Pietro Fiorentini

Aperflux 101



The **Aperflux 101** 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 high-pressure transmission systems and for medium pressure natural gas distribution networks. According to the European Standard EN 334, it is classified as **Fail Open.** The Aperflux 101 is **Hydrogen Ready** for NG-H2 blending.

- Gas liquefaction
- Gas storage
- Heavy industries
- Gas compression / booster stations
- City gates
- Regasification

Features	Values
Design pressure* (PS[1] / DP[2])	up to 8.5 MPa up to 85 barg
Ambient temperature* (TS[1])	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_{umax}[1])	from 0.18 to 8.5 MPa from 1.8 to 85 barg
Range of downstream pressure (Wd[1])	from 0.08 to 7.4 MPa from 0.8 to 74 barg
Available accessories	none
Minimum operating differential pressure (Δp_{min}[1])	0.1 MPa - recommended > 0.2 MPa 1 barg - recommended > 2 barg
Accuracy class (AC[1])	up to 2.5 (depending on working conditions)
Lock-up pressure class (SG[1])	up to 10 (depending on working conditions)
Nominal size (DN[1,2])	DN 50 / 2”; DN 80 / 3”; DN 100 / 4”;
Connections	Class 300/600 RF / RTJ according to ANSI B 16.5

([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

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Materials and **Approvals**

Part	Material
Body	Cast steel ASTM A352 LCC for rating 300 and 600
Cover	Rolled or forged carbon steel A350 LF2
Seat	Stainless steel
Diaphragm	Vulcanized rubber
Sealing ring	Nitrile 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 **Aperflux 101** 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

Aperflux 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

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