



71109148

CSA Control Drawing 960009067 A

Deltapilot M
FMB50, FMB51, FMB52, FMB53
4...20 mA HART (IS)

Endress+Hauser
People for Process Automation



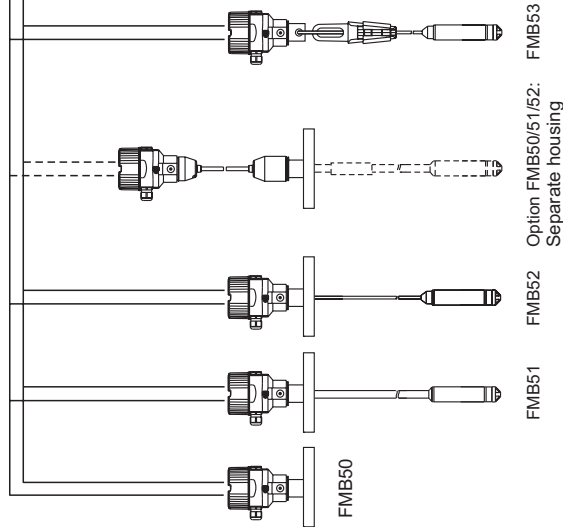
Hazardous location

Class I, Div. 1, 2, Groups A, B, C, D
Zone 0
AEx ia IIC T6
Class II, Div. 1, 2, Groups E, F, G
Class III

Non hazardous location

Any approved barrier /
associated equipment

Certified
associated
equipment



Entity parameter:
 $V_{max} = 30 \text{ VDC}$
 $I_{max} = 300 \text{ mA}$
 $P_{max} = 1 \text{ W}$
 $C_i \leq 10 \text{ nF}$
 $L_i = 0$

Areas of application

The compact instruments are suitable
for use in areas subject to explosion
caused by gases, vapours or mists.

Table: Permissible ambient temperature and temperature code:

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

option for Ta min: -50°C

Intrinsically safe Ex ia for Class I, Div. 1, Groups A, B, C, D, Class II, Div. 1, Groups E, F, G, Class 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: $U_i / V_{max} = 30 \text{ VDC}$

$I_i / I_{max} = 300 \text{ mA}$

$P_i / P_{max} = 1 \text{ W}$

$C_i \leq 10 \text{ nF}$

$L_i = 0$

For T-code see table

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

- 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.

8. Service connection:

For service purposes the Endress+Hauser Commubox FXA191 or FXA195 may be
connected to the display connection of the electronic insert. Follow the safety advices
of the Commubox.

Suitable for Class I, Div. 2, Groups A, B, C, D, Class II, Div. 1, Groups E, F, G, Class III
(only for NPT conduit entries)

Hazardous Location Installation (not for FMB52, FMB53 and separate 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

max. ambient temperature: 70°C

- 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 Class I, Div. 2.

Avertissement : La substitution de composants peut rendre ce matériel inacceptable pour les
emplacements de Class I, Div. 2.