

HEATEC TEC-NOTE

Publication No. 9-06-178, Revised 6-1-09

Setting Honeywell UDC2500 controllers used with Heatec vertical fuel tanks

NOTICE: This Tec-Note applies to controllers used with pressure transmitters installed August 21, 2006 and thereafter. Heatec Tec-Note 7-05-168 applies to controllers for transmitters installed *prior* to that date.

This document provides information for setting Honeywell controllers **DC2500-EE-1000-200-00000-00-0** (**Figure 1**) when used to indicate levels in Heatec fuel tanks (**Figure 2**). It applies to Heatec vertical fuel tanks equipped with Siemens Sitrans P, Series DSIII pressure transmitters installed after August 21, 2006.

The level indications on the controller match those shown on the display built into the pressure transmitter. However, the controller shows only one digit after the decimal point.

The controller automatically activates an alarm *circuit* when the tank is 90 percent full. The controller also activates an alarm *circuit* when the *indicated* level is 24 inches.



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

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**.

A Honeywell UDC Controller Manual is on a CD furnished with each controller. If you need instructions on how to use the buttons on the controller you will find them in this manual.

Please refer to Heatec Tec-Note, Publication 9-06-177 for more information on levels and the Siemens pressure transmitter.



Figure 2. Heatec vertical fuel tank.

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

| Setup button | Function button | Make these settings (Use up/down buttons) | | | | | | | | | |
|--------------|-----------------|---|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | 5000 gallon tank | 6,500 gallon tank | 10,000 gallon tank | 13,000 gallon tank | 15,000 gallon tank | 20,000 gallon tank | 23,000 gallon tank | 25,000 gallon tank | 30,000 gallon tank | 35,000 gallon tank |
| TUNING | CYC T1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | SECUR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | LOCK | CAL | CAL | CAL | CAL | CAL | CAL | CAL | CAL | CAL | CAL |
| SPRAMP | SPRAMP | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS |
| ALGOR | CTRALG | ONOF | ONOF | ONOF | ONOF | ONOF | ONOF | ONOF | ONOF | ONOF | ONOF |
| | TIMER | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS |
| OUTALG | OUTALG | RLY | RLY | RLY | RLY | RLY | RLY | RLY | RLY | RLY | RLY |
| INPUT1 | IN1TYP | 4-20 | 4-20 | 4-20 | 4-20 | 4-20 | 4-20 | 4-20 | 4-20 | 4-20 | 4-20 |
| | XMITR1 | LIN | LIN | LIN | LIN | LIN | LIN | LIN | LIN | LIN | LIN |
| | IN1 HI | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 |
| | IN1 LO | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| | RATIO1 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | BIAS 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | FILTR1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | BRNOUT | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE |
| CONTRL | LSP'S | ONE | ONE | ONE | ONE | ONE | ONE | ONE | ONE | ONE | ONE |
| | SP TRK | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE |
| | PWR UP | ALSP | ALSP | ALSP | ALSP | ALSP | ALSP | ALSP | ALSP | ALSP | ALSP |
| | SP Hi | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| | SP Lo | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| | ACTION | REV | REV | REV | REV | REV | REV | REV | REV | REV | REV |
| | HYST | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| | FAILSF | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| OPTION | AUXOUT | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 |
| | 0 PCT | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| | 100PCT | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 | 600.0 |
| | CRANGE | 4-20 | 4-20 | 4-20 | 4-20 | 4-20 | 4-20 | 4-20 | 4-20 | 4-20 | 4-20 |
| | DIGIN1 | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE |
| COM | ComADR | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | ComSTA | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS |
| | IRENAB | ENAB | ENAB | ENAB | ENAB | ENAB | ENAB | ENAB | ENAB | ENAB | ENAB |
| | BAUD | 19.2K | 19.2K | 19.2K | 19.2K | 19.2K | 19.2K | 19.2K | 19.2K | 19.2K | 19.2K |
| | TX DLY | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ALARMS | A1S1TY | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 |
| | A1S1VA | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 |
| | A1S1HL | LOW | LOW | LOW | LOW | LOW | LOW | LOW | LOW | LOW | LOW |
| | A1S2TY | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE |
| | A2S1TY | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 | IN 1 |
| | A2S1VA | 86.00 | 108.0 | 165.0 | 216.0 | 251.0 | 316.0 | 378.0 | 402.0 | 467.0 | 532.0 |
| | A2S1HL | HIGH | HIGH | HIGH | HIGH | HIGH | HIGH | HIGH | HIGH | HIGH | HIGH |
| | A2S2TY | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE |
| | ALHYST | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| | ALARM1 | NO L | NO L | NO L | NO L | NO L | NO L | NO L | NO L | NO L | NO L |
| | BLOCK | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS |
| | DIA AL | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS | DIS |
| DISPLY | DECMAL | ONE | ONE | ONE | ONE | ONE | ONE | ONE | ONE | ONE | ONE |
| | TUNITS | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE | NONE |
| | FREQ | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| | DISPLY | PR N | PR N | PR N | PR N | PR N | PR N | PR N | PR N | PR N | PR N |
| | LNGUAG | ENGL | ENGL | ENGL | ENGL | ENGL | ENGL | ENGL | ENGL | ENGL | ENGL |

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

NOTE: Data changed in the revision of 6-1-09 are shaded in green.