

T46 Series Fan Coil Thermostat Catalog Page

Description

The T46 Series Thermostat is used to control line voltage, fan coil, and heating zone valves on heating, cooling, and combination heating and cooling systems. Models are available with single-pole, single-throw (SPST) or single-pole, double-throw (SPDT) contact action for standard duty (nominal 1/4 hp, 6 A non-inductive) applications. Thermostats are available with or without fan speed control or built-in thermometers. Various system switch combinations are available, including fan speed selection.

Field-installable faceplate combinations of knob or concealed adjustment are possible. Also, the T46 is available with or without thermometer indication. These thermostats have plastic locking covers with an Allen-head screw to discourage unauthorized tampering. Standard models are supplied with the thermostat faceplate installed with knob adjustment and thermometer.

Refer to the *T46 Series Fan Coil Thermostats Product Bulletin (LIT-125655)* for important product application information.

Features

- knob or concealed setpoint adjustment
- low and high temperature dial stops that are concealed and adjustable throughout setpoint range
- can be set for a locked dial
- narrow differential without the need for anticipator
- standard internal dual Celsius and Fahrenheit scales
- switch mechanism and wiring connections go into the switch box to isolate electrical circuits from the sensing element
- mounts on a standard double outlet box
- separable mounting plate allows easy mounting and wiring without removing thermostat cover
- locking cover reduces unauthorized tampering
- high-impact plastic enclosure
- smooth action multi-position slide switches for dependable service



T46 Thermostat

Applications

These thermostats control fan coil and zone heating valves on a wide variety of heating and cooling combinations for conditioned space.

Selection Charts

T46 Series Fan Coil Thermostat

Product Code Number	System Switch	Fan Switch
Heating		
T46ABH-1C	Auto-off-fan	None
T46ADH-1C	Off-auto	None
Cooling		
T46JBH-1C	Auto-off-fan	None
T46JDH-1C	Off-auto	None
T46JEA-1C	On-off	Low-med-high
Heating and Cooling		
T46SAA-1C	Heat-off-cool	Low-med-high
T46SAH-1C	Heat-off-cool	None
T46SDA-1C	Off-auto	Low-med-high
T46SDH-1C	Off-auto	None

Replacement Parts

Product Code Number	Description
CVR88A-600R	Thermostat Cover Assembly for knob adjustment models with thermometer, °F scale, faceplate supplied unassembled
KNB26A-600R	Plastic push on knob for thermostat
BKT48A-600R	Mounting plate for T46

Accessories

Product Code Number	Faceplate Selection ¹			
	Mounting Position	Type of Adjustment	Thermometer Cutout	Temperature Scale
PLT333-1R ²	Vertical	Knob	Yes	Fahrenheit
PLT333-3R	Vertical	Concealed	Yes	Fahrenheit
PLT333-5R	Vertical	Knob	Yes	Celsius
PLT333-12R	Vertical	Concealed	No	—

1. Faceplates must be ordered in multiples of ten.
2. Supplied with standard wholesaler models.

Technical Specifications

T46 Series Fan Coil Thermostats		
Range	Thermostat	40 to 90°F (5 to 30°C)
	Thermometer	50 to 90°F (10 to 30°C)
Differential	Mechanical	Approximately 0.7°F (0.4°C)
	Operating	See next page
Finish	Cover	Almond
	Faceplate	Gold metallic with dark brown border and lettering
Mounting	Double gang box, separable mounting plate	
Material	Base	0.050 in. (1 mm) cold rolled steel
	Cover	0.090 in. (2 mm) high-impact plastic
Sensing Element	Liquid-filled for positive trouble-free operation	
Shipping Weight	Individual Pack	1 lb (0.45 kg)
	Overpack of 20 Units	20 lb (9.07 kg)
Thermometer	Bimetal type for accuracy and clarity, can be field-calibrated	
Wiring Connections	Color coded No. 16 AWG wires, 8 in. (203 mm) long	

The performance specifications are nominal and conform to acceptable industry standards. For applications at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls shall not be liable for damages resulting from misapplication or misuse of its products. © 2018 Johnson Controls. www.penncontrols.com



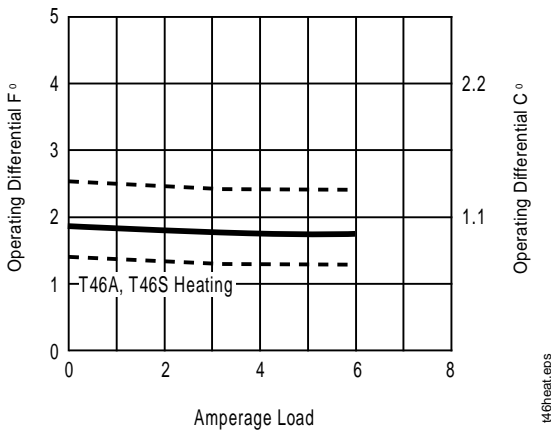
T46 Series Fan Coil Thermostat Catalog Page (Continued)

