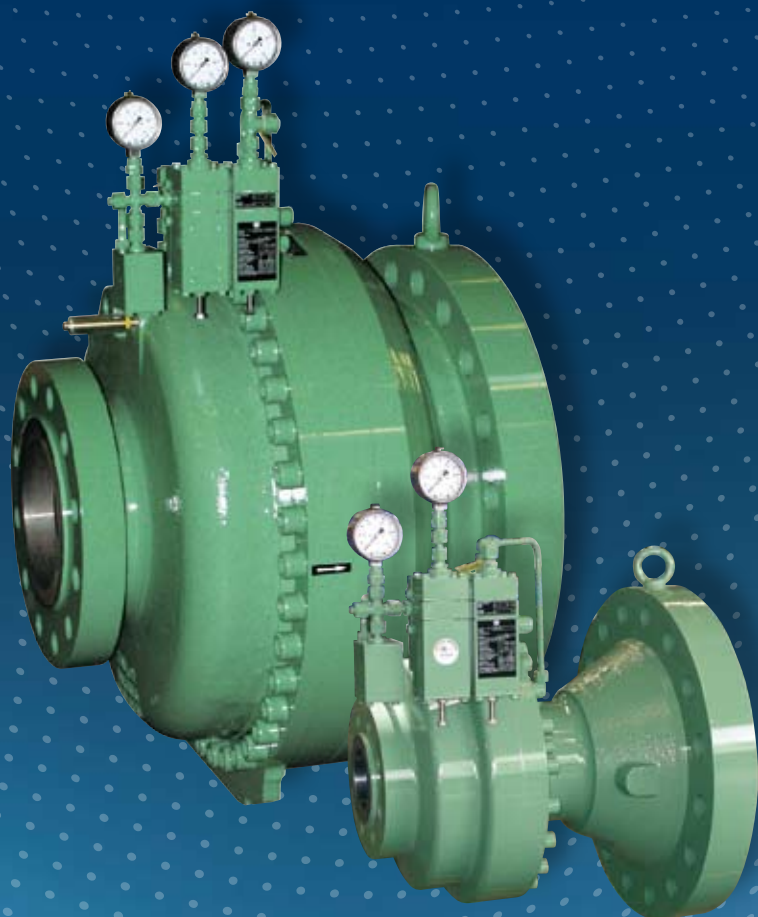


Gas Pressure Regulator RMG 512



PRODUCT INFORMATION

**Serving the Gas Industry
Worldwide**



by Honeywell

Gas Pressure Regulator RMG 512

Application, Features, Technical data

Application


- for offtake stations in gas transmission systems, for gas supply to industrial and power plants
- suitable for outlet pressure control, inlet and differential pressure control
- for sweet natural gas, other gases on request

Features

- valve sleeves are specially coated to eliminate slip stick
- high capacity due to axial flow
- robust and simple design
- purely pneumatic operation
- high pressure cuts
- can be provided with a noise reducing outlet duct and /or an internal silencer
- local position indicator standard
- can be provided with an electric valve-position remote indicator RMG 970
- fail to close / fail to open models available

TECHNICAL DATA			
max. operating pressure PS_{max}	100 bar (could be less - acc. to the flange pressure class)		
outlet pressure ranges W_d with pilot RMG 650 (for outlet pressure control), accuracy class and closing pressure category	W_d in bar	accuracy class AC	closing pressure category SG
	0.3 ... 90	best class: AC 1	best class: SG 5
specific spring ranges W_{ds} with pilot RMG 650	spring No.	spring colour	specific spring range W_{ds} in bar
	1	black	0.30 ... 1.00*
	2	blue	0.50 ... 2.00
	3	black	1.00 ... 5.00
	4	grey	2.00 ... 10.0
	5	brown	5.00 ... 20.0
	6	red	10.0 ... 40.0
	7	white	20.0 ... 90.0**
lock-up pressure zone	SZ 2.5		
further applications with pilots RMG 650-659	<ul style="list-style-type: none">• inlet pressure (p_u) - and differential pressure (Δp) - control• electro pneumatic control stage for pressure and flow control• electric remote control• min. outlet pressure ($p_{d min}$) and max. outlet pressure ($p_{d max}$) - stages		
min. required differential pressure between inlet and outlet Δp	0.5 bar		
connections	flanged to DIN PN 25, PN 40 and ANSI 300 RF, RTJ, ANSI 600 RF, RTJ		
EX-protection	standard regulators do not apply to ATEX 95 (available electronic accessories fully comply with the ATEX requirements).		
materials	main valve body	A 352-LCC(QT) or equal	
	internal parts	steel, aluminium, brass	
	pilot	aluminium alloy, steel	
	diaphragm	NBR, FKM	
	sealings	NBR	

