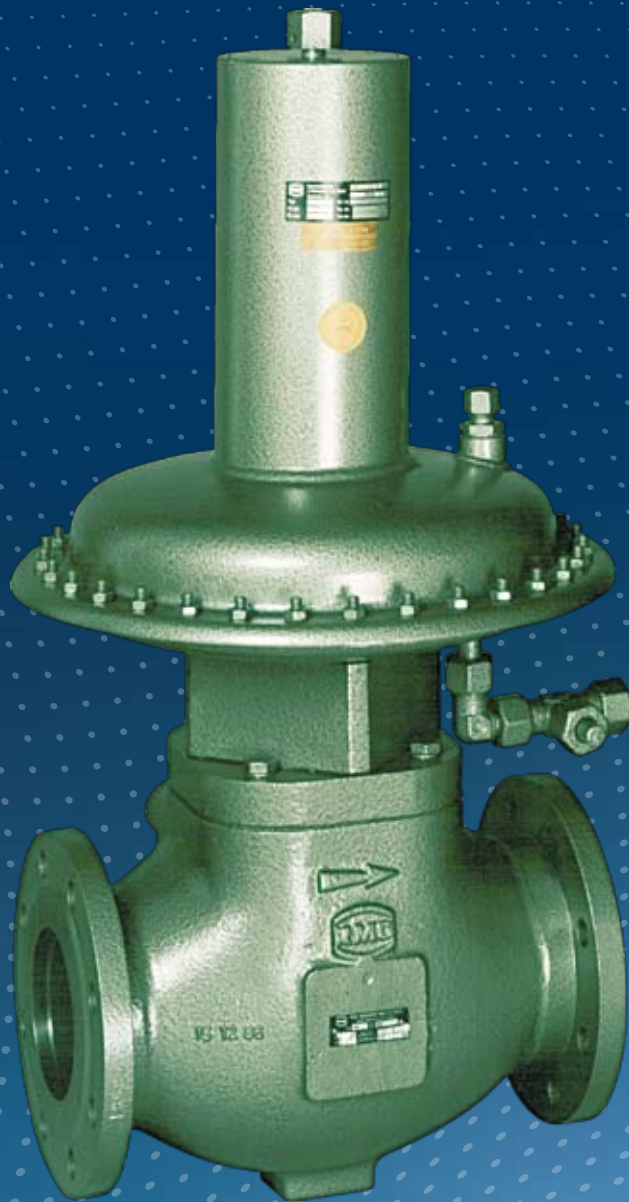


Gas Pressure Regulator RMG 320



PRODUCT INFORMATION

**Serving the Gas Industry
Worldwide**

RMG
by Honeywell

Gas Pressure Regulator RMG 320

Application, Characteristics, Technical Data

Application

- for domestic and industrial use
- suitable for regulating systems requiring quick response (gas furnace)
- can be used for natural gas and all non-corrosive gaseous media

Characteristics

- noise reduction option (not available for all valve seat diameters)
- large inlet pressure range
- various valve seat diameters can be fitted
- main valve with pressure compensation
- pilot optionally with safety relief valve (SBV) for gas leakages or safety diaphragm
- easy maintenance due to interchangeable functional units (plug-in module)
- noise reduction optional (not available for all valve seat diameters)
- at option: version as zero governor

TECHNICAL DATA					
max. inlet pressure p_{emax}	16 bar				
specific setpoint ranges W_a	specific outlet pressure range p_a in bar	setpoint spring		wire dia. in mm for diaphragm assembly	
		spring no	colour	size 1	size 2
	0,020 ... 0,030	0	blue	3.6	5.0
	0,025 ... 0,050	1	grey	4.0	6.3
	0,045 ... 0,100	2	yellow	4.5	7.0
	0,090 ... 0,200	3	brown	5.3	8.0
	0,150 ... 0,300	4	light red	6.3	9.0
	0,250 ... 0,400	5	dark red	7.0	10.0
	0,350 ... 0,500	6	light blue	7.5	11.0
	0,450 ... 0,600	7	white	8.5	12.0
0,550 ... 0,800	8	green	9.5	13.0	
0,650 ... 1,000	9	black	10.5	14.0	
accuracy class AG and lock-up pressure class SG	outlet pressure range p_a in bar	AC	SG		
	0,020 ... 0,030	10*/20	20*/30		
	> 0,030 ... 0,100	5*/10	10*/20		
	> 0,100 ... 0,500	5	10		
	> 0,500 ... 1,000	2,5	10		
	> 1,000 ... 4,000	≥ 5	≥ 10		
sizes	DN 25, DN 50, DN 80, DN 100				

* values apply to inlet pressure changes of max. 6 bar.

