



## **Dival 600**

Pressure Regulators

## DIVAL 600 PRESSURE REGULATOR

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

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

#### Accessories on request:

- Silencer
- Token relief valve

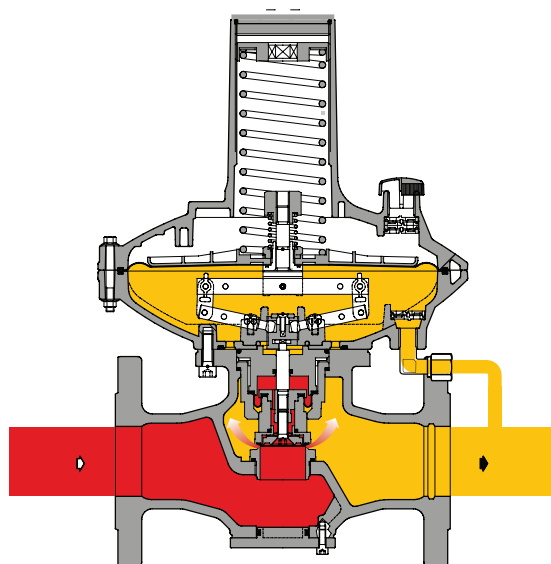


FIGURE 1

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

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

LA slam-shut (see figure 2) may be incorporated in the standard regulator and in-line monitor. The regulator with the incorporated slam-shut has Cg and KG 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 in four different positions, rotated on its axis, to the most appropriate position.

### MAIN FEATURES

- Design pressure 290 PSIG for all the components
- Accuracy (AC): 5% of the pressure set-point for pressure increase; 15% for pressure decreasing
- Internal bypass
- Intervention for over pressure and/or under pressure
- Manual push-button control
- Options for pneumatic or electromagnetic remote control
- Compact overall dimensions
- Easy maintenance
- Options for application of devices for remote signal (contact or inductive microswitches)