*) pilot with enlarged diaphragm ; **) metal bellow type pilot

TECHNICAL DATA	
temperature class 2	-20 °C to +60 °C (other ranges on request)
body inlet size	inlet size: DN 25, DN 50, DN 80, DN 100, DN 150, DN 200, DN 250 outlet size: (see the table below)
function and strength	acc. to EN 334
CE - sign acc. to PED	

calculation of KG-value:

$$\text{if } \frac{p_d}{p_u} \geq 0.5 \quad K_G = \frac{Q_n}{\sqrt{p_d \cdot (p_u - p_d)}}$$

$$\text{if } \frac{p_d}{p_u} \leq 0.5 \quad K_G = \frac{2 \cdot Q_n}{p_u}$$

pressures for the formulas to be inserted in
absolute values

conversion factor [f] for other gases ($Q_n \text{ gas} = Q_n \text{ NG} \cdot f$):

ethylene	0.97	helium	2.15	propane	0.64
acetylene	0.84	sewer gas	0.85	oxygen	0.76
ethane	0.78	carbon monoxide	0.81	sulphur dioxide	0.53
ammonia	1.04	carbon dioxide	0.65	nitrogen	0.81
butane	0.55	air	0.80	hydrogen	3.04
chlorine	0.51	methane	1.08	natural gas	1.00
landfill gas	0.81	town gas	0.23		

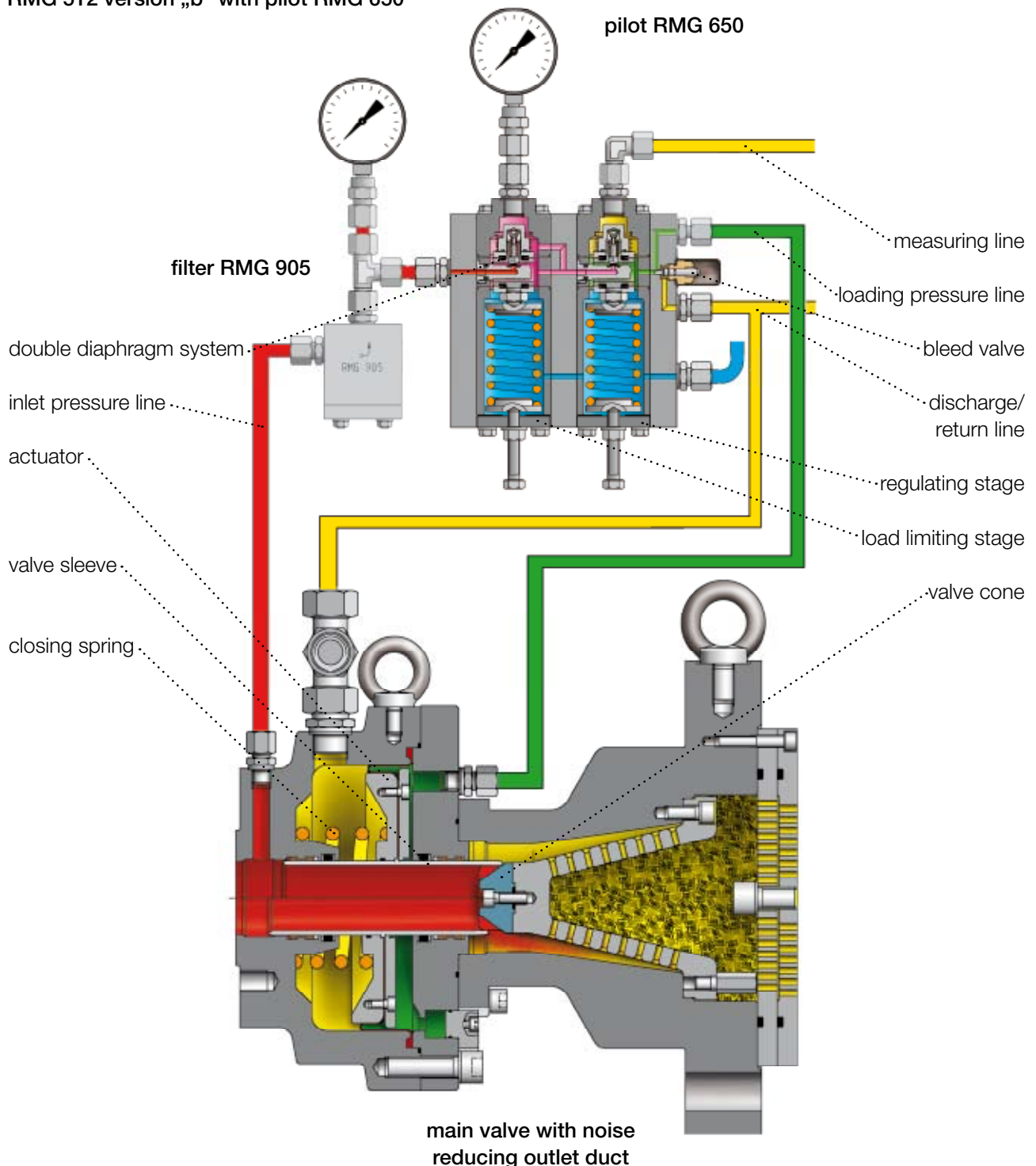
PARAMETERS					
		size DN		KG - value [m³/h]	
		inlet	outlet	($\rho_n = 0.83 \text{ kg/m}^3$)	($\rho_n = 0.77 \text{ kg/m}^3$)
valve data flow rate coeff. K_G for natural gas	25 full bore		25 100 150	550 490 490	570 510 510
	50 full bore		50 150 200	2200 1920 1980	2280 1990 2050
	80 full bore		80 250	5610 5060	5820 5250
	100 full bore		100 300	8800 7810	9130 8100
	150 full bore		150 300 400	19800 14630 16830	20550 15180 17470
	200 full bore		200 400 500	37400 25850 30800	38820 26830 31970
	250 reduced bore		250 400 500	41800 25850 30800	43380 26780 31970
	250 full bore		250 500 600	55000 39600 46750	57090 41100 48520

