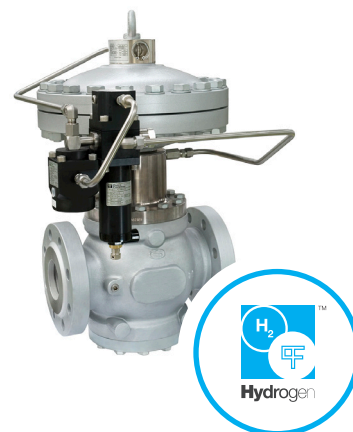


Reflux 819/FO H

Reflux 819/FO H is one of the **pilot-operated gas pressure regulators** designed and manufactured by Pietro Fiorentini. This device is suitable for **100% hydrogen applications**. It is mainly used for high-pressure transmission systems, power plants and for medium pressure gas distribution networks. According to the European Standard EN 334, it is classified as **Fail Open**.



- | | | |
|--|---|--|
|  Compression / booster stations |  City gates |  Power generation |
|  H ₂ storage |  Heavy industries |  Gas reverse-flow |
|  H ₂ liquefaction plants |  Regasification plants |  Blending units |
|  Electrolyzer plants | | |

Features	Values
Design pressure* (PS ¹ / DP ²)	up to 10.2 MPa up to 102 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 0.3 to 10.2 MPa from 3 to 102 barg
Range of downstream pressure (Wd ¹)	from 0.1 to 7.4 MPa from 1 to 74 barg
Available accessories	DB/819 Silencer, LDB/171 Silencer, PM/819 Monitor, SB/82 Slam shut, HB/97 Slam shut
Minimum operating differential pressure (Δp _{min} ¹)	0.2 MPa 2 barg
Accuracy class (AC ¹)	up to 2.5
Lock-up pressure class (SG ¹)	up to 5
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"; DN 300 12"
Connections	Class 150, 300, 600 RF or RTJ according to ASME B16.5 and PN16

(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	ASTM A 352 LCC cast steel for classes ANSI 600 and 300; (with specific chemical composition requirements) ASTM A 216 WCB cast steel for classes ANSI 150 and PN 16/40 (with specific chemical composition requirements)
Cover	ASTM A 350 LF2 steel (with specific chemical composition requirements)
Stem	Austenitic AISI 416 stainless steel
Plug	ASTM A 350 LF2 nickel-plated steel (with specific chemical composition requirements)
Seat	Vulcanized Nitrile Rubber on metal support
Diaphragm	Rubberised Canvas (pre-formed by hot-pressing process)
Sealing ring	Nitrile Rubber
Compression fittings	Austenitic stainless steel

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

Table 2 Materials

Reflux 819/FO H 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). DVGW certified as a truly Fail Open regulator. Leakage class: bubble tight, better than VIII according to ANSI/FCI 70-3.



EN 334



PED-CE



DVGW

Reflux 819/FO H competitive advantages



Compact and simple design



Top entry



High accuracy



Easy maintenance



High turn-down ratio



Built-in accessories



True Fail Open plug and seat regulator



Suitable for 100% Hydrogen



Built-in pilot filter



Balanced type