

# Norval



The **Norval** by Pietro Fiorentini is a **direct-operated** gas pressure regulator. Suitable for use with previously filtered gaseous fluids, it is mainly used for medium and low pressure natural gas distribution networks. It is classified as **Fail Open** according to the European Standard EN 334. The Norval is **Hydrogen Ready** for NG-H2 blending.



Medium/small industry



Gas engines



Regasification



District stations



Commercial users

Features	Values
Design pressure* (PS <sup>1</sup> / DP <sup>2</sup> )	up to 1.89 MPa up to 18.9 barg
Ambient temperature* (TS <sup>1</sup> )**	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 <sub>umax</sub> <sup>1</sup> )	<ul style="list-style-type: none"> <li>for DN up to 3": from 0.01 to 1.89 MPa   from 0.1 to 18.9 barg</li> <li>for DN 4", 6" and 8": from 0.01 to 0.86 MPa   from 0.1 to 8.6 barg</li> </ul>
Range of downstream pressure (Wd <sup>1</sup> )	<ul style="list-style-type: none"> <li>for DN up to 4": from 0.8 to 440 kPa   from 8 mbarg to 4.4 barg</li> <li>for DN 6" and 8": from 1.2 to 180 kPa   from 12mbarg to 1.8 barg</li> </ul>
Available accessories	SN Slam shut, silencer, ER monitor attachment
Minimum operating differential pressure (Δp <sub>min</sub> <sup>1</sup> )	10 kPa 100 mbarg
Accuracy class (AC <sup>1</sup> )	up to 5   up to 1% absolute (depending on working conditions)
Lock-up pressure class (SG <sup>1</sup> )	up to 10 (depending on working conditions)
Nominal size (DN <sup>1,2</sup> )	DN 25   1"; DN 40   1" 1/2; DN 50   2"; DN 65   2" 1/2; DN 80   3"; DN 100   4"; DN 150   6"; DN 200   8"
Connections	Class 150 RF 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

(\*) 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 9** Features

## Materials and Approvals

Part	Material
Body	Cast steel ASTM A 216 WCB (all DN). Spheroidal ductile iron GS 400 – 18 ISO 1083 DN 150 (6") included.
Cover	From diameter 375 mm to 630 mm die stamped carbon steel From diameter 658 mm to 817 mm alluminium
Seat	Stainless steel
Diaphragm	Rubberized canvas (performed by hot-pressing process).
O-rings	Nitrile rubber
Compression fittings	On request

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

**Table 10** Materials

The **Norval** 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 class VIII according to ANSI/FCI 70-3.



EN 334



PED-CE

## Norval competitive advantages



Compact and simple design



High accuracy



Fail Open plug and seat regulator



Balanced type



Top Entry



Easy maintenance



In-built accessories



Biomethane compatible and  
20% Hydrogen blending compatible.  
Higher blending available on request