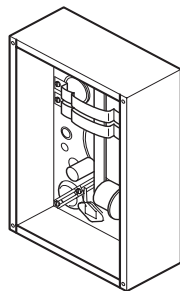


Single Setpoint Room Thermostats

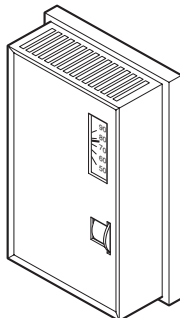
For proportional temperature control of pneumatic valves and damper actuators to maintain room air temperatures in heating, ventilating, and air conditioning systems.

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 ^a	Control Action ^b Supply Pressure	Type Thermostat
TK-1001	55 to 85°F	Direct Acting	Two pipe
TK-1001-116	13 to 29°C		Aspirated
TK-1001-600	55 to 85°F		
TK-1101	55 to 85°F	Reverse Acting	Two pipe
TK-1101-116	13 to 29°C		Aspirated
TK-1101-600	55 to 85°F		
TK-1301		Direct Acting 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 15 psig day – 20 psig night	
TK-1601 ^c	55 to 85°F	Direct Acting 15 psig day – 20 psig night	Two or three pipe with manual override
TK-1601-116 ^c	13 to 29°C		
TK-1681 ^c	55 to 85°F	Reverse Acting 15 psig day – 20 psig night	

^a Dial stop pins included to limit dual range on all units.

^b Direct Acting (D.A.) increases output pressure on temperature rise. Reverse Acting (R.A.) decreases output pressure on temperature rise.

^c 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.

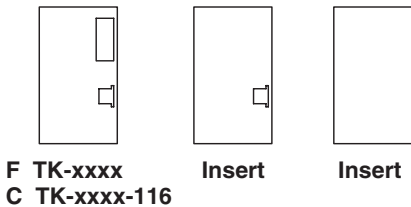


Figure 1 Standard Cover.

Thermostat Replacement Kits.

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

^a Dial stop pins included to limit dual range on all units.

^b Direct Acting (D.A.) increases output pressure on temperature rise.
Reverse Acting (R.A.) decreases output pressure on temperature rise.

^c 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 ^a	1/4 x 5/32 in. barbed fitting
1 ^a	5/32 x 5/32 in. barbed fitting
1 ^a	1/4 O.D. x 2 in. Tygon tubing
1 ^a	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

^a Two included in TKR-1xx1; three included in TKR-16xx.

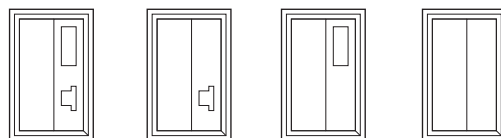


Aspirated model with #6
spanner head screws
(requires AT-509)
Note: Not available on
TK-13xx, 16xx,
and TKR-xxxx models.

-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

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

Accessories

Model No.

Description

For two pipe (non-aspirated) or bleed type thermostats (TK-1xxx)

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 ^a	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.

For two pipe aspirated type thermostats (TK-1xxx-600)

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.

For all models

TOOL-095-1	Pneumatic calibration tool kit.
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^a All thermostats are shipped with two dial stop pins.

Typical Applications

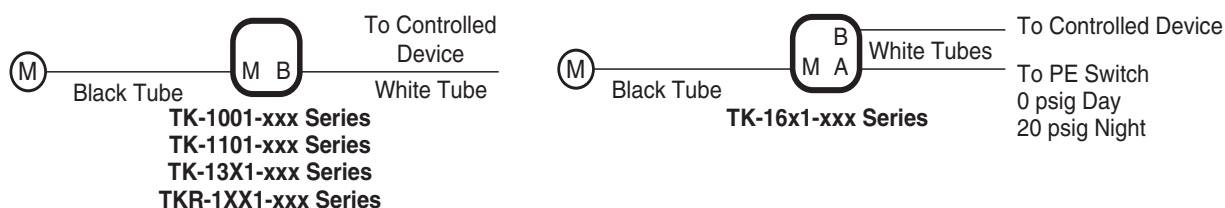


Figure 4 Two Pipe (Relay) Type.