

Service Reference

Topic: Watlow Series 93 Dual Temperature Controller

This controller is used in UFS PN 221033 and stops the pump in the event of high temperature as well as initiate cooling at some lower point to prolong the CIP operation as long as possible.

In some cases, it may be necessary to reprogram the unit. These instructions will help you trouble shoot the unit.

Output #1 is the high temperature setpoint and is used to shut down the CIP pump due to high temperature of the CIP solution. The NO (normally open contacts) are such when the unit is not energized. When power is applied to the unit the NO will close. In the event of a high temperature, the NC contacts will open and voltage to the motor starting coil will be interrupted and the motor will shut down.

Output #2 is for the cooling water to flow in the cooling coil and suppress the energy injected into the CIP solution. The cooling coil is not meant to avoid a high temperature, just allow more cleaning time in the range 1 or 2 hours at the most, depending on the local ambient temperature and the temperature of the cooling water. The cooling water solenoid is attached through the NO contacts and only when the cooling temperature is reached does the contact close and the solenoid is turned On.

The failsafe mode is when power is lost to the temperature controller. Also, the CIP pump will not start, nor will the cooling water solenoid. Thus, a run away condition will not occur under normal design conditions.

For more information see the original manual that came with the equipment or contact UFSc using the information at top of the page.

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For reference open the Watlow 93 series manual to section 4.3 Setup and perform the following steps to re-program the controller back to the factory default values.

Set up Parameter	Value	Comment
LOC	4	Highest protection level from tampering and changing of setpoints
In	Rtd	
dEC	0	
C-F	C	
rL	15 (deg C)	Low range point
fH	70 (deg C)	Hi range point
Ot1	ht	Relays response to rising values of temperature
HSC	1	
Ot2	Pr	
HSA	1	
Lat	nLA	
SiL	Off	
rtd	din	
rP	Off	
Rt	Na	Will not appear since rP = Off
PL	100	
dSP	nor	
Operation Parameters	Value	Comment
Pb1	0	