

HEATEC TEC-NOTE

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Setting Honeywell UDC2500 controllers used on Heatec portable fuel tanks

This document provides information for setting Honeywell controller **DC2500-EE-1000-200-00000-00-0** (Figure 1) used to indicate levels in Heatec fuel tanks. It applies to Heatec *portable* fuel tanks (Figure 2) with capacities of 10,000, 15,000, 20,000, and 25,000 gallons equipped with Siemens Sitrans P, Series DSIII pressure transmitters. It also applies to stationary horizontal tanks of those capacities.

The controller indicates the level of liquid above the bottom of the tank and displays the levels in inches. However, the transmitter cannot read levels below 6 inches, which is the height of the transmitter above the bottom of the tank. Thus, the display will show 6.0 inches when levels are lower than 6 inches and when the tank is empty. NOTE: This document supersedes Tec-Note 6-05-165, which applies to transmitters setup to display levels in feet above transmitter height.

ALARMS

When optional alarms are used, the controller can be set to automatically activate the alarm for both high and low levels of fuel.

The low-level alarm in the controller is **A1S1VA** (see Figure 3) and is normally set for 24 inches. The high level alarm in the controller is **A2S1VA** (see Figure 3) and is normally set at 108 inches on double-wall tanks and at 114 inches on single wall tanks.

These settings take into account that double-wall fuel tanks have an inside diameter of 120 inches, and that single-wall fuel tanks have an inside diameter of 126 inches. Accordingly, on both types of tanks the high level settings should activate the alarm at a level 12 inches below the top. And the low level should activate the alarm at 24 inches above the bottom.

SETTINGS AT HEATEC FACTORY

Honeywell controllers purchased from Heatec are normally set at our factory and require no further setup. However, the controller can be reset in the field using the information shown in Figure 3.

HONEYWELL MANUALS

This document along with a Honeywell manual applicable to Honeywell UDC2500 controllers are included with



Figure 1. Honeywell Controller DC2500-EE-1000-200-00000-00-0.



Figure 2. Heatec portable fuel tank.

portable fuel tanks that incorporate pressure transmitters. The Honeywell manual is a PDF file on a computer CD.

If you need help on how to use the buttons on the controller, please refer to the Honeywell manual. You can call Honeywell for technical assistance at 1-800-423-9883. Their web site for assistance is www.honeywell.com/imc.

Please refer to **Heatec Tec-Note No. 5-09-218** for information on the Siemens pressure transmitter. Please refer to **Heatec Tec-Note No. 6-06-166** for converting levels to gallons.

**Figure 3. Honeywell Controller DC2500-EE-1000-200-00000-00-0
used with Heatec portable fuel tanks**

Setup button	Function button	Make these settings (Use up/down buttons)
TUNING	CYC T1	1
	SECUR	0
	LOCK	CAL
SPRAMP	SPRAMP	DIS
ALGOR	CTRALG	ONOF
	TIMER	DIS
OUTALG	OUTALG	RLY
INPUT1	IN1TYP	4-20
	XMITR1	LIN
	IN1 HI	126.0 inches
	IN1 LO	6.00 inches
	RATIO1	1.00
	BIAS 1	0.0
	FILTR1	1
	BRNOUT	NONE
CONTRL	LSP'S	ONE
	SP TRK	NONE
	PWR UP	ALSP
	SP Hi	6.00
	SP Lo	6.00
	ACTION	REV
	HYST	100.0
FAILSF	0.0	
OPTION	AUXOUT	IN 1
	0 PCT	6.0
	100PCT	126.0
	CRANGE	4-20
	DIGIN1	NONE
COM	ComADR	3
	ComSTA	DIS
	IRENAB	ENAB
	BAUD	19.2K
	TX DLY	1
ALARMS	A1S1TY	IN 1
	A1S1VA	24.00 inches
	A1S1HL	LOW
	A1S2TY	NONE
	A2S1TY	IN 1
	A2S1VA	108.00 inches for DW tanks or 114 inches for SW tanks
	A2S1HL	HIGH
	A2S2TY	NONE
	ALHYST	0.1
	ALARM1	NO L
BLOCK	DIS	
DIA AL	DIS	
DISPLY	DECMAL	ONE
	TUNITS	NONE
	FREQ	60
	DISPLY	PR N
	LNGUAG	ENGL

Setting sequence: ALGOR, INPUT1, CONTRL, OPTION, COM, ALARMS, DISPLY, TUNING, SPRAMP, OUTALG.

NOTE: Data changed in the revision of 5-29-09 are shaded in green.