

FEX

FEX is a two-stage spring loaded direct acting gas pressure regulator by Pietro Fiorentini. It is particularly suitable for low pressure natural gas distribution networks for residential and commercial users. It should be used with previously filtered non-corrosive gases including biomethane and natural gas blended with hydrogen. According to the European Standard EN 334, it is classified as Fail Close since always supplied with an overpressure protection device (slam shut valve). FEX is Hydrogen Ready for NG-H2 blending.



Commercial users



Residential users

Features	Values		
Design pressure* (PS ¹ / DP ²)	0.86 MPa 8.6 bar		
Inlet pressure (MAOP / p _{max} ¹)	0.01 - 0.86 MPa 0.1 - 8.6 bar		
Nominal capacity	50 - 100 m ³ /h 1765 - 3530 ft ³ /h		
	BP version	MP version	
Range of downstream pressure Wds	1.3 - 9.9 kPa 13 - 99 mbar	10 - 35 kPa 100 - 350 mbar	
Range of downstream pressure Wdso	3.2 - 16 kPa 32 - 160 mbar	15.5 - 50 kPa 155 - 500 mbar	
Range of downstream pressure Wdsu	0.6 - 25 kPa 6 - 250 mbar	-	
Accuracy class (AC)	10		
Lock-up over pressure (SG)	20		
	Standard version	Extended temperature version	Arctic version
Ambient temperature* (TS ¹)**	from -20 °C to +60 °C from -4 °F to +140 °F	from -30°C to + 60°C from -22 °F to +140 °F	from -40°C to + 60°C from -40 °F to +140 °F
Inlet gas temperature* ,***	from -10°C to + 60°C from +14 °F to +140 °F	from -20°C to + 60°C from -4 °F to +140 °F	from -30 °C to +60 °C from -22 °F to +140 °F
Body connection	Inlet G 1" and outlet G 1" 1/2 according to ISO 228/1, other configurations or connections on request		
Fittings	<ul style="list-style-type: none"> • Gas (as per UNI EN ISO 228-1:2003); • Flat swivel joint (as per NF E29-533: 2014 and NF E29-536: 2017); • NPT (according to ASME B1.20.1, excluding connections with metal/metal sealing); • Flanged Class 150 RF (ASME B16.5) 		

(¹) according to EN334 standard

(²) according to ISO 23555-1 standard

(*) NOTE: Different functional features and/or extended temperature ranges may be available on request. Stated inlet gas temperature range is the maximum for which the equipment's full performance, including accuracy is guaranteed. Product may have a different pressure or temperature ranges according to the version and/or installed accessories.

(**) NOTE: Stated temperature range is the operating range for which the equipment's mechanical resistance and leakage rate are guaranteed. Some body materials, if multiple choices are available, may not be suitable for all the available versions shown.

(***) NOTE: Stated temperature range is the range for which the equipment's full performance, including accuracy and lock-up are guaranteed. Some body materials, if multiple choices are available, may not be suitable for all the available versions shown.

Table 1 Features

Materials and Approvals

Part	Material
Diaphragm and seats	Nitrile rubber for BP version Rubberized fabric for MP version
Sealing rings	Nitrile
Body and cover	Aluminium
Seat	Zamak

NOTE: The materials indicated above refer to the standard models. Different materials can be provided according to specific needs.

Table 2 Materials

The **FEX** regulator is designed in compliance with European standard EN 13611. Based on the version/configuration, the FEX regulator complies with:



EN 13611



UNI 8827



EN 16129



EN 88-2



UNI 11655



NF
E29-190-2

FEX competitive advantages



Operates with low differential pressure



Slam-shut valve for overpressure
Slam-shut valve for underpressure



Two-stage regulation with balanced first stage plug



High customisation



Integrated thermal valve option



Built-in filter



Suitable for outdoor installations



Compatible with biomethane and blended hydrogen up to 20%.
Higher mixtures available on request