

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 10.3 MPa up to 1500 psig	
Operating ambient temperature* (TS ¹)	Standard version from -10 °C to +65 °C from +14 °F to +150 °F	Arctic version from -40 °C to +65 °C from -40 °F to +150 °F
Permissible gas temperature*	Standard version from -10 °C to +60 °C from +14 °F to +140 °F	Arctic version from -20 °C to +60 °C from -4 °F to +140 °F
Inlet pressure range bpu (MAOP / p _{umax} ¹)	from 0.13 to 8.5 MPa from 18.7 to 1232 psig	
Range of downstream pressure (Wd ¹)	from 0.08 to 7.4 MPa from 11.6 to 1073 psig	
Available accessories	DB/851 Silencer, SB/82 Slam shut, HB/97 Slam shut, PM/819 Monitor, open-status indicator	
Minimum differential pressure (Δp _{min} ¹)	0.05 MPa - recommended 0.2 MPa 7.25 psig - recommended 29 psig	
Accuracy class	up to 2.5% gauge (depending on working conditions)	
Lock-up pressure class	up to 10% gauge (depending on working conditions)	
Nominal dimensions (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 EN 1092-1	

(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



Operates 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
20% Hydrogen blending compatible.
Higher blending available on request