

## Pressure Regulator for Gaseous Media, Type RG10 / RG40

### FEATURES

- Gas regulator/governor for gaseous media, to be fitted to all types of gas consuming appliances.
- Design incorporates inlet pressure compensation diaphragm ensuring high resolution.
- Optimum dimension allows high volume throughout.
- A purge line not required for DN15 to DN150 size.
- Fitted with separate working diaphragm and safety diaphragm, to ensure high degree of protection.
- Outlet pressure range can be changed by fixing various coloured coded standard springs.
- Change in inlet pressure or change in volume, outlet pressure is ineffective.
- Pressure damping valve provided as a standard accessory.
- Separate models for 1 bar and 4 bar inlet pressure range.
- Special version for bio gas.

### CONSTRUCTION

Design incorporates inlet pressure compensation diaphragms, ensures precise regulation. Large orifice dimension allows handling of high throughput.

Regulator incorporates working diaphragm, safety diaphragm and bleed diaphragm, as per DIN DVGW requirements.

Each of the components undergoing gas pressure is treated with impregnation process to ensure safety of plant.

### TECHNICAL SPECIFICATIONS

Valve body and housing in Aluminum silicon alloy (AlSi), free of defect, vacuum porosity sealed. Diaphragms manufactured from special non-vicking, nylon inserted Nitrile sheets imported from Germany, ensure no seepage of gas through diaphragm. Working parts of Aluminum. Valve disc specially formulated synthetic rubber material vulcanized to aluminum disc.

Flange connections are as per PN 16, DN 2501-  
or As per ANSI B 16.5, Class 150.

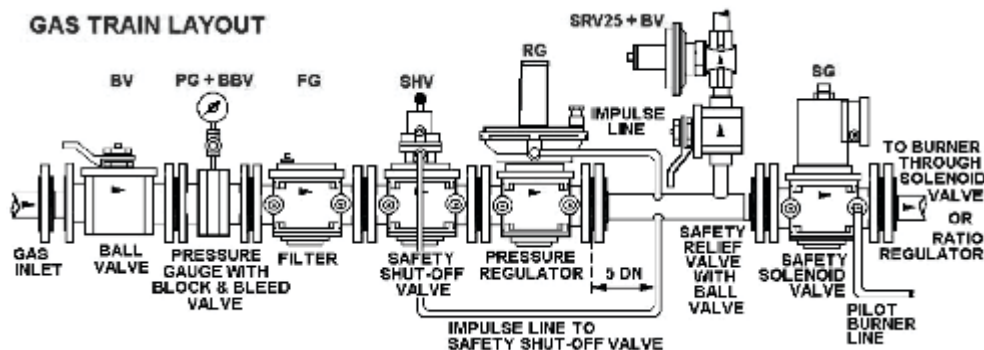
### FLUIDS

Natural gas, LPG, Ammonia, air, bio gas (on request), and all non-corrosive gases compatible to Aluminum body material.

### PRESSURE RANGE

RG 10 ( for 1 bar inlet pressure), valve sizes available from 15 to 150 mm  
RG 40 ( for 4 bar inlet pressure ), valve sizes from 15 to 100 mm.





## OUTLET PRESSURE

DN 15 to DN 100 : 5 to 350 mbar.  
DN 150 : 5 to 160 mbar

"ALL REGULATORS ARE SET TO 20 mbar OUTLET PRESSURE IN OUR FACTORY (RED SPRING) OTHER RANGES TO BE OBTAINED BY CHANGING GIVEN SPRING."

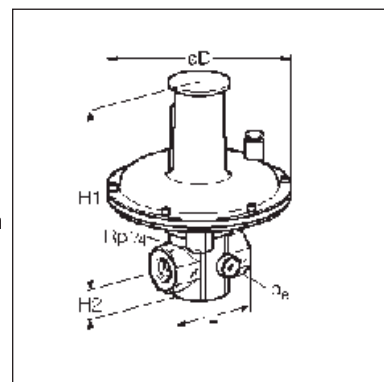
External impulse line size - RP 1/4" for size 15 and 25 mm, 3/8" for DN 40 to 150 mm.

