



Safety for Industrial Process

## Mecan'X Family

### FX serie

Pressure and Temperature switches with stainless steel housing



## Characteristics\*

- Gauge, absolute or differential pressure control
- Temperature control : direct mounting or remote assembly through a capillary
- Output signal 0-1 with simple or double contact SPDT with simultaneous or offset action
- 316L stainless steel housing
- IP66/67 et IK09 Protection rating
- Certifications for explosive hazardous areas : ATEX and IECEx
- SIL2 capacity without redundancy
- Made in France

\* following models

## APPLICATIONS

- Industrial and manufacturing processes in Harsh environment
- Desalination plants
- Food processes



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### FX serie

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#### Main Characteristics

- **316L stainless steel housing**
  - **IP66/IP67** according to standard EN 60529
  - **IK09** according to standard EN 62262 and EN 60068-2-75
- **Sensitive elements for absolute, relative or differential pressure control**
  - Bellows from -1 to 125 bar
  - Diaphragm for pulsating process type from -1 to 50 bar
  - Diaphragm for low pressure from -50 to 1000 mbar
  - Bourdon tube from 10 to 800 bar
- **Sensitive elements for temperature control**
  - Direct bulb from -20 to + 120 ° C
  - Remote bulb through capillary for temperature range from -90 to + 380 ° C

Our Thermostatic elements operate following the principle of vapor pressure. By respecting a specific dimensioning of the bulb, this technology guarantees an optimal reactivity on the sensitive element only.
- **Electrical functions**

They combine 1 or 2 SPDT contacts:

  - low fixed hysteresis to provide a safety function
  - adjustable hysteresis to allow a regulation function

They are available according to a large catalog of micro-switches offering constructions that are simple as well as hermetic under nitrogen or explosion-proof. The cable input is M20 type as standard.

#### Options

- **ATEX/IECEx certifications**

**Ex db eb / Ex tb version to benefit from a level of protection similar to explosion-proof and be installed in hazardous zones 1/2 or 21/22 in a small footprint.**

ATEX certificate : INERIS 16 ATEX0044X  
IECEx certificate: IECEx INE16.0053X  
Ex db eb IIC TX Gb (-40°C<Ta<60°C)  
Ex tb IIIC TX Db  
Groupe II (Surface) - Category 2GD.

The intrinsic safety version Ex ia will complete the range for a solution in zones 0 or 20 during-2018.

- **Line resistances (LFD)**

Two line resistances can be added at the SPDT contact.

According to the NAMUR principles, they allow the detection of cable breaks and short circuits.

- **SIL2 Capacity**

The FX serie is backed by a great deal of experience from our equipment and allows type A compliance according to IEC 61 508.

- **Mounting on diaphragm seal**

Removable or monobloc solutions, screw or flange, stainless steel, Monel or any other material made necessary for fluidic or environmental reasons.

- **NACE compliance**

According to the standard MR0178 / ISO 15156-3-2003 for our bellows or bourdon tube constructions.

