

Valve Assembly Unit series RA

Valve Units series RA are a range of valve assemblies consisting of a pressure regulator and two safety solenoid valves combined together to form a single unit.

Valve Assembly Units are suitable for operation and automatic control of first, second and third family gases.

Pressure regulators are **CE** certified according to norm EN 88-1, class A, group 2.

Solenoid valves are **CE** certified according to norm EN161 and manufactured according to ATEX rule 94/9/CE - Zone 2 and 22 (II 3G - II3D).



TECHNICAL FEATURES

Body valve	Die-caste aluminium
Connections	Rp 1/2 up to Rp 2 according to EN 10226
Max Inlet pressure (pressure regulator)	1 bar
Max Inlet pressure (solenoid valves)	200 mbar o 360 mbar
Opening/Closing Time (Quick Solenoid Valves)	< 1 second / < 1 second
Opening/Closing Time (Slow Solenoid Valves)	up to a 7 s / < 1 s
Standard supply voltage	230V ac
On request	110V ac - 24V and 12V ac and dc (only available for smaller diameters)
Frequency	50 ÷ 60 Hz
Enclosure	IP 65 - IEC 529
Duty cycle	Continuous 100%
Ambient temperature	-15 ÷ +60 °C

FEATURES

- Pressure regulator and solenoid valves are Class A – Group 2
- Wide range of outlet pressure springs (see table at page 2)
- Pressure regulator with filter (50 µm) on request
- Quick opening/closing or Slow opening/Quick closing
- Installation in horizontal or vertical position
- Test point in inlet/outlet of the pressure regulator and inlet of the solenoid valves
- Limit switch on request
- Installation of pressure switch on request
- Connector with LED on request
- Easy replacement of spare parts, e.g. governor diaphragm and solenoid coils

MODELS

RA = Valve Assembly Units

Operation

- A** = Quick/Quick with max flow adj.
- B** = Quick/slow with max flow and rapid stroke adj.

Max Pressure

- 2** = 200 mbar
- 3** = 360 mbar

Nominal diameter

- 15** = Rp 1/2
- 20** = Rp 3/4
- 25** = Rp 1
- 32** = Rp 1.1/4
- 40** = Rp 1.1/2
- 50** = Rp 2

Supply Voltage

- A** = 24V 50 Hz
- B** = 110V/50 - 60 Hz
- C** = 230V/50 - 60 Hz
- E** = 24V dc
- F** = 12V dc
- G** = 12V 50 Hz

