

# 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 <sup>1</sup> / DP <sup>2</sup> )	up to 10.2 MPa	up to 102 barg
Ambient temperature* (TS <sup>1</sup> )**	<b>Standard version</b> from -20 °C to +60 °C from -4 °F to +140 °F	<b>Arctic version</b> from -40 °C to +60 °C from -40 °F to +140 °F
Inlet gas temperature* <sup>***</sup>	<b>Standard version</b> from -10 °C to +60 °C from +14 °F to +140 °F	<b>Arctic version</b> from -20 °C to +60 °C from -4 °F to +140 °F
Inlet pressure (MAOP / p <sub>umax</sub> <sup>1</sup> )	from 0.08 to 10.0 MPa from 0.8 to 100 barg	
Range of downstream pressure (Wd <sup>1</sup> )	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 ( $\Delta p_{min}^{-1}$ )	0.05 MPa   0.5 barg	
Accuracy class (AC <sup>1</sup> )	up to 1	
Lock-up pressure class (SG <sup>1</sup> )	up to 2.5	
Nominal size (DN <sup>1,2</sup> )	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	

(<sup>1</sup>) according to EN334 standard

(<sup>2</sup>) according to ISO 23555-1 standard

(<sup>3</sup>) 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

## Reflux 819 competitive advantages

	Compact and simple design		Top Entry
	High accuracy		Easy maintenance
	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