

# FEX

**Two-stage direct-operated gas pressure regulator** by Pietro Fiorentini, the **FEX** is a gas service regulator equipped with integrated slam shut (both OPSO and UPSO) excess flow function and optional fire protection valve. Particularly suitable for low pressure natural gas distribution networks for large residential, commercial and small industrial users, it can be used with previously filtered non-corrosive gases including bio-methane and natural gas blended with hydrogen.



Commercial users



Residential users

Features	Values
Design pressure*	up to 0.86 MPa up to 125 psig
Ambient temperature*	from -40 °C to +60 °C from -40 °F to +140 °F
Inlet pressure range bpu (MAOP)	from 50 kPa to 0.86 MPa from 7.25 psig to 125 psig
Range of downstream pressure Wds	<ul style="list-style-type: none"> <li>from 1.3 kPa to 14.5 kPa for BP version from 5" w.c. to 2.1 psig for BP version</li> <li>from 14.51 kPa to 35 kPa for MP version from 2.11 psig to 5.1 psig for MP version</li> </ul>
Range of downstream pressure Wdso	<ul style="list-style-type: none"> <li>from 3.2 kPa to 15.9 kPa for BP version from 13" w.c. to 2.3 psig for BP version</li> <li>from 16 kPa to 50 kPa for MP version from 2.31 psig to 7.25 psig for MP version</li> </ul>
Minimum inlet pressure and nominal capacity	<ul style="list-style-type: none"> <li>up to 75 Sm<sup>3</sup>/h with 50 kPa differential pressure</li> <li>up to 2,600 sfch with 7.25 psig differential pressure</li> <li>up to 100 Sm<sup>3</sup>/h with 69 kPa differential pressure</li> <li>up to 3,500 sfch with 10 psig differential pressure</li> </ul>
Accuracy class AC	up to 10
Lock-up pressure class SG	up to 20, minimum 0.75 kPa   3" w.c.
Connections*	inline 1-1/4" , 1-1/2" NPT according to ANSI B1.20.1, other configurations or connections on request

(\* Note: Different functional features and/or extended temperature ranges available on request. Stated temperature ranges are the maximum for which the equipment's full performance, including accuracy, are fulfilled. Standard product may have a narrower range.

Table 1 Features

## Materials and Approvals

Part	Material
Body	Aluminum
Cover	Aluminum
Diaphragms and seats	Nitrile rubber for BP version Rubberized fabric for MP version
Sealing rings	Nitrile

**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 according to the European standard EN 16129, Italian Standard UNI 11655, ANSI B109.4 and CSA 6.18.

ANSI Z21.80 certification is limited to 70 kPa | 10 psig maximum inlet pressure.

Leakage class: bubble tight, better than VIII according to ANSI/FCI 70-3.



EN16129



UNI 11655



ANSI B109.4



CSA 6.18



ANSI Z21.80

## FEX competitive advantages



Operates with low differential pressure



Slam shut for over pressure  
Slam shut for under pressure



Double stage with single orifice regulator



Highly customizable



Suitable for 1 ft clearance installation with 2.5 cfh/h limited venting



In-built thermal valve option



for seat protection



In-built excess flow valve option



Suitable for outdoor installations



Biomethane compatible and 20% Hydrogen blending compatible. Higher blending available on request