

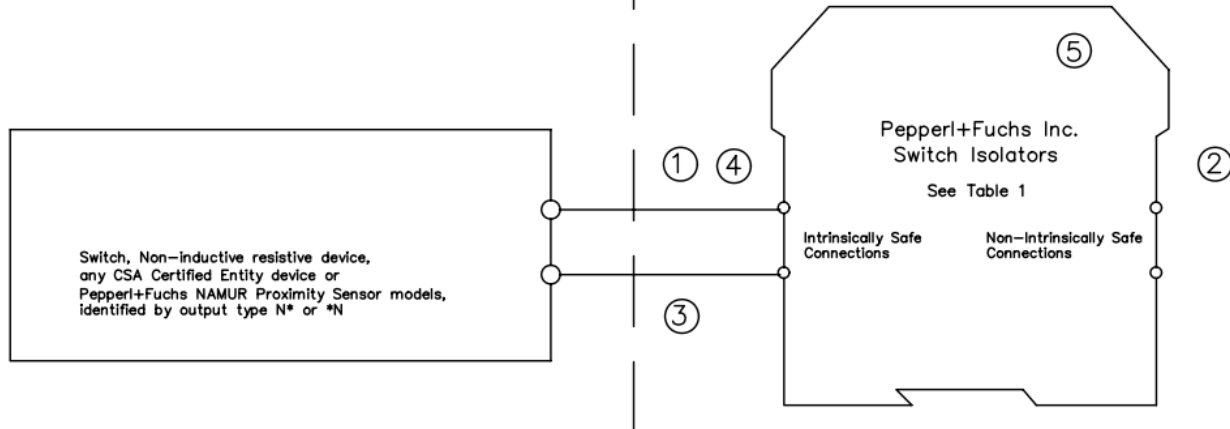
## Connections

### HAZARDOUS (CLASSIFIED) LOCATION

CLASS I, ZONE 0 OR 1, GROUPS IIC, IIB, IIA or  
CLASS I, DIVISION 1, GROUPS A,B,C,D  
CLASS II, DIVISION 1, GROUPS E,F,G  
CLASS III, DIVISION 1

### NON-HAZARDOUS LOCATION

CLASS I, ZONE 2, GROUPS IIC, IIB, IIA or  
CLASS I, DIVISION 2, GROUPS A,B,C,D




## Notes

1. The intrinsically safe wiring must be installed in accordance with the Canadian Electrical Code CSA C22.1, Part 1, Appendix F
2. Barrier listed in the Table 1 shall not be connected to any device that uses or generate in excess of 250Vrms or DC unless it has been determined that the voltage is adequately isolated from the barrier. Barriers listed in Table 2 shall not be connected to any device that uses or generates in excess of 60Vrms or DC unless the voltage is limited by an adequate means
3. Any combination of up to 10 channels of the barriers listed in Table 1 or Table 2 may be connected in parallel and connected to a switch in a hazardous location.
4. 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  $I_{sc}$  for the associated apparatus are less than or equal to  $V_{max}$  or  $I_{max}$  for the intrinsically safe apparatus and the approved values or  $C_a$  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.
5. The following models with part number greater than 100000 are approved for mounting in Class I, Zone 2, Groups IIC, IIB and IIA or Class I, Division 2, Groups A,B,C,D hazardous (classified) location: KF\*\*-SR2-EX1.W, KF\*\*-SR2-EX1.W.LB, KF\*\*-SR2-EX2.W, KF\*\*-SR2-EX2.2S, KFD2-ST2-EX1.\*, KFD2-ST2-EX2.\*, KFD2-SOT2-EX1.\*, KFD2-SOT2-EX2.\*

**WARNING:** Substitution of components may impair intrinsic safety and suitability for use in Class I, Division 2 / Zone 2

**AVERTISSEMENT -** La substitution de composants peut compromettre la sécurité intrinsèque et l'adéquation à une utilisation en Classe I, Div. 2/Zone 2.

This document contains safety-relevant information. It must not be altered without the authorization of a NE EX		
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 <b>PEPPERL+FUCHS</b> Global	Control Drawing	116-0047K
	Switch Isolators	sheet 1 of 2

**Entity Parameters**

**Table 1: Barrier Certified to CSA Standard C22.2 No. 157 (Um = 250 V)**

Model Numbers	Terminals	System		ENTITY							
		Vmax(V)	Res. (Ω)	Uo Voc	Io Isc	Co(μF) GRPS			Lo(mH) GRPS		
						IIC A,B	IIB C,E,F,G	IIA D	IIC A,B	IIB C,E,F,G	IIA D
KFA5-SR2-Ex1.* KFA5-SR2-Ex2.* KFA6-SR2-Ex1.* KFA6-SR2-Ex2.* KFD2-SR2-Ex1.* KFD2-SR2-Ex2.*	1-3 2-3 4-6 5-6	12.6	650	12.9	19.8	1.273	3.820	10.18	84.88	298.7	744.4
KFA5-SOT2-Ex1.* KFA5-SOT2-Ex2.* KFA6-SOT2-Ex1.* KFA6-SOT2-Ex2.*	1-3 2-3 4-6 5-6	10.5	811	10.5	13.0	2.66	7.9	21.3	192	671	1000

**Table 2: Barrier Certified to CSA Standard E79-11 (Um = 60 V)**

Model Numbers	Terminals	Load Parameters							
		Uo (Voc)	Io (Isc)	Co(μF) GRPS			Lo(mH) GRPS		
				IIC A,B	IIB C,E,F,G	IIA D	IIC A,B	IIB C,E,F,G	IIA D
KFD2-SOT2-Ex1.* KFD2-SOT2-Ex2.* KFD2-ST2-Ex1.* KFD2-ST2-Ex2.*	1-3 2-3 4-6 5-6	10.5	13.0	2.66	7.9	21.3	192	671	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.

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