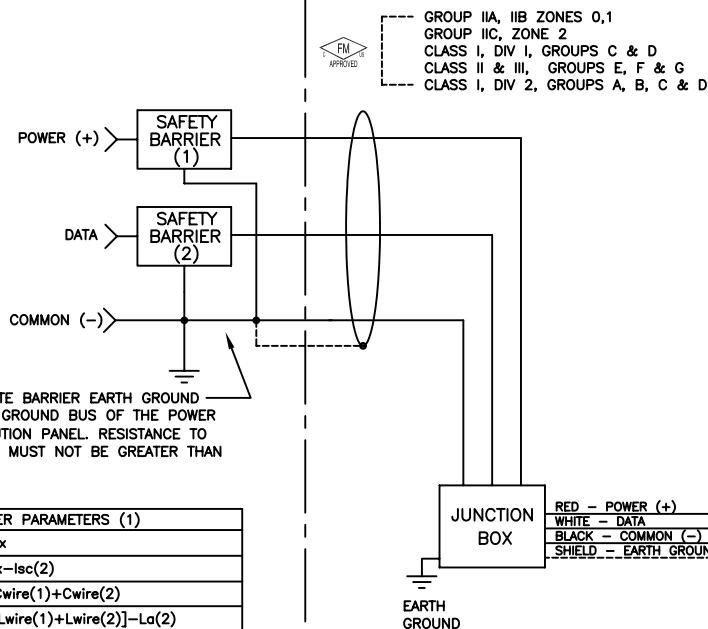


NON HAZARDOUS AREA

HAZARDOUS AREA



GROUP IA, IIB ZONES 0,1  
 GROUP IIC, ZONE 2  
 CLASS I, DIV I, GROUPS C & D  
 CLASS II & III, GROUPS E, F & G  
 CLASS I, DIV 2, GROUPS A, B, C & D

POWER (+) ZENER BARRIER PARAMETERS (1)	
Voc(1)	Voc(1) <= Vmax
Isc(1)	Isc(1) <= Imax-Isc(2)
Ca(1)	Ca(1) >= Ci+Cwire(1)+Cwire(2)
La(1)	La(1) >= [Li+Lwire(1)+Lwire(2)]-La(2)

DATA ZENER BARRIER PARAMETERS (2)	
Voc(2)	Voc(2) <= Vmax
Isc(2)	Isc(2) <= Imax-Isc(1)
Ca(2)	Ca(2) >= Ci+Cwire(2)+Cwire(1)
La(2)	La(2) >= [Li+Lwire(2)+Lwire(1)]-La(1)

It = Isc(1)+Isc(2)  
 It <= Imax  
 Vt = MAXIMUM VOLTAGE OF Voc(1) AND Voc(2)  
 Vt <= Vmax

La(total) = La(1)+La(2)  
 La(total) >= Li+Lwire(1)+Lwire(2)

IF WIRE PARAMETERS ARE UNKNOWN THEN THE FOLLOWING SHALL BE USED:

C<sub>wire</sub> = 60pF/ft. (197pF/m.)  
 L<sub>wire</sub> = .2uH/ft. (0.657uH/m.)

FOR EXAMPLE: 1000 ft X 60 pF/ft. = 0.06uF  
 100 m X 197 pF/m. = 0.0197uF

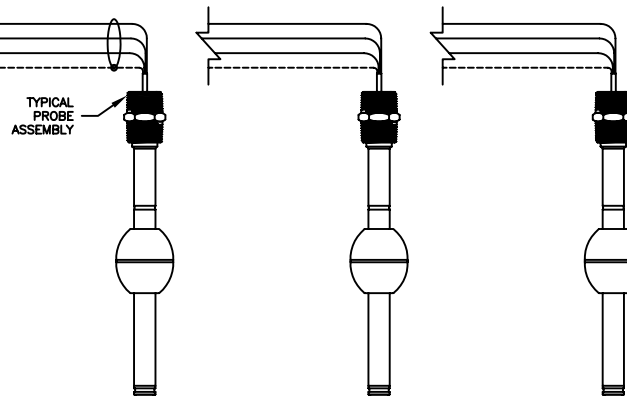
PROBE ENTITY PARAMETERS				
Pi	Vmax	Imax	Ci	Li
1W	7.93V	280mA	30.1uF	0.1H

