

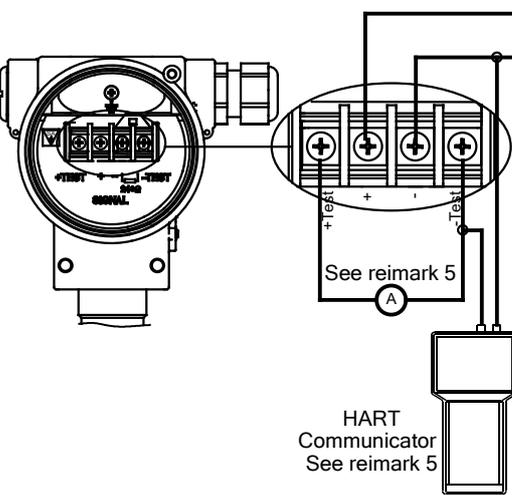
CHANGE No.	DATE	NAME
1	09.2020	D.Izdebski
1	12.2020	D.Izdebski

INTRINSICALLY SAFE INSTALLATIONS

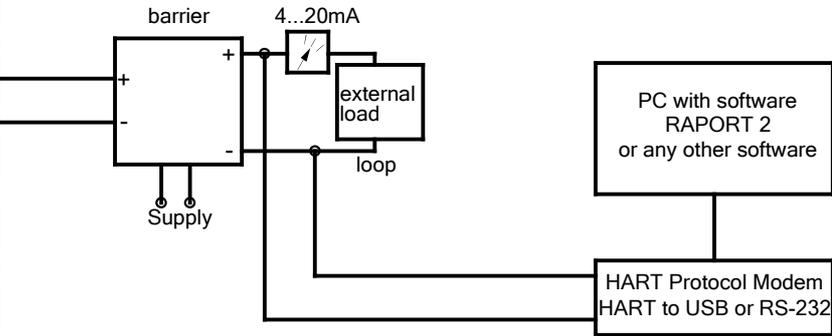
HAZARDOUS (CLASSIFIED) LOCATIONS

LOCATIONS:

CLASS I, Division 1, Groups A, B, C & D T4
 CLASS II, Division 1, Groups E, F, G T5
 CLASS III, Division 1, T5
 Zone 0, Zone 20



NON HAZARDOUS LOCATION



Intrinsically safe for Cl. I, Div. 1, Groups A, B, C, D, Cl. II, Div. 1, Groups E, F, G T5, Cl. III, Div. 1 T5
 ZN 0 AEx/Ex ia IIC T4 Ga, ZN 20 AEx/Ex ia IIIC T105°C Da
 Hazardous Locations Installations

Installation:

- Control room equipment may not use or generate over 250 V.
- Install per the Canadian Electrical Code or National Electrical Code (ANSI/NFPA70) and ISA RP 12.06.01.
- For entity installations: Use Listed certified intrinsic safety barrier or other associated equipment that satisfy the following conditions: $V_{oc} \leq V_{max}$, $I_{sc} \leq I_{max}$, $C_a \geq C_i + C_{cable}$, $L_a \geq L_i + L_{cable}$. Transmitter entity parameters are as follows:
 - Supply from a power source with linear output characteristic:
 - $U_i / V_{max} = 30$ VDC
 - $I_i / I_{max} = 100$ mA
 - $P_i / P_{max} = 0.75$ W
 - $C_i = 2.5$ nF
 - $L_i = 18$ μ H
 - Supply from a power source with trapezoidal output characteristic:
 - $U_i / V_{max} = 24$ VDC
 - $I_i / I_{max} = 50$ mA
 - $P_i / P_{max} = 0.7$ W
 - $C_i = 2.5$ nF
 - $L_i = 18$ μ H
 - Supply from a power source with rectangular output characteristic:
 - $U_i / V_{max} = 24$ VDC
 - $I_i / I_{max} = 25$ mA
 - $P_i / P_{max} = 0.6$ W
 - $C_i = 2.5$ nF
 - $L_i = 18$ μ H
- Use Listed certified safety barriers with entity parameters meeting the requirements of note 3.
- Hazardous (classified) location equipment may be simple apparatus or FM Approved equipment with entity parameters meeting the requirements of note 3.
- Remark: Versions with surge arrester marked on plate "Version SA", do not meet the requirements of dielectric strength tests 500Vrms between terminal connections and transmitter housing.
- Under certain extreme circumstances in Zone 20 the device with painting of aluminum enclosure and with plastic rating plate may store an ignition-capable level of electrostatic charge. The device shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge.
- The enclosure made of aluminum alloy and given a protective polyurethane paint finish; care should be taken to protect it from impact or abrasion of located in Zone 0.
- When the transmitter with a nameplate containing various types of explosion-proof the user must permanently mark the type IS of protection chosen for the intrinsically Safe installation. Once the type of protection has been marked the IS destiny of the transmitter shall not be changed.

Table: Permissible ambient temperature and temperature code for gas hazardous are

Temperature code	Temperature ambient
T4	-40...80°C

Table: Permissible ambient temperature and temperature code for dust hazardous are

Temperature code	Temperature ambient
T5	-40...80°C
105°C	-40...80°C

Note:

No modification to be made without reference/approval from FM Approvals and APLISENS S.A.

Drawn:	D.Izdebski	12.2020	Title	FM Control Drawing	IS
Checked:	J.Wąsowski	12.2020	IS Version	APC-2000ALW, APC-2000ALW Safety, APR-2000ALW and APR-2000ALW Safety	DIV1
Accepted:	D.Knap	12.2020	Replaced drawing No.		ZONE 0
			Replaced by drawing No.		ZONE 20
Scale	APLISENS®	Drawing No.	APC2000-A544-TA		Sheet
1:1					1B
					Total sheets
					1