The Entity Concept allows interconnection of intrinsically safe apparatus with associated apparatus not specifically examined in combination as a system when the approved values of \( V_{oc} \) and \( I_{sc} \) or \( V_t \) and \( I_t \) of the associated apparatus are less than or equal to \( V_{max} \) and \( I_{max} \) of the intrinsically safe apparatus and the approved values of \( C_a \) and \( L_a \) of the associated apparatus are greater than \( C_i + C_{cable} \) and \( L_i + L_{cable} \) respectively for the intrinsically safe apparatus.

Wiring methods must be in accordance with the National Electrical Code, ANSI/NFPA 70. For additional information refer to ANSI/ISA RP12.6.

This Control Drawing must be used in conjunction with Control Drawing 116-0171.

The RS-ISO.MASTER and RSD2-ISO-Ex.SLAVE makes possible the simultaneous connection of field signals to an IS-RPI system mounted in a Hazardous (Classified) Location to a system mounted in an Unclassified or to a system approved for mounting in a Class I, Division 2, Groups A-D Hazardous (Classified) Location.

The male connector of the RSD2-ISO-Ex.SLAVE may be connected to a maximum of 8 I/O modules. This is a functional limitation.

The following modules per Control Drawing 116-0171 may be connected: RSD-BI-EX16, RSD-BO-EX4, RSD-CI-EX8, RSD-CI2-EX8, RSD-CO-EX8, RSD-BO-EX8, RSD-UO-EX8, RSD-FI-EX2, RSD-CTI-EX2, RSD-TI-EX8.

I/O module capacitance value is cumulative. \( C_i(\text{total}) = C_i(\text{I/O module 1}) + C_i(\text{I/O module 2}) + \ldots + C_i(\text{I/O module 8}) + C_{cable} \). \( C_i(\text{total}) \) must be less than 39.67\( \mu \text{F} \). For \( C_i \) value of modules refer to Female Bus Connector entity parameter in Control Drawing 116-0171.

The RSD2-ISO-EX.SLAVE may be directly connected to an I/O module as in Diagram 1 or connected with a cable as in Diagram 2.