

# FE 75/100

The **FE** is a two-stage 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** because it is always supplied with an overpressure protection device (slam shut valve). The FE is **Hydrogen Ready** for NG-H2 blending.



Commercial users

Features	Values
Design pressure* (PS <sup>1</sup> / DP <sup>2</sup> )	up to 860 kPa up to 125 psig
Ambient temperature* (TS <sup>1</sup> )	All versions -40°C to +65°C   -40°F to +150°F
Inlet gas temperature*	<ul style="list-style-type: none"> <li>Standard version -10°C to +65°C   14°F to +150°F</li> <li>Arctic version -20°C to +65°C   -22°F to +150°F</li> </ul>
Inlet pressure (MAOP / p <sub>umax</sub> <sup>1</sup> )	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 5.2" w.c. to 2.1 psig for BP version</li> <li>from 14.51 kPa to 35 kPa for MP version from 2.1 psig to 5.1 psig for MP version</li> </ul>
Range of downstream pressure Wdso	<ul style="list-style-type: none"> <li>from 1.3 kPa to 15.9 kPa for BP version from 5.2" 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   2,600 scfh with 50 kPa   7.25 psig differential pressure</li> <li>up to 100 Sm<sup>3</sup>/h   3,500 scfh with 69 kPa   10 psig differential pressure</li> </ul>
Accuracy class (AC <sup>1</sup> )	10
Lock-up pressure class (SG <sup>1</sup> )	20, minimum 0.75 kPa   3" w.c.
Connections*	In-line 1", 1 1/2 NPT according to ANSI B1.20.1, other configurations or connections on request

(<sup>1</sup>) according to EN334 standard

(<sup>2</sup>) 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.

**Table 1** Features

## Materials and Approvals

Part	Material
Body	Aluminum
Cover	Aluminum
Diaphragms and seats	Nitrile rubber for BP version Rubberized fabric for TR 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

## Construction Standards and Approvals

The FE regulator is designed according to the European standard EN 16129, Italian Standard UNI 11655, ANSI B109.4 and CSA 6.18.

The FE 75/100 BP versions are CSA certified.

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

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



EN16129



UNI 11655



ANSI B109.4



CSA 6.18



ANSI Z21.80

## FE 75/100 competitive advantages



Operates with low differential pressure



Built-in thermal valve option



Slam shut for over pressure  
Slam shut for under pressure



Built-in strainer for seat protection



Two-stage double diaphragm and single orifice regulator



Built-in flow limiter valve option



Highly customizable



Suitable for outdoor installations



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



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