Regulator / Filter regulator

- RG** = Pressure regulator
- FRG** = Filter pressure regulator

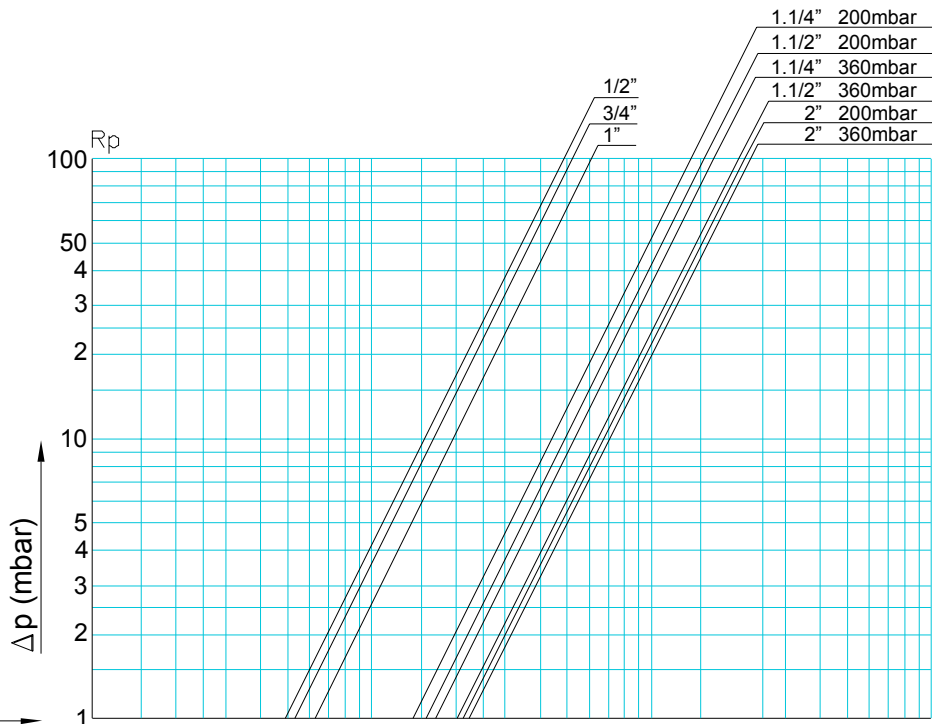
Spring range

See table

	1/2" - 3/4" - 1"	1.1/4" - 1.1/2" - 2"
A	9 - 28 mbar	8 - 13 mbar
B	18 - 40 mbar	13 - 23 mbar
C	40 - 110 mbar	20 - 36 mbar
D	110 - 150 mbar	33 - 58 mbar
E	150 - 200 mbar	55 - 100 mbar
F	200 - 600 mbar	90 - 190 mbar
G		190 - 500 mbar

