspirated) or bleed type thermostats (TK-1xxx)</b> |                                                                                                            |
| AT-61 Series                                                            | Cover inserts.                                                                                             |
| AT-84 Series                                                            | Digital thermometer cover kit, plastic cover (TK-13xx, TK-16xx only).                                      |
| AT-101                                                                  | Lock cover kit.                                                                                            |
| AT-104 <sup>a</sup>                                                     | Dial stop pins.                                                                                            |
| AT-504                                                                  | Plaster hole cover (small).                                                                                |
| AT-505                                                                  | Surface mounting base.                                                                                     |
| AT-506                                                                  | Pneumatic wall box fitting (two tubes for TK-100x and 110x).                                               |
| AT-532-111-1-01                                                         | 0.0075 tee restrictor for 5/32 in. plastic tubing.                                                         |
| AT-532-111-1-03                                                         | .010" Tee restrictor. 5/32" Tubing.                                                                        |
| AT-532-222-1-02                                                         | 0.0075 tee restrictor for 1/4 in. plastic tubing.                                                          |
| AT-533-101                                                              | Adaptor 1/4 in. plastic to 5/32 in. plastic.                                                               |
| AT-533-127                                                              | Adaptor 3/16 in. copper or 1/4 in. copper with 1/4 in. solder coupling (not included) to 5/32 in. plastic. |
| AT-536                                                                  | Pneumatic wall thermostat conversion kit.                                                                  |
| AT-546                                                                  | Auxiliary mounting base.                                                                                   |
| TOOL-015                                                                | Spanner head driver to #6 spanner head screws.                                                             |
| <b>For two pipe aspirated type thermostats (TK-1xxx-600)</b>            |                                                                                                            |
| AT-509                                                                  | Wall box required for aspirated thermostats.                                                               |
| AT-533-101                                                              | Adapter 1/4 in. plastic to 5/32 in. plastic.                                                               |
| AT-533-127                                                              | 3/16 in. copper or 1/4 in. copper with 1/4 in. solder coupling (not included) to 5/32 in. plastic.         |
| AT-533-129                                                              | 5/32" x 5/32" barbed brass connector.                                                                      |
| <b>For all models</b>                                                   |                                                                                                            |
| TOOL-095-1                                                              | Pneumatic calibration tool kit.                                                                            |

<sup>a</sup> All thermostats are shipped with two dial stop pins.

### Typical Applications

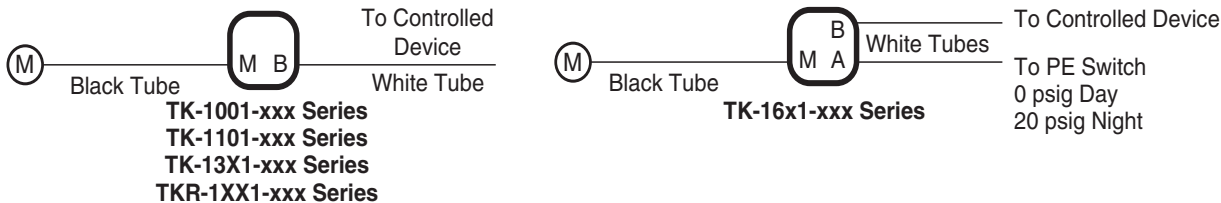


Figure 4 Two Pipe (Relay) Type.