CONT ON SHEET 2

P5K-AL-0055-A01

CURRENT/VOLTAGE CONVERTER CIRCUIT BOARD TEST

CONT ON SHEET 2

FIRST MADE FOR

114D7371 G1 & G2

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General Description

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The input to this board is a current signal from the output of the Rosemount transducer. The transducer output signal is 4 to 20 ma for a pressure change of 0 to rated pressure. The current to voltage converter changes this 4 to 20 ma current signal into a 0 to 5 VDC voltage signal at its output.

* NOTE: 114D7371 G2 has lag-lead network, special for X330.

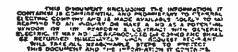
Test Set-Up

- Connect pin 17 to +30 VDC.
- Connect pin 21 to -22 VDC.
- Connect pins 1, 19 & 41 to HQ Gnd.
- 4. Connect a 10K resistor between pin 2 and pin 19.
- 5. Connect a 10K resistor between pin 39 and pin 19.
- 6. Connect a power supply capable of delivering 20 ma to pin 23 and pin 25.

Test Procedure

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114D7371 G1 and G2



Input voltages should be set to \pm 10 MVDC. Output voltages should be read within + 100 MVDC of stated values, unless specified otherwise.

- Check to see that the TP4 voltage is +13 ±1.3 VDC.
- Check to see that the TP2 voltage is -13 +1.3 VDC. 13 VDC.
- Turn R3 fully CW. The TP3 voltage should be at least +1.25 VDC.
- Turn R3 fully CCW. The TP3_voltage should be at least -1.25 VDC.

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PRINTS TO APPROVALS Steam Turbine P3K-AL-0053-A01 Schenectady, N. Y. CONT ON SHEET 2 LOCATION CODE IDENT HO

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Test Procedure (con't.)

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- 5. Set R3 for O VDC at TP3.
- 6. Apply 0 ma to pin 23. The TPl voltage should be 0 VDC. Adjust R2, if necessary.
- 7. Apply 4 ma to pin 23. The TPl voltage should be approximately -x1.25 VDC. Adjust R3 for 0 VDC at TPl.
- 8. Apply 20 ma to pin 23. The TP1 voltage should be \$5.0 VDC. Adjust R1, if necessary.
- 9. Apply+12 ma to pin 23. The TP1 voltage should be *2.5 VDC.
- 10. Turn R4 fully CW. The TP7 voltage should be at least +1.25 VDC.
- 11. Turn R4 fully CCW. The TP7 voltage should be at least -1.25 VDC.
- 12. Set R4 for O VDC at TP7.
- 13. Apply 0 ma to pin 25. The TP8 voltage should be 0 VDC. Adjust R5, if necessary.
- 14. Apply 4 ma to pin 25. The TP8 voltage should be approximately +1.25 VDC. Adjust R4 for O VDC at TP8.
- 15. Apply, 20 ma to pin 25. The TP8 voltage should be -5.0 VDC. Adjust R6, if necessary.
- 16. Apply 12 ma to pin 25. The TP8 voltage should be -2.5 VDC.

APPROVALS

- 17. Remove the circuit board from the test fixture and identify it with a suitable marking to show that it has been tested in accordance with this instruction.
- 18. Place oscilloscope on TP1. Check over operating range to see that there is no ripple content below 100 cps. Repeat test for TP8.

 Rejections

If voltages as stated are not obtainable, or if any adjustments cannot be reached, the board should be rejected and Control Engineering notified.

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Data Sheet

Job #									
Serial #					Burn-in Start				
Data Sheet	for114l	D7371G0001			Burn-in Stop				
	ureP3K-	AL-0053-A01			Technician				
Test Procedure			Dec Diver	Post Burn		Pot Values If applicable			
Step	Nominal	Lower Limit	Pre-Burn in Results	in Results	Upper Limit	CW CCW		Pass/Fail	
1	+13V	+11.7V			+14.3V		_	· · ·	
2	-13V	-11.7V			-14.3V				
3	>+1.25V								
4	< -1.25V								
5	ov	001V			+.001V			<u>.</u>	
6	0V	001V			+.001V				
6 - R2									
7	0V	001V			+.001V				
8	-5V	-4.99V			-5.01V				
8 - R1									
9	-2.5V	-2.49V			-2.51V				
10	> +1.25V								
11	< -1.25V								
12	0V	01V			+.01V				
13	0V	01V			+.01V				
13 - R5									
14	0V	01V			+.01V				
15	-5V	-4.99V			-5.01V				
<u> 15</u> - R6									
16	-2.5V	-2.49V			-2.51V				
17		ov			0V				
Comment:	nt: Tolerances tighten x 10 for Brunswick								