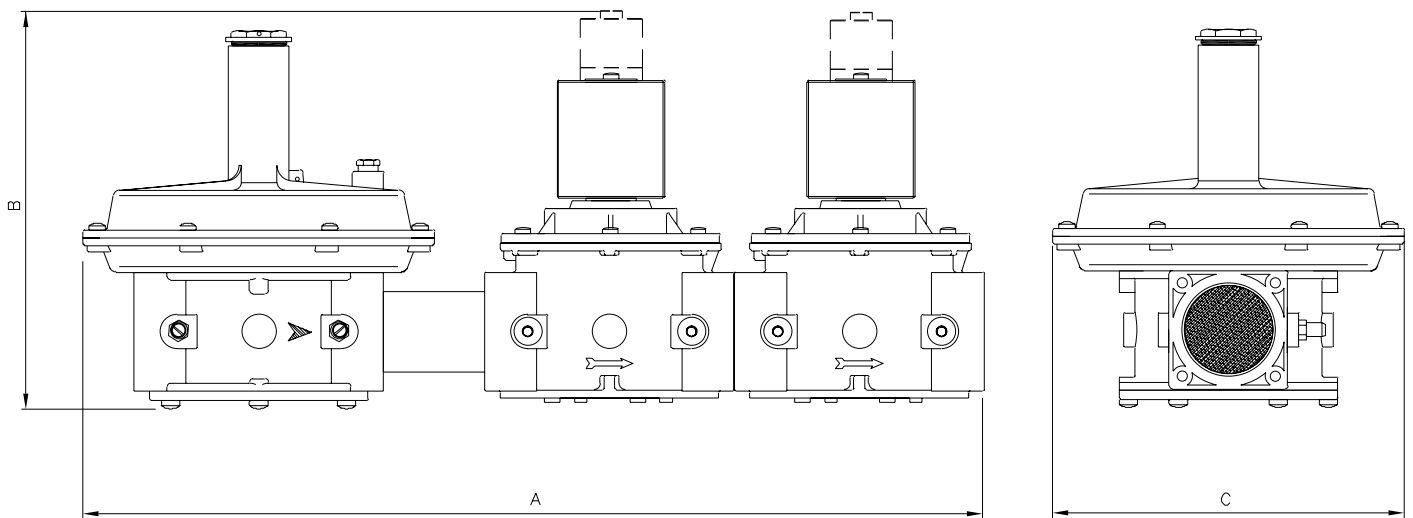
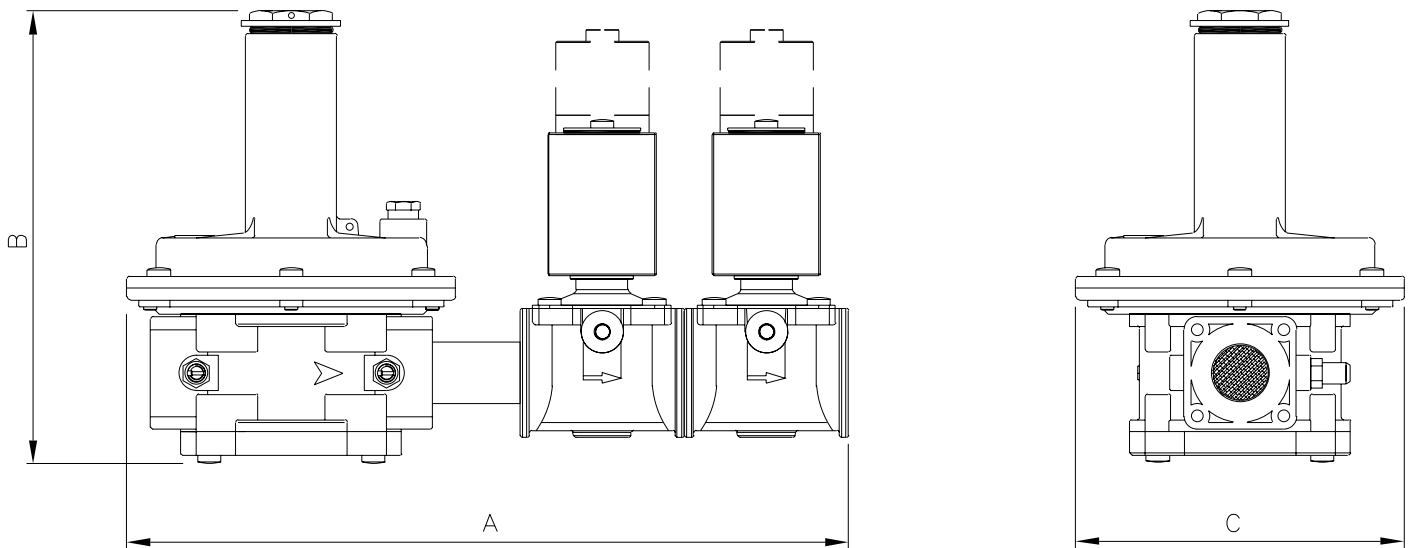
RA A 3 40 C FRG A

FLOW CHART



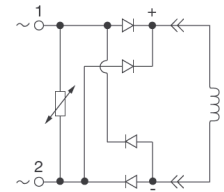
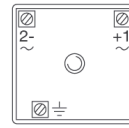
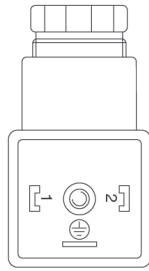
Aria	dv=1	1 2 3 4 5 6 8 10 2 3 4 5 6 8 100 2 3 4 5 6 8 100
Air	dv=1	1 2 3 4 5 6 8 10 2 3 4 5 6 8 100 2 3 4 5 6 8 100
Metano	dv=0,64	1 2 3 4 5 6 8 10 2 3 4 5 6 8 100 2 3 4 5 6 8 100
Methane	dv=0,64	1 2 3 4 5 6 8 10 2 3 4 5 6 8 100 2 3 4 5 6 8 100
Gas di città	dv=0,45	1 2 3 4 5 6 8 10 2 3 4 5 6 8 100 2 3 4 5 6 8 100
Town gas	dv=0,45	1 2 3 4 5 6 8 10 2 3 4 5 6 8 100 2 3 4 5 6 8 100
Propano	dv=1,56	1 2 3 4 5 6 8 10 2 3 4 5 6 8 100 2 3 4 5 6 8 100
Propane	dv=1,56	1 2 3 4 5 6 8 10 2 3 4 5 6 8 100 2 3 4 5 6 8 100
Butano	dv=2,09	1 2 3 4 5 6 8 10 2 3 4 5 6 8 100 2 3 4 5 6 8 1000
Butane	dv=2,09	1 2 3 4 5 6 8 10 2 3 4 5 6 8 100 2 3 4 5 6 8 1000
G.P.L.	dv=1,70	1 2 3 4 5 6 8 10 2 3 4 5 6 8 100 2 3 4 5 6 8 1000
L.G.P.	dv=1,70	1 2 3 4 5 6 8 10 2 3 4 5 6 8 100 2 3 4 5 6 8 1000

