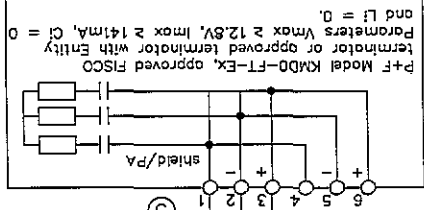
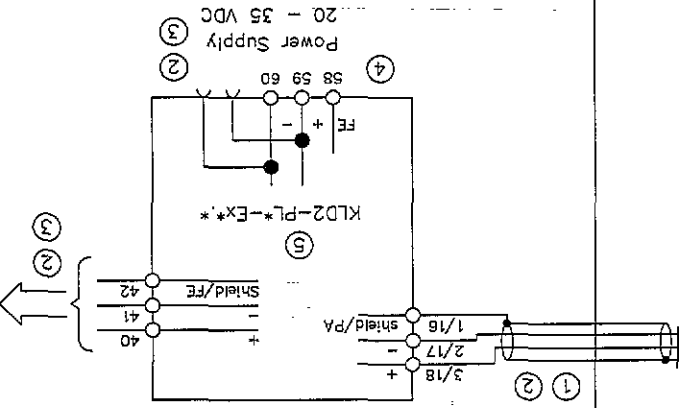


In. Date	012-01-00	W.B. W.B.	W.B. D.H.	Pepperl+Fuchs @ Inc.	Repl.No. -	No. Draw. 116-0195	Sh. 1 of 3
Revisions	THIS DRAWING CONTAINS PROPRIETARY DATA. NO DISCLOSURE, REPRODUCTION, OR USE OF ANY PART MAY BE MADE EXCEPT BY WRITTEN PERMISSION.						
ECO No.	Approved Segment Coupler & PowerLink Module CSA						
Product Part No.	Title Installation Drawing for						

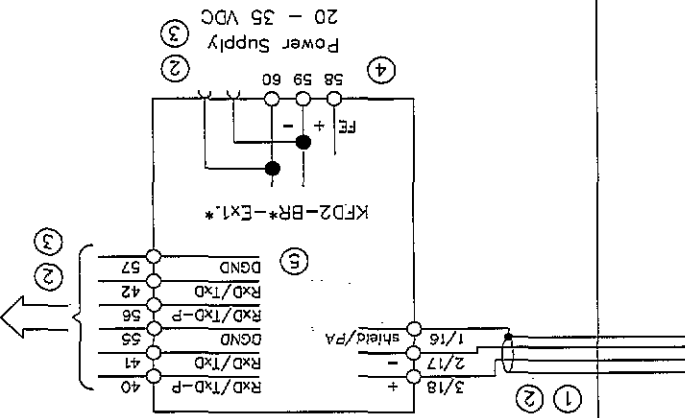


CLASS I, ZONE 0, GROUP IIC or CLASS I, DIVISION 1, GROUPS A,B,C,D

KFD2-GT(2)-DP(R).xPA
(NOT CSA APPROVED)

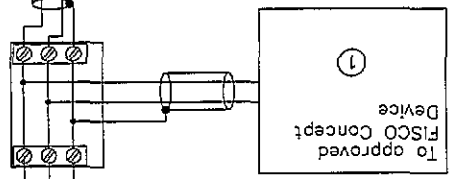
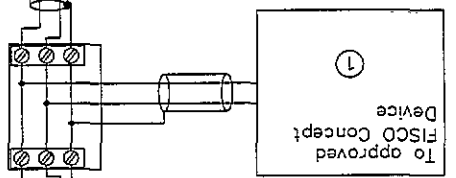
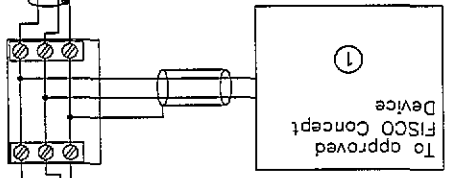


