Condition Monitoring Custom Products
"Vibration Monitoring and Machine Protection Systems"
2911 S. Shore Blvd., Ste. 170, League City, TX 77573 Phone: 281.334.0766 Fax: 281.334.4255

Condition Monitoring Custom Products

CMCP-LVDT-51A

Linear Variable Differential Transformer Installation Manual

Mechanical:

The CMCP-LVDT-51A must be mounted to a stable mounting surface on the turbine foundation at the unpinned end of the turbine casing; close enough for the extension rod to reach the casing. Insert the core shaft (the shortest of the two (2) shafts provided) into the transducer, with the end marked away from the connector. Attach the connecting rod to the core. Adjust the mounting block to achieve the desired position, then tighten the clamp screws. Bolt the CMCP-LVDT-51A in place through the four mounting holes, and secure the shaft to the turbine case. If using the spring loaded mechanism, trim the shaft to desired length.

Connection To Monitoring System:

Refer to the monitor manual for specific details and requirements of the monitor. The following procedure applies to the CMCP-548 Case Expansion Transmitter.

1. Connect transmitter **Common "- Terminal"** to the CMCP-LVDT-51A terminal with the LVDT **Green** lead labeled **Output Low**
2. Connect the transmitter **Input "+ Terminal"** to the CMCP-LVDT-51A terminal with LVDT **White** lead labeled **Output Signal**.
3. Connect **+24 VDC Power From External Power Supply** to the CMCP-LVDT-51A terminal with the **Black** lead.
4. Connect **Power Supply Common** to the CMCP-LVDT-51A terminal with the **Red** lead.

Alignment:

1. If monitor power connection has not been made, a 24 Vdc power source is required. Connect "+" to the red lead terminal, and "–" to the black lead terminal.
2. Connect a DC voltmeter across the CMCP-LVDT-51A terminals with white and green leads.
3. Final positioning of the core must be performed when the turbine is at ambient temperature. With the turbine at ambient temperature, apply power to the LVDT. As the core is moved from one end of the LVDT cylinder to the other, the output voltage will go from maximum (5 VDC), to minimum (0 VDC). It is recommended that the core position be set just within the maximum limit at the end away from the direction the core will move as the turbine expands to make the LVDT's entire range available for monitoring as the turbine expands. To set the core's position, loosen set screw, adjust the connecting rod by the inner rod until the desired output voltage is obtained, tighten set screw.

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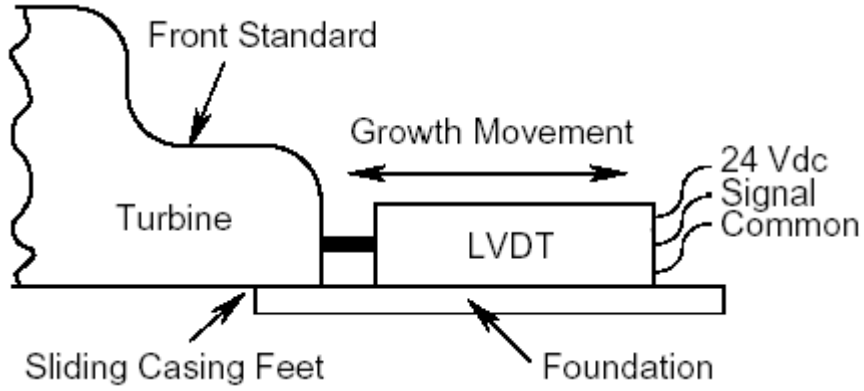

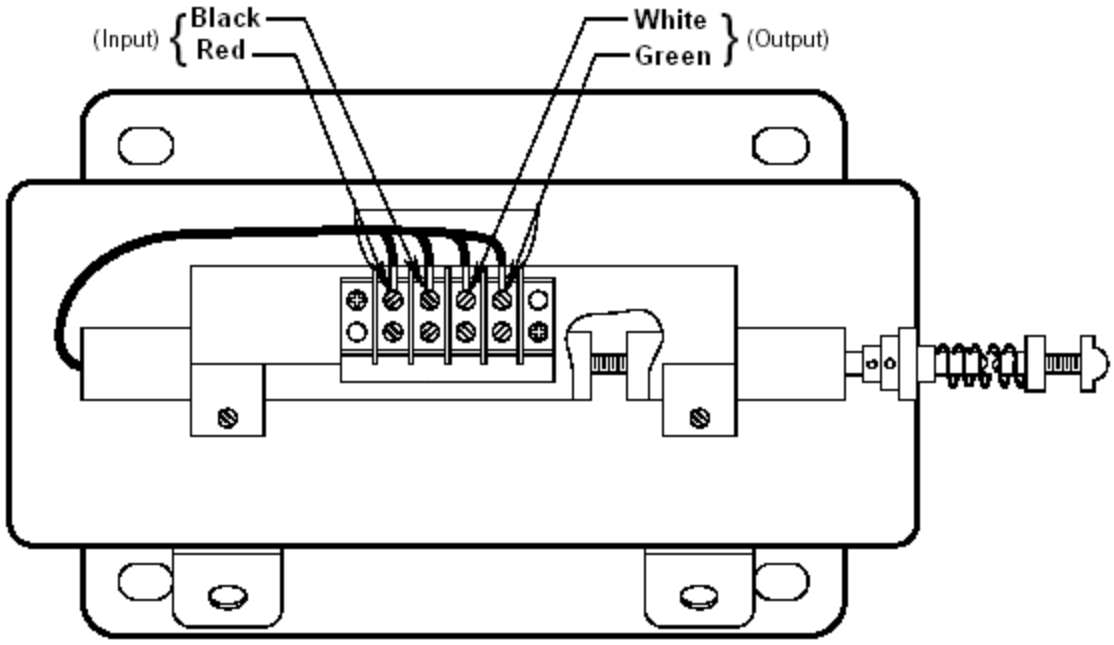

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