

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:

- 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 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:  
 $U_i/V_{max} = 30$  VDC;  $I_i/I_{max} = 300$  mA;  $P_i/P_{max} = 1$  W;  $C_i \leq 11.8$  nF;  
 $L_i \leq 225$   $\mu$ H ('electronic' option code = A, B, C) or  
 $L_i = 0$   $\mu$ H ('electronic' option code = D, E, F);  
see table for T-codes.

Use: CSA certified safety barriers as follows:

- 28 V/300  $\Omega$  + ground or
- 28 V/300  $\Omega$  + 28 V/diode or
- 28 V/300  $\Omega$  + 10 V/50  $\Omega$

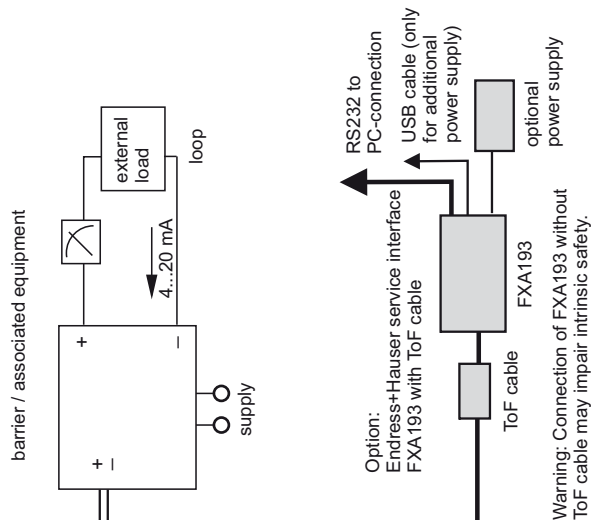
Warning: Substitution of components may impair intrinsic safety.

- Avertissement : La substitution de composants peut compromettre la sécurité intrinsèque.
- 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.
- Use supply 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.
- Remark: Versions with optional terminalblock with integrated overvoltage protection have an isolation voltage greater than 420 VDC between terminal connections and potentially grounded metal parts.
- Avoid electrostatic charge of plastic surfaces, plastic process connections or coatings.

Suitable for Cl.I, Div.2, GP, ABCD, Cl.II, Div.1, GP, EFG, Cl. III Hazardous Location Installation (not for separated housing)

- 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.
- 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.

**Non hazardous location**



Option:  
Endress+Hauser service interface  
FXA193 with ToF cable

Warning: Connection of FXA193 without  
ToF cable may impair intrinsic safety.

Note: FXA193 with ToF cable provides intrinsically safe  
circuits for connection to the display connector of  
Deltapilot S transmitters, when they are installed in Class I,  
Div.1, Group A,B,C,D hazardous locations.

Entity parameter:

$U_i/V_{max} = 30$  VDC  
 $I_i/I_{max} = 300$  mA  
 $P_i/P_{max} = 1$  W  
 $C_i \leq 11.8$  nF  
 $L_i \leq 225$   $\mu$ H or  $L_i = 0$

Table: Permissible ambient temperature and temperature code:

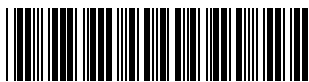
Temperature code	Permissible ambient temperature, electronic compartment
T6	-40°C...+40°C
T4	-40°C...+70°C

option for T<sub>a,min</sub>: -50°C

Deltapilot S	Limited to:	
	MWP*	Process Temperature**
CEC 2009 cl. 18-072 "flammable fluid seals", classification acc. ANSI/ISA 12.27.01	10 bar (150 psi)	-10°C...+100°C
FMB70	single seal device, secondary seal not required	

\* 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!

XA00595P-E/00/EN/15.17  
CCS/FM10  
CSA/E 15.08.16



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**CSA Control Drawing**  
**960007652-E**

Deltapilot S FMB70  
HART