



**Dival 600**  
Pressure Regulators

## Pressure Regulators

### Dival 600

Dival 600 series pressure regulators are direct acting devices for low and medium pressure applications controlled by a diaphragm and counter spring.

These regulators are suitable for use with previously filtered, non corrosive gases.

### Modular Design

The modular design of the Dival 600 series allows for the addition of a slam shut or an in-line monitor device in the same body without changing the face-to-face dimensions.

The truly “top entry design” allows easy periodic maintenance without removing body from the line. The features of Dival 600 series regulators make it a product suitable for any application.

The fast response time makes it ideal for burner or industrial applications or whenever sudden changes of flow rate is part of the process. The high accuracy against any inlet pressure variation makes the Dival 600 series an optimum product for gas district systems, an application generally not suitable for direct acting regulators.

Extremely easy maintenance and reduced number of parts lower operating expenses and labor.

Accessories on request:

- Silencer
- Token relief valve

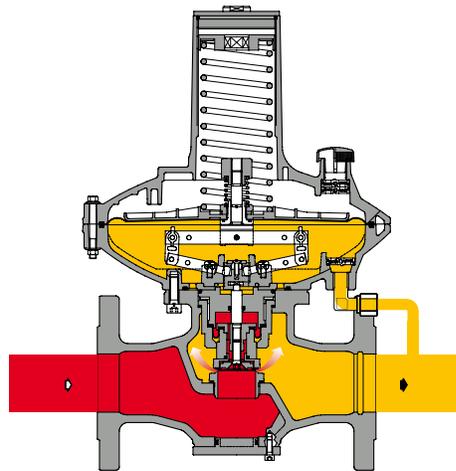


Fig.1

DESIGNED  
WITH YOUR  
NEEDS IN MIND

- COMPACT DESIGN
- EASY MAINTENANCE
- TOP ENTRY
- FAST RESPONSE TIME
- HIGH TURN DOWN RATIO
- HIGH ACCURACY
- LOW OPERATING COST
- WIDE RANGE OF APPLICATIONS

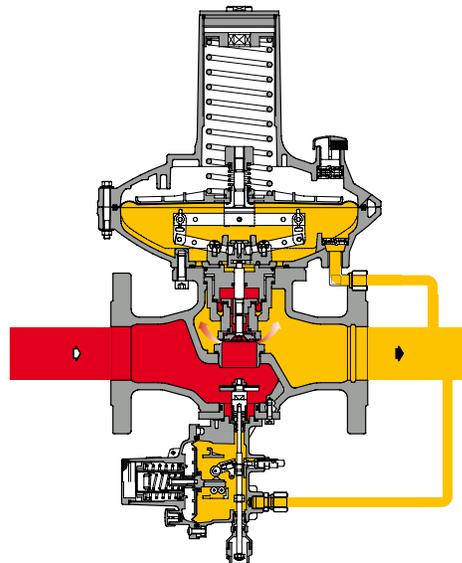
**SLAM SHUT**
**Dival 600**

This slam shut stops gas flow immediately whenever downstream pressure exceeds given set-point. Device can also be actuated manually.

LA Slam shut (see figure 2) may be incorporated in the standard regulator and in the in-line monitor. The regulator with the incorporated slam-shut has  $C_G$  and  $K_G$  coefficients equal to those in table 3. A further advantage of the incorporated slam-shut valve is that it can be retrofitted at any time on a previously installed Dival 600 series without modifying the regulator (only with 4 way body). The slam-shut can be positioned in four different positions (rotation on its axis) in such way to be mounted in the most appropriate position .

The main features of this slam-shut are:

- design pressure 232 PSIG for all the components;
- accuracy (AC): 1% of the pressure set-point for pressure increase; 5% for pressure decreasing;
- internal bypass;
- 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).

**DIVAL 600 + SLAM SHUT LA**
**Dival 600**

**Fig. 2**

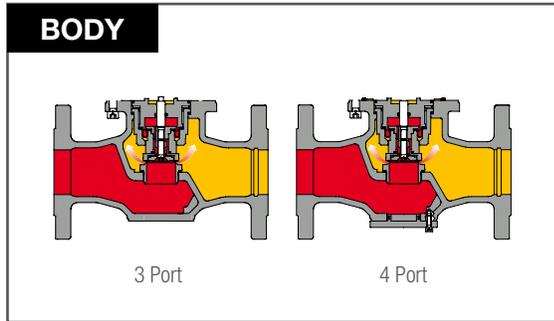


Fig. 3

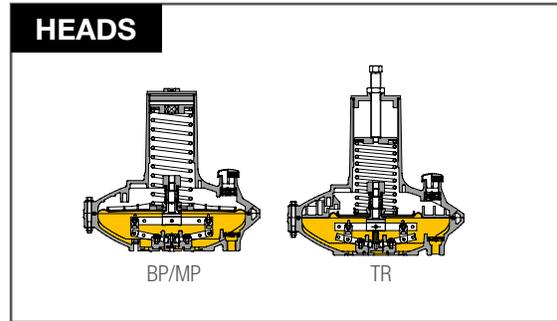


Fig. 4

INCORPORATED SILENCER

Dival 600

Whenever specific noise limits are required, the silencer allows you to considerably reduce the noise emission (dBA) during the gas pressure regulators operation.  
 The Dival 600 pressure regulator can be supplied with an incorporated silencer in either the standard version, with incorporated slam-shut or in line monitor version.  
 With the built-in silencer the  $C_g$  and  $K_G$  valve coefficients are not affected. Pressure reduction and control operate the same manner as in standard version.

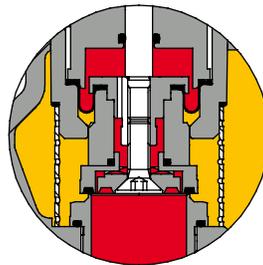
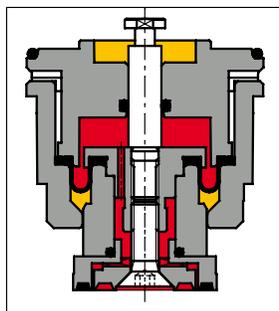


Fig. 5

MONITOR VERSION

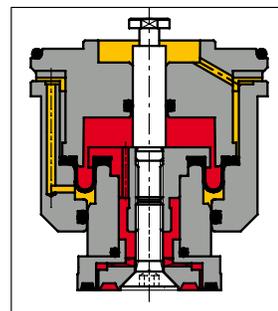
Dival 600

The Dival 600 series functioning as an in-line monitor is a regulator which, in addition to the standard version, has a Balanced valve assembly, guaranteeing greater accuracy of regulated pressure, and an a faster reaction for the monitor intervention pressure, without risk of interference with the main regulator.



Standard regulator

Fig. 6



Monitor regulator

Fig. 7

**MAIN FEATURES**
**Dival 600**

- Design pressure PS: Ductile Iron body 246 PSIG for Steel body 275 PSIG
- Design temperature: -4° F to + 140° F
- Ambient temperature: -4° F to + 140° F
- Max inlet pressure Pu: 290 PSIG
  
- Outlet pressure range of Wd:
 

Size 1"	5" w.c. to 4.9 PSIG for BP/MP control head 4 PSIG to 63.8 PSIG for TR control head
Size 1 1/2" - 2"	5"w.c. to 34" w.c. for BP control head BP 32 w.c. to 4.9 PSIG for MP control head 4.3 PSIG to 60.9 PSIG for TR control head
  
- Accuracy class AC: up to 5
- Lock-up pressure class SG: up to 10
- Available size: 1" - 1 1/2" - 2" (
- Flanging: class PN 16/25 according to ISO 7005-1, ISO 7005-2; class ANSI 150RF according to ANSI B16.5, ASME B16.42 and class ANSI 125 FF according to ASME B16.1
- Threaded connections: Size 2" NPT ASME B1.20.1 (only available in Steel Body)

**MATERIALS**
**Dival 600**

<b>Body</b>	Cast steel ASTM A216 WCB Ductile cast iron GS 400-18 ISO 1083
<b>Head covers</b>	Die cast aluminium EN AC-AISI 12 UNI EN 1706
<b>Diaphragm</b>	Rubberized canvas
<b>Valve seat</b>	Brass
<b>Seals</b>	Nitrile rubber

The characteristics listed above refer to standard products. Special characteristics and materials for specific applications may be supplied upon request.

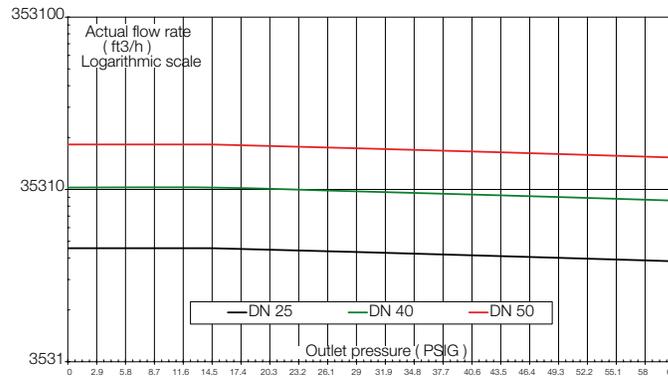
**Coefficient**
**Dival 600**

	ø 280 BP/MP			ø280/TR		
	25	40	50	25	40	50
<b>Nominal diameter (mm)</b>	25	40	50	25	40	50
<b>Size (inches)</b>	1"	1 1/2"	2"	1"	1 1/2"	2"
<b>C<sub>g</sub> flow coefficient</b>	269	652	781	315	692	770
<b>K<sub>G</sub> flow coefficient</b>	283	685	821	331	727	809
<b>K1 body shape factor</b>	94	94	86	97	95	97

For sizing formula refer to [www.fiorentini.com/sizing](http://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 ft<sup>3</sup>/h of Natural gas (s.g. 21). To have the data directly in Nm<sup>3</sup>/h, it is necessary to multiply the value by the outlet pressure value in PSIG – absolute.



