

HEATEC TEC-NOTE

Publication No. 7-04-143

Setting Honeywell UDC2300 high media temperature controllers used on Heatec HC and HCS heaters

This document provides information for setting Honeywell UDC2300 controllers (DC230L-EE-00-10-0A00000-20-0) (**Figure 1**) used on Heatec HC and HCS heaters (**Figure 2**). It applies to all sizes of HC and HCS heaters.

This document along with Honeywell manuals applicable to Honeywell UDC2300 controllers are furnished with Heatec HC and HCS heaters. Note: printed copies of Honeywell manuals are now being replaced with a computer CD, which contains PDF versions of their manuals. If you need help on how to use the buttons on the controller, please refer to the applicable Honeywell manual. You can call Honeywell for technical assistance at 1-800-423-9883. Their web site for assistance is www.honeywell.com/imc.

The settings that apply to Heatec HC and HCS heaters are shown in **Figure 3**. They are the same as those shown on the laminated sheets stored inside the control panel. In case there are any differences, use the information shown on the laminated sheets.

Note: the term *media* means thermal fluid. Thermal fluid is commonly called hot oil.

The high media temperature controller limits *maximum* temperature of thermal fluid to a set point (SP) value that the operator presets in the controller. (Do not confuse the set point of this controller with the set point of the Modulating Controller.)

The high media temperature controller senses fluid temperature from a thermocouple in the outlet side of the helical coil. If the temperature of the thermal fluid exceeds preset limits (SP) the controller de-energizes the high media temperature relay, opening its contacts and shutting off the burner. The controller must be manually reset in order to restart the burner. The controller cannot be reset until the temperature of the thermal fluid has fallen below the set point value.



Figure 1. Honeywell high media temperature controller.



Figure 2. Heatec HC/HCS heater.

The preset temperature limit (SP) should always be set to a value higher than the modulating range of the burner. Otherwise, normal modulation of the burner may cause the burner to shut off prematurely.

The maximum limit for a single line heater is not the same as the limit for a heater with a manifold. On single line heaters set the maximum limit to at least 50 degrees F above setpoint

of the modulating controller. On heaters with manifolds set the limit to at least 80 degrees F above the setpoint of the modulating controller.

The setpoint (SP) is *not* one of the settings shown in Figure 3. The settings shown in Figure 3 do not normally require any further change after the heater is put in service.

Figure 3. Programming Honeywell DC230L-EE-00-10-0A00000-20-0 high media temperature controller for Heatec HC and HCS heaters

Group Prompt (SET UP button)	Function Prompt (FUNCTION button)	Value or Selection (up / down arrows)	Group Prompt (SET UP button)	Function Prompt (FUNCTION button)	Value or Selection (up / down arrows)	
LOCK	SECUR	0	COM	ComSTA		
	LOCK	CAL		ComADR		
LIMIT	Lo or Hi	HIGH		SHDTIM		
	POWRUP	NORM		PARITY		
	SP MAX	500		BAUD		
	SP MIN	20.00		TX DLY		
	DISPLY	PROC		UNITS		
INPUT1	DECMAL	8888		LOOPBK		
	UNITS	F		ALARMS	A1S1VA	
	IN1TYP	J L			A1S2VA	
	XMITR1		A2S1VA			
	IN1 HI	770	A2S2VA			
	IN1 LO	20.00	A1S1TY		NONE	
	BIAS 1	0.0	A1S2TY		NONE	
	FILTR1	1	A2S1TY		NONE	
	BRNOUT	UP	A2S2TY		NONE	
	EMIS		A1S1HL			
FREQ	60	A1S2HL				
OPTIONS	AUXOUT		A2S1HL			
	0 PCT		A2S2HL			
	100 PCT		ALHYST	0.1		
	EXT RST		ALARM1			
			BLOCK	DIS		