All valves are provided with RP 1/4" connections at inlet and outlet side; are plugged, to be used as pressure test points or for connection pilot gas line.

(-15°C to 60°C Regulators confirm to current standard of EN334, Regulating Group RGXXR/A/F10 & RGXXR/A/F40 (1 & 4 bar) and closing pressure group SG30. Strainers which are possibly provided in the regulators, serve as flow straighteners. Regulator fitting position in the pipeline is irrelevant. However, this device must be fitted in the pipeline which is free of tension and must not touch any surrounding constructions ( wall, brick, work, etc. ) It is necessary to maintain minimum 20 mm distance from the surrounding walls.

In accordance with EN746-2 for gas pressure regulating plants, where inlet pressure is in excess of 100 mbar; is required to be fitted with Safety Shut off Valve (SHV), prior to gas regulator / governor, and a Safety Relief Valve (SRV), after gas regulator.

For Regulators With Flanged Connection, Flanged Bolts, Nuts And Washers Can Be Supplied



Dimensions Of Screwed End Regulator  
Dimensions Of Flanged End Regulator

## COLOR CODE & SPRING IDENTIFICATION TABLE 1

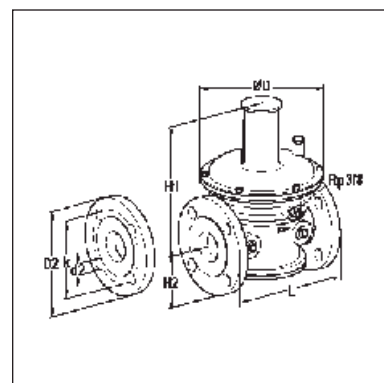
SPRING MARKING	OUTLET PRESSURE RANGE ( mbar )	
	DN 15 - DN 100	DN 150
NONE	5-12,5	5-12,5
RED	10-30	10-30
YELLOW	25-45	25-45
GREEN	40-60	40-60
BLUE	55-75	55-75
BLACK	70-90	70-90
WHITE	85-105	85-105
BLACK/ RED	100-160*	100-160*
BLACK/ YELLOW	150-230*	-----
BLACK/ GREEN	220-350*	-----

WHEN CHANGING THE SPRING, THE SPRING ADJUSTING SCREW HAS TO BE EXCHANGED FOR A STRONGER VERSION.

Fitting of Damping valve for model RG15 and RG25 not required. For RG 1 bar and RG 4 bar pressure, damping valves are supplied loosely tied down with the valve. They are required to be fitted, if found necessary.

While installing impulse line, please observe a diagram. Nipples are provided with the valves. Use Aluminum pipeline connection to Rp 1/4 for DN 15 and DN 25, connection Rp 3/8 for DN 40 to DN150, connected to the outlet side at a distance not lesser than 5 x diameter of valve.

Outlet velocities: AVCON recommends avoiding velocity of low flow above 30 m/sec in the outlet pipe. In order to maintain a steady regulation and has smooth operation with higher velocities; the next bigger size of outlet pipe should be chosen.



## SPECIFICATION TABLE

Model	Size mm	End Connections	Max. Press. Inlet Bar	Dimensions (mm)				Flange Details		Drilling		Approx. Weight Kgs.
				L	D	H1	H2	D2	K	d2	No of Bolts	

### BSP SCREWED DIMENSIONS

RG 15 R40	15	Rp ½	4	70	132	150	24	-	-		-	0.9
RG 25 R10	20	Rp 1	1	90	190	197	33	-	-		-	1.9
RG 25 R40	25	Rp ½	4	90	190	157	33	-	-		-	1.9

