

# Aperval

The **Aperval** is one of the **pilot-operated gas pressure regulators** designed and manufactured 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. According to the European Standard EN 334, it is classified as **Fail Open**.



Medium / small  
industry



District stations

Features	Values
Design pressure* (PS <sup>1</sup> / DP <sup>2</sup> )	up to 2.5 MPa up to 362.5 psig
Ambient temperature* (TS <sup>1</sup> )	from -20 °C to +60 °C from -4 °F to +140 °F
Inlet gas temperature*	from -20 °C to +60 °C from -4 °F to +140 °F
Inlet pressure (MAOP / p <sub>umax</sub> <sup>1</sup> )	from 0.05 to 2.5 MPa from 7.25 to 362.5 psig
Range of downstream pressure (Wd <sup>1</sup> )	from 0.5 to 950 kPa from 2" w.c. to 137.7 psig
Available accessories	DB Silencer, Slam shut SA, PM/182 Monitor
Minimum operating differential pressure (Δp <sub>min</sub> <sup>1</sup> )	45 kPa 6.5 psig
Accuracy class (AC <sup>1</sup> )	up to 5
Lock-up pressure class (SG <sup>1</sup> )	up to 10
Nominal size (DN <sup>1,2</sup> )	DN 25   1"; DN 50   2" DN 65   2" 1/2; DN 80   3"; DN 100   4"
Connections	Class 150 RF according to ASME B16.5 and PN16, 25 according to ISO 7005

(<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	Cast steel ASTM A216 WCB for all sizes Ductile iron GS 400-18 ISO 1083 for all sizes
Cover	Rolled or forged carbon steel
Seat	Technopolymer
Diaphragm	Vulcanized rubber
Sealing ring	Nitrile rubber
Compression fittings	According to DIN 2353 in zinc-plated carbon steel. Stainless steel on request

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

**Table 2** Materials

The **Aperval** regulator is designed according to the European standard EN 334.  
The regulator reacts in opening (Fail Open) according to EN 334.  
The product is certified according to European Directive 2014/68/EU (PED).  
Leakage class: bubble tight, better than VIII according to ANSI/FCI 70-3.



EN 334



PED-CE

## Aperval competitive advantages



Balanced type



Operate with low differential pressure



High accuracy



High turn-down ratio



Built-in pilot filter



Top Entry



Easy maintenance



Low noise



Built-in accessories



Biomethane compatible and  
10% Hydrogen blending compatible.  
Higher blending available on request