TECHNICAL DATA									
connection type	flanged to DIN PN 16 and acc. to ANSI 150 RF								
material	<table border="0"> <tr> <td>main valve</td> <td>cast steel, spheroidal graphite iron</td> </tr> <tr> <td>main valve body</td> <td>sheet steel</td> </tr> <tr> <td>internal components</td> <td>aluminium alloy, brass, steel</td> </tr> <tr> <td>diaphragms, seals</td> <td>NBR (plastic-like rubber material)</td> </tr> </table>	main valve	cast steel, spheroidal graphite iron	main valve body	sheet steel	internal components	aluminium alloy, brass, steel	diaphragms, seals	NBR (plastic-like rubber material)
main valve	cast steel, spheroidal graphite iron								
main valve body	sheet steel								
internal components	aluminium alloy, brass, steel								
diaphragms, seals	NBR (plastic-like rubber material)								
temperature range classe 2	-20 °C to +60 °C								
function and strength	acc. to EN 334								
DIN DVGW reg. no.	NG - 4301AT0093 (applicable to all sizes)								
CE reg. no.	CE-0085AT0059 (applicable to all sizes)								

INTEGRATED SAFETY RELIEF VALVE FOR GAS LEAKAGES (OPTIONAL)			
regulating unit	spring no.	wire dia. in mm	setpoint range above p_a (p_a max. 500 mbar)
1	1	3.5	0.010 bar to 0.1 bar above p_a
1	2	5.0	0.075 bar to 0.3 bar above p_a
2	1	3.0	fixed at 0.015 bar above p_a
2	2	3.6	fixed at 0.040 bar above p_a
2	3	4.5	fixed at 0.130 bar above p_a

design with safety diaphragm (optional)

Can only be fitted to regulating unit 1 with setpoint spring no. 1 to 6 (0.020 bar to 0.5 bar).

