

ECO-FRIENDLY

REGULATOR DE PRESIUNE GAZ GAS PRESSURE REGULATOR MF

SUITABLE FOR UP TO 30% H₂ FEED INTO THE GAS NETWORK

Regulator de presiune gaz

Regulatorul de presiune pilotat **MEGAFLOW MF** este conceput pentru a mentine presiunea de iesire la un nivel constant, indiferent de variatiile presiunii de intrare si a fluxului. Domeniu de aplicare: statiile de predate in retelele de alimentare cu gaze, in industrie si instalatii energetice. De asemenea, este posibil reglarea presiunii de iesire si presiunii diferentiale. Regulatorul de presiune pneumatic poate fi echipat si cu control electronic

Structura / caracteristici

Prin curgerea axiala se poate obtine o valoare mare de curgere. Constructia sa robusta si simpla ofera un nivel ridicat de securitate de alimentare a gazului, componentele principale fiind testate prin ani de utilizare.

Executia standarda a unitatilor de control **inchid in caz de eroare**. Regulatele monitoare pot fi executate atat ca regulate ce **inchid in caz de eroare**, cat si care **deschid in caz de eroare**. Cu reglarea de la distanta SF01 pot fi executate si reglaje de retea. Pentru a efectua mai usor lucrari de intretinere la dispozitivul de control, va recomandam pe partea de intrare furnizarea unui adaptor, cu lungimea totala egala cu cea a dispozitivului de control.

Optional unitatile de control pot fi echipate pe partea de iesire cu amortizor de zgomot, pentru a respecta valorile limita ale zgomotului.

Intr-o unitate pot fi constructie regulatorul de siguranta si de lucru, si amortizorul de zgomot pe partea de iesire.

Avantaje

- Debite mari
- Constructie simpla, robusta
- Optional amortizor de zgomot la iesire
- Optional actuator electric
- Optional indicator electronic de pozitie supapa optic, standard
- Regulator de lucru si de siguranta intr-o singura unitate
- Executie **inchid in caz de eroare / deschid in caz de eroare**

Gas pressure regulator

The pilot-controlled gas pressure regulator **MEGAFLOW MF** is designed to keep the output pressure at a constant level, regardless of variations in input pressure and flow. The field of application is at transfer stations in gas supply systems, and for industry and power plants. Furthermore, it is possible to carry out an input and output pressure control and a differential pressure control. The pneumatic pressure regulator can be upgraded with an electronic control.

Structure / Feature

Through the axial connecting passage of a high flow rate can be achieved. Its rugged and simple design offers a high level of supply security, essential components are optionally tested through years of use.

The standard design of control units are equipped with control units **fail to close**. Monitor regulators (working regulators) can both fail to close and fail to open be executed. With the remote setpoint adjustment SF01 network arrangements can be made. To perform maintenance on the control device easier, we recommend to the input side of an adaptor, which has the overall length of the controller to provide.

Optionally, the controllers can be equipped with exit silencer to comply with the limits of the noise.

