

# FE25 / FE50

The **FE25 / FE50** is a two-stage, spring loaded lever operated gas pressure regulator by Pietro Fiorentini. It is particularly suitable for low pressure natural gas distribution systems 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 International Standard ISO 23555-2 and European Standard EN 334, it is classified as **Fail Close** because it is always supplied with an overpressure protection device (slam shut valve). The FE25 / FE50 is **Hydrogen Ready** for NG-H2 blending.



Features	Values	
Design pressure* (PS <sup>1</sup> / DP <sup>2</sup> )	up to 860 kPa up to 125 psig	
	<b>Standard version</b>	<b>Arctic version</b>
Ambient temperature* (TS <sup>1</sup> )**	-30°C to +65°C   -20°F to +150°F	-40°C to +65°C   -40°F to +150°F
Inlet gas temperature* ,***	-20°C to +65°C   -4°F to +150°F	-30°C to +65°C   -20°F to +150°F
Inlet pressure (MAOP / p <sub>umax</sub> <sup>1</sup> )	from 10 kPa to 0.86 MPa from 1.45 psig to 125 psig	
	<b>BP version</b>	<b>MP version</b>
Range of downstream pressure Wds	from 1.3 kPa to 18 kPa from 5.2" w.c. to 2.6 psig	from 30 kPa to 40 kPa from 4.35 psig to 5.8 psig
Range of downstream pressure Wdso	from 3.5 kPa to 24.1 kPa from 14" w.c. to 3.5 psig	from 30 kPa to 80 kPa from 4.3 psig to 11.6 psig
Minimum inlet pressure and nominal capacity	<ul style="list-style-type: none"> <li>FE25: up to 25 Sm<sup>3</sup>/h   875 sfch with 28 kPa   4 psig differential pressure</li> <li>FE 50: up to 43 Sm<sup>3</sup>/h   1,500 sfch 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 3/4" or 1" 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.

(\*\*) 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
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

## Construction Standards and Approvals

The FE25 / FE50 regulator is designed according to the International standard ISO 23555-2, European standard EN 16129, Italian Standard UNI 11655, ANSI B109.4, CSA 6.18 and ANSI Z21.80.

The FE25 / FE50 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



ISO 23555-2

## FE25 / FE50 competitive advantages



Operates with low differential pressure



Built-in thermal valve option



Slam shut for overpressure



Built-in strainer



Two-stage double diaphragm and single orifice regulator



Built-in flow limiter valve option which enable UPSO feature



Highly customizable



Suitable for outdoor installations



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



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