TARTARINI

Pressure regulator R series

EMERSON™
Process Management

Pressure regulatots R series

R/70 threaded right angle connections

R/72 threaded axial connections

R/72-FS flanged axial connections

Construction features

Two-stage regulation

Built-in relief valve only:
R/70 • R/71 • R/72 • R/72-FS • R/73 • R/74 • R/75

Overpressure and underpressure slam shut valve

Manual reset

Built-in filter with 0.5 mm filtering capacity

Special models

Without relief valve

Without underpressure slam shut valve

Without overpressure slam shut valve

Applications

Gas distribution for domestic and industrial use. Burners, furnaces, boilers and other installations requiring a proper regulation and quick response time

Installation and assembly

Installation in whatever position and on bearing column
Assembly in protected environments

Advantages

- Regulated pressure accuracy guaranteed even following strong variations in the regulator inlet pressure
- High flow rates even with low inlet pressure

Operation

The gas arriving at the regulator inlet through the piping goes through the filter and reaches the first regulating stage where a first pressure reduction takes place.

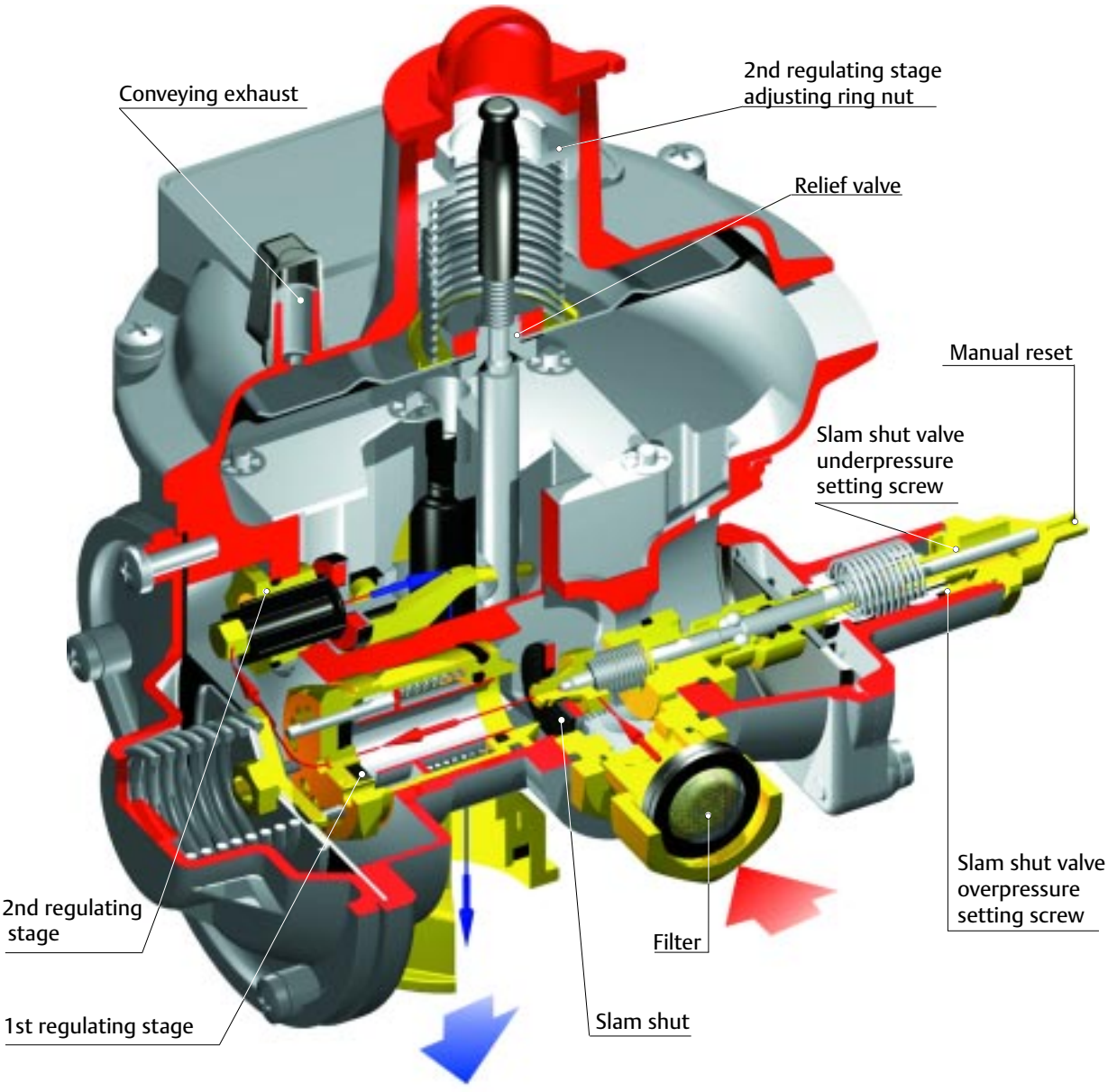
With this pressure, the gas arrives at the second regulating stage where a second pressure reduction to the set value takes place (set by means of the provided adjusting ring nut).

