

# Cirval

The **Cirval** is a **lever-operated gas pressure regulator** controlled by a diaphragm and setting spring which controls the valve. Mainly used for medium and low pressure natural gas distribution networks, as well as commercial and industrial applications. It should be used with previously filtered non-corrosive gases. According to the European Standard EN 334, it is classified as **Fail Open**. The Cirval is **Hydrogen Ready** for NG-H2 blending.



Gas engines



District stations



Commercial users



Regasification



Medium / small industry

Features	Values
Design pressure* (PS <sup>1</sup> / DP <sup>2</sup> )	up to 860 kPa up to 125 psig
Ambient temperature* (TS <sup>1</sup> )	from -29 °C to +65 °C from -20 °F to +150 °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> )	from 13.8 kPa to 517 kPa from 2 psig to 75 psig
Range of downstream pressure (Wd <sup>1</sup> )	from 1.7 kPa to 82 kPa from 6.4" w.c. to 12 psig
Available accessories	LA Slam shut, IMD (Independent Monitoring Device), IFM (Integral Full Monitor), built-in strainer
Minimum operating differential pressure (Δp <sub>min</sub> <sup>1</sup> )	12 kPa   1.75 psig
Accuracy class (AC <sup>1</sup> )	up to 10
Lock-up pressure class (SG <sup>1</sup> )	up to 20
Nominal size (DN <sup>1,2</sup> )	DN 32   1-1/4"; DN 40   1-1/2"; DN 50   2"
Orifice	Cirval 200: 3/4" Cirval 300: 1-1/2"
Connections	Cirval 200: 1-1/4", 1-1/2" and 2" NPT according to ANSI B1.20.1, Cirval 300: 2" NPT according to ANSI B1.20.1, 2" S.125FF according to ANSI B16.5 and Sliding 2" S.150RF for AU version

(<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.

**Table 1** Features

## Materials and Approvals

Part	Material
Body	Ductile iron GS 400-18 ISO 1083
Cover	Die cast aluminum
Seat	Brass
Diaphragm	Nitrile rubber
Sealing ring	Nitrile

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

**Table 2** Materials

The **Cirval** regulator is designed according to ANSI B109.4 and CSA 6.18 standards. The regulator reacts in opening (Fail Open) according to EN 334. Leakage class: bubble tight, better than class VIII according to ANSI/FCI 70-3.



ANSI B109.4



CSA 6.18

## Cirval competitive advantages



Compact and simple design



High accuracy



Fail Open plug and seat regulator



Balanced type



Top entry



Easy maintenance



Built-in accessories



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