ENTITY PARAMETER NOTES:

- PARAMETERS APPLY COLLECTIVELY TO BOTH "POWER (+)" AND "DATA" TERMINALS WITH RESPECT TO "COMMON (-)".
- PI IS THE TOTAL (OR SUM) OF THE POWER APPLIED TO BOTH THE "POWER (+)" AND "DATA" TERMINALS.
- Vmax IS THE MAXIMUM VOLTAGE THAT CAN BE APPLIED TO EITHER THE "POWER (+)" OR "DATA" TERMINALS.
- Imax IS THE TOTAL (OR SUM) OF THE CURRENT APPLIED TO BOTH THE "POWER (+)" AND "DATA" TERMINALS.
- Ci & Li IS THE TOTAL CAPACITANCE AND INDUCTANCE OF THE PROBE AND IS THE MAXIMUM VALUE THAT CAN APPEAR ON EITHER THE "POWER (+)" OR "DATA" TERMINALS INDIVIDUALLY OR THE COMBINATION OF BOTH.

NOTES: UNLESS OTHERWISE SPECIFIED

- MINIMUM VOLTAGE TO OPERATE THE 889XXX-XXX PROBE IS 3.6V.
- THE SELECTED BARRIER SHALL BE THIRD PARTY CERTIFIED WITH INTRINSICALLY SAFE CIRCUITS FOR THE HAZARDOUS LOCATION GROUP AND ZONE AS APPROPRIATE FOR THE APPLICATION AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- ELECTRONIC EQUIPMENT CONNECTED TO THE ASSOCIATED APPARATUS MUST NOT USE OR GENERATE MORE THAN 250Vrms, WITH RESPECT TO EARTH GROUND.
- INSTALLATIONS SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70) AND THE CANADIAN ELECTRICAL CODE (CEC).
- ALL CABLES MUST BE 24 GAUGE OR HEAVIER.
- INSTALLATIONS SHALL BE IN ACCORDANCE WITH ANSI/ASIS RP 12.06.01, INSTALLATION OF INTRINSICALLY SAFE SYSTEMS FOR HAZARDOUS (CLASSIFIED) LOCATIONS.
- IN ACCORDANCE WITH ATEX SPECIAL CONDITIONS FOR USE, THE FOLLOWING SHOULD BE CONSIDERED; THE SURFACE OF THE ISOLATING MATERIAL (PVDF) EXCEEDS THE LIMIT OF 4CM<sup>2</sup> AS SPECIFIED IN EN50284, AND THE PROBABILITY OF ELECTROSTATIC CHARGING NEEDS TO BE CONSIDERED FOR USE IN CATEGORY 1 (ZONE 0).
- FOR FM APPROVAL, THE ASSOCIATED APPARATUS MUST BE FM APPROVED.



NOTE: MAXIMUM NUMBER OF PROBES AND CABLE LENGTH DEPENDS ON ENTITY PARAMETERS OF ASSOCIATED APPARATUS.

CERTIFIED PRODUCT  
 NO CHANGES PERMITTED  
 WITHOUT REFERENCE TO  
 NOTIFIED BODY. (NB)

REV	DESCRIPTION	BY	DATE	ECO
A	INITIAL RELEASE	TB	4/23/09	CN-00383

DO NOT SCALE DRAWING				
NAME	DATE	NEXT GRP.	-----	
DESIGNER BREEN	2/19/09	ASSEMBLY	-----	
PROJECT ANDREW	2/19/09	FORM NO	889XXX-XXX	
MATERIAL	SIMSBURY, CONNECTICUT 06070 U.S.A.			
NOTICE - THIS DOCUMENT IS THE PROPERTY OF THE VEEDER-ROOT COMPANY AND IS NOT TO BE DISCLOSED, REPRODUCED IN WHOLE OR IN PART, OR USED FOR MANUFACTURE BY ANYONE WITHOUT VEEDER-ROOT'S WRITTEN CONSENT.				
REFERENCE MFG. SPEC. VRS 81005 WHERE IT IS APPLICABLE	INSTALLATION DRAWING MAG-XL PROBE			
UNSPECIFIED TOLERANCES +/- 0.005	SIZE C	DRAWING NUMBER 331940-010	REV. A	STATUS REL
SCALE NONE	SHEET 1 OF 1			