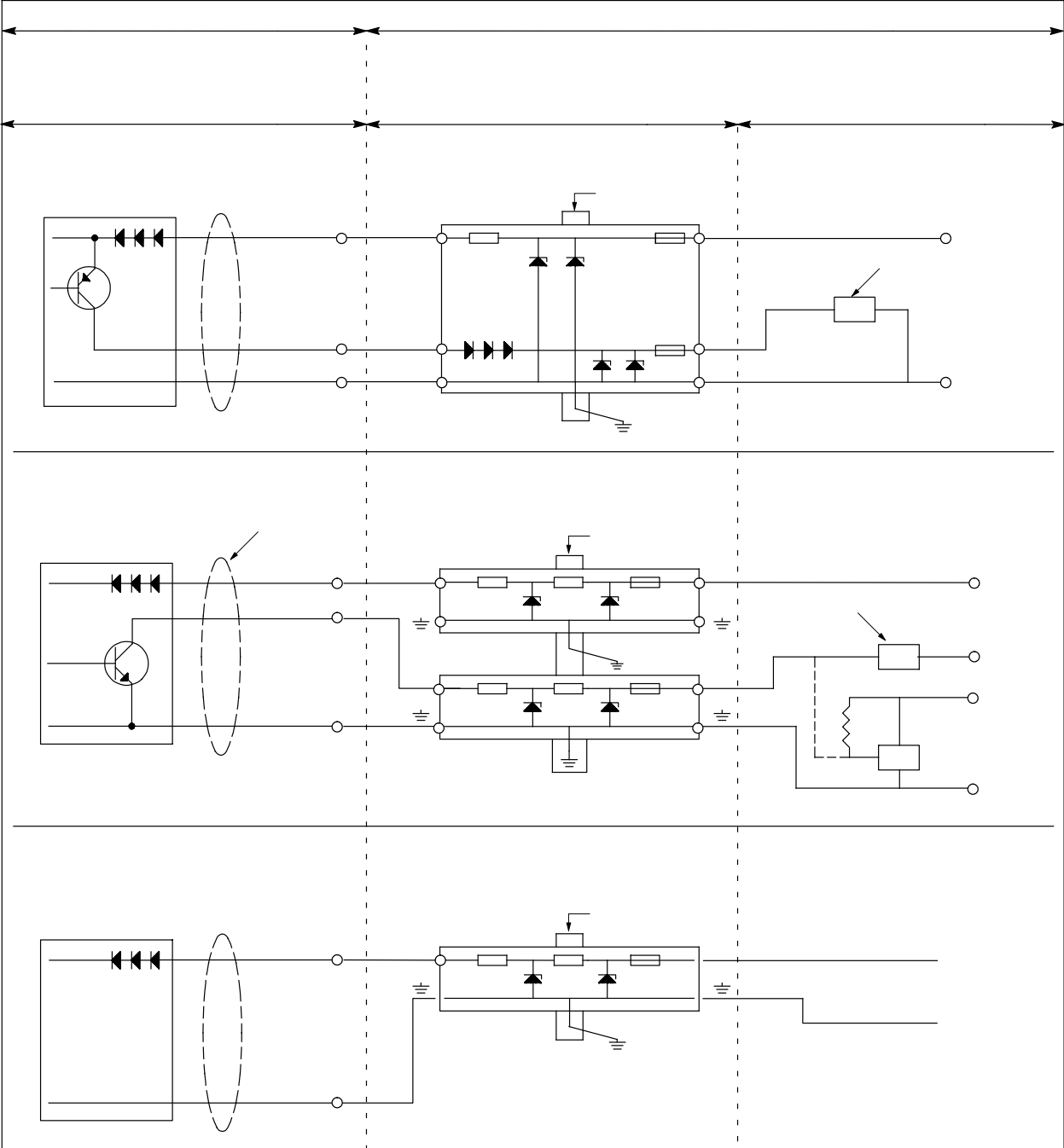


Series 9000 Intrinsically Safe Version Installation Wiring Diagram



Notes:

1. Class I, II, III; Division 1, Group A, B, C, D, E, F, G. Class I, II, III; Division 2, Group A, B, C, D, F, G.
2. Class I, II, III; Division 2, Group A, B, C, D, E, F, G if equipment and installation is per national standards.
3. Division 2 applications without the use of a barrier must be installed in accordance with the NEC and CEC.
4. Safety barriers are required for Class I, Division 2 Group A, B, C, D non-incendive installations when installed per the CEC. Class II and Class III installations must be per the CEC.
5. Entity parameters of Safety Barriers must match Table 1. Cable values for capacitance and inductance must be added to Ci and Li values.
6. In Division 2 installations without barriers, observe the following warning: **Warning explosion hazard. Do not disconnect equipment unless power has been switched off or the area is known to be nonhazardous.**
7. Wiring between the sensor and safety barriers should comply with all relevant national standards and/or those standards set forth by the authority having jurisdiction at the installation site. These may include Article 504 of the NEC, ANSI/ISA RP-12.6 (United States), or CSA C22.2 (Canada).
8. Intrinsically Safe wiring must be separated from nonintrinsically safe wiring by at least 50mm (2in). The use of tiedowns, grounded metal partitions, or approved insulating partitions are acceptable.
9. Intrinsically safe wiring shall be identified as such with labels placed no more than 7.62m (25ft) apart. The color light blue is internationally recognized as identifying intrinsically safe wiring.
10. The use of a gas-tight seal is required at the point where the wiring transitions the hazardous and nonhazardous location.
11. Intrinsically safe associated apparatus, cable shields, enclosures, and raceways (metal) shall be grounded in accordance with the requirements of Section 250 of the NEC.
12. Nonhazardous location equipment must not contain a source voltage of greater than 250V unless sufficient means have been employed to prevent the shorting of a source voltage greater than 250V onto the nonintrinsically safe terminals of the associated apparatus.
13. Nonhazardous location equipment must not contain a source voltage of greater than 250V.
14. As all wiring contains stored energy (capacitance and inductance), all conductors must be considered when determining the length of intrinsically safe circuits. When available the actual values should be used. If not available, values of 60pF/foot for capacitance per wire pair and 0.2uH/foot for inductance are accepted and may be used.
15. Maximum operating ambient temperature range: -34°C to +70°C Type 4X.
16. Changes to this document are not permitted without prior approval by the testing agency.