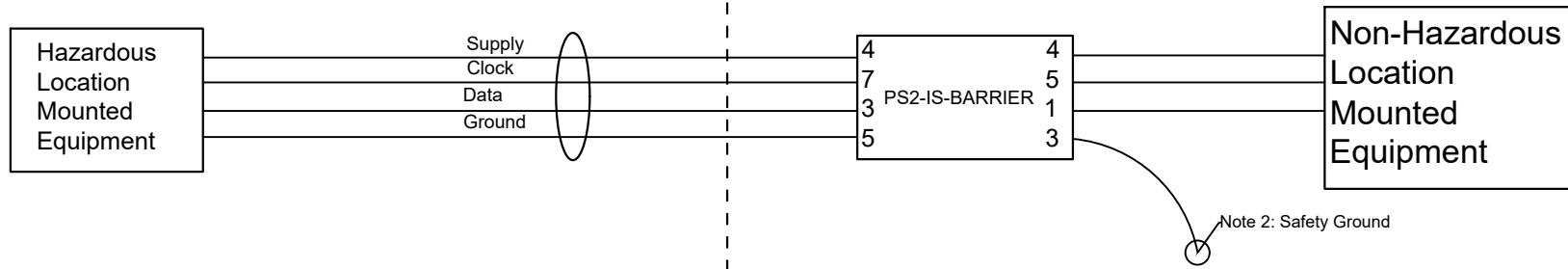


DATE	CHANGES	INTL	REV
09.17.18	Original	ALH	1.0
01.21.19	Major updates per "FM comments on ctrl dwg HL0079 1-16-19.docx"	ALH	2.0
01.28.19	Updated Po value from 1286mW to 1124mW	ALH	2.1

Hazardous (Classified) Location
 Class I, Div 1 Groups A,B,C,D
 Class II, Div 1 Groups E, F, G
 Class III, Div 1

Non Hazardous (Unclassified) Location

NOTE: For pinout information for non-IS and IS connections, please refer to document PS2-IS-BARRIER-MKT.



Application Notes

- Supply, Clock, Data and Ground leads to be wired through the PS2-IS-BARRIER device as shown above.
- The PS2-IS-BARRIER relies upon a reliable low-resistance safety ground for proper functioning. Connect safety ground lead to grounding stake or bus bar per documents referenced in Notes 3 & 4.
- Installation shall be in accordance with ISA RP 12.06.01
- Installation shall be in accordance with the NEC, Article 504, ANSI/NFPA 70
- Control equipment power must not exceed 250V
- The specified Lo and Co values are valid if one of the following conditions are 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 shall be reduced to 50% of the specified values 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 Groups C,D,E,F,G and 600nF for Groups A,B.
- The PS2-IS-BARRIER is intended for interconnection with FM Approved intrinsically safe apparatus under the Entity concept where the following relationships are observed:

PS2-IS-BARRIER	Relationship	Intrinsically Safe Equipment
Uo	≤	Ui (or Vmax)
Io	≤	Ii (or Imax)
Po	≤	Pi
Co	≥	Ci + interconnecting Ccable
Lo	≥	Li + interconnecting Lcable*

*Alternatively, Li may be greater than Lo and the cable length restrictions due to cable inductance (Lcable) can be ignored if both of the following conditions are met:

- Lo/Ro ≥ Li/Ri
- Lo/Ro ≥ Lcable/Rcable

- Though the PS2-IS-BARRIER limits output energy to intrinsically safe levels, it does not provide galvanic isolation from earth or non-intrinsically safe circuits.
- Installation Environment: The PS2-IS-BARRIER is intended for installation within a clean, dry, indoor, climate-controlled environment.

Intrinsic Safety Barrier Entity Parameters						
Uo (V)	Io (mA)	Po (mW)	Groups	Co (uF)	Lo (uH)	Lo/Ro (uH/Ω)
7.71	790.0	1124	A,B	9.8	57	27.6
			C,E,F,G	145	228	110.6
			D	1000	456	221.2

The above current and power values reflect parallel summation of all barrier output channels.

No revision to drawing
w/o prior FM approval