CONTROL DRAWING FOR SINGLE CHANNEL BARRIERS

HAZARDOUS LOCATIONS
Class I, Groups A, B, C, D
Class II, Groups E, F, G
Class III: Catalog listing 3042H20

Class I, Groups A, B, C and D: Catalog listing 3042A

ENTITY PARAMETERS
V_{\text{max}} = 24 \text{ V}, \ I_{\text{max}} = 35 \text{ mA}, \ L_{i} = 26 \text{ mH}, \ C_{i} = 0 \mu\text{F}

Any barrier (see General Notes) with entity parameters connected in accordance with barrier manufacturers instructions of:
\begin{align*}
V_{\text{max}} &> V_{\text{oc}} \quad \text{Ca} \geq C_{i} + \text{cable capacitance} \\
I_{\text{max}} &> I_{\text{sc}} \quad \text{La} \geq L_{i} + \text{cable inductance}
\end{align*}

SYSTEM PARAMETERS
Any barrier (see General Notes) having one of the following specified parameters:

<table>
<thead>
<tr>
<th>V_{\text{max}}</th>
<th>R_{\text{min}}</th>
<th>V_{\text{max}}</th>
<th>R_{\text{min}}</th>
<th>V_{\text{max}}</th>
<th>R_{\text{min}}</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>707</td>
<td>20</td>
<td>421</td>
<td>10</td>
<td>136</td>
</tr>
</tbody>
</table>

GENERAL NOTES
1. For jurisdictions requiring certification to the applicable Canadian standards, the barrier must be CSA Certified and the system must be installed in accordance with the Canadian Electrical Code Part 1.
2. For jurisdictions requiring certification to the applicable Occupational Safety and Health Administration (OSHA) standards, the barrier must be CSA NRTL or equivalent and the system must be installed in accordance with the National Electrical Code (NEC), article 504 or ANSI/NFPA 70.

SENSOR GROUNDING
Catalog listing 3042A: Sensor housing must be connected to intrinsically safe system ground during installation.
Catalog listing 3042H20: Green wire must be connected to intrinsically safe system ground.

Exia = Intrinsically Safe, Securite Intrinseque

CONTROL DRAWING FOR DUAL CHANNEL BARRIERS

HAZARDOUS LOCATIONS
Class I, Groups A, B, C, D
Class II, Groups E, F, G
Class III: Catalog listing 3042H20

Class I, Groups A, B, C and D: Catalog listing 3042A

ENTITY PARAMETERS
V_{\text{max}} = 24 \text{ V}, \ I_{\text{max}} = 35 \text{ mA}, \ L_{i} = 26 \text{ mH}, \ C_{i} = 0 \mu\text{F}

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I_{\text{max}} &> I_{\text{sc}} \quad \text{La} \geq L_{i} + \text{cable inductance}
\end{align*}

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<table>
<thead>
<tr>
<th>V_{\text{max}}</th>
<th>R_{\text{min}}</th>
<th>V_{\text{max}}</th>
<th>R_{\text{min}}</th>
<th>V_{\text{max}}</th>
<th>R_{\text{min}}</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
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<td>20</td>
<td>842</td>
<td>10</td>
<td>272</td>
</tr>
<tr>
<td>25</td>
<td>1160</td>
<td>15</td>
<td>556</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

GENERAL NOTES
1. For jurisdictions requiring certification to the applicable Canadian standards, the barrier must be CSA Certified and the system must be installed in accordance with the Canadian Electrical Code Part 1.
2. For jurisdictions requiring Certification to the applicable Occupational Safety and Health Administration (OSHA) standards, the barrier must be CSA NRTL or equivalent and the system must be installed in accordance with the National Electrical Code (NEC), article 504 or ANSI/NFPA 70.

SENSOR GROUNDING
Catalog listing 3042A: Sensor housing must be connected to intrinsically safe system ground during installation.
Catalog listing 3042H20: Green wire must be connected to intrinsically safe system ground.

Exia = Intrinsically Safe, Securite Intrinseque