Instructions specific to hazardous area installations

Model numbers covered: FVM**********, FDM**********, and HFVM**********
("*" indicates options in construction, function and materials.)

The following instructions apply to equipment covered by certificate number **Sira 13ATEX2257X** and **IECEx SIR 13.0095X:**

1. The equipment may be used with flammable gases and vapors with apparatus groups IIA, IIB & IIC and with temperature classes T1, T2, T3, T4, T5 and T6. The temperature class of the installation will be determined from the higher of the process or ambient temperature.
2. Installation of this equipment shall be carried out by suitably trained personnel, in accordance with the applicable code of practice.
3. Inspection and maintenance of this equipment shall be carried out by suitably trained personnel, in accordance with the applicable code of practice.
4. No maintenance or repair of the flameproof enclosure is permitted.
5. The enclosure must not be opened when a flammable atmosphere is present, even when the equipment has been electrically isolated.
6. The certification of this equipment relies upon the following materials used in its construction:

   Housing and cover: Aluminum Alloy

   Wetted parts: Stainless Steel 316 type
   Or Stainless Steel 304 type
   Or Carbon Steel
   Or UNS N06022
   Or UNS N10675
   Or UNS N10665
   Or UNS N04400
   Or titanium
   Or zirconium

   If the equipment is likely to come into contact with aggressive substances, it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection is not compromised.

   Aggressive substances: e.g. acidic liquids or gases that may attack metals, or solvents that may affect polymeric materials

   Suitable precautions: e.g. regular checks as part of routine inspections or establishing from the material's data sheet that it is resistant to specific chemicals

   Note: The metallic alloy used for the wetted parts may be at the accessible surface of this equipment; in the event of rare accidents, ignition sources due to impact and friction sparks could occur.

7. It is the responsibility of the user to ensure:
   a. The voltage and current limits for this equipment are not exceeded.
   b. That only suitably certified cable entry devices will be utilized when connecting this equipment.
   c. That any unused cable entries are sealed with suitably certified stopping plugs.
   d. That the joint requirements between the probe and the vessel tank are compatible with the process media.
   e. That the joint tightness is correct for the joint material used.
   f. That suitable temperature rated cable is used.
8. The probe fork is subjected to small vibration stresses as part of its normal function. As this provides a partition wall, it is recommended that the fork should be inspected every 2 years for signs of defects.
9. Technical data:

Coding: Sira 13ATEX2257X

Model: F*M********(B,C,D)3F******, HF*M********(B,C,D)3F******

II 1/2 G Ex d IIC T6 Ga/Gb (-40°C ≤ Ta ≤ +65°C)

Model: F*M********A3F******, HF*M********A3F******

II 1/2 G Ex d [ib] IIC T6 Ga/Gb (-40°C ≤ Ta ≤ +65°C)

IECEx SIR 13.0095X

Model: F*M********(B,C,D)3I******, HF*M********(B,C,D)3I******

Ex d IIC T6 Ga/Gb (-40°C ≤ Ta ≤ +65°C)

Model: F*M********A3I******, HF*M********A3I******

Ex d [ib] IIC T6 Ga/Gb (-40°C ≤ Ta ≤ +65°C)

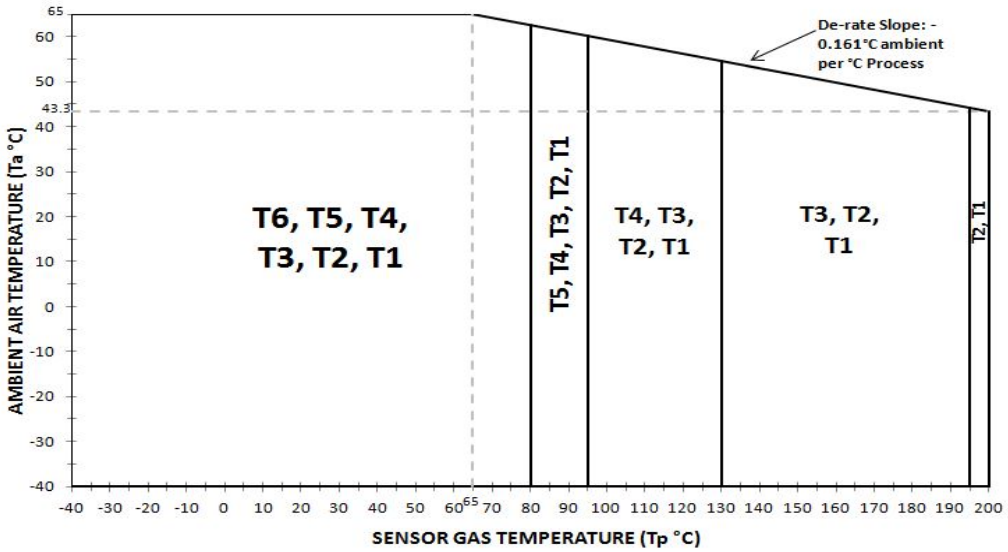
Electrical: Um: 30Vdc Pmax: 2.05W

Year of manufacture: printed on the product label

Pressure: Must not exceed the rating of the coupling/flange fitted.

Temperature:

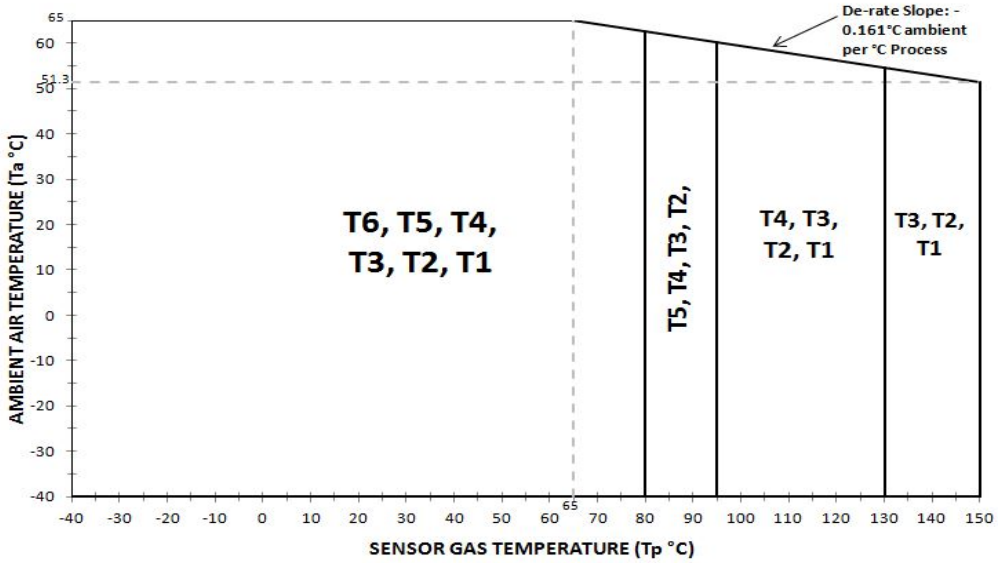
F*M*1* * & HF*M*1*



Note: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Ambient Air Temperature **(Ta)** -40°C ≤ Ta ≤ +65°C

F*M*(2-9)* * & HF*M*(2-9)*



Note: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Ambient Air Temperature **(Ta)** -40°C ≤ Ta ≤ +65°C

10. Special conditions of use
    a. After de-energizing delay 5 minutes before opening enclosure.
    b. The fork may be a non-conductive material, it must not be installed directly in any process where the surface might be charged by the rapid flow of non-conductive media. To be cleaned only with a damp cloth.
    c. Models F*M********A3(F/I)****** & HF*M********A3(F/I)****** can only be connected to a Micro Motion 2700 transmitter
    d. The Temperature class defined by ambient temperature and process temperature as shown in the graphs above and the following formula

$$\text{If } Tp \leq 65°C,\ Ta\,max = 65°C$$

$$\text{If } Tp > 65°C,\ Ta\,max = \left(65 - 0.161 \times (Tp - 65)\right)°C$$