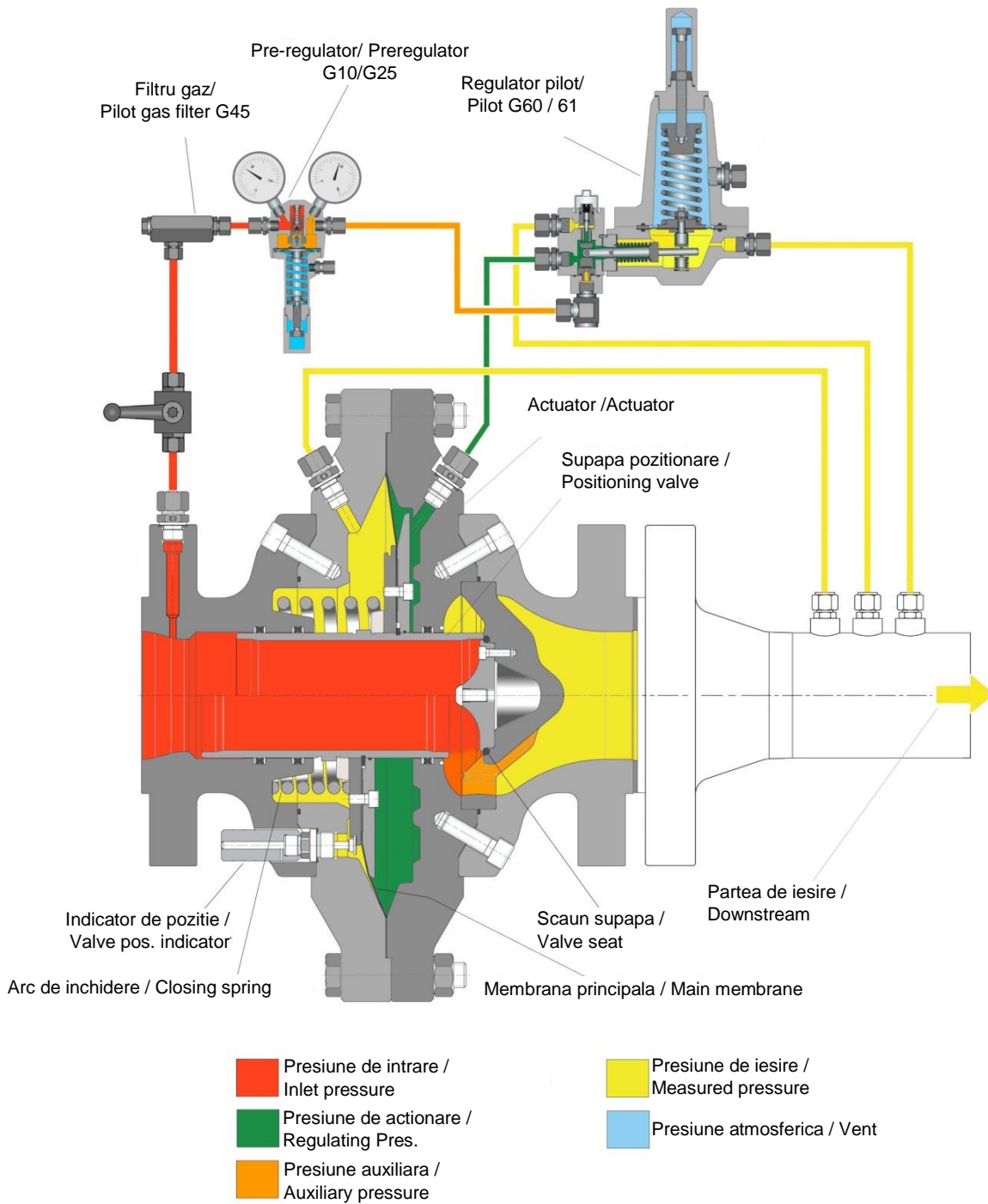
In one unit, the control unit with safety, working regulator and silencer output can be built.

Benefits

- High flow values
- Simple, sturdy, approved construction
- Optional noise-reducing exit page
- Optional electric actuator
- Optional electric valve position indicator optical, Standard
- Safety and working regulator in one unit
- Execution **fail to open / fail to close**