Control

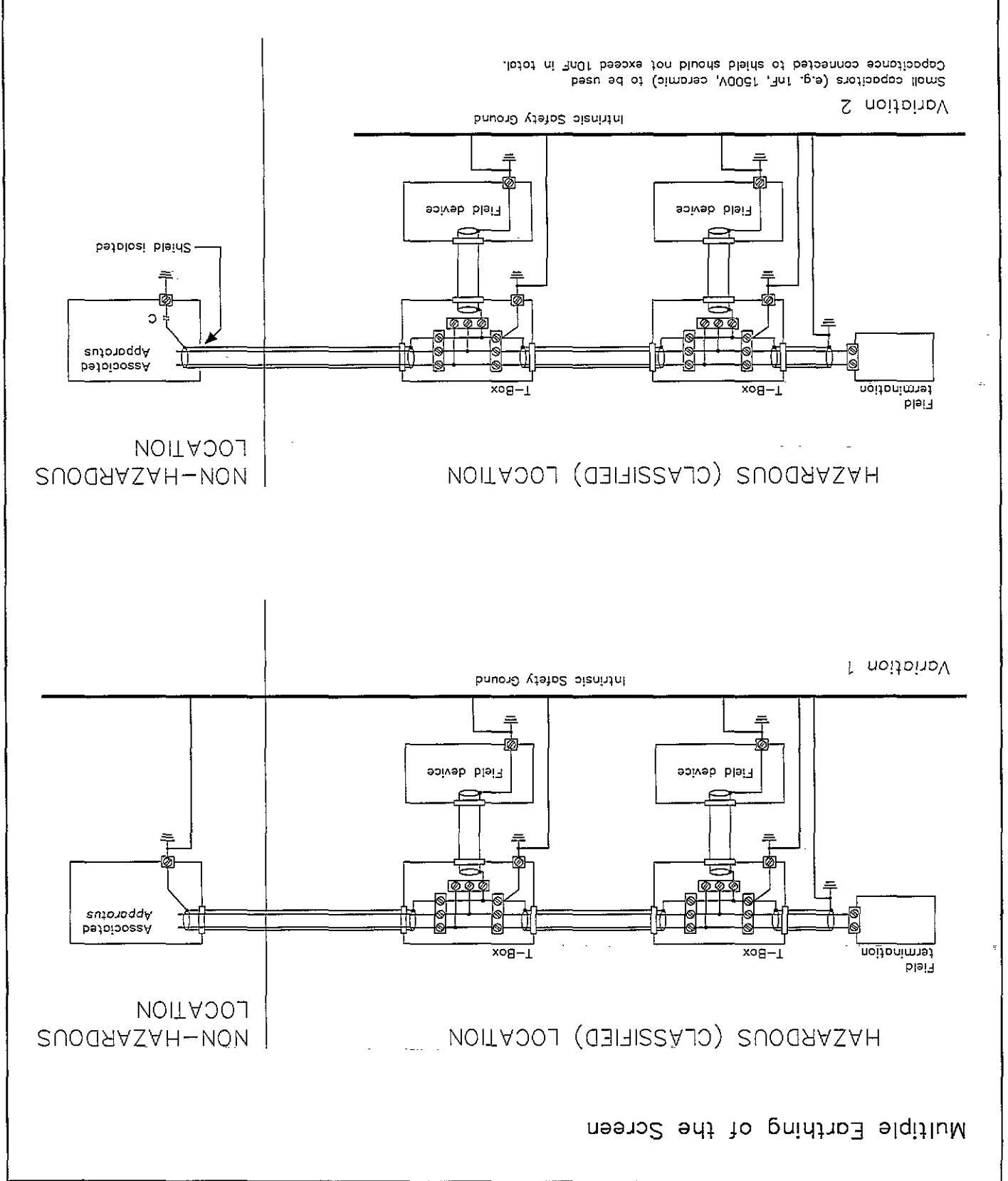


NON-HAZARDOUS LOCATION
 CLASS I, ZONE 2, GROUPS IIC, IIB, IIA or CLASS I, DIVISION 2, GROUPS A,B,C,D

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



In. Date	012-01-00	W.B. W.R. D.H.	Pepperl+Fuchs @ Inc.	Repl.No.	-	Draw. No.	116-0195	Sh. 2 of 3
Cons.								
Revisions								
ECO No.								
THIS DRAWING CONTAINS PROPRIETARY DATA. NO DISCLOSURE, REPRODUCTION, OR USE OF ANY PART MAY BE MADE EXCEPT BY WRITTEN PERMISSION.								
Title Installation Drawing for Approved Segment Coupler & Powerlink Module CSA								
Product Part No.								



