Pietro Fiorentini

Dixi

Pressure Regulators

DIXI

Classification and area of application

Il **DIXI** è un regolatore della pressione di valle, di tipo pilotato, per applicazioni in media e bassa pressione.

Is suitable for use with previously filtered, non corrosive gases

The **Dixi** regulator, is classified according to the European standard **EN 334**, as a regulator which reacts in closure (**Fail to Close**), and specificaly will close under the following conditions:

- the main diaphragm breaks
- the diaphragm/s of the pilot/s breaks/s
- the pilot circuit is not fed.

It is truly a **TOP ENTRY** design, which confers to the regulator management advantages, for example the ability to performs full maintenance without uninstalling it from the connection pipe.

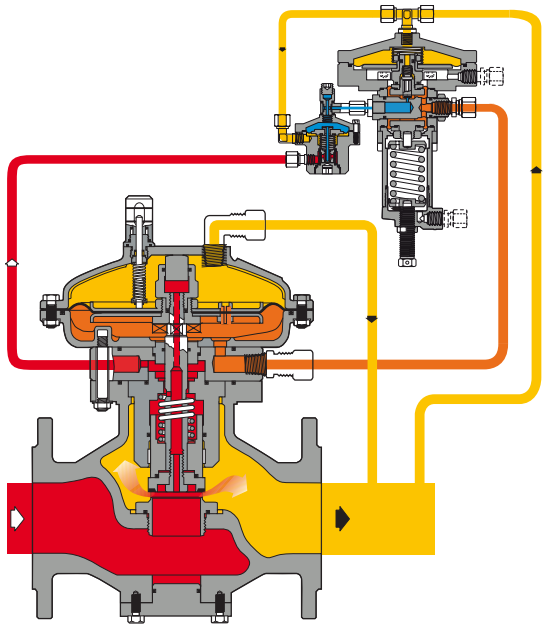


Fig.1 **DIXI** - Basic Version

- Compact Design
- High Turn Down Ratio
- Easy Maintenance
- High Accuracy
- Top entry
- Low Operation Cost
- Low Noise
- Low Operating Δp

Features

Functional features:*

- **Maximum inlet pressure:** Up to 20 bar
- **Range of downstream pressure:** From 0,007 to 6 bar (depending on installed pilot),
- **Minimum working differential pressure:** 0,1 bar
- **Minimum ambient temperature:** -20°C,
- **Maximum ambient temperature:** +60°C,
- **Inlet gas temperature:** Up to -20°C + 60°C,
- **Accuracy class AC:** Up to 2.5,
- **Lock-up pressure class SG:** From 10 to 20 depending on outlet pressure.

Design features:

- **Nominal dimensions DN:** 25 (1"); 40 (1"1/2); 50 (2"),
- **Flanged connections:** PN16 -25 according to EN 1092, ISO 7005..

Materials:**

- **Body:** Cast steel ASTM A216 WCB for all sizes
Ductile cast iron GS 400-18 ISO 1083
- **Head covers:** Die cast alluminium EN AC 43500
- **Seat:** Steel + vulcanized rubber,
- **Diaphragm:** Rubberized canvas,
- **Sealing ring:** Nitril rubber
- **Connection fittings:** Carbon steel galvanized according to DIN 2353.

REMARK: * Different functional features available on request.
** The materials indicated above refer to the standard models.
Different materials can be provided according to specific needs.

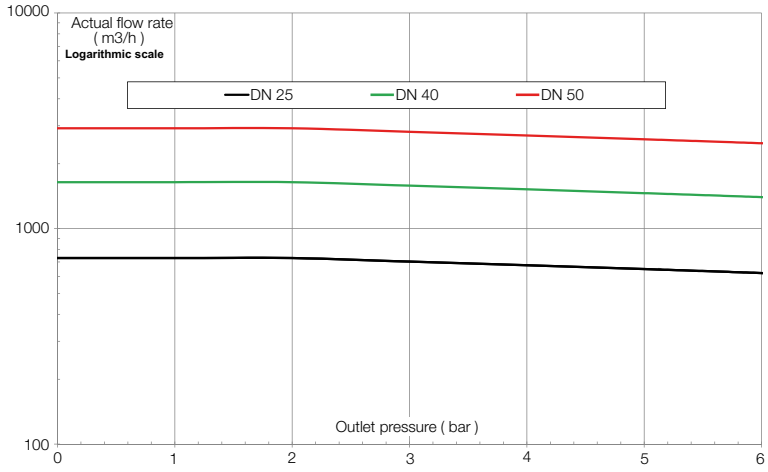
Cg, KG and K1 coefficient

Nominal diameter			
Millimeters	**25**	**40**	**50**
Inches	**1"**	**1”1/2**	**2”**
Cg flow coefficient	540	983	1014
KG flow coefficient	567	1034	1066
K1 body shape factor	104	96	96

Tab.1

For sizing formulas refer to www.fiorentini.com/sizing

CAUTION:
The graph gives a quick reference of maximum recommended regulator capacity depending on selected size. Values are expressed in actual m3/h of Natural gas (s.g. 0,6): to have the data directly in Nm3/h it is necessary to multiply the value by the outlet pressure value in bar – absolute.