Gas Pressure Regulator RMG 320

Application, Characteristics, Technical Data

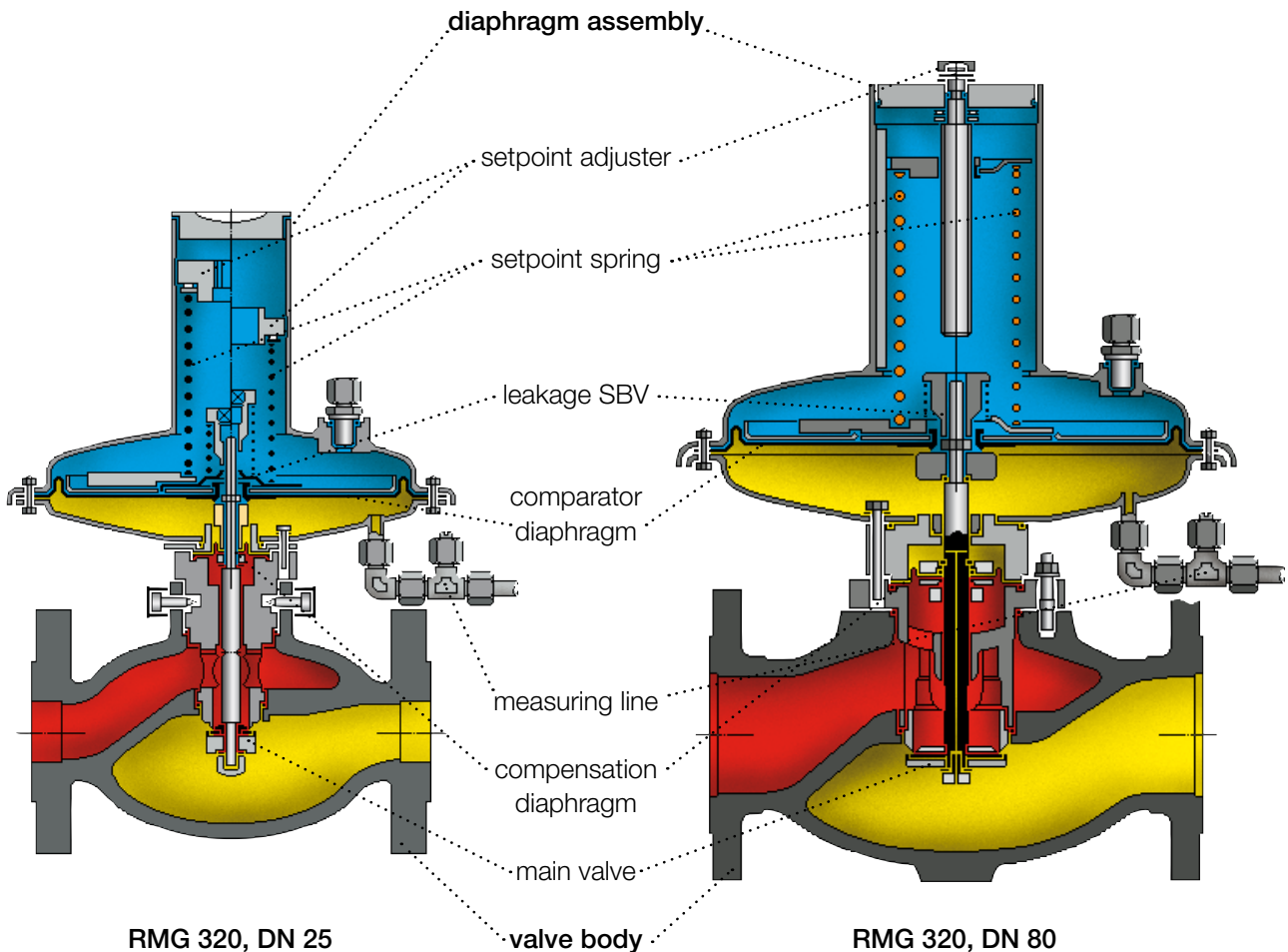
VALVE DATA					
size	valve seat dia. in mm	flow rate coefficient K_G (for natural gas, $\rho_n=0,83 \text{ kg/m}^3$)	inlet pressure range Δp_e *		face to face dimensions (mm)
			in bar for diaphragm assembly (max. inlet pressure in brackets)		
			Größe 1	Größe 2	
DN 25	20	220	16	-	184
	33	480	10 (16)	-	
DN 50	25	400	16	16	254
	31	800	10 (16)	16	
	41	1300	8 (16)	16	
	50	1600	5 (10)	10 (16)	
DN 80	25	400	-	16	298
	31	900	-	16	
	41	1500	-	16	
	50	1800	-	10 (16)	
	60	2700	-	10 (16)	
	80	4000	-	6 (12)	
DN 100	25	400	-	16	352
	31	900	-	16	
	41	1500	-	16	
	50	1800	-	10 (16)	
	60	3100	-	10 (16)	
	80	4500	-	6 (12)	
	100	5800	-	4 (8)	

* The accuracy class and the lock-up pressure class stipulated by the DVGW type tests are confirmed under the following conditions:

„The inlet pressure may exceed the Δp_e -figure stated in the table at the most by twice its value, provided the inlet pressure deviations Δp_e do not exceed the $p_{e\max}$ - value stated in the table. However, it may not exceed the nominal pressure rating.“

The limitation of the inlet pressure range Δp_e for a diaphragm assembly is not given for reasons of material strength but in the interest of maintaining the regulating accuracy.

CONNECTIONS		
	diaphragm assembly 1	diaphragm assembly 2
measuring line (p_a line)	pipe	pipe
relief- / venting line	E12	E 16
(to the open atmosphere)	E12 (thread G 1/2)	E 12 (thread G 1/2)