CONNECTIONS						
version „b“						
inlet size	measuring line		bleed/return line		vent line	
	pipe	thread	pipe	thread	pipe	bleed
25			12 x 1.5	M16 x 1.5		
50			12 x 1.5	M16 x 1.5		
80	12 x 1.5	M14 x 1.5	16 x 2.0	M22 x 1.5	12 x 1.5	M14 x 1.5
100			16 x 2.0	M22 x 1.5		
version „c“						
150						
200	12 x 1.5	M14 x 1.5	16 x 2.0	M22 x 1.5	12 x 1.5	M14 x 1.5
250						

Gas Pressure Regulator RMG 512

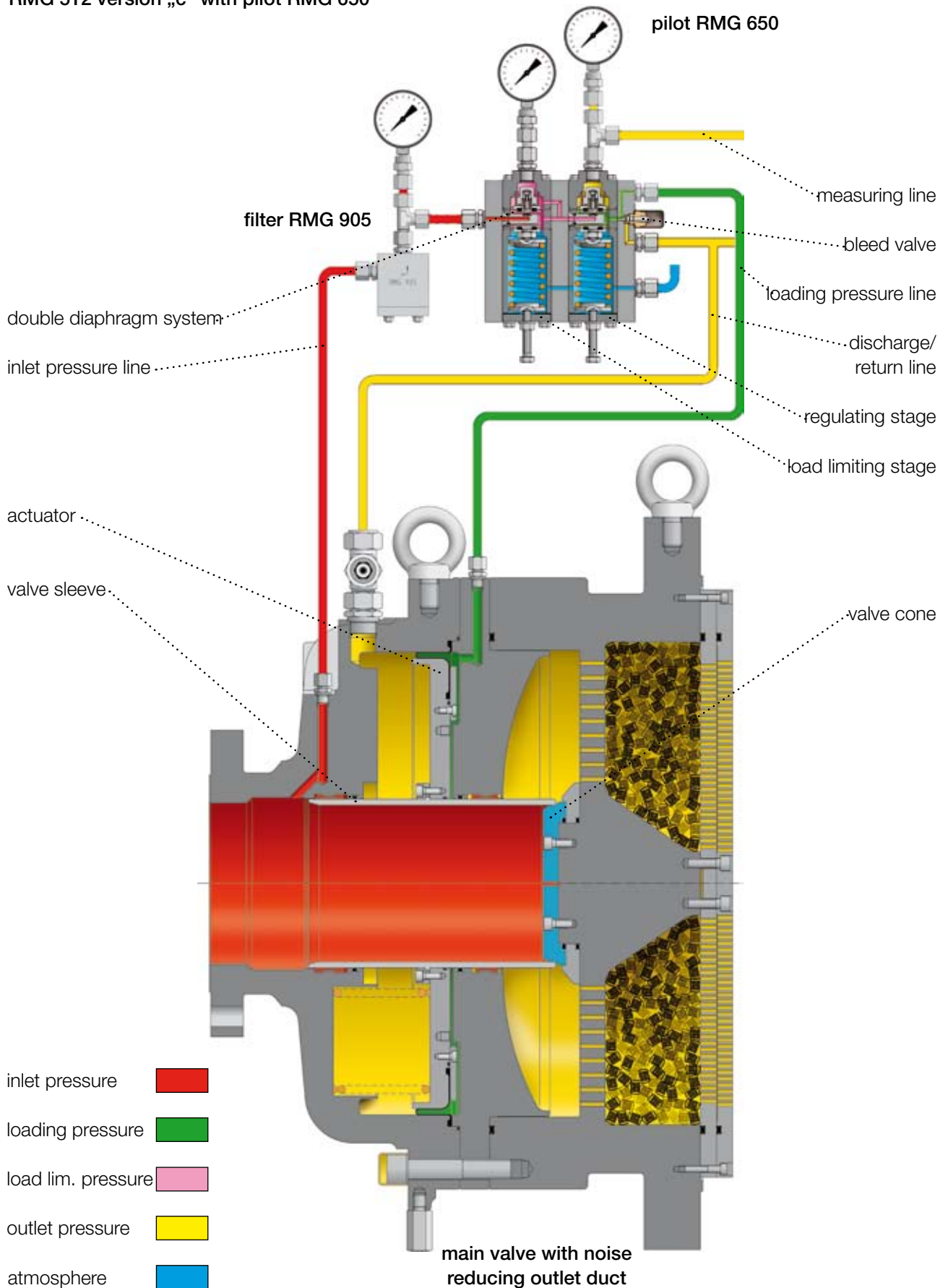
Design

RMG 512 version „b“ with pilot RMG 650



inlet pressure	
loading pressure	
load lim. pressure	
outlet pressure	
atmosphere	

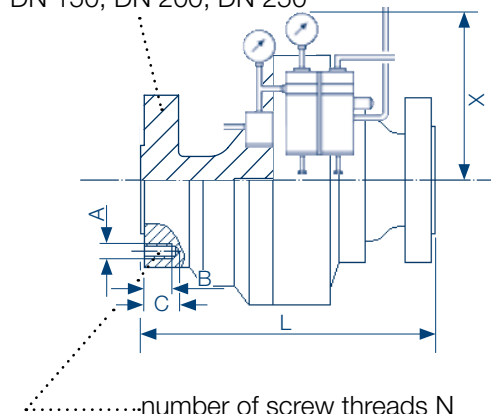
RMG 512 version „c“ with pilot RMG 650



Gas Pressure Regulator RMG 512

Dimensions and Weights

flanged version only
DN 150, DN 200, DN 250



.....number of screw threads N

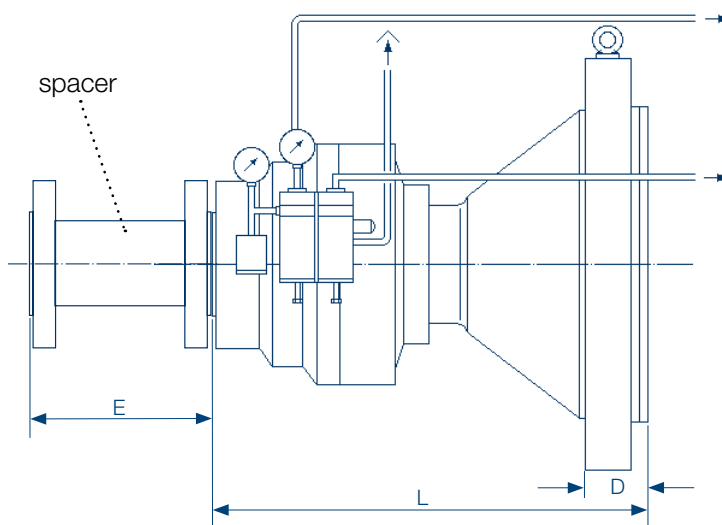


fig. 1: RMG 512 - main valve with pilot RMG 650

fig. 2: RMG 512 - main valve with pilot RMG 650, noise reducing outlet duct and spacer

DIMENSIONS																					
version „b“ - inlet with threaded holes / outlet with standard flanges																					
size DN		PN 25 and PN 40					ANSI 300 RF					ANSI 300 RTJ					ANSI 600 RF/RTJ				
inlet	outlet	L	A	B	C	N	L	A	B	C	N	L	A	B	C	N	L	A	B	C	N
25	25	200					197					210					210				
	100*	360	M12	16	21	4	359	M16	20	25	4	365	M16	20	25	4	365	M16	20	25	4
	150*	360					359					365					365				
50	50	270					267					283					286				
	150*	422	M16	20	25	4	421	M16	20	25	8	429	M16	20	25	8	430	M16	20	25	8
	200*	422					421					429					430				
80	80	310					318					333					337				
	250*	512	M16	20	25	8	516	M20	26	32	8	523	M20	26	32	8	525	M20	26	32	8
100	100	370					368					384					394				
	300*	548	M20	26	32	8	548	M20	26	32	8	555	M20	26	32	8	560	M24	31	38	8
version „c“ - inlet / outlet with standard flanges																					
150	150	508					508					508					508				
	300*	550					550					550					550				
	400*	550					550					550					550				
200	200	610					610					610					610				
	400*	650					650					650					650				
	500*	650					650					650					650				
250 ¹	250	630					630					630					630				
	400*	660					660					660					660				
	500*	660					660					660					660				
250 ²	250																				
	500*	752					752					752					752				
	600*																				

*) with noise reducing outlet duct (outlet flanged to ANSI 600 RF)

**) We recommend to install a spacer in front of the regulator to enable easy removing of the regulator without removing the outlet duct.

Spacer length acc. to table above

1) reduced bore

2) full bore

WEIGHTS IN KG (APPROX.)																					
version „b“											version „c“										
inlet DN											inlet DN										
25	50	80	100								150	200	250 ¹	250 ²							
outlet DN	outlet DN	outlet DN	outlet DN								outlet DN	outlet DN	outlet DN	outlet DN							
25	100	150	50	150	200	80	250	100	300	150	300	400	200	400	500	250	400	500	250	500	600
35	80	90	70	130	150	120	300	180	425	500	580	770	850	1000	1100	980	1100	1200	*	*	*

1) reduced bore; 2) full bore

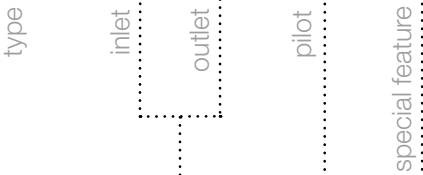
*) weights on request

example

RMG 512 - 50 / 200 - 650 - So

PIPE SIZE		
size DN (main valve without noise reducing outlet duct)		
inlet	outlet	version
25	25	b
50	50	b
80	80	b
100	100	b
150	150	c
200	200	c
250	250	c - rb and fb
size DN (main valve with noise reducing outlet duct)		
inlet	outlet	version
25	100	b
25	150	b
50	150	b
50	200	b
80	250	b
100	300	b
150	300	c
150	400	c
200	400	c
200	500	c
250	400	c - rb
250	500	c - rb
250	500	c - fb
250	600	c - fb
PILOT TYPE		
		e.g. RMG 650
SPECIAL FEATURE		
to be described in detail		So

rb = reduced bore
fb = full bore



For More Information

To learn more about RMG's Advanced Gas Solutions, contact your RMG account manager or visit www.rmg.com

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