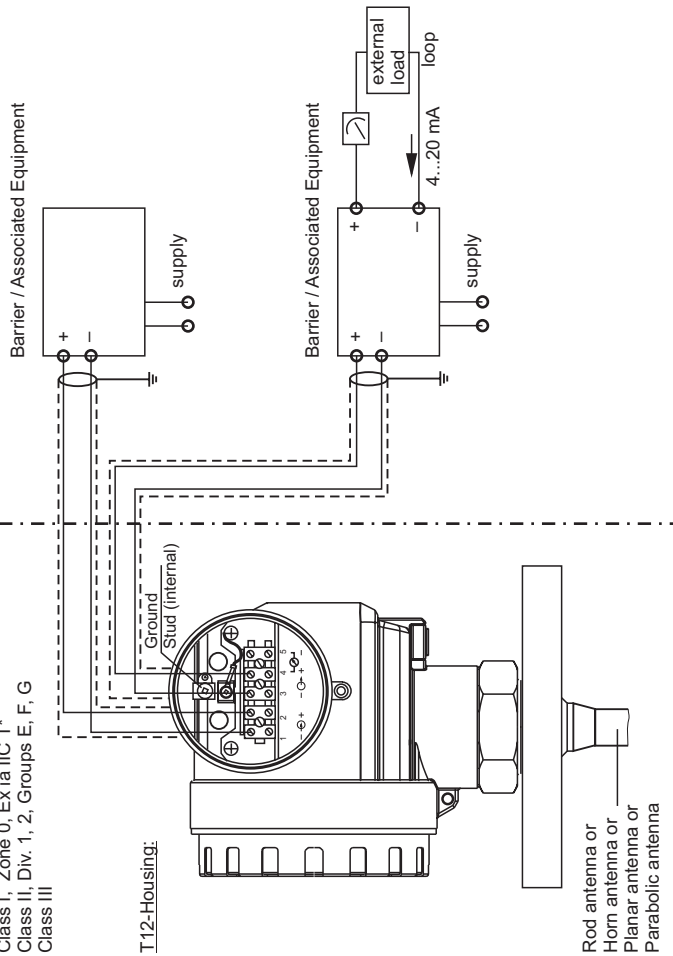


HAZARDOUS LOCATION

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

NON HAZARDOUS LOCATION



T12-Housing:

Rod antenna or
 Horn antenna or
 Planar antenna or
 Parabolic antenna

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
 -40...+200 °C
 Antennas: Horn or Parabolic: -40...+400 °C
 PTFE Rod / Planar: -40...+150 °C

Permissible process / ambient temperature and temperature code:

Temperature code of Microplit S FMR53x	Permissible medium temperature (flange)	Permissible ambient temperature of electronics compartment as a function of medium temperature (antennas)			
		FMR530-High temperature antenna	FMR531-	FMR532-	FMR533-
T6	+80 °C +60 °C	+50 °C +55 °C	+50 °C +55 °C	+50 °C +55 °C	+50 °C +55 °C
T5	+95 °C +70 °C	+70 °C +75 °C	+65 °C +70 °C	+65 °C +70 °C	+65 °C +70 °C
T4	+130 °C	+70 °C	+70 °C	+70 °C	+70 °C
T4A	+80 °C	+80 °C	+80 °C	+80 °C	+80 °C
T3C	+150 °C	+70 °C	+70 °C	+70 °C	+70 °C
T3	+195 °C	+65 °C	-	-	+60 °C
T2	+295 °C	-	-	-	-
T1	+350 °C +400 °C	-	-	-	-

Notes:

Intrinsically safe Class I, Div. 1, Groups 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 (CEC), the National Electrical Code NFPA 70 (NEC) and ANSI/ISA RP12.06.01.
- Warning: Substitution of components may impair intrinsic safety.
- Warning: La substitution de composants peut compromettre la sécurité intrinsèque.
- Ex ia is defined as intrinsically safe / sécurité intrinsèque.
- For entry installation use CSA certified safety barrier or other associated equipment that satisfy the following conditions:
 with $U_o/V_{oc} \leq U_o/V_{max}$, $I_o/I_{sc} \leq I_o/I_{max}$, $C_o/C_c \geq C_c + C_{cable}$, $L_o/L_p \geq L_p + L_{cable}$
 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 _o /V _{max} [V]	I _o /I _{max} [mA]	P _o /P _{max} [W]	C _o [nF]	L _o [µH]
30	300	1.0	≤ 18.5	13

Intrinsically safe signal circuit:

U _o /V _{max} [V]	I _o /I _{max} [mA]	P _o /P _{max} [W]	C _o [nF]	L _o [µH]
30	300	1.0	≤ 20.7	0

- For temperature code of the Microplit S FMR53x 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 planar or parabolic antenna avoid electrostatic charge at the antenna (e.g. do not rub with dry cloth; do not install within the filling curtain).
- Dual Seal Device acc. ISA 12.27.01 – Gas tight conduit seal not required.

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

Hazardous Location Installation

- Installation should be in accordance with the CEC resp. NEC using threaded metal conduits.
- Intrinsic safe barrier not required. Class 2 power supply shall be used.
 Max. supply voltage 30VDC. For temperature code of the Microplit S FMR53x 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 Class III location.
- Warning: Keep cover tight unless power has been switched off or the area is known to be non-hazardous.

Functional ratings

These ratings do not supersede Hazardous Locations Values

Supply circuit: V_{nom} = 16...30 V, I_{nom} = 21 mA (I_{nom} ≤ 50 mA during power on)

Signal circuit: V_{nom} = 16...30 V, I_{nom} = 4...20 mA

XA00540F-C/00/EN/13.11
 CCS/FM6.0
 CSA/C 10.08.10

CSA Control Drawing
 960397-2045 C

Micropilot S
 FMR530/531/532/533
 (IS - HART)



71131090

Endress+Hauser

People for Process Automation