

HAZARDOUS AREA

Class I, Div.1, 2 Groups A, B, C, D
Ex ia IIC T⁺
Class II, Div.1, 2 Groups E, F, G
Class III

NON HAZARDOUS AREA

Notes: Intrinsically safe Class I, Div. 1, Group A, B, C, D or Ex ia IIC Hazardous Location Installation

- Control room equipment may not use or generate over 250 V_{RMS}.
- Installation should be in accordance with the Canadian Electrical Code.
- Warning: Substitution of components may impair intrinsic safety.
Avertissement: La substitution de composants peut compromettre la sécurité intrinsèque.
- Ex ia is defined as intrinsically safe / sécurité intrinsèque.
- For entity installation use CSA certified safety barrier or other associated equipment that satisfy the following conditions: with $U_0/V_{OC} \leq U_i/V_{max}$, $I_0/I_{SC} \leq I_i/I_{max}$, $C_0/C_{i0} \geq C_i + C_{cable}$, $L_0/L_{i0} \geq L_i + L_{cable}$.
Barrier must be incapable of delivering more than 1 Watt to a matched load.
Transmitter entity parameters are as follows:
Intrinsically safe supply circuit:

U_i/V_{max} [V]	I_i/I_{max} [mA]	P_i/P_{max} [W]	C_i [nF]	L_i [μ H]
30	300	1.0	≤ 18.5	13

Intrinsically safe signal circuit:

U_i/V_{max} [V]	I_i/I_{max} [mA]	P_i/P_{max} [W]	C_i [nF]	L_i [μ H]
30	300	1.0	≤ 20.7	0

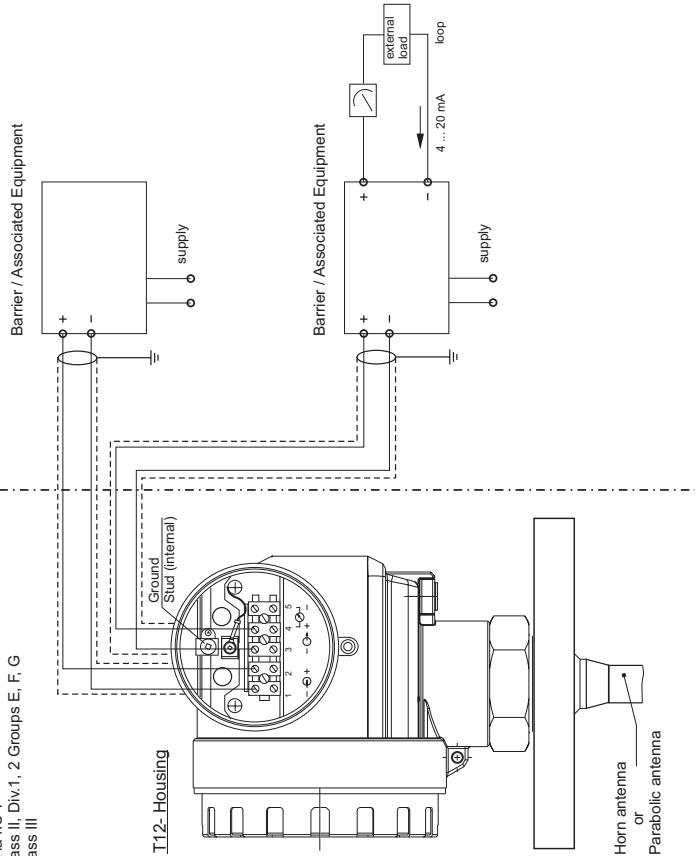
- For temperature code of the Microplot S FMR540 see table.
- Install barrier / associated equipment in accordance with the manufacturer's instructions.
- Use supply wires suitable for 5 °C above surrounding ambient.
Utiliser des fils d'alimentation qui conviennent à une température de 5°C au-dessus de la température ambiante.
- In case of use of the parabolic antenna avoid electrostatic charge at the antenna (e.g. do not rub with dry cloth; do not install within the filling curtain).

Class I, Div.2, Group A, B, C, D or Ex nA IIC and DIP for Class II, Div 1, Group E, F, G and Class III Hazardous Location Installation

- Installation should be in accordance with the Canadian Electrical Code using threaded metal conduits.
- Intrinsic safe barrier not required. Class 2 power supply shall be used, max. supply voltage 30 V DC.
- For temperature code of the Microplot S FMR 540 see table.
- 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: Explosion hazard - substitution of components may impair suitability for Class I, Div. 2.
Avertissement: Risque d'explosion – La substitution de composants peut rendre ce matériel inacceptable pour les emplacements de Classe I, Division 2.

For Class II and III, Div. 1 Hazardous Location Installation:

- A dust tight seal must be used at the conduit entry when the transmitter is used in a Class II or III location.
- Warning: Keep cover tight unless power has been switched off or the area is known to be non-hazardous.



Area of application

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

Permissible ambient temperature:

Electronics: intrinsically safe, T12-enclosure: -40... +80 °C

Antennas: Horn or parabolic antenna: -40... +200 °C

Permissible process / ambient temperature and temperature code:

Temperature code of Microplot S FMR 540...	Permissible medium temperature (flange)	Permissible ambient temperature of electronics compartment as a function of medium temperature (horn or parabolic antenna)
T6	+80 °C +60 °C	+55 °C +60 °C
T5	+95 °C +75 °C	+70 °C +75 °C
T4	+130 °C +80 °C	+75 °C +80 °C
T3	+195 °C +150 °C	+70 °C +75 °C
T2, T1 functional	+200 °C	+70 °C

ZD196F/00/ae/03.07
CCS/FM6.0
CSA

Control drawing
960007205-A

Microplot S FMR540



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Endress+Hauser

People for Process Automation