The regulator is equipped with a manual reset slam shut valve which comes into operation if the downstream pressure in not within established set ranges.

Slam shut valve overpressure and underpressure set values can be adjusted by means of the provided setting screws.

The regulator is also equipped with a built-in relief valve which, in case of gas leakage at zero flow, allows to release small quantities of gas thus avoiding the coming into operation of the slam shut valve.

The release value of the relief valve (usually 10 mbar higher than the downstream pressure) cannot be adjusted.



Features

Materials

Body	• Die-cast Aluminium
1st and 2nd stage cover	• Die-cast Aluminium
Slam shut valve cover	• Die-cast Zama
Connections	• Brass
Seals	• Nitrile Rubber NBR
Slam shut valve diaphragm	• Nitrile Rubber NBR
1st and 2nd stage diaphragm	• Clothed Nitrile Rubber NBR

Technical features

R/70 • R/71 • R/72 • R/72-FS • R/73 • R/74 • R/75

Permissible inlet pressure	Pe,max	:	6 bar
Inlet pressure range	bpe	:	0.1 to 6 bar (*)
Set range	Wh	:	15 to 70 mbar
Accuracy class	AC	:	up to ± 5 %
Lock-up pressure class	SG	:	up to + 10 %

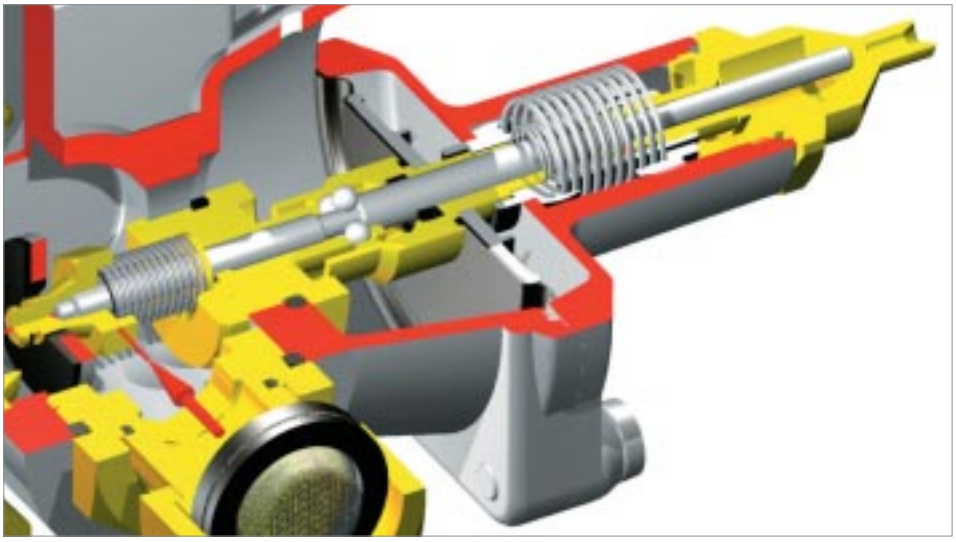
R/70-AP • R/71-AP • R/72-AP • R/72-FS-AP • R/73-AP • R/74-AP • R/75-AP

Permissible inlet pressure	Pe,max	:	10 bar
Inlet pressure range	bpe	:	0.1 to 10 bar (*)
Set range	Wh	:	70 to 300 mbar
Accuracy class	AC	:	up to ± 5 %
Lock-up pressure class	SG	:	up to + 10 %

Built-in slam shut valve

Overpressure set range	Who	:	30 to 380 mbar
Underpressure set range	Whu	:	8 to 155 mbar
Accuracy class	AG	:	± 5 %
Response time	ta	:	≤ 1 s

(*) According to the standards enacted.