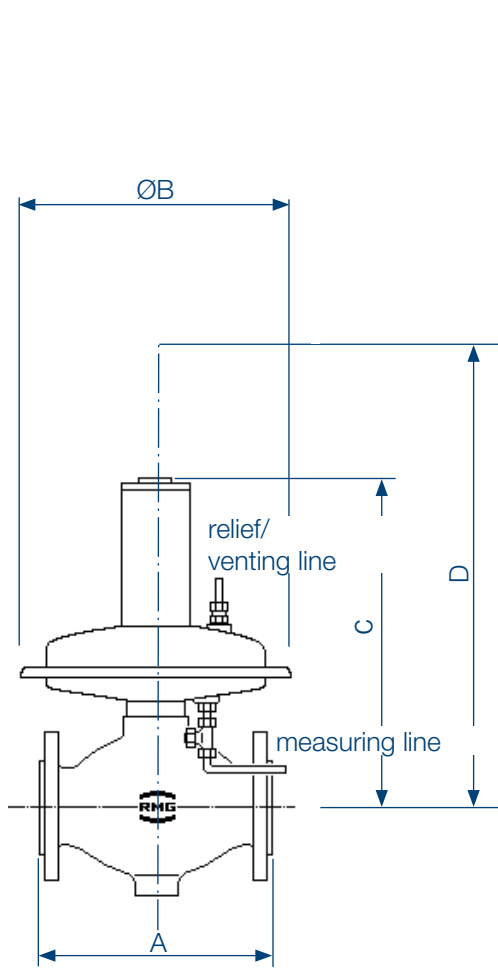


The gas pressure regulator RMG 320 is designed to keep the outlet pressure of a gas medium in a controlled system constant irrespective of the influence of disturbance variables like inlet pressure and/or flow changes. The outlet pressure to be regulated is fed into the diaphragm assembly via the measuring line. The comparator diaphragm captures the actual outlet pressure value and compares it with the preset value of the setpoint spring. A deviation results in a direct change of the main valve position via the valve rod. The resulting flow change produces an alignment of the actual outlet pressure and the setpoint. At zero consumption the unit shuts off completely. The main valve is inlet pressure compensated and can be fitted with different valve seat diameters. The pilot can optionally be fitted with a safety relief valve for gas leakages or a safety diaphragm.

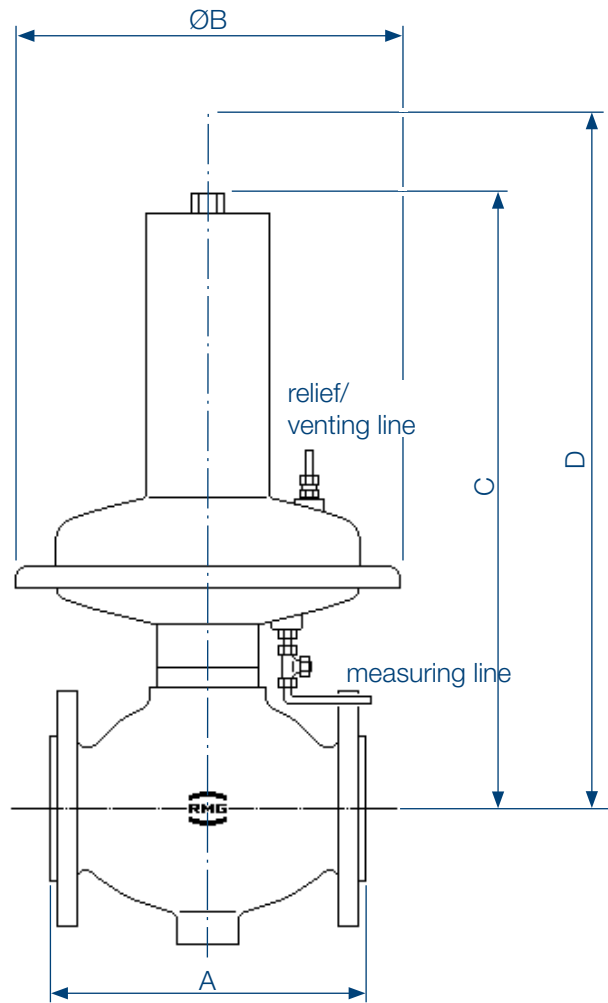
The gas pressure regulator RMG 320 consists of the main valve body and the functional element „diaphragm assembly“. After loosening the connecting bolts the functional element can easily be removed from the main valve body. This has the advantage of making maintenance particularly easy. During regular maintenance intervals the functional element can be taken from the casing and examined visually. In case of a defect the functional element can be exchanged for a tested spare part, and the subsequent repair work can be carried out away from the gas regulating station in the workshop.

Gas Pressure Regulator RMG 320

Dimensions and weights



DN 25 and DN 50



DN 80 and DN 100

DIMENSIONS

size DN	main valve body	regulator with diaphragm assembly					
		B	size 1		size 2		
	A		C	D*	B	C	D*
25	184	297	385	510	-	-	-
50	254	297	410	510	395	550	660
80	298	-	-	-	395	650	800
100	352	-	-	-	395	650	800

*) dimension needed for dismantling

APPROX. WEIGHT IN KG

size DN	diaphragm assembly 1	diaphragm assembly 2
25	15	-
50	33	36
80	-	61
100	-	67

example:

