BRÄU SUPPLY

SV120-ETC
Operation Manual

Overview

The SV120-ETC dual stage controller is a simple, yet accurate switching temperature controller. It features heating and cooling outputs, and sensing duties come from a 304 stainless steel sensor with a 1.5" tri-clover mount. This controller can manage all aspects of the beer brewing process, from controlling mash temperature, managing the chilling and fermentation process, and includes a switched pump outlet.

Specification

Temperature Measurement Range: -30º-212ºF.
Resolution: 0.1ºF(≤199.9ºF), 1ºF(<200ºF)
Accuracy: +/- 1ºF
Input Power: 110-120VAC 50/60HZ 15A
Sensor type: NTC
Output: heat relay 30A/120VAC, cool relay 10A/120VAC
Ambient requirements: temperature 10-60ºC, humidity 20-85% (no condensate)
Capacity: heating output max 1650W
            cooling output max 550W
Warranty: 1 year

Front Panel

Set Temperature

In operation mode, press SET, and the set value will display. Adjust this value by pressing ▲ or ▼ on the display to get to the desired set temperature. To save your setting pres Rst to return to operation mode, or wait 15 seconds.

Set Parameters

When the controller is plugged in and the probe is attached, the controller will display the measured temperature. The controller operates according to the last inputted settings. If the temperature sensor is shorted, or removed the controller will display 'EEE'.

Press the 'Set' key for 3 seconds, and the set indicator will flash and 'F00' will display. Use the ▲ or ▼ key to switch between code F00 and F8. To change the setting of a code when it is displayed press the SET key. The current value will display, and you can use the ▲ or ▼ key to change it. After the adjustment, press the SET key to return to the previous menu, or press Rst to save and return to the operation mode.

See table 1. for the default parameters.

Table 1.

Code	Setting Range	Default	Unit	Function
F00	0.2-25.0	0.2	ºF	cool differential
F01	0.2-25.0	0.2	ºF	heat differential
F02	0-9	3	minute	compressor delay
F03	-40~set temp	30	ºF	low temp setting limit
F04	set temp~230	212	ºF	high temp setting limit
F05	-12.0-12.0	00.0	ºF	temp calibration
F06	F07-230	206	ºF	alarm temp high limit
F07	-40~F06	30	ºF	alarm temp low limit
F08	000-999	000	/	communication signal

Parameter Description

Cool Differential - The 'cool' outlet on the back of the controller becomes energized when the temperature rises above the set temperature + the cool differential.

Heat Differential - The 'heat' outlet on the back of the controller becomes energized when the temperature is below the set temperature - the heat differential.

Note: A small differential between heating (HdF) and cooling (CdF) set points gives tighter control but a larger differential reduces the frequency of cycling on and off and therefore extends the life of the relay and compressor.

Compressor Delay - When powered on for the first time, if the measured temperature is greater than the set temperature + the temperature differential, the compressor output will not be activated until after the set compressor delay time. When the controller is used for cooling and the load is a compressor (such as glycol chiller), it should not turn

on the compressor when it is at highest pressure (e.g. just after it turned off) otherwise, it may shorten the life of the compressor. The Anti-Short cycle delay function, therefore, can be used to prevent the rapid cycling of the compressor. A typical delay time in this case should be between 5-10 minutes.
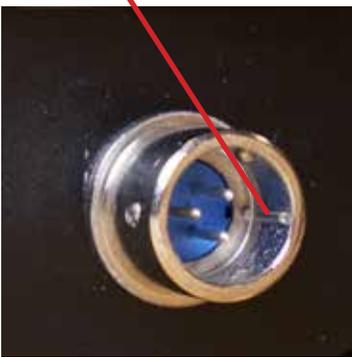
Temperature Calibration - The Temperature Offset is used to set an input offset to compensate for any error produced by the sensor or input signal itself. This is useful for calibrating your controller for precise readings. For example, for temperature, if the unit displays 37ºF when the actual temperature is 32ºF, setting parameter to -5 will make the controller display 32ºF.

Alarm temp high and low limit - When the measured temperature is higher than the set point, the high limit alarm will be on; when the measured temperature is lower than the set point, the low limit alarm will be on. When the alarm is on, the display will be flashing between the measured value and the alarm type. It will flash HHH for over temperature and LLL for under temperature. To mute the alarm when it is on, press the Rst key. (If the measured value moves out of the alarm zone and then returns into the alarm zone again, the alarm will sound again.
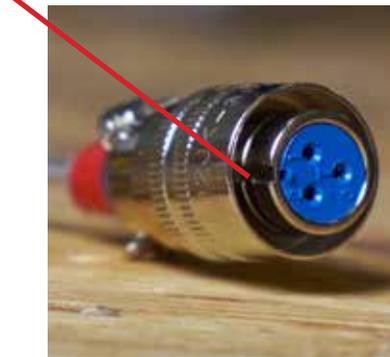
Attaching The Sensor

The sensor connectors contain a slot and matching ridge for correct pin connection. It also has a spring lock to prevent disconnections from accidental pulling on the cable.

Ridge on Controller   **Notch on Sensor Cable**

To attach it to the unit, align the slot of the female connector on the temperature probe to the ridge of the male connector on the SV120-ETC, then hold the tail of the female connector and push forward (do not touch the knurled ring, grip only by the tail).

Detaching The Sensor

To remove the connector, pull the spring loaded collar of the female connector and the female connector will detach.

Questions related to the use of this controller with Brau Supply should be directed to:

Brau Supply
163 - 628 East Kent Ave S
Vancouver, BC V5X 0B2
www.brausupply.com
email: info@brausupply.com