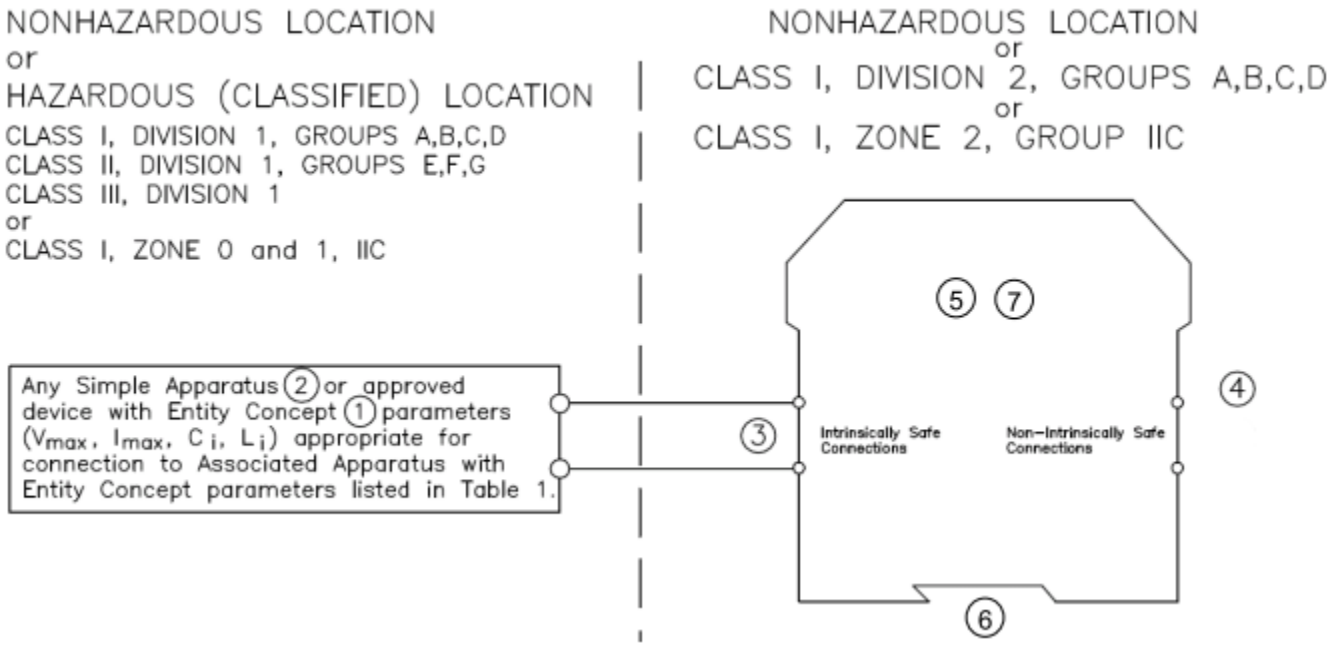
Connections



Notes

1. The output current of this associated apparatus is limited by a resistor such that the output voltage-current plot is a straight line drawn between open-circuit voltage and short-circuit current. 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 Voc (or Uo) and Isc (or Io) for the associated apparatus are less than or equal to Vmax (Ui) and Imax(Ii) for the intrinsically safe apparatus and the approved values of Ca(Co) and La(Lo) for the associated apparatus are greater than Ci + Ccable and Li + Lcable, respectively, for the intrinsically safe apparatus,
   Where Ccable= 60pF/ft if unknown
   Where Lcable= 0.20uH/ft if unknown

2. Simple apparatus: an electrical component or combination of components of simple construction with well-defined electrical parameters that does not generate more than 1.5 V, 100mA, 25mW, or is a passive component that does not dissipate more than 1.3W and is compatible with the intrinsic safety of the circuit in which it is used.

3. Wiring methods must be in accordance with all applicable installation requirements of the county in use. For US, this is NFPA 70 (NEC) article 504 with additional information in ANSI-ISA –RP12.06.01. For Canada this is CSA 22.1-12 (CEC) section 18 and appendix F.

4. Barriers shall not be connected to any device which uses or generates internally any voltage in excess of 250V r.m.s. or DC unless the device has been determined to adequately isolate the voltage from the barrier.

5. **Only for KFD2-CRG2-Ex1.***: these barriers are rated “Nonincendive”. If the barriers are intended to be mounted in a Division 2 / Zone 2 location, they must be mounted in an enclosure with a minimum ingress protection of IP 2X that can accept the Division 2 / Zone 2 wiring methods. A temperature rating of T4 applies to all non-incendive rated barriers.

6. Power feed modules KFD2-EB2* maybe used in conjunction with power rail to energize P+F isolated barriers (KFD2 Series) when installed in accordance with Control Drawing 116-0160.

7. Warning: Substitution of components may impair intrinsic safety and suitability for hazardous (classified) locations.

   ADVERTISEMENT: le remplacement des composants peut altérer la sécurité intrinsèque et l'adéquation à une utilisation dans des zones dangereuses (classées).

Entity Parameters

MODEL NUMBER	TERMINALS	V_{oc} (V_0) [V]	I_{sc} (I_0) [mA]	P_0 [mW]	V_{max} [V]	I_{max} [mA]	GROUPS	C_a (C_0) [uF]	L_a (L_0) [mH]
KFD2-CRG2-Ex1.D* KFU8-CRG2-Ex1.D*	1,2,3	25.8	112	720	-	-	A,B IIC	0.101	2.5
							C,E,F,G IIB	0.78	10
							D IIA	2.67	20
KFD2-CRG2-Ex1.D* KFU8-CRG2-Ex1.D*	1,3	25.8	93.7	603	-	-	A,B IIC	0.101	4
							C,E,F,G IIB	0.78	15
							D IIA	2.67	30
KFD2-CRG2-Ex1.D* KFU8-CRG2-Ex1.D*	2,3	5	0.3	0.3	30	115	A,B IIC	1000	1000
							C,E,F,G IIB	1000	1000
							D IIA	1000	1000

The values of Lo and Co listed in the table above are allowed if one of the following conditions is met:
- The total Li of the external circuit (excluding the cable) is < 1% of the Lo value or
- The total Ci of the external circuit (excluding the cable) is < 1% of the Co value.

The values of Lo and Co listed in the table above shall be reduced to 50% when both of the following conditions are met:
- the total Li of the external circuit (excluding the cable) is > 1% of the Lo value and
- the total Ci of the external circuit (excluding the cable) is > 1% of the Co value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1uF for IIA, IIB and 600nF for IIC.