Installation Notes RIA 251

Hazardous Locations Installations
Intrinsically safe, Class I, Division 1, Groups ABCD T6
Division 1 Installation

1. CSA Approved apparatus must be installed with manufacturers instructions.
2. Installation should be in accordance with Canadian Electrical Code (CEC) Part 1.
3. Control room equipment may not use or generate over 250V.
4. The Type RIA 251 Process Display is a panel-mount instrument for installation in a suitable enclosure acceptable to the local inspection authority.
5. The Process Display must be connected to a suitable ground.
6. For entity installations: Use CSA certified intrinsic safety barrier or other associated equipment that satisfy the following conditions:
   \[ V_{oc} < V_{max}, U_i \]
   \[ I_{sc} < I_{max}, I_i \]
   \[ C_a > C_i (RIA 251) + C_i (Process transmitter) + C_{cable}, \]
   \[ L_a > L_i (RIA 251) + L_i (Process transmitter) + L_{cable} \]
7. Warning: Substitution of Components may impair intrinsic safety
8. Use supply wires suitable for 5°C above surroundings

Process Display entity parameters are as follows:

<table>
<thead>
<tr>
<th>RIA 251</th>
<th>IS, Class I, Div. 1, Groups ABCD T6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply set</td>
<td>[ U_i &lt; 30 \text{ VDC} ]</td>
</tr>
<tr>
<td></td>
<td>[ I_i &lt; 150 \text{ mA} ]</td>
</tr>
<tr>
<td></td>
<td>[ C_i = 3.3 \text{ nF} ]</td>
</tr>
<tr>
<td></td>
<td>[ L_i = 0 ]</td>
</tr>
<tr>
<td>Temperature range</td>
<td>T6 [ T_a = -10°C \ldots +60°C ]</td>
</tr>
</tbody>
</table>