**Slam-shut pressure switches**

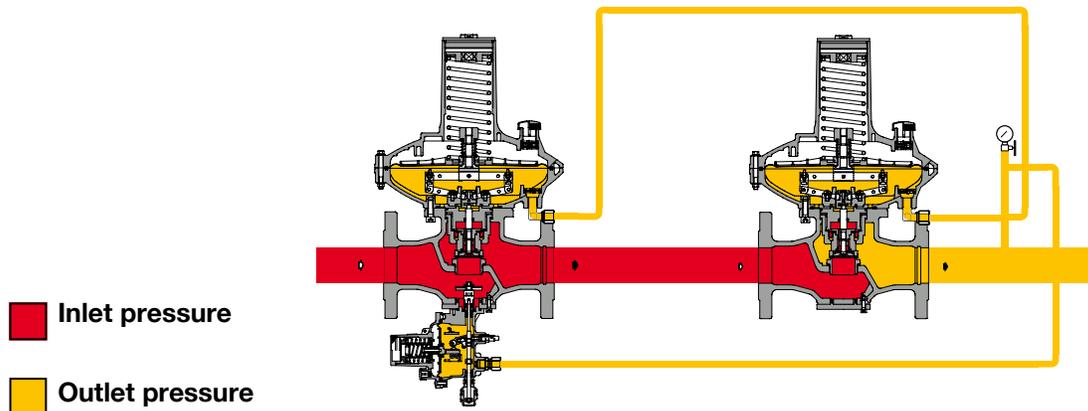
**Dival 600**

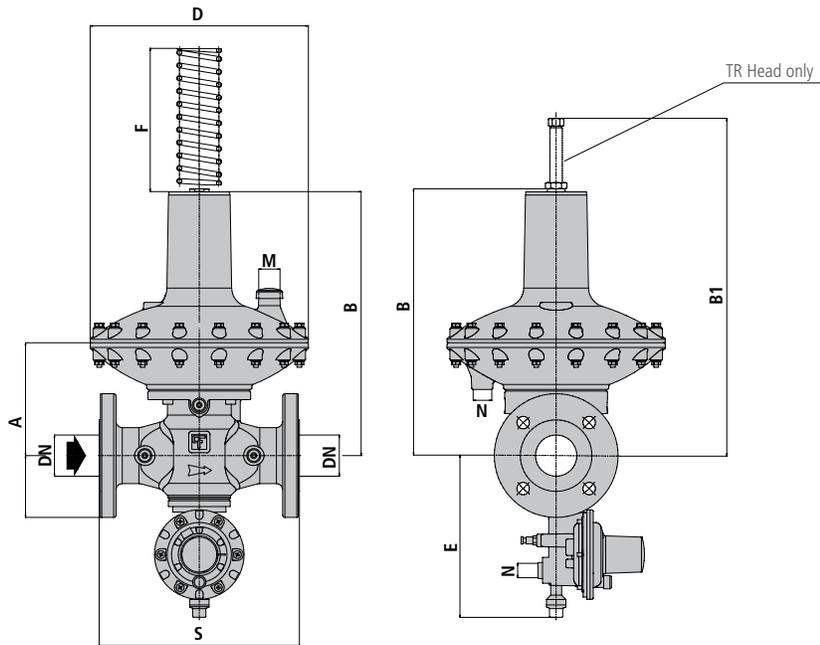
Pressure switch	LA/BP	LA/MP	LA/TR
<b>Set point range for Overpressure (OPSO)</b>	12" w.c. - 72" w.c.	2 - 6.5	3.6 - 80
<b>Set point range for Underpressure (UPS0)</b>	2.4" w.c. - 24" w.c.	0.14 - 3.5	1.45 - 50.8

Working pressure in w.c and PSIG

**TYPICAL INSTALLATION**

**Dival 600**



**DIMENSIONS**
**Dival 600**

**Overall dimensions in Inches**
**Dival 600**

Type	NPS	S	A	B	B1	D	E	F	M	N
Dival 600	1"	7.20	5.71	13.5	17.04	11.02	8.46	7.87	Rp1/2"	Rp1/4"
Dival 600	1 1/2"	8.78	5.71	13.5	17.04	11.02	8.46	7.87	Rp1/2"	Rp1/4"
Dival 600	2"	9.88	5.71	13.5	17.04	11.02	8.46	7.87	Rp1/2"	Rp1/4"
Dival 600	2" NPT	6	5.71	13.5	17.04	11.02	8.46	7.87	Rp1/2"	Rp1/4"

**Weights in pounds**
**Dival 600**

Type	NPS	Dival	Dival with slam shut LA/...
Dival 600	1"	33.06	35.27
Dival 600	1 1/2"	34.48	39.68
Dival 600	2"	44.09	46.76
Dival 600	2" NPT	39.68	41.89

Face to face dimensions S according to ANSI 150 IEC 534-3 and EN 334



Governors



Dival 500



Norval



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