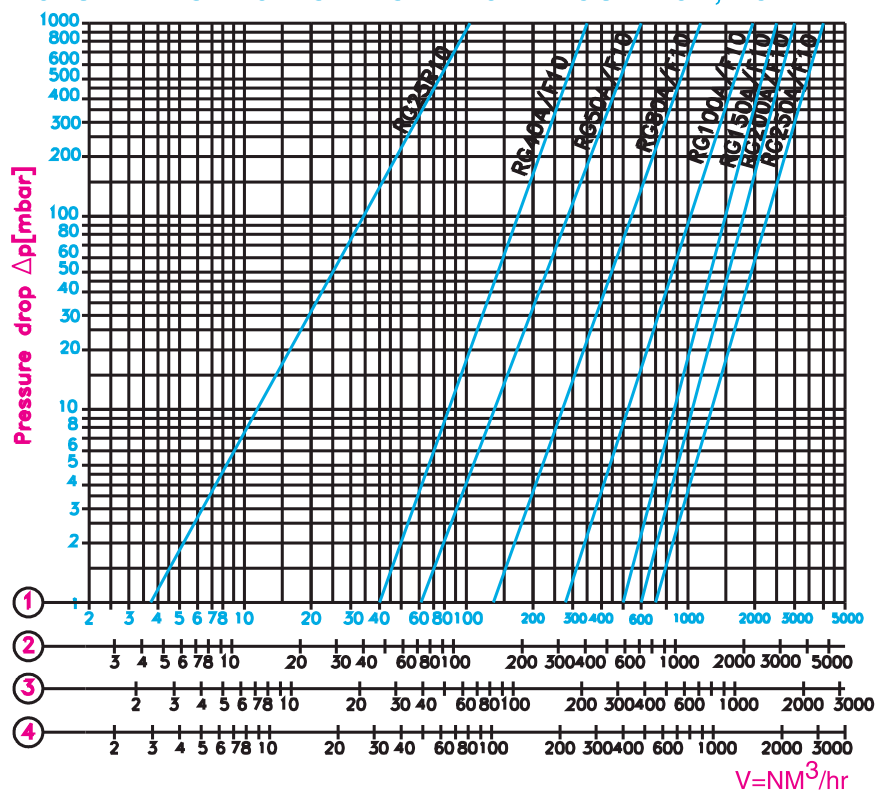
### ANSI TYPE FLANGE DIMENSIONS

RG40A 10	40	40	1	200	190	210	75	127	98	16	4	4.5
RG40A 40	40	40	4	200	190	210	75	127	98	16	4	4.5
RG50A 10	50	50	1	230	240	250	85	152	121	19	4	6.5
RG50A 40	50	50	4	230	240	250	85	152	121	19	4	6.5
RG80A 10	80	80	1	310	310	400	100	191	152	19	4	15.1
RG80A 40	80	80	4	310	310	400	100	191	152	19	4	15.1
RG100 A10	100	100	1	350	390	460	115	229	191	19	4	23.9
RG100 A40	100	100	4	350	390	460	115	229	191	19	8	23.9
RG150 A10	150	150	1	480	520	520	150	279	241	22	8	48.0

### DIN TYPE FLANGE DIMENSIONS

RG40 F10	40	40	1	200	190	210	75	150	110	18	4	4.5
RG40 F40	40	40	4	200	190	210	75	150	110	18	4	4.5
RG50 F10	50	50	1	230	240	250	85	165	125	18	4	6.5
RG50 F40	50	50	4	230	240	250	85	165	125	18	4	6.5
RG80 F10	80	80	1	310	310	400	100	200	160	18	8	15.1
RG80 F40	80	80	4	310	310	400	100	200	160	18	8	15.1
RG100 F10	100	100	1	350	390	460	115	220	180	18	8	23.9
RG100 F40	100	100	4	350	390	460	115	220	180	18	8	23.9
RG150 F10	150	150	1	480	520	520	150	285	240	22	8	48.0