In. Date	0 12-01-00	W.B. W.B.	W.B. W.B.	Appr. Appr.	Pepperl+Fuchs @ Inc.	Twinsburg, OH 44087-2202	Repl.No.	-	Draw. No.	116-0195	Sh. 3 of 3
Revisions		ECO No.		THIS DRAWING CONTAINS PROPRIETARY DATA. NO DISCLOSE, REPRODUCTION, OR USE OF ANY PART MAY BE MADE EXCEPT BY WRITTEN PERMISSION.							
Title Installation Drawing for Approved Segment Coupler & PowerLink Module CSA											
Product Part No.											

- ① The FISCO concept allows interconnection of intrinsically safe apparatus to associated apparatus not specifically examined in such combination. The criteria for the interconnection is that the voltage (U_i or V_{max}), (I_i or I_{max}) and (P_i or P_{max}) which intrinsically safe apparatus can receive and remain intrinsically safe, considering faults, must be equal or greater than the voltage (U_o or V_{oc}), the current (I_o or I_{sc}) and the power (P_o or P_{max}) levels which can be delivered by the associated apparatus, considering faults and applicable factors. In addition the maximum unprotected capacitance (C_i) and inductance (L_i) of each apparatus (other than the termination) connected to the fieldbus must be less than or equal to 5nF and 10uH respectively.
- In each segment only one active device, normally the associated apparatus, is allowed to provide the necessary energy for the fieldbus system. The voltage (U_o or V_{oc}) of the associated apparatus has to be limited to the range of 14V to 24V d.c. All other equipment connected to the bus cable has to be passive, meaning that they are not allowed to provide energy to the system, except for a leakage current of 50uA for each connected device. Separately powered equipment needs a galvanic isolation to assure that the intrinsically safe fieldbus circuit remains passive.
- The cable used to connect the devices needs to have the parameters in the following range:
- Loop resistance R': 15 ... 150Ω/km
 Inductance per unit length L: 0.4 ... 1mH/km
 Capacitance per unit length C': 80 ... 200nF/km
 C' = C' line/line + 0.5C' line/screen, if both lines are floating or
 C' = C' line/line + C' line/screen, if the screen is connected to one line.
 Length of splice: ≤ 1m (T-box must only contain terminal connections with no energy storage capability)
 Length of spur cable: ≤ 30m
 Length of trunk cable: ≤ 1km
- At each end of the trunk cable an approved infallible termination with the following parameters is suitable:
 R = 90 Ω and C = 0 ... 2.2uF
 Note, a built in terminator is included on the field side and a selectable terminator is available on the host side for the KFD2-BR*-EX1.3PA*. A built in terminator is included on the field side for the KLD2-PL*-EX*.
- The number of passive devices connected to the bus segment is not limited to i.s. reasons. If the above rules are respected, up to a total length of 1000m (sum of the length of the trunk cable and all spur cables), the inductance and capacitance of the cable will not impair the intrinsic safety of the installation.
- ② Wiring methods must be in accordance with the Canadian Electrical Code, CSA C22.1, Part I.
- ③ Associated apparatus listed in Table 1 and 2 shall not be connected to any device that uses or generates in excess of 60 Vrms or DC unless the voltage is limited by an adequate means acceptable to the Authority having jurisdiction.
- ④ Connection of the barriers to ground is not required
- ⑤ WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY AND/OR SUITABILITY FOR USE IN CLASS I, DIV. 2 OR CLASS I, ZONE 2 HAZARDOUS LOCATIONS.

NOTES:

* A number, letter, or number/letter combination not affecting the safety of the product.

Model Numbers	Terminals	Load Parameters		
		Voc(V)	Isc(mA)	Pmax(W)
KFD2-BR*-EX1.*	1,2,3; 16,17,18	15	208	1.93

TABLE 1:

Model Numbers	Terminals	Load Parameters		
		Voc(V)	Isc(mA)	Pmax(W)
KLD2-PL*-EX*	1,2,3; 16,17,18	15	208	1.93

TABLE 2: