

Reflux 819

Reflux 819 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, power plants and for medium pressure natural gas distribution networks. According to the European Standard EN 334, it is classified as Fail Close or Fail Open according to the installed pilot (except for the PM819 monitor). The Reflux 819 is **Hydrogen Ready** for NG-H2 blending.



-  Gas liquefaction
-  City gates
-  Power generation
-  Gas compression / booster stations
-  Heavy industries
-  LNG marine
-  Gas storage
-  Regasification
-  Gas reverse-flow
-  Gas engines

| Features | Values | |
|---|--|--|
| Design pressure* (PS ¹ / DP ²) | up to 10.2 MPa up to 102 barg | |
| Ambient temperature* (TS ¹)** | Standard version from -20 °C to +60 °C from -4 °F to +140 °F | Arctic version from -40 °C to +60 °C from -40 °F to +140 °F |
| Inlet 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 (MAOP / p _{umax} ¹) | from 0.08 to 10.0 MPa from 0.8 to 100 barg | |
| Range of downstream pressure (Wd ¹) | from 0.03 to 7.4 MPa from 0.3 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) | 0.05 MPa 0.5 barg | |
| Accuracy class (AC ¹) | up to 1 | |
| Lock-up pressure class (SG ¹) | up to 2.5 | |
| 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 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.

(**) NOTE: Stated temperature range is the operating range for which the equipment's mechanical resistance and leakage rate are guaranteed. Some body materials, if multiple choices are available, may not be suitable for all the available versions shown.

(***) NOTE: Stated temperature range is the range for which the equipment's full performance, including accuracy and lock-up are guaranteed. Some body materials, if multiple choices are available, may not be suitable for all the available versions shown.

Table 1 Features

Materials and Approvals

| Part | Material |
|----------------------|--|
| Body | ASTM A 352 LCC cast steel for classes ANSI 600 and 300; ASTM A 216 WCB cast steel for classes ANSI 150 and PN 16/40 |
| Heads | ASTM A 350 LF2 steel |
| Stem | AISI 416 stainless steel |
| Plug | ASTM A 350 LF2 nickel-plated steel |
| Seat | Vulcanized Nitrile Rubber on metal support |
| Diaphragm | Rubberised Canvas (pre-formed by hot-pressing process) |
| O-rings | Nitrile Rubber |
| Compression fittings | Made of zinc-plated steel according to DIN 2353; on request, 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 regulator is designed according to European standard EN 334.

The regulator reacts in closing (Fail Close) or opening (Fail Open) according to EN 334 depending on the pilot installed.

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*

*Not applicable for regulators with pilot series 210

Reflux 819 competitive advantages



Compact and simple design



Top Entry



High accuracy



Easy maintenance



1:1000 High turn-down ratio



Built-in accessories



Fail Close or Fail open plug and seat regulator



Biomethane compatible and available with specific versions for full Hydrogen or blending



Built-in pilot filter



Balanced type