## VOLUMETRIC FLOW CAPACITY FOR REGULATOR, RG-1 BAR

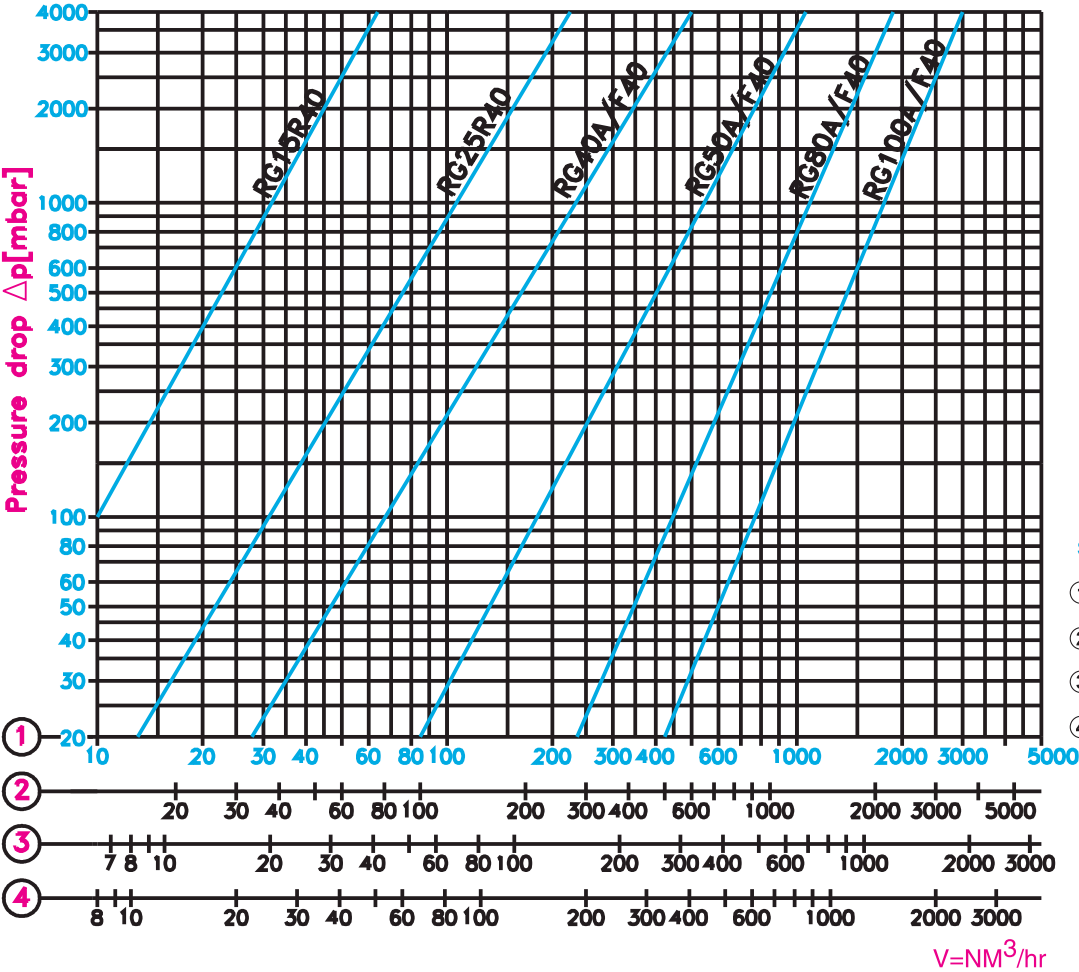


We would recommend to avoid velocities of flow above 30m/sec in the outlet pipe, in order to maintain a steady regulation and a smooth operation with higher velocities, the next bigger size of outlet pipe should be chosen.

### SPECIFIC GRAVITY :

- ① Natural Gas = 0.62
- ② Town Gas = 0.45
- ③ LP Gas = 1.56
- ④ Air = 1.00

VOLUMETRIC FLOW CAPACITY FOR REGULATOR, RG-4 BAR



FOR FLOW CHARACTERISTICS REFER TO THE OUTLET FLOW RATE OF THE GOVERNOR AT NORMAL CONDITIONS.

**Note:**

Technical specifications and dimensions are subject to change without prior notice. Dimensions in the table are approximate subject to final confirmation by AVCON.

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