DIMENSIONS




Connection Rp	Max pressure (mbar)	Rating at 230V (VA)	Dimensions (mm)				Weight (Kg)
			A	B		C	
				R/RP	L/LP/LSP		
1/2	200	18	285	194	194	140	3,3
	360	30 / 9					
3/4	200	18	285	194	194	140	3,3
	360	30 / 9					
1	200	30 / 9	285	194	194	140	3,3
	360	54 / 18					
1.1/4	200	18	510	245	285	225	10,7
	360	30 / 9					
1.1/2	200	18	510	245	285	225	10,7
	360	30 / 9					

WARNING



Installation, adjustment and maintenance of the valves must be carried out exclusively by skilled and authorized technicians.

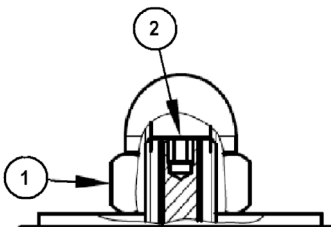
1. Make sure that all operating data indicated on the valve label corresponds to those of the system.
2. Disconnect power, before wiring.
3. For electrical connection, use terminals and cables as described in the instructions supplied.
4. Connect the power supply to terminals 1 and 2 and the earth wire to terminal .
5. For 12V and 24V dc supply with energy saving connector, observe polarity.

INSTALLATION AND OPERATING INSTRUCTIONS

1. Make sure that all operating data indicated on the valve label corresponds to those of the system.
2. Before installing the valve isolate the gas supply.
3. The pressure regulator is usually installed before the solenoid valves. Flow direction indicated by the arrow on the valve body must be respected, flowing towards the burner or appliance. Solenoid valves can be installed either horizontally or vertically, however the governor spring should be vertical. The device is fitted with pressure test points for measuring the gas regulation pressure. When installing the valve unit, do not use the solenoid coil as a lever, use the correct spanner or tool.
4. Check that the pipeline' thread is not too long; excessive thread lengths may damage valve bodies when screwed into place.
5. Do not use the governor spring enclosure as a lever, use the correct spanner or tool.
6. Sealing material must be applied to the external thread of the pipeline only and not to the internal thread of the safety shut-off valve.

Flow rate adjustment - Openi time and rapid stroke

Before operating the system, make sure the governor spring fitted matches with the required regulating pressure. Remove the protection cap, set the regulation screw on minimum flow [totally unscrew]. Operate the equipment and tighten the regulating screw up to required setting, by checking the pressure.



FAST OPENING

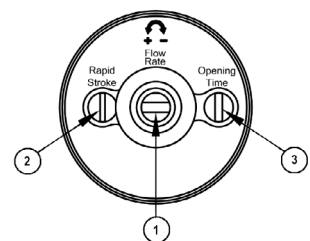
1. Coil fastening nut
2. Flow rate adjustment

Unscrew the nut and turn the internal screw clockwise to reduce and counter clockwise to increase the flow rate.

SLOW OPENING

1. Flow rate adjustment
2. Rapid stroke adjustment
3. Opening time adjustment

Turn the screws clockwise to reduce each setting and counter clockwise to increase each setting.



The data is subject to change without notice.

from 140906