RMG 320 - 50 - 25 / 2* / 4 - So

PIPE SIZE AND FLANGE DESIGN							
size DN		flange design			casing material		
25, 50		PN 16 or ANSI 150			GS-C25N		
80, 100		PN 16 ANSI 150			GGG-40, GS-C25 GS-C25N		
VALVE SEAT AND REGULATING UNIT							
pipe size DN	diaphragm assembly size	with safety diaphragm	with safety relief valve	valve seat dia. in mm	RMG part no.*		
					normal design		with safety diaphr.
					W _H 0,02...0,50 bar	W _H 0,50...1,00 bar	W _H 0,02...0,5 bar
25	1	SM	L	20	10004835	10004840	10026310
				33	10004836	10004841	10026311
50	1	SM	L	25	10006152	10006153	10004834
				31	10009027	10009023	10004813
				41	10009028	10009024	10004814
50	1	SM	L	50	10009029	10009025	10004817
				25	10006179	10006180	
				31	10009016	10009019	
80	2	SM	L	41	10009026	10009018	
				50	10009126	10009017	
100	2	SM	L	60	10009170	10009173	
				80	10009171	10009174	
100	2	-	L	100	10009172	10009175	-
SETPOINT SPRING							
setpoint spring		setpoint range		RMG part no. of setpoint spring			
No.	colour	W _{ds} in bar		diaphragm assembly 1		diaphragm assembly 2	
0	black	0,020 ... 0,030		10007241		19083654	
1	grey	0,025 ... 0,050		10003629		10009068	
2	yellow	0,045 ... 0,100		10003630		10009069	
3	brown	0,090 ... 0,200		10003631		10009070	
4	light red	0,150 ... 0,300		10003632		10009071	
5	dark red	0,250 ... 0,400		10003633		10009072	
6	light blue	0,350 ... 0,500		10003634		10009073	
7	white	0,450 ... 0,600		10012563		10009163	
8	green	0,550 ... 0,800		10012564		10009164	
9	black	0,650 ... 1,000		10004894		10009165	
SPECIAL FEATURES							
special features (to be detailed)						So	

type
pipe size DN
valve seat diameter
pilot design
setpoint spring no. in pilot
special feature

*) example:

- 2 - standard
- 2L - diaphragm assembly with integrated safety relief valve
- 1SM - diaphragm assembly with safety diaphragm

For More Information

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

GERMANY

Honeywell Process Solutions

RMG Regel + Messtechnik GmbH
Osterholzstrasse 45
34123 Kassel, Germany
Tel: +49 (0)561 5007-0
Fax: +49 (0)561 5007-107

Honeywell Process Solutions

RMG Messtechnik GmbH
Otto-Hahn-Strasse 5
35510 Butzbach, Germany
Tel: +49 (0)6033 897-0
Fax: +49 (0)6033 897-130

Honeywell Process Solutions

RMG Gaselan Regel + Messtechnik GmbH
Julius-Pintsch-Ring 3
15517 Fürstenwalde, Germany
Tel: +49 (0)3361 356-60
Fax: +49 (0)3361 356-836

Honeywell Process Solutions

WÄGA Wärme-Gastechnik GmbH
Osterholzstrasse 45
34123 Kassel, Germany
Tel: +49 (0)561 5007-0
Fax: +49 (0)561 5007-207

POLAND

Honeywell Process Solutions

Gazomet Sp. z o.o.
ul. Sarnowska 2
63-900 Rawicz, Poland
Tel: +48 (0)65 5462401
Fax: +48 (0)65 5462408

ENGLAND

Honeywell Process Solutions

Bryan Donkin RMG Gas Controls Ltd.
Enterprise Drive, Holmewood
Chesterfield S42 5UZ, England
Tel: +44 (0)1246 501-501
Fax: +44 (0)1246 501-500

CANADA

Honeywell Process Solutions

Bryan Donkin RMG Canada Ltd.
50 Clarke Street South, Woodstock
Ontario N4S 0A8, Canada
Tel: +1 (0)519 5398531
Fax: +1 (0)519 5373339

USA

Honeywell Process Solutions

Mercury Instruments LLC
3940 Virginia Avenue
Cincinnati, Ohio 45227, USA
Tel: +1 (0)513 272-1111
Fax: +1 (0)513 272-0211

TURKEY

Honeywell Process Solutions

RMG GAZ KONT. SIS. ITH. IHR. LTD. STI.
Birlik Sanayi Sitesi, 6.
Cd. 62. Sokak No: 7-8-9-10
TR - Sasmaz / Ankara, Turkey
Tel: +90 (0)312 27810-80
Fax: +90 (0)312 27828-23