## DIVAL 600 + SLAM-SHUT LA

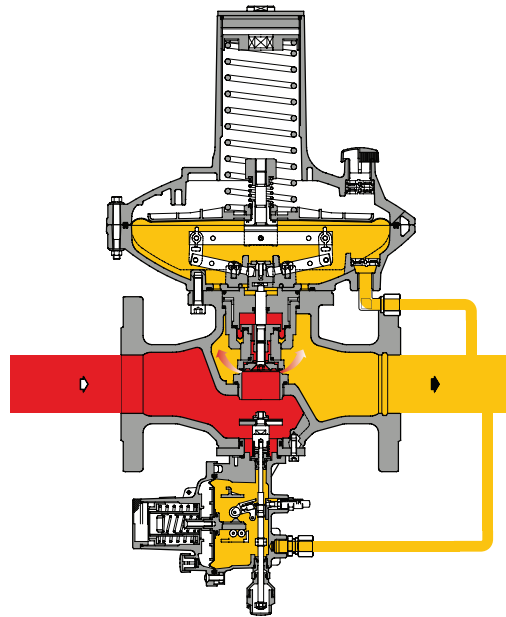


FIGURE 2

## VERSIONS

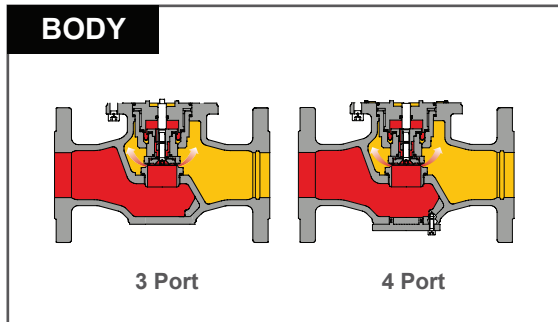


FIGURE 3

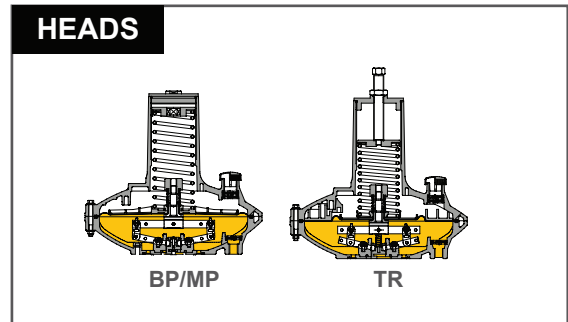


FIGURE 4

## INCORPORATED SILENCER

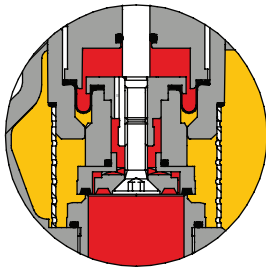


FIGURE 5

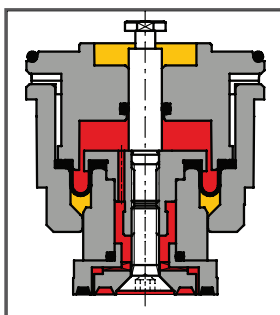
Whenever specific noise limits are required, the silencer allows you to considerably reduce the noise emission (dBA) during the gas pressure regulator's operation.

The Dival 600 pressure regulator can be supplied with an incorporated silencer in either the standard version, incorporated slam-shut or in line monitor version.

With the built-in silencer the Cg and KG valve coefficients are not affected. Pressure reduction and control operate in the same manner as in standard version.

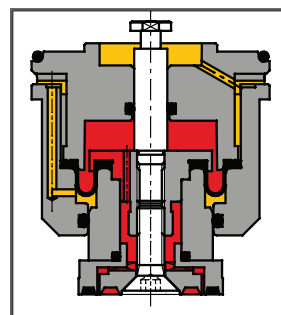
## MONITOR VERSION

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

FIGURE 6



MONITOR REGULATOR

FIGURE 7

## DIVAL 600

### MAIN FEATURES

- **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 steel threaded versions
- **Control head pressure rating:** 290 PSIG for all versions
- **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

- **Body:** Cast steel ASTM A216 WCB, Ductile cast iron GS 400-18 ISO 1083
- **Head cover:** Die cast aluminium EN AC-AISI 12 UNI EN 1706
- **Diaphragm:** Rubberized canvas
- **Valve seat:** Brass
- **Seals:** Nitrile rubber

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

### COEFFICIENT

Tab 3

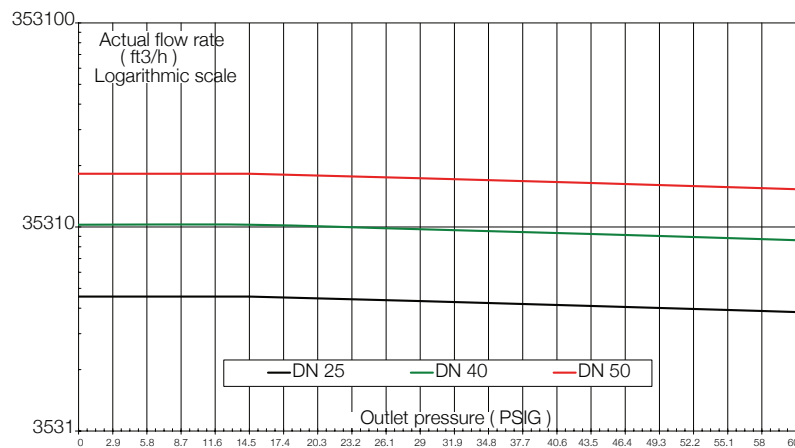
	ø 280 BP/MP			ø280/TR		
Nominal diameter (mm)	25	40	50	25	40	50
Size (inches)	1"	1 1/2"	2"	1"	1 1/2"	2"
Cg flow coefficient	269	652	781	315	692	770
KG flow coefficient	283	685	821	331	727	809
K1 body shape factor	94	94	86	97	95	97

For sizing formula refer to <https://linepressureregulator.com/engineering-resources/>

