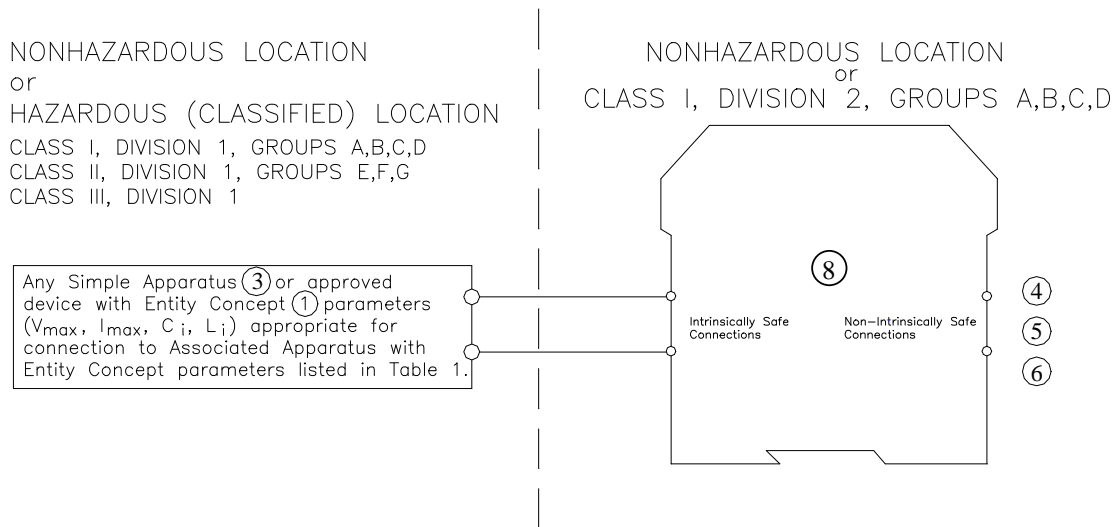


Control Drawing / Installation Instructions



Notes:

- 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} (or V_t), I_{sc} (or I_t) and P_o (or P_t) for the associated apparatus are less than or equal to V_{max} and I_{max} for the intrinsically safe apparatus and the approved values of C_a and L_a for the associated apparatus are greater than $C_i + C_{cable}$ and $L_i + L_{cable}$, respectively, for the intrinsically safe apparatus.
Note: For installations in which both the C_i and L_i of the intrinsically safe apparatus exceed 1% of the C_a and L_a parameters of the associated apparatus (excluding the cable), only 50% of C_a and L_a parameters are applicable and shall not be exceeded.
- Capacitance and inductance of the field wiring from the intrinsically safe equipment to the associated apparatus shall be calculated and must be included in the system calculations as shown in Note 1. Cable capacitance, C_{cable} , plus intrinsically safe equipment capacitance, C_i must be less than the marked capacitance, C_a (or C_o), shown on any associated apparatus used. The same applies for inductance (L_{cable} , L_i and L_a or L_o , respectively). Where the cable capacitance and inductance per foot are not known, the following values shall be used: $C_{cable} = 60 \text{ pF/ft.}$, $L_{cable} = 0.2 \text{ } \mu\text{H/ft.}$
- 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 (USA). A switch non-inductive resistive device or thermocouple (Canada).
- Wiring methods must be in accordance with the electrical code of the country in use.
- Power, inputs and outputs must be in accordance with Class I, Division 2 wiring methods of National Electrical Code ANSI/NFPA 70, Canadian Electrical Code C22.1 or in accordance with the authority having jurisdiction.
- Intrinsically safe circuits must be wired and separated in accordance with Article 504.20 or other local codes, as applicable.

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CONFIDENTIAL according ISO 16016	Only valid as long as released in EDM or with a valid production documentation!	scale: ---	date:2010-Mar-16	
	Control Drawing	change notice	116-0334	
	KFD2-VR2-Ex1.50M & 500M	respons.		GB.PAW
		approved		GB.TC
Oldham		norm	GB.PT	
		sheet 1 of 2		

WARNING Explosion Hazard - Do not disconnect the equipment when it is energized and an explosive atmosphere is present.

AVERTISSEMENT Risque D'explosion - Ne pas débrancher l'équipement lorsqu'il est sous tension et exposé à une atmosphère explosive.

WARNING Explosion Hazard - Substitution of components may impair suitability for use in Class I, Div. 2/Zone 2.

AVERTISSEMENT Risque D'explosion - La substitution de composants peut compromettre l'adéquation à une utilisation en Classe I, Div. 2/Zone 2.

Control Drawing / Installation Instructions



7. 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.
8. These barriers are rated "Nonincendive". If the barriers are intended to be mounted in a Division 2 location, they must be installed in an enclosure meeting the requirements of ANSI/ISA-12.12.01-2007, C22.2 NO. 213-M1987. The enclosure may be installed in a Class I, Division 2, Group A, B, C, or D hazardous location. A temperature rating of T4 applies to all nonincendive rated barriers.
9. Connection of barriers to ground is not required.
10. **WARNING:** Substitution of components may impair intrinsic safety.
AVERTISSEMENT: La substitution de composants peut compromettre la sécurité intrinsèque.

TABLE 1 – ENTITY PARAMETERS

MODEL NUMBER	TERMINALS	Voc (V)	Isc (mA)	Po (mW)	Vt (V)	It (mA)	Pt (mW)	Groups Ca (µF)			Groups La(mH)		
								A,B	C,E	D,F,G	A,B	C,E	D,F,G
KFD2-VR2-EX1.50M	4,5	5.5	2.4	3.3				58	1000	1000	1000	1000	1000
KFD2-VR2-EX1.500M	4,5	5.5	2.4	3.3				58	1000	1000	1000	1000	1000

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WARNING Explosion Hazard - Do not disconnect the equipment when it is energized and an explosive atmosphere is present.

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AVERTISSEMENT Risque D'explosion - La substitution de composants peut compromettre l'adéquation à une utilisation en Classe I, Div. 2/Zone 2.



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