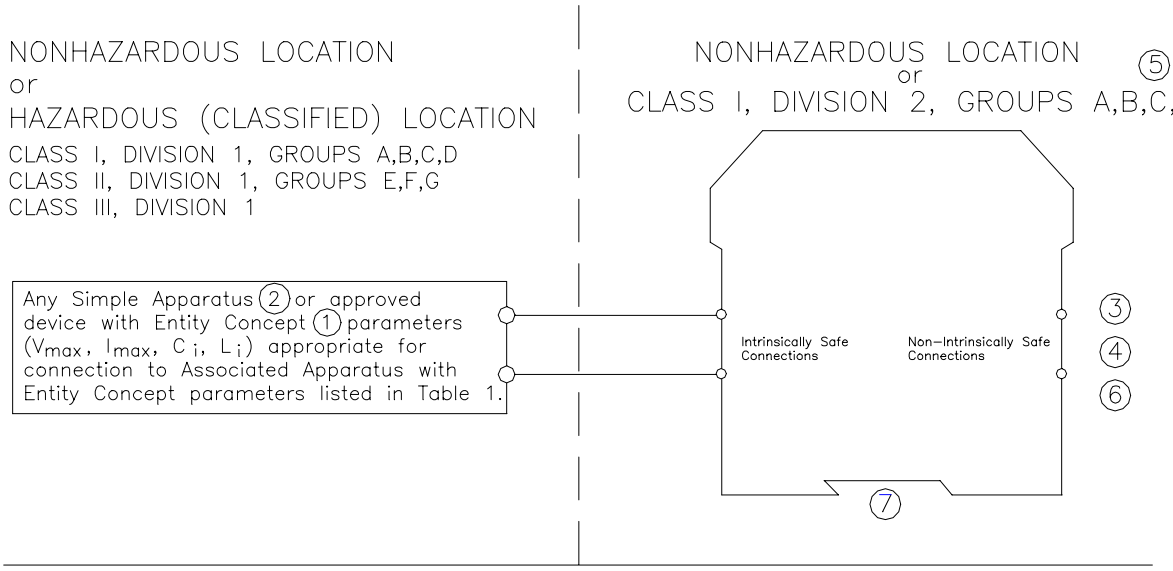

Notes:

1. 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 Vt) and Isc (or It) for the associated apparatus are less than or equal to Vmax and Imax for the intrinsically safe apparatus and the approved values of Ca and La for the associated apparatus are greater than Ci + Ccable and Li + Lcable, respectively, for the intrinsically safe apparatus.

   The parameters in Table 1 apply when one of the two conditions below is given:
   - 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 parameters in Table 1 are reduced to 50% when both of the two conditions below are given:
   - The total Li of the external circuit (excluding the cable) > 1% of the Lo and
   - The total Ci of the external circuit (excluding the cable) > 1% of the Co.

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

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 volts, 100 milliamps, and 25 milliwatts, or a passive component that does not dissipate more than 1.3 watts and is compatible with the intrinsic safety of the circuit in which it is used.

3. Wiring methods must be in accordance with the electrical code of the country in use.

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

5. The barriers are rated ‘Nonincendive’. If the barriers are intended to be mounted in a Division 2 location, they must be mounted in an enclosure with a minimum ingress protection of IP2X. If the barriers are intended to be

mounted in a Zone 2 location that is subject to contamination by water or dust, they must be mounted in an enclosure with a minimum ingress protection of IP54. If the barriers are intended to be mounted in a Zone 2 indoor location that is not subject to contamination by water or dust, they must be mounted in an enclosure with a minimum ingress protection of IP4X. The enclosure must be able to accept Division 2/ Zone 2 wiring methods.

6. Connection of barriers to ground is not required.

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

8. WARNING: Substitution of components may impair intrinsic safety and suitability for Division 2/Zone 2 hazardous (classified) locations.

AVERTISSEMENT: La substitution de composants peut compromettre la sécurité intrinsèque.

TABLE 1 – ENTITY PARAMETERS

MODEL NUMBER	TERMINALS	Voc (V)	Isc (mA)	Vt(V)	It(mA)	Groups Ca (µF)			Groups La(mH)		
						A,B	C,E	D,F,G	A,B	C,E	D,F,G
KFD0-CS-Ex1.50	1,2	25.2	93.0	-	-	0.17	0.51	1.36	4.20	17.17	33.40
KFD0-CS-Ex1.50P	1,2	25.2	93.0	-	-	0.17	0.51	1.36	4.20	17.17	33.40
KFD0-CS-Ex1.51	1,2	25.2	93.0	-	-	0.17	0.51	1.36	4.20	17.17	33.40
KFD0-CS-Ex1.51P	1,2	25.2	93.0	-	-	0.17	0.51	1.36	4.20	17.17	33.40
KFD0-CS-Ex1.52	1,2	25.2	0.0	-	-	0.107	0.82	2.90	1000	1000	1000
KFD0-CS-Ex1.53	1,2	10.5	95.0	-	-	2.40	7.20	19.2	4.0	12.0	32.0
KFD0-CS-Ex1.54(-Y1),(-Y3)	1,2	28.0	93.0	-	-	0.077	0.64	2.14	4.3	17.0	35.0
KFD0-CS-Ex1.54-Y2	1,2	25.2	43.0	-	-	0.101	0.81	2.89	19.6	72.0	153
KFD0-CS-Ex1.56	1,2	21.0	252.0	-	-	0.182	1.264	4.774	0.56	2.24	4.48
KFD0-CS-Ex2.50	1,2;4,5	25.2	93.0	-	-	0.17	0.51	1.36	4.20	17.17	33.40
KFD0-CS-Ex2.50P	1,2;4,5	25.2	93.0	-	-	0.17	0.51	1.36	4.20	17.17	33.40
KFD0-CS-Ex2.51	1,2;4,5	25.2	93.0	-	-	0.17	0.51	1.36	4.20	17.17	33.40
KFD0-CS-Ex2.51P	1,2;4,5	25.2	93.0	-	-	0.17	0.51	1.36	4.20	17.17	33.40
KFD0-CS-Ex2.52	1,2;4,5	25.2	0.0	-	-	0.107	0.82	2.90	1000	1000	1000
KFD0-CS-Ex2.53	1,2;4,5	10.5	95.0	-	-	2.40	7.20	19.2	4.0	12.0	32.0
KFD0-CS-Ex2.54(-Y1),(-Y3)	1,2;4,5	28.0	93.0	-	-	0.077	0.64	2.14	4.3	17.0	35.0
KFD0-CS-Ex2.54-Y2	1,2;4,5	25.2	43.0	-	-	0.101	0.81	2.89	19.6	72.0	153
KFD0-CS-Ex2.56	1,2;4,5	21.0	252.0	-	-	0.182	1.264	4.774	0.56	2.24	4.48
KFD2-CD-Ex1.32* * Options –0 thru –25 or blank	1,2	28.0	93.0	-	-	0.14	0.43	1.14	4.18	16.83	34.21

TABLE 1 – ENTITY PARAMETERS (Continued)

MODEL NUMBER	TERMINALS	Voc (V)	Isc (mA)	Vt(V)	It(Ma)	Groups Ca (µF)			Groups La(mH)		
						A,B	C,E	D,F,G	A,B	C,E	D,F,G
KFD2-PT2-Ex1* *blank or –1 thru –5 or blank	1,2,3,4,5	-	-	10.4	31.4	2.53	17.40	79.00	36.07	132.57	273.55
KFD2-PT2-Ex1-Y98312	1,2,3,4,5	-	-	10.4	46	2.53	17.40	79.00	17.23	64.57	136.24
KFD2-PT2-Ex1-1-Y107265	1,2,3,4,5	-	-	10.4	46	2.53	17.40	79.00	17.23	64.57	136.24
KFD2-PT2-Ex1-2-Y107266	1,2,3,4,5	-	-	10.4	46	2.53	17.40	79.00	17.23	64.57	136.24
KFD2-PT2-Ex1-3-Y107267	1,2,3,4,5	-	-	10.4	46	2.53	17.40	79.00	17.23	64.57	136.24
KFD2-PT2-Ex1-4-Y107268	1,2,3,4,5	-	-	10.4	46	2.53	17.40	79.00	17.23	64.57	136.24
KFD2-PT2-Ex1-5-Y107269	1,2,3,4,5	-	-	10.4	46	2.53	17.40	79.00	17.23	64.57	136.24
KFD2-PT2-Ex1-6-Y112844	1,2,3,4,5	-	-	10.4	46	2.53	17.40	79.00	17.23	64.57	136.24
KCD2-RR-Ex1	1,2,3,4	-	-	12.4	17.4	1.24	7.9	30	117	469	939
KFD2-SCD-Ex1.LK	1,2	25.2	93	-	-	0.107	0.820	2.900	4.30	17.72	36.02
KFD2-VR-Ex1.18	4,5	18	4.2	-	-	0.309	1.78	7.6	492	1000	1000
KFD2-VR-Ex1.19	4,5	18	4.2	-	-	0.309	1.78	7.6	492	1000	1000
KFD2-VR-Ex1.19-Y109129	4,5	15.5	7.2	-	-	0.309	1.78	7.6	492	1000	1000
KFD2-HLC-EX1.D.**	1,4, 3	25.2	93			0.105	0.81	2.89	4.1	16.4	32.8
	2,5,3	1.1	11.9			100	1000	1000	251	1004	2008
	1,4,3 (4,5short)	25.2	104.9			0.105	0.81	2.89	3.2	12.9	25.8
	2,5,3 (5,6short)	1.1	11.9			100	1000	1000	251	1004	2008