Pietro Fiorentini

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).

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

Features	Values		
Design pressure* (PS[1] / DP[2])	up to 10.3 MPa up to 1500 psig		
Ambient temperature* (TS[1])**	**Standard version** from -10 °C to +70 °C from +14 °F to +158 °F	**Arctic version** from -40 °C to +65 °C from -40 °F to +150 °F	**High temperature version (only DN 25 | 1" - DN 50 | 2")** from -10 °C to +80 °C from +14 °F to +176 °F
Inlet gas temperature*.***	**Standard version** from -10 °C to +70 °C from +14 °F to +158 °F	**Arctic version** from -20 °C to +60 °C from -4 °F to +140 °F	**High temperature version (only DN 25 | 1" - DN 50 | 2")** from -10 °C to +80 °C from +14 °F to +176 °F
Inlet pressure (MAOP / p_{umax}[1])	from 80 kPa to 10.2 MPa (for CE marked product it is limited to 10.0 MPa) from 11.6 to 1480 psig (for CE marked product it is limited to 1450 psig)		
Range of downstream pressure (Wd[1])	from 30 kPa to 7.4 MPa from 4.35 to 1073 psig		
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])	50 kPa | 7.25 psig		
Accuracy class	up to 1% gauge		
Lock-up pressure class	up to 2.5% gauge		
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

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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 zync-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

Reflux 819 competitive advantages

- Compact and simple design
- High accuracy
- High turn-down ratio (1:1000)
- Fail Close or Fail open plug and seat regulator
- Built-in pilot filter
- Top Entry
- Easy maintenance
- Built-in accessories
- Biomethane compatible and available with specific versions for full Hydrogen or blending
- Balanced type

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