

- 1 (North America) Control equipment connected to the Associated Apparatus must not use or generate more than 250 Vrms or Vdc.
- 2 (North America) The IS Barriers or Equipment (Associated Apparatus) must be FM Approved and CSA certified and the configuration of associated Apparatus must be FM Approved and CSA certified under the Entity Concept. The Associated Apparatus may be installed within the Hazardous (Classified) location for which it is certified. The Associated Apparatus and hazardous location loop apparatus manufacturer's control drawings must be followed when installing this equipment. An AEx [ib] Associated Apparatus is suitable only for connection to Class I, Zone 1, Hazardous (Classified) Locations and is not suitable for Class I, Division 1 Hazardous (Classified) Locations.

3 (US) Installation should be in accordance with ANSI/ISA RP12.06.01 "Installation of Intrinsically Safe Systems for Hazardous (Classified) Locations" and Article 500 of the National Electrical Code (ANSI/NFPA 70)

(Canada) Installation should be in accordance with Section 18 of the Canadian Electrical Code.

4 (North America) All units suitable for Type 4X installations

5 (North America) Units are suitable for Class I, Division 2, Groups A, B, C, and D hazardous (classified) locations. Transducers to be installed in accordance with the

(US) National Electrical Code (ANSI/NFPA 70) Division 2 hazardous (classified) location wiring techniques

(Canada) Canadian Electrical Code.

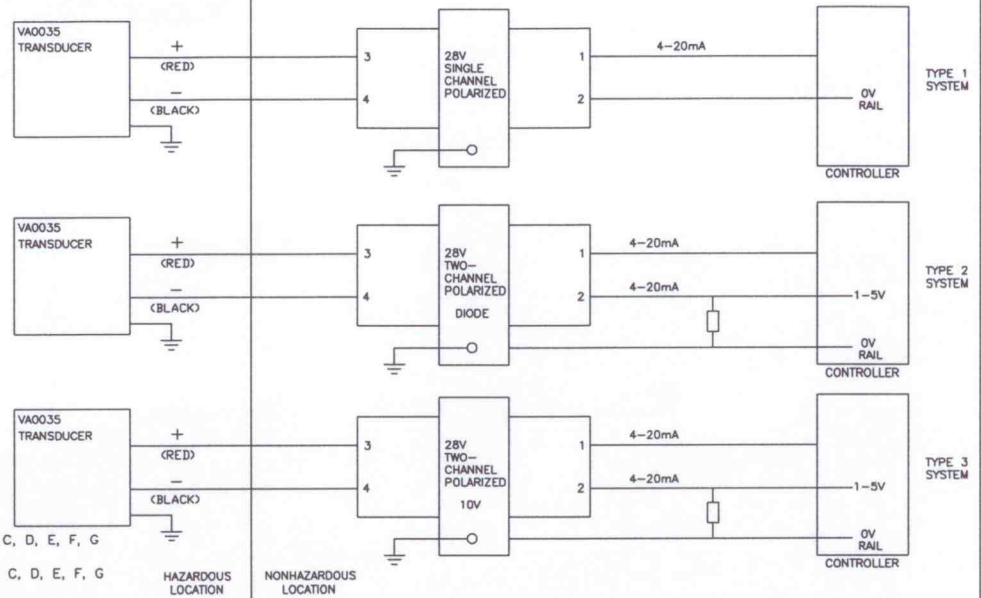
6 The Intrinsic Safety Entity concept allows the interconnection of two Intrinsically safe devices with entity parameters not specifically examined in combination as a system when:

- U_i or $V_{max} > U_o$ or V_o
- I_i or $I_{max} > I_o$ or I_{sc} or I_t
- C_a or $C_o > C_i + C_{cable}$
- L_a or $L_o > L_i + L_{cable}$
- $P_i > P_o$

Entity Parameters for: I/P_s

- U_i (V_{max}) = 40 V
- I_i (I_{max}) = 150 mA
- $C_i = 0$
- $L_i = 0$
- $P_i = 0.7$ watts

7 No revision to this drawing is permitted without prior FM Approval and CSA Certification.



HAZARDOUS LOCATION UNITS:
FM & CSA

INTRINSICALLY SAFE:
CLASS I II III, DIV. I GROUPS A, B, C, D, E, F, G

NON-INCENDIVE:
CLASS I II III, DIV. 2 GROUPS A, B, C, D, E, F, G

EXPLOSION PROOF
CLASS I, DIV. I GROUPS B, C, D

D.I.P. FOR:
CLASS II, III, DIV. I GROUPS E, F, G

* SEE ENERGY LIMITING PARAMETERS TABLE BELOW
** T6 TEMPERATURE CLASS FOR SELF PROTECTED ENERGY LIMITED APPARATUS, THE 4-20 mA INPUT VOLTAGE OF 40Vdc.

ENERGY LIMITING PARAMETERS

TEMP. CLASS	Ta	Li	Ui	Pi
T6	60° C	50 mA	42.5 V	2.125 W
T6	55° C	60 mA	38.8 V	2.328 W
T5	70° C	60 mA	38.8 V	2.328 W
T5	55° C	100 mA	30.0 V	3.0 W
T5	45° C	120 mA	28.0 V	3.36 W
T4	85° C	60 mA	38.8 V	2.328 W
T4	85° C	100 mA	30.0 V	3.0 W
T4	80° C	120 mA	28.0 V	3.36 W
T4	70° C	150 mA	25.5 V	3.825 W
T5	85° C	23 mA	6.75 V	0.155 W

THIS DRAWING, AND THE INFORMATION IT DISCLOSES, ARE CONFIDENTIAL PROPERTY OF CONTROLAIR INC. AND MAY NOT BE USED, COPIED, REPRODUCED, PUBLISHED OR DISCLOSED TO OTHERS WITHOUT WRITTEN AUTHORIZATION OF CONTROLAIR INC.

ControlAir Inc.
AMHERST, NH USA

TOLERANCES	REVISIONS			INTERCONNECTION DIAGRAM					
	NO.	DATE	BY						
DECIMAL .XX ± .01 .XXX ± .005	1			VRC 595 XP-TRANSDUCER					
FRACTIONAL ± 1/64	2								
	3			DRAWN BY	KJM	SCALE	NONE	MATERIAL	SEE ABOVE
ANGULAR ± 1/4°	4			CHECKED		DATE	09-19-09	DRAWING NO.	
	5			TRACED		APP'D		531-990-067	