

Title:	ULT-Cooler Temperature Control			ID:
				0399
Date in:	Response:	Model:	Author:	
2014-04-17	2014-04-17		CMA	

Q:

Is the TC valve set up electronically?
How to check and change the settings of the TC valve?
What are the normal working parameters for the valve?
What are the Pressure of injection, Pressure of suction and Temperatures of injections and suction?

A:

The evaporation temperature is controlled by a motorized valve (stepper valve). On the early units there is a PLC and a ADC built in. The ADC has four channels. You may read temp. in

RD DM982 Chamber
RD DM983 2nd Discharge
RD DM984 HXout
RD DM985 2nd Suction

DM 5 is the position of the motorized valve. The position should be 1000 on start and then cold to min. 530 when cooling down. You may position the valve

e.g. WR DM5 600

The StcTemp program should also work on the unit and show you the temperatures

Pls. forward as many temperatures as possible. Note there are additional temp. sensors built in by the manufacturer. I add a list that I still had.

There pressure corresponds to the temperatures. I remember that the 1st stage runs at extremely low temp. (-50°C). So you should have low pressures

~1st Suct -0.5b
~2nd Disc. ~8b C Suct.~-0.2b

I also attached a temp. plot showing some typical values