

K59

The Ranco® K59 Series Temperature Controls are cold thermostats used in all types of residential refrigeration applications. These include single door/table top (fridge or freezer only), combination mono-compressor (fridge and freezer), combination dual compressor (independent fridge and freezer), no-frost fridge and freezer, chest freezer, and up-right freezer. In addition, they are used in vending machines and ice makers.

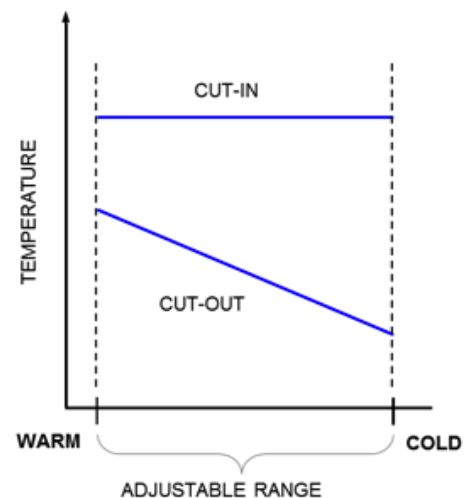
Features and Benefits

- Main SPST with auxiliary switch for OFF position
- Automatic defrost function by constant cut-in value
- Anti-explosive ATEX approved thermostat version designed with fully enclosed break device. (Thermostat external structure is 1.5mm higher in the switch area than the height of a standard thermostat.)
- Variable differential control with default constant cut-in set between 2°C and 10°C
- Durable and reliable switch and mechanism to help ensure continuous operation of the appliance
- Encapsulated body made of high quality material for exceptional performance and consistent operation
- Faston terminal configurations in various sizes (6.3mm and/or 4.8mm) and positions (vertical, horizontal, or mixed combination positions)
- Capillary lengths range from 300mm to 3000mm with different forms or with bulb
- Compact size
- Standard mounting configuration or with bracket
- IEC certified
- Made in EU (Czech Republic)

Temperature Characteristics

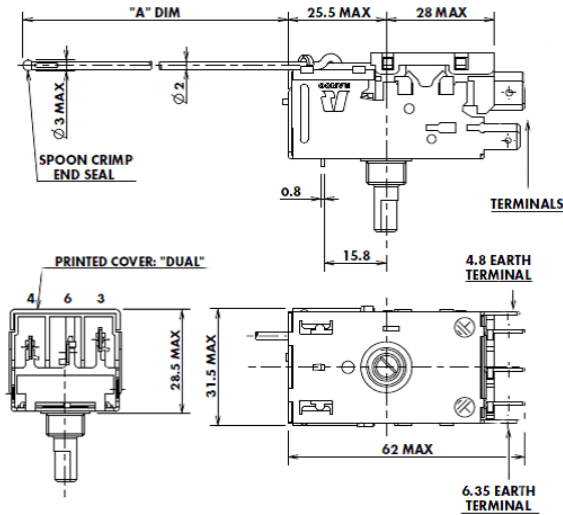
The unique feature of the K59 Series Temperature Control is its ability to adjust the cut-out point via the dial shaft, while the cut-in point remains constant for all positions. Since the cut-in point is normally in the positive temperature range, automatic defrosting is initiated during each compressor stop period.

- Operating range: -32°C to +6°C
- Adjustable range: 4 K to 18 K
- Constant cut-in value (factory set): 2°C to 10°C



Product Dimensions

Note: Control is shown in COLD position. Other dial shaft positions available on request. For K59 thermostat models with terminals 6.35mm, the external terminals (4 and 3) are turned by 90° with respect to this product drawing.



Capillary Styles

Style	Spoon Crimp Closure	Pig Tail	Coated
Dimensions			

- Spoon Crimp Closure: standard
- Pig Tail and Coated: available on request

K59 Basic Versions

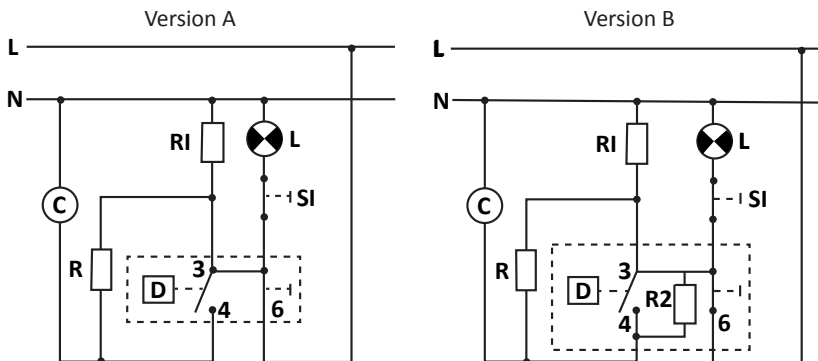
The K59 Temperature Controls are classified into three basic versions:

Version A Terminal 3-4 closes at temperature rise
Terminal 3-6 opens in OFF position
This version closes with the rising temperature and auxiliary switch (terminal 3-6) connected in series with the main switch. The current circuit breaks as soon as the temperature control is set to the OFF position.

Version B Terminal 3-4 closes at temperature rise
Terminal 3-6 opens in OFF position with bellow heater
The bellow heater is a metal film resistor (82 kΩ) connected in parallel to the main switch. This heats the diaphragm of the capillary system when the main switch is open (i.e. during the compressor stop phase)

Version C Terminal 3-4 closes at temperature rise
Terminal 3 opens in OFF position (without auxiliary terminal 6 and without bellow heater)
This version has an OFF position that has a manual opening of the main switch 3-4 within a 45° dial angle and simultaneously locks mechanically

Wiring Diagrams



Electrical Rating
250V, 50 Hz, 3-4: 6 (6) Amps
250V, 50 Hz, 3-6: 6 (6) Amps

Wiring Diagram Legend
3-4 = Main switch closes on temperature rise
3-6 = Auxiliary switch opens in OFF position
C = Compressor
L = Lamp
R = Defrost heater
RI = Collar heater
R2 = Internal heating resistor (82 kΩ)
SI = Door switch



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