## DIVAL 600

### 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.

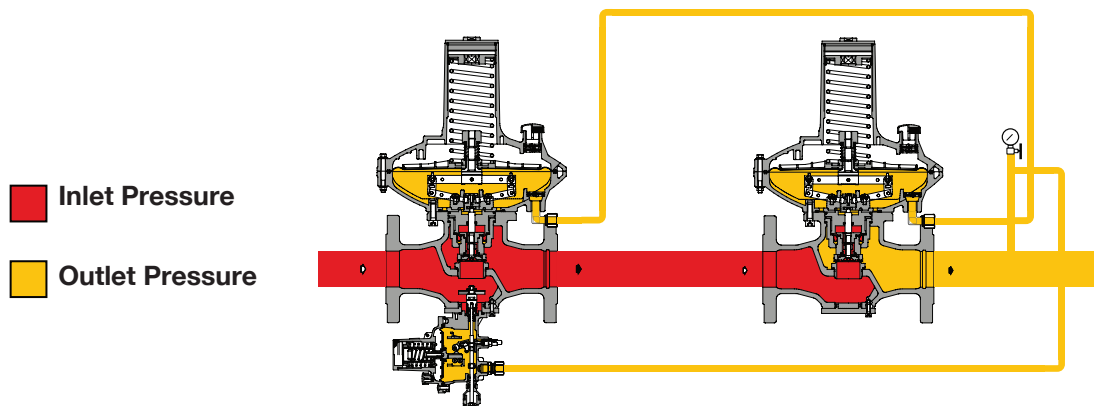


## SLAM-SHUT PRESSURE SWITCHES

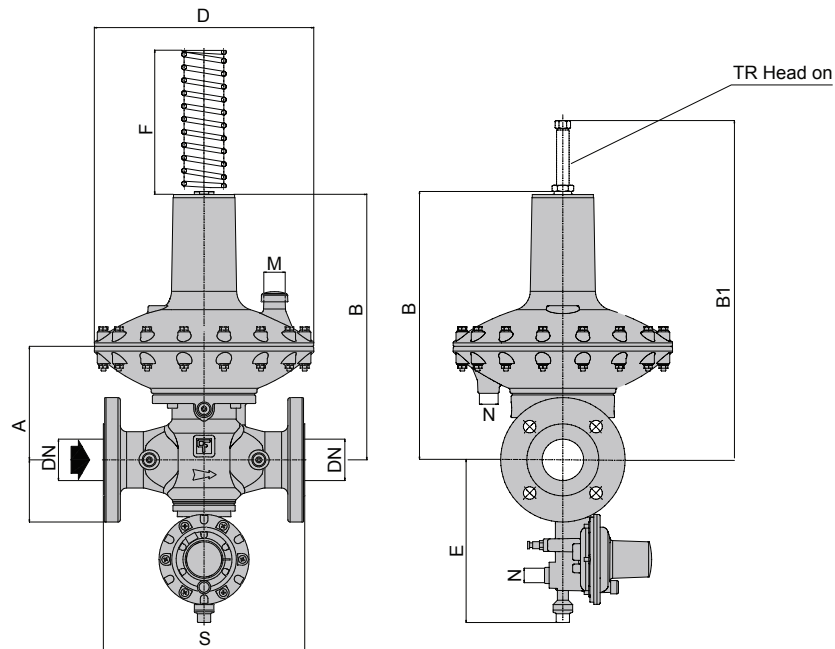
Pressure switch	LA/BP	LA/MP	LA/TR
Set point range for Overpressure (OPSO)	12" - 72" W.C.	2 - 6.5 PSIG	3.6 - 80 PSIG
Set point range for Underpressure (UPS0)	2.4" - 24" W.C.	0.14 - 3.5 PSIG	1.45 - 50.8 PSIG

Working pressure in W.C. and PSIG

## TYPICAL INSTALLATION



## DIMENSIONS



### OVERALL DIMENSIONS IN INCHES

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	1/2" NPT	1/4" NPT
Dival 600	1 1/2"	8.78	5.71	13.5	17.04	11.02	8.46	7.87	1/2" NPT	1/4" NPT
Dival 600	2"	9.88	5.71	13.5	17.04	11.02	8.46	7.87	1/2" NPT	1/4" NPT
Dival 600	2" NPT	6	5.71	13.5	17.04	11.02	8.46	7.87	1/2" NPT	1/4" NPT

### WEIGHT IN POUNDS

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

## Residential and Commerical Applications



GOVERNORS



Dival 500



Norval



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