Pilots system

Dixi pressure regulators are equipped with **series 200** pilot as listed below

- **201/A** ontrol range Wh: 7 mbar to 0,58 bar; (2,8 W.c. to 8.4 Psig)

Pilots can be adjusted manually, in the field, or remotely to change the regulated pressure from far away.
In the different cases, in order to identify them properly, they take the following suffixes:

- **.../A** Manual setting in place
- **.../D** Electric/Electronic remote setting control
- **.../CS** Pneumatic remote setting control

Restrictor

The pilot loop is completed with a device called restrictor, external to the pilot.
The restrictor listed below is available:

- **AR 100**: variable restrictor to adjust regulator response time complete with integral filter at the inlet

Modularity and accessories

Modular design of pressure regulator **Dixi** allows the installation of an incorporated slam shut or device for use as “in line monitor” on the same body without changing the face-to-face dimension.

The features of Dixi regulator make it a product suitable for any application.

Accessories on request:
- Incorporated slum shuh-valve
- In line monitor function

Slam shut device

This is a device which stops immediately gas flow whenever downstream pressure exeeds given set-point. Device can be actuated also manually.

Incorporated LA Slam shut (see figure 2) can be incorporated in the standard regulator and in the in-line monitor.
The installation of integral Slam Shut valve does not produce any reduction on regulator KG or Cg values.
A further advantage of the incorporated slam-shut valve is that it can be retro fitted at any time on a previously installed **DIXI** without modifying the regulating unit (only with 4 ways body).
Further the slam-shut can be positioned in four different positions (rotation on its axis) in such way to be fixed in the most apropriated position versus the surrounding encumbrance if any.

The main features of this slam-shut device are

- design pressure 20 bar for all the components;
- accuracy (AG): ap to 5 for pressure increase, up to 15 for pressure decreasing;
- internal by-pass;
- intervention for over pressure and/or under pressure;
- manual push-button control;
- possibility of pneumatic or electromagnetic remote control;
- compact overall dimensions;
- easy maintenance;
- possibility of application of devices for remote signal (contact or inductive microswitches).

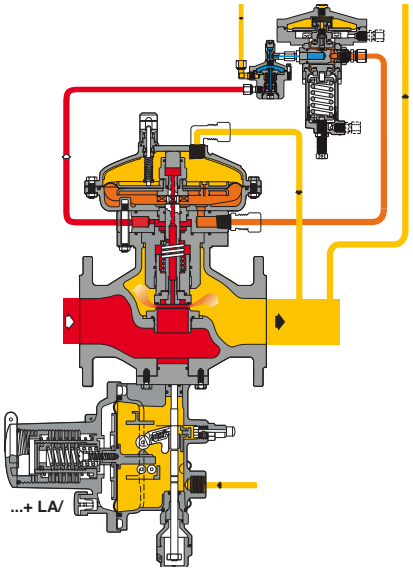


Fig.2 **DIXI** - With slam shuth LA..

DIXI

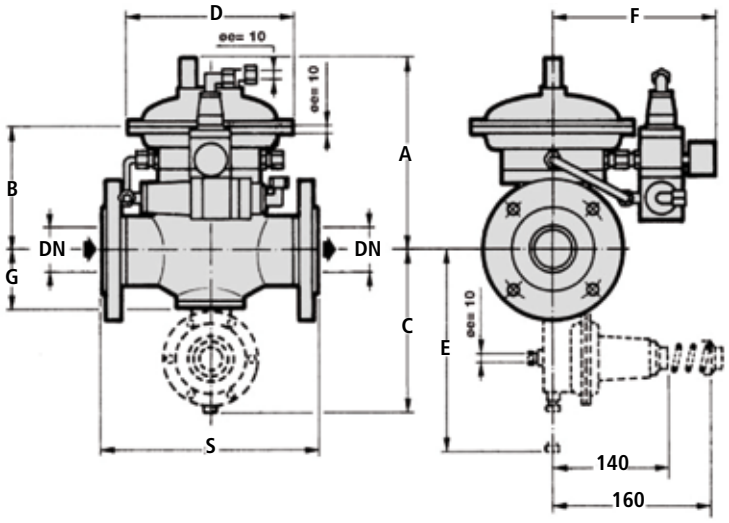


Fig.3

Dimensions										
Tipe	**DN**	**NPS**	**S**	**A**	**B**	**C**	**D**	**E**	**F**	**G**
Dixi flanged	25	1”	183	230	135	200	200	220	210	80
Dixi flanged	40	1”1/2	223	240	145	200	200	220	210	90
Dixi threaded	50	2”	220	240	145	200	200	220	210	90
Dixi flanged	50	2”	254	240	145	200	200	220	210	90
										Tab.2

Pneumatic fittings: 10x8mm

Dimensions S according to EN 334 and IEC 534-3

Peso in Kg				
Tipe	**DN**	**NPS**	**Dixi**	**With slam shuth LA..**
Dixi flanged	25	1”	12	13
Dixi flanged	40	1”1/2	14,5	15,5
Dixi threaded	50	2”	15,5	16,5
Dixi flanged	50	2”	20,5	21,5
				Tab.3

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The data are not binding. We reserve the right to make changes without prior notice.

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