

Aperval 101

The **Aperval 101** is one of the **pilot-operated gas pressure regulators** produced by Pietro Fiorentini. This device is suitable for use with previously filtered non-corrosive gases, and it is mainly used for medium and low pressure natural gas distribution networks. It is classified as **Fail Open** according to the European Standard EN 334. The Aperval 101 is **Hydrogen Ready** for NG-H₂ blending.



Medium / small
industry



District stations

Features	Values
Design pressure* (PS ¹ / DP ²)	up to 1.89 MPa up to 274 psig
Ambient temperature* (TS ¹)	from -20 °C to +60 °C from -4 °F to +140 °F
Inlet gas temperature*	from -10 °C to +60 °C from 14 °F to +140 °F
Inlet pressure (MAOP / p _{umax} ¹)	from 0.05 to 1.89 MPa from 7.2 to 274 psig
Range of downstream pressure (Wd ¹)	from 2 to 950 kPa from 8" w.c. to 137.7 psig
Available accessories	none
Minimum operating differential pressure (Δp _{min} ¹)	48 kPa 6.9 psig
Accuracy class (AC ¹)	up to 2.5
Lock-up pressure class (SG ¹)	up to 5
Nominal size (DN ^{1,2})	DN 50 2"; DN 80 3"; DN 100 4"
Connections	Class 125 FF, 125 RF and 150 RF according to ASME B16.1, and PN 16 according to ISO 7005-2

(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.

Table 1 Features

Materials and Approvals

Part	Material
Body	Spheroidal cast iron GS 400- 18 ISO 1083 Cast steel ASTM A216 WBC
Cover	Rolled or forged carbon steel
Seat	Technopolymer
Diaphragm	Vulcanized rubber
Compression fittings	According to DIN 2353 in zinc-plated carbon steel.
NOTE: The materials indicated above refer to the standard models. Different materials can be provided according to specific needs.	

Table 2 Materials

The **Aperval 101** regulator is designed according to the European standard EN 334.
The regulator reacts in opening (Fail Open) according to EN 334.
Leakage class: bubble tight, better than VIII according to ANSI/FCI 70-3.



EN 334

Aperval 101 competitive advantages



Compact and simple design



High turn-down ratio



Low noise



Top Entry



Easy maintenance



Balanced type



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