Slam shut detail.

Features

Connections	**R/70 • R/70-AP**	G 3/4” x G 1 1/4” UNI ISO 228/1 - right angle (3/4” soft seal x 1 1/4” GAS)
	R/71 • R/71-AP	G 3/4” x G 1 1/4” UNI ISO 228/1 - right angle (3/4” metallic seal x 1 1/4” GAS)
	R/72 • R/72-AP	G 1” UNI ISO 228/1 - axial flow (1” GAS)
	R/72-FS • R/72-FS-AP	DN 25 PN 16 - axial flow
	R/73 • R/73-AP	G 1 1/4” UNI ISO 228/1 - axial flow (1 1/4” GAS)
	R/74 • R/74-AP	G 3/4” x G 1 1/4” UNI ISO 228/1 - axial flow (3/4” soft seal x 1 1/4” GAS)
	R/75 • R/75-AP	G 3/4” x G 1” UNI ISO 228/1 - axial flow (3/4” soft seal x 1” GAS)

Temperature	Working	-20 °C +60 °C
	Ambient	-30 °C +60 °C

Flow rates

Outlet press. mbar	Pe 0.1 bar	Pe 0.2 bar	Pe 0.3 bar	Pe 0.4 bar	Pe 0.5 bar	Pe 0.75 bar	Pe 1÷6 bar	Pe 1÷10 bar
15	25	35	50	60	70	70	75	-
20	25	35	50	60	70	70	75	-
30	25	30	45	55	70	70	75	-
40	25	30	40	50	65	70	70	-
50	20	30	40	50	65	70	70	-
60	15	30	40	50	60	60	65	-
70	15	30	40	45	55	60	60	-
60	20	30	40	45	55	70	-	100
70	20	30	40	45	55	70	-	100
80	20	30	35	45	55	70	-	95
90	20	30	35	45	50	70	-	90
100	-	20	30	35	45	65	-	80
150	-	20	30	35	45	60	-	75
200	-	-	25	30	40	50	-	70
250	-	-	20	30	40	50	-	60
300	-	-	-	25	30	45	-	60

P_e = inlet pressure

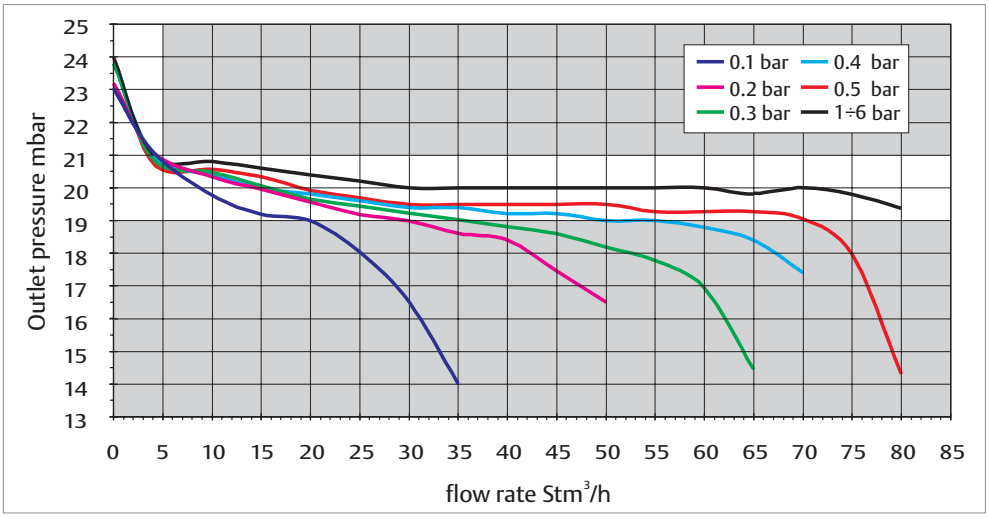
R/70 • R/71 • R/72 • R/72-FS • R/73 • R/74 • R/75
R/70-AP • R/71-AP • R/72-AP • R/72-FS-AP • R/73-AP • R/74-AP • R/75-AP

Flow rate values in stm3/h refer to natural gas with 0.6 relative density.