Structura

Structure

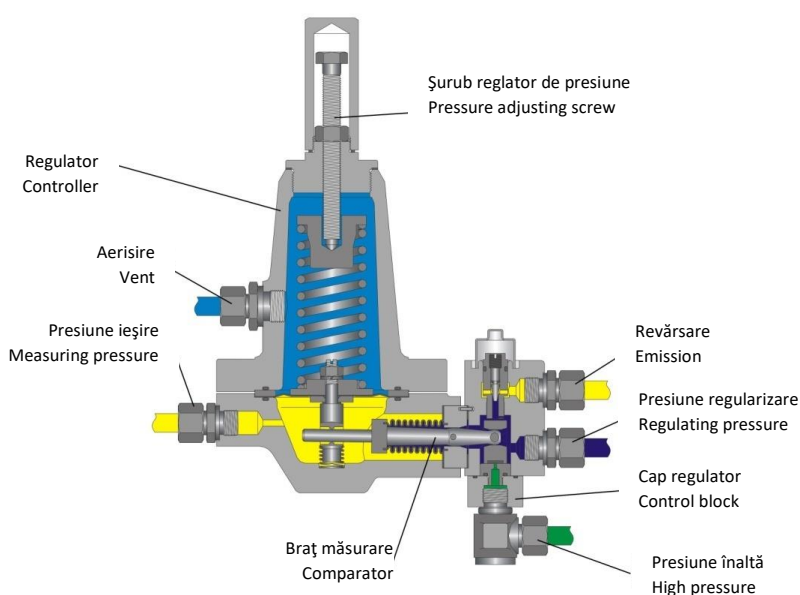


Unititatea de comanda

Regulatele de comanda de tip G60/61 deserve comanda pneumatica a dispozitivelor de control: asigura presiune de iesire constanta indiferent de variatiile presiunii de intrare si de debit. Funcționarea lor corespunde standardului EN 334 / DVGW. Sistemul de brat asigura o reglare stabila chiar si in conditii speciale de exploatare. Presiunea de iesire poate fi modificata si pe cale electronica, cu ajutorul dispozitivului de modificare a presiunii nominale de tip HEAT SF01. Aceasta modificare este posibila prin comanda de la centrala, complet automatizata.

Pilotunit

The units of the G60/G61 series are pneumatic controllers for the actuators acc. EN 334 / DVGW and steadily control the outlet pressure at varying inlet pressures and flows. A stable control behaviour even under extreme conditions is achieved through a scale beam system. With the HEAT energy remote set point controller SF01, an automatic remote setting of the outlet pressure, e.g. from a central process control system is made possible.



Gama de control

Control range

Type	Număr arc Spring-no	Suprafața membrane Diaphragm area	Gama de control Control range Wds [bar]	AC ±%	SG +%	Nr. desen Drawing No.	Dimensiuni arc Measurements	Culori Colour
G 60	HL3432	88	0,02 ... 0,05	5	20	60.602.01	Ø 38,0 x Ø 3,2 x 110	alb-gălbui, white-yellow
	HL3433		0,03 ... 0,1			60.602.02	Ø 38,5 x Ø 3,6 x 110	galben / yellow
	HL3434		0,05 ... 0,15			60.602.03	Ø 39,0 x Ø 4,0 x 110	portocaliu / orange
	HL3435		0,1 ... 0,3			60.602.04	Ø 40,0 x Ø 4,5 x 110	roșu / red
	HL3436		0,2 ... 0,6			60.602.05	Ø 40,0 x Ø 5,6 x 110	albastru / blue
G 61	HL3436	32	0,25 ... 2,0	*) 2,5	10	61.612.01	Ø 40,0 x Ø 5,6 x 110	albastru / blue
	HL3437		1 ... 4,0			61.612.02	Ø 40,0 x Ø 6,0 x 110	negru / black
	HL3436	16	1 ... 4,0			61.612.01	Ø 40,0 x Ø 5,6 x 110	albastru / blue
	HL3437		2 ... 8,0			61.612.02	Ø 40,0 x Ø 6,0 x 110	negru / black
	HL3436	8	2 ... 8,0			61.612.01	Ø 40,0 x Ø 5,6 x 110	albastru / blue
	HL3437		4 ... 16,0			61.612.02	Ø 40,0 x Ø 6,0 x 110	negru / black
	HL3436	4,2	4 ... 15,0			61.612.01	Ø 40,0 x Ø 5,6 x 110	albastru / blue
	HL3437		8 ... 30,0			61.612.02	Ø 40,0 x Ø 6,0 x 110	negru / black
	HL3451		20 ... 45,0			61.612.03	Ø 40,0 x Ø 6,3 x 110	fără / none

