

Hazardous location

Class I, Div. 1, Groups ABCD
 Zone 0
 Class II, Div. 1, Groups EFG
 Class III

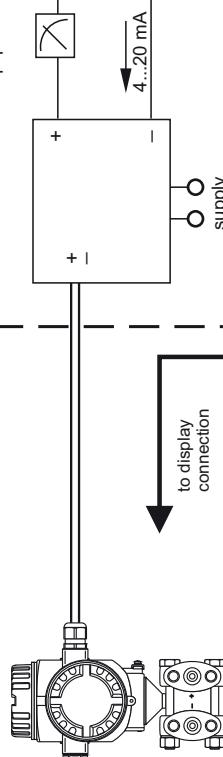


Table: Permissible ambient temperature and temperature code:

Temperature code	Permissible ambient temperature, electronic compartment
T6	-40°C...+40°C
T4	-40°C...+70°C

option for T_{a,min}: -50°C

The devices are CSA Certified as Single Seal per ANSI/ISA 12.27.01 as tabulated below; therefore installation of external secondary seals is not required.

Single Seal	Model	Limited to:	
		MWP*	Process Temperature**
PMD75, FMD77 and FMD78	420 bar (6091 psi)	-40°C...+100°C	

* Limitations of the Maximum Working Pressure (MWP) are marked on the nameplate and must be considered!
 ** Limitations of the process temperature range depending on the used version are specified in the applicable technical information of the manufacturer and must be considered!

FMD77, FMD78 allows higher process temperatures depending on the used diaphragm seal.
 This is allowable provided the above specified process temperatures are guaranteed at the sensor close to the enclosure (location of primary seal) for these types.

This device is suitable to be installed in accordance with the wiring methods of Division 1/Zone 0 for intrinsic safety (as defined above) or for Division 1/Zone 1 for explosionproof protection.
 For installations in accordance with the requirements of explosion proof protection the device is suitable for:

Class I, Div. 1, Gp. ABCD; Class II, Div. 1, Gp. EFG; Class III
 Conduit seals must be installed within 18 inches of enclosure.
 Max. supply voltage: 45 VDC
 Ambient temperature range: -40°C...75°C (optional T_{a,min} -50°C)

Warning: Changing the type of protection after first installation may impair the explosion protection.

Non hazardous location

Intrinsically safe Ex ia for Cl.I, Div.1, GP, ABCD, Cl.II, Div.1, GP, EFG, Cl.III; Ex ia IIC T6
 Hazardous Locations Installations

Division 1 Installation:

1. Control room equipment may not use or generate over 250 V.
2. Install per the Canadian Electrical Code or National Electrical Code (ANSI/NFPA70) and ISA RP 12.06.01.
3. For entity installations: Use CSA 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:
 $U/I_{max} = 30 \text{ VDC}$, $I/I_{max} = 300 \text{ mA}$, $P/I_{max} = 1 \text{ W}$; $C_i \leq 11.8 \text{ nF}$;
 $L_i \leq 225 \mu\text{H}$ ('electronic' option code = A, B, C) or
 $L_i = 0 \mu\text{H}$ ('electronic' option code = D, E, F);
 see table for T-codes.

4. For System Installation:

- Use : CSA certified safety barriers as follows:
- (a) 28 V / 300 Ω + ground or
 - (b) 28 V / 300 Ω + 28 V/diode or
 - (c) 28 V / 300 Ω + 10 V/50 Ω
5. Warning: Substitution of components peut compromettre la sécurité intrinsèque.
 Avertissement : La substitution de composants peut compromettre la sécurité intrinsèque.
6. Intrinsic safety barrier manufacturer's installation drawing must be followed, when installing this equipment: The configuration of the intrinsic safety barrier(s), must be CSA approved.
7. Use safe wires, suitable for 5°C above surrounding.
 Utiliser des fils d'alimentation qui conviennent à une température de 5°C au-dessus de la température ambiante.
8. Remark: Versions with optional terminalblock with integrated overvoltage protection have an isolation/voltage greater than 420 VDC between terminalconnections and potentially grounded metal parts.
9. Avoid electrostatic charging of plastic surfaces, plastic process connections or coatings.

Suitable for Cl.I, Div.2, GP, ABCD, Cl.II, Div.2, GP, EFG, Cl.III
 Hazardous Location Installation

1. Install per Canadian Electrical Code or National Electrical Code (ANSI/NFPA70)
 and ISA RP 12.06.01.
 Intrinsic safety barrier not required.
 Max. supply voltage 45 VDC.
2. Warning: Explosion Hazard - Do not disconnect equipment unless power has been switched off or the area is known to be non hazardous.
 Avertissement : Risque d'explosion - Avant de déconnecter l'équipement, couper le courant ou s'assurer que l'emplacement est désigné non dangereux.
 Warning: Open circuit before removing cover.
 Avertissement : Ouvrir le circuit avant d'enlever le couvercle.
 Warning: Substitution of Components may impair suitability for Cl.I, Div.2.
 Avertissement : La substitution de composants peut rendre ce matériel inacceptable pour les emplacements de Cl.I, Div.2.

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 CCS/EMC
 CSA/H 15.08.16



CSA Control Drawing 960006403-H

Deltabar S PMD75, FMD77, FMD78
 HART
 (int. safe + explosion proof)

Endress+Hauser

People for Process Automation



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