For other gases multiply by the conversion factor (F) indicated in the following table.

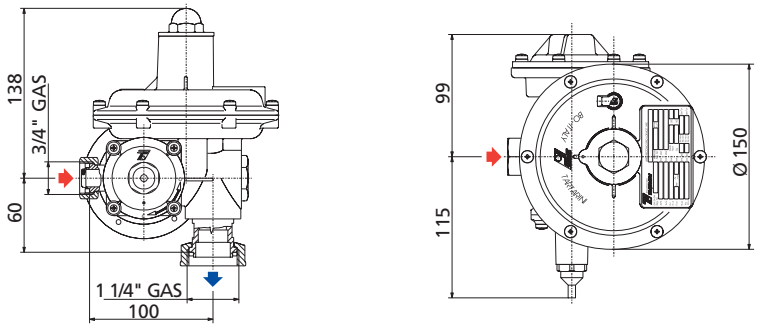
Gas	Relative density d	Factor F
Air	1	0.78
Butane	2.01	0.55
Propane	1.53	0.63
Nitrogen	0.97	0.79
Carbon dioxide	1.52	0.63

20 mbar set characteristic curves

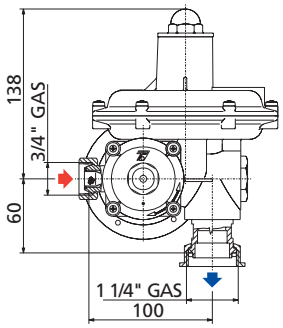


Overall dimensions mm

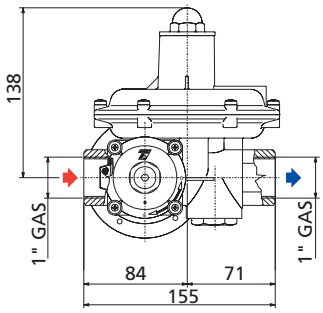
R/70 • R/70-AP



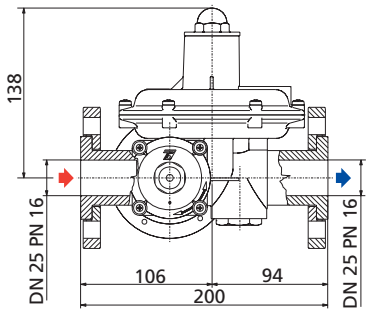
R/71 • R/71-AP



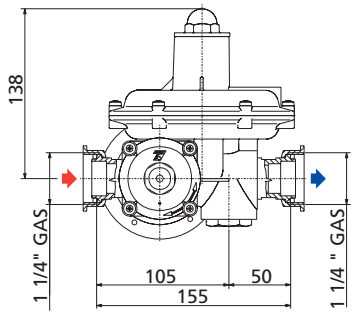
R/72 • R/72-AP



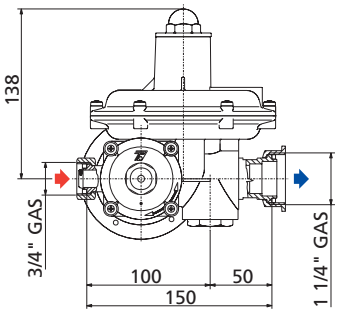
R/72-FS • R/72-FS-AP



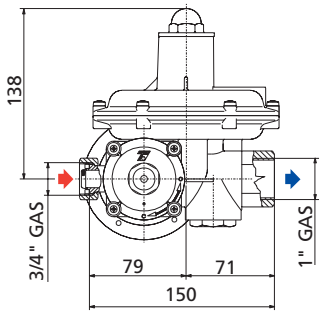
R/73 • R/73-AP



R/74 • R/74-AP



R/75 • R/75-AP



O.M.T.
Officina Meccanica Tartarini s.r.l.
Via P. Fabbri, 1
I - 40013 Castel Maggiore (Bologna)
Italy
Tel.: +39 - 0514190611
Fax: +39 - 0514190715
E-mail: tartarini@tartarini.it
www.tartarini.it

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