XA01145F-D/00/EN/02.19
CCS/FM10
FM/D 10.06.19

71462014

FM Control Drawing
960006285 D

Prosonic M
FMU40, FMU41, FMU42, FMU44
HART
IS / T12-OVP

Endress+Hauser
People for Process Automation

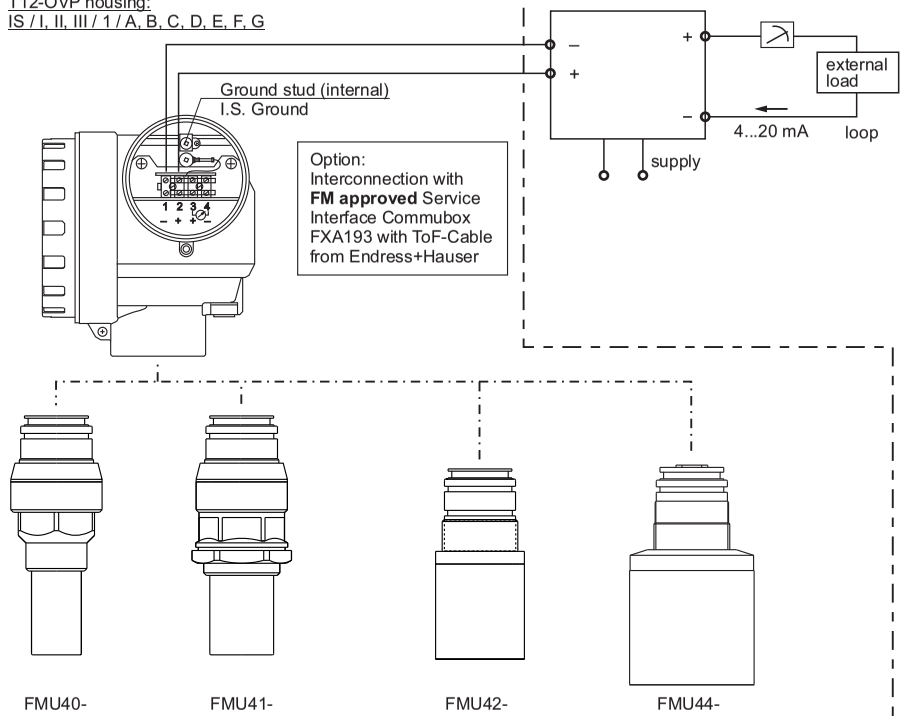
HAZARDOUS LOCATION

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

T12-OVP housing:
IS / I, II, III / 1 / A, B, C, D, E, F, G

NON HAZARDOUS LOCATION

Any FM approved associated apparatus or associated nonincendive field wiring apparatus



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-OVP enclosure: –40...+80 °C (–40...+176 °F)
Sensors: (FMU40, FMU41, FMU42, FMU44): –40...+80 °C (–40...+176 °F)

Permissible process / ambient temperature and temperature code:

Temperature code of FMU40/41/42/44	Permissible medium temperature (flange)	Permissible ambient temperature of electronics compartment as a function of medium temperature (sensor)
T6	+60 °C	+60 °C
T5	+80 °C	+75 °C
T4	+80 °C	+80 °C

Field no.	Order code FMU4x-Sbcdef	Contents
3	–	Made in Germany, 79689 Maulburg
		Assembled in USA
		Assembled in India
50	FMU40, FMU41	P_{abs} = 0.7...3 bar / 10.15...43.5 psi
	FMU42, FMU44	P_{abs} = 0.7...2.5 bar / 10.15...36.25 psi

Notes:

Intrinsically safe installation
Intrinsically safe (entity), Class I, Div. 1, Groups A, B, C, D, Class II, Div. 1, Groups E, F, G, Class III or Class I, Zone 0 AEx ia IIC Hazardous Location Installation

1. Control room equipment may not use or generate over 250 V_{RMS}.
2. Installation should be in accordance with the National Electrical Code NFPA 70 (NEC) and ANSI/ISA RP12.06.01.
3. Warning: Substitution of components may impair intrinsic safety.
4. Use FM Approvals Entity-Approved intrinsic safety barrier with
   U_o / V_{oc} ≤ U_i / V_{max}, I_o / I_{sc} ≤ I_i / I_{max}, C_o / C_a ≥ C_i + C_{cable}, L_o / L_a, L_o / L_a ≥ L_i + L_{cable}
   Barrier must be incapable of delivering more than defined value (P_{max}) to a matched load.
   Transmitter entity parameters are as follows:

U_i / V_{max} [V]	I_i / I_{max} [mA]	P_i / P_{max} [W]	C_i [nF]	L_i [µH]
30	273	1.0	≤ 13	0

5. Use supply wires suitable for 5 K above surrounding ambient.
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 approved by FM Approvals.

Division 2 installation
Nonincendive Class I, Div. 2, Groups A, B, C, D Hazardous Location Installation

1. Installation shall be in accordance with NEC using threaded conduits or other wiring methods in accordance with Article 500 through Article 510. Intrinsic safety barrier not required. Max. supply voltage 30 V. For T-code see table.
2. Warning: Explosion hazard - Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.
   Warning: Explosion hazard - Substitution of components may impair suitability for Class I, Div. 2.

Nonincendive Field Wiring installation:

1. Installation shall be in accordance with NEC.
2. The Nonincendive Field Wiring Circuit Concept allows interconnection of nonincendive field wiring apparatus with associated nonincendive field wiring apparatus or associated apparatus not specifically examined in combination as a system using any of the wiring methods permitted for unclassified locations, when
   V_{max} ≥ V_{oc} or V_t, C_o or C_a ≥ C_i + C_{cable}, L_o or L_a ≥ L_i + L_{cable}
   Transmitter non incendive field wiring parameters for these current controlled circuits are as follows:
   V_{max} = 30 V, C_i ≤ 13 nF, L_i = 0 µH, I_{max} *see note 3.
3. For this current controlled circuit, the parameter I_{max} is not required and need not be aligned with parameter I_{sc} or I_o of the barrier or associated nonincendive field wiring apparatus.

Class II, III installation
DIP for Class II and III, Div. 1, Groups E, F, G Hazardous Location Installation

1. Installation shall be in accordance with NEC using threaded conduits or other wiring methods in accordance with Article 500 through Article 510.
2. Use a dust tight seal at the conduit entry.

Functional ratings
These ratings do not supersede Hazardous Locations Values
V_{nom} = 14...30 V, I_{nom} = 4...20 mA

Example nameplate: