

## Instructions specific to hazardous area installations

Model numbers covered: FVM\*\*\*\*\* (V,3)\*\*\*\*\*, FDM\*\*\*\*\* (V,3)\*\*\*\*\*, and HFVM\*\*\*\*\* (V,3)\*\*\*\*\*

("\*" indicates options in construction, function and materials.)

The following instructions apply to equipment covered by certificate number **Sira 13ATEX4258X** and **IECEx SIR 13.0096X**:

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 enclosure is permitted.
5. 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



6. 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.

7. Technical data:

Coding: Sira 13ATEX4258X

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

II 3 G Ex nA IIC T6 Gc (-40°C ≤ Ta ≤ +65°C)

Model: F\*M\*\*\*\*\* (A, B, C, D)2V\*\*\*\*\* , HF\*M\*\*\*\*\* (A, B, C, D)2V\*\*\*\*\*

II 3 G Ex nA IIC T4 Gc (-40°C ≤ Ta ≤ +65°C)

IECEx SIR 13.0096X

Model: F\*M\*\*\*\*\* (A, B, C, D)33\*\*\*\*\* , HF\*M\*\*\*\*\* (A, B, C, D)33\*\*\*\*\*

Ex nA IIC T6 Gc (-40°C ≤ Ta ≤ +65°C)

Model: F\*M\*\*\*\*\* (A, B, C, D)23\*\*\*\*\* , HF\*M\*\*\*\*\* (A, B, C, D)23\*\*\*\*\*

Ex nA IIC T4 Gc (-40°C ≤ Ta ≤ +65°C)

Electrical: Um: 30Vdc Pmax: 14.52W

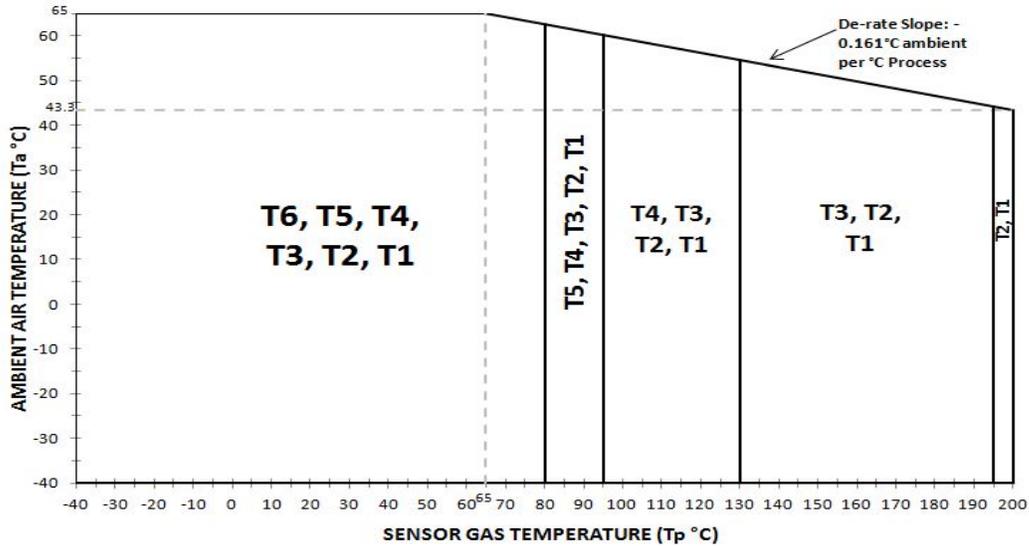
Year of manufacture: printed on the product label

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



Temperature:

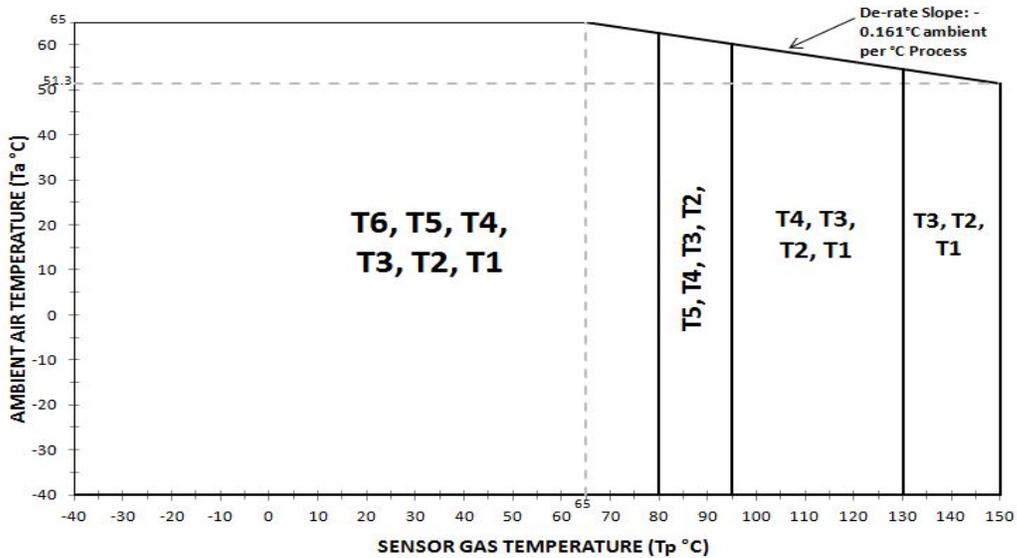
No Display: F\*M\*1\*\*\*\*\*3(V or 3)\*\*\*\*\* & HF\*M\*1\*\*\*\*\*3(V or 3)\*\*\*\*\*



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

No Display: F\*M\*(2-9) \*\*\*\*\*3(V or 3)\*\*\*\*\* & HF\*M\*(2-9) \*\*\*\*\*3(V or 3)\*\*\*\*\*

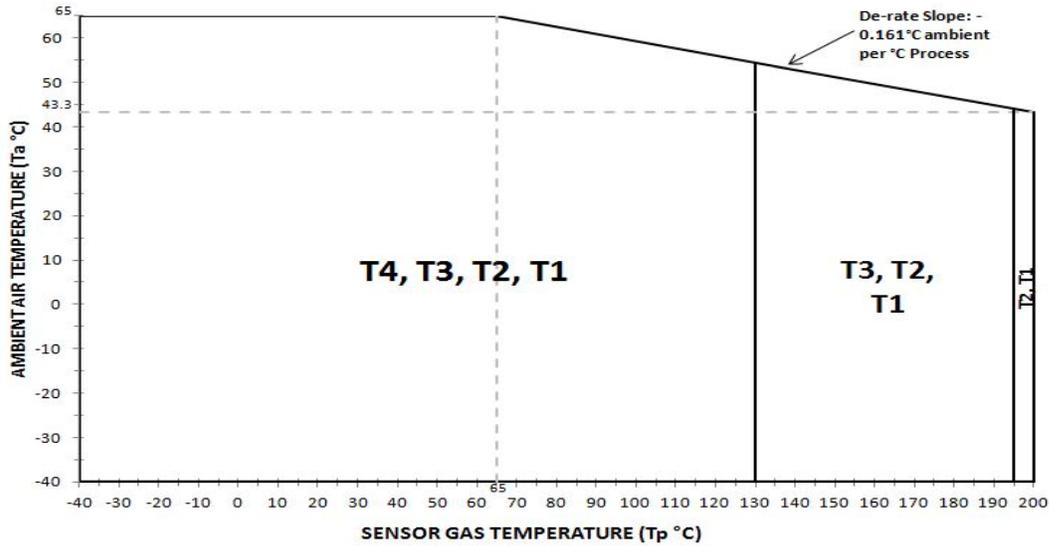


Note: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

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



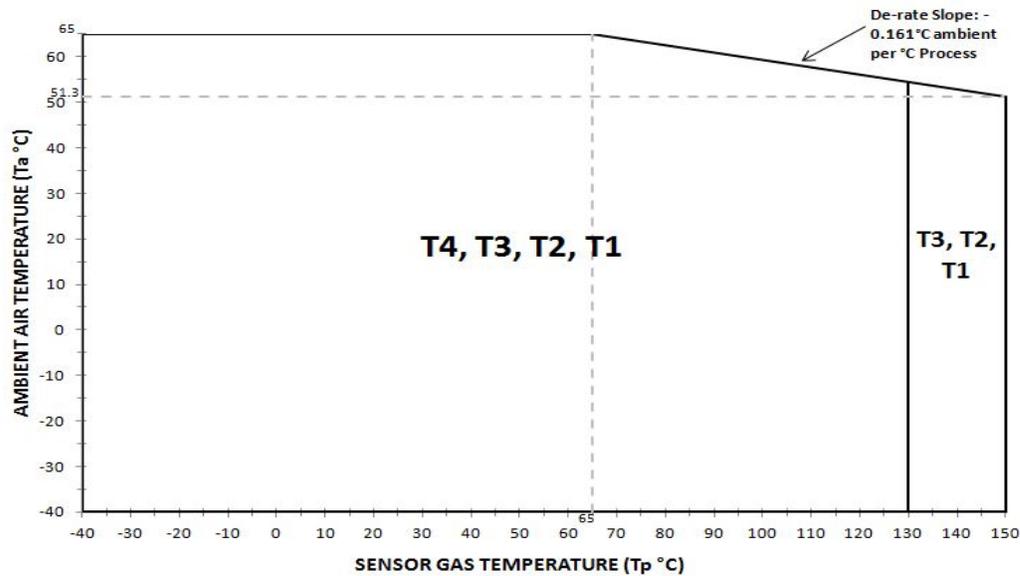
With Display: F\*M\*1\*\*\*\*\*2(V or 3)\*\*\*\*\* & HF\*M\*1\*\*\*\*\*2(V or 3)\*\*\*\*\*



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

With Display: F\*M\*(2-9) \*\*\*\*\*2(V or 3)\*\*\*\*\* & HF\*M\*(2-9)\*\*\*\*\*2(V or 3)\*\*\*\*\*



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



8. Special conditions of use
- After de-energizing delay 5 minutes before opening enclosure.
  - 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.
  - Models F\*M\*\*\*\*\*A3(V,3)\*\*\*\*\* & HF\*M\*\*\*\*\*A3(V,3)\*\*\*\*\* can only be connected to a Micro Motion 2700 transmitter
  - The permissible ambient temperature range is -40°C to +65°C. The use of the transmitter at an ambient temperature lower than -20°C is only admissible, if the cables are suitable and the cable entries resp. blanking plugs are certified for that temperature and use.
  - The User Interface module shall not be disconnected from the encapsulated electronic module unless the unit has been de-energized.
  - The DIP switch SW1 shall not be switched unless the unit has been de-energized.
  - The Temperature class defined by ambient temperature and process temperature as shown in the graphs above and the following formula

$$\text{If } T_p \leq 65^\circ\text{C}, T_{a \max} = 65^\circ\text{C}$$

$$\text{If } T_p > 65^\circ\text{C}, T_{a \max} = (65 - 0.161 \times (T_p - 65))^\circ\text{C}$$

