

Aperflux 851

The **Aperflux 851** 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 851 is **Hydrogen Ready** for NG-H2 blending.



Gas liquefaction



City gates



Gas storage



Gas compression / booster stations



Heavy industries



Regasification

Features	Values
Design pressure* (PS ¹ / DP ²)	up to 10.2 MPa up to 1,479 psig
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 0.13 MPa to 8.5 MPa from 18.9 psig to 1,232 psig
Range of downstream pressure (Wd ¹)	from 0.08 MPa to 7.4 MPa from 11.6 psig to 1073 psig
Available accessories	DB/851 Silencer, SB/82 Slam-shut, HB/97 Slam shut, PM/819 Monitor, opening indicator
Minimum operating differential pressure (Δp _{min} ¹)	0.05 MPa - recommended 0.2 MPa 7.25 psig - recommended 29 psig
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 25 1"; DN 50 2"; DN 80 3"; DN 100 4"; DN 150 6"; DN 200 8"; DN 250 10"
Connections	Class 150/300/600 RF / RTJ according to ASME B 16.5 or PN 16/25/40 according to ISO 7005

(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	Cast steel ASTM A352 LCC for classes 300 and 600 ASTM A216 WCB for classes 150 and PN16
Cover	Rolled or forged carbon steel
Seat	Stainless steel for DN ≤3" Carbon Steel with seal edge in stainless steel for size ≥ 4"
Diaphragm	Vulcanized rubber
Sealing ring	Nitril rubber
Compression fittings	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 851** 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 851 competitive advantages



Balanced type



Top Entry



Operates with low differential pressure



Easy maintenance



High accuracy



Low noise



High turn-down ratio



Built-in accessories



Built-in pilot filter



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