Technical Specifications (Continued)

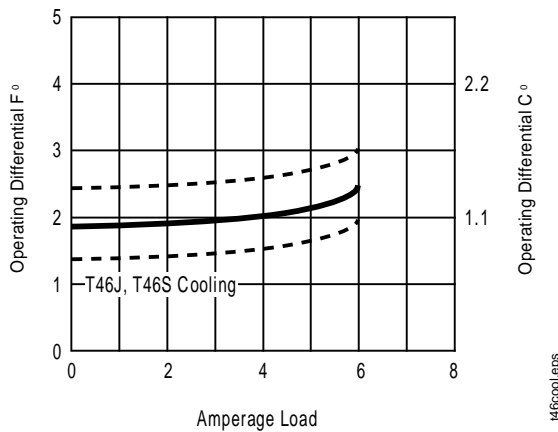
Electrical Ratings

Motor Ratings	120 V	208 V	240 V	277 V
T46 System and Fan Switches				
AC Full Load A	12.0	6.9	6.0	5.2
AC Locked Rotor A	34.8	19.1	17.4	14.4
AC Non-Inductive A	6.5	6.5	6.5	—
Pilot Duty	125 VA, 24 to 277 VAC			
T46 Thermostat Only				
AC Full Load A	6.0	3.5	3.0	—
AC Locked Rotor A	34.8	19.1	17.4	—
AC Non-Inductive A	6.5	6.5	6.5	—
Pilot Duty	125 VA, 24 to 277 VAC			

Operating Differentials



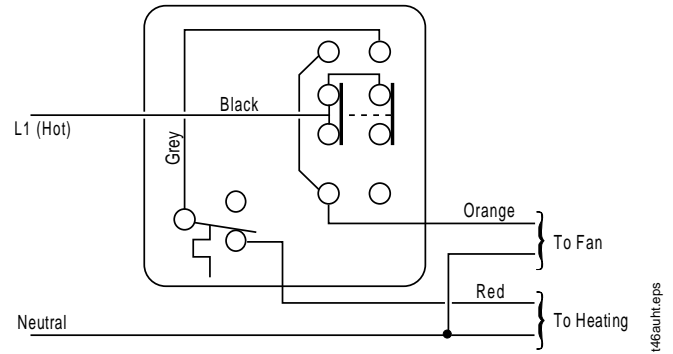
Operating Differential for T46A and Heating Side of T46S



Operating Differential for T46J and Cooling Side of T46S

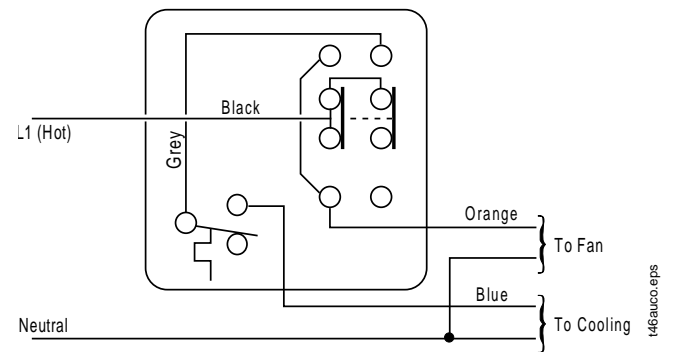
Note: The heavy line in each of the above figures is the nominal operating temperature differential. Production thermostats may vary from the norm, as indicated by the dotted line.

Typical Wiring Application for Heating



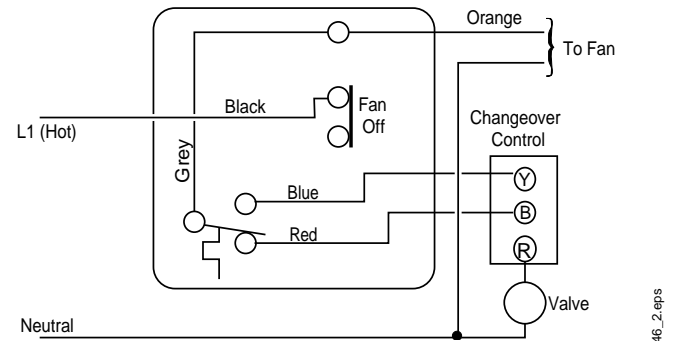
T46ABH Auto-Off-Fan Selector Switch with Continuous Fan (Heating Only)

Typical Wiring Application for Cooling



T46JBH Auto-Off-Fan Selector Switch with Continuous Fan (Cooling Only)

Typical Wiring Application for Combination



T46SDH Off-Auto Selector Switch. Used on Fan-Coil Unit with Cycling Valve and Continuous Fan. Terminal Markings Shown for A19CAC Changeover Control (Heating and Cooling)