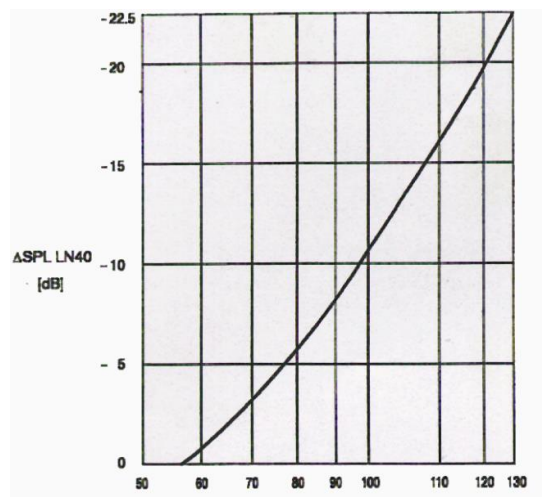
*) 0,25 .. 0,5 bar AC5

Amortizor de zgomot

La fabricarea și executarea dispozitivelor și stațiilor de reglare a presiunii, trebuie respectate anumite valori ale emiterii zgomotului, prescrise în standarde și normative. Pentru ca MEGAFLOW să respecte aceste cerințe, putem să folosim un amortizor de zgomot pe partea de ieșire, care este montat direct în dispozitiv.

În amortizorul de zgomot intervenția se face direct la sursa zgomotului. Cu ajutorul amortizorului de zgomot se poate obține reducerea nivelului de zgomot.

Acest diagram ne arată reducerea nivelului zgomot realizabil în funcție de nivelul sonor a regulatorului neamortizat.



Nivel de presiune Sonora, fara amortizor de zgomot
acoustic pressure level without noise reduction

This diagram shows the noise reduction by the silencer depending to sound level of the un-absorbed regulator.

Silencer

For operating of natural gas reducing stations, standards and approvals demanding certain noise level have to be obeyed. To fulfil these requirements, also in MEGAFLOW, a silencer which is installed directly in device can be used.

At the silencer the noise will be reduced nearest to the point of emission. That means that a low sound level can be guaranteed.

Date tehnice

Presiune max de operare:	100 bar
Fluide:	Gaze non-agresive
Reducerea zgomotului la 80 dB(A):	cca. 6 dB
Reducerea zgomotului la 120 dB(A):	cca. 20 dB
Materialul corpului:	otel carbon
Protectie anticoroziva:	galvanizat
Conexiuni:	vezi in tabel
Domeniul de utilizare:	regulator presiune gas stații utilizare industrială și comună de gaz
Agent:	gaz natural, gaz neagresiv
Presiune max intrare:	100 bar o. ANSI600
Presiune de iesire nom.:	0,25 ÷ 45 bar (optional 0,25 ÷ 75 bar)

Technical data

Max. operating pressure:	100 bar
Fluids:	gases, non-aggressive
Noise reduction at 80 dB(A):	approx. 6 dB
Noise reduction at 120 dB(A):	approx. 20 dB
Material of body:	carbon steel
Corrosion protection	galvanized
Connections:	see table
Field of application:	Gas pressure regulator plants for communal und industrial supply
Medium:	Natural gas, non- aggressive
Inlet pressure max.:	100 bar or ANSI600
Range of outlet pressure:	0,25 ÷ 45 bar (optional 0,25 ÷ 75 bar)

Gama de reglare

Grupa reglatoare:	AC 2,5 / AC 5*
Grupa presiune închidere:	SG 10 / SG 20*
Solicitare gaz:	nach Auslegung
Temperatura de proiectare:	-20 / (-40) ÷ 60 °C
Execuție:	EN 334
Racoduri:	Flanse EN1092-1 PN 40, PN63, PN100 ANSI 300RF, ANSI 600RF

Material

Corp:	P 355 NL2 DIN EN 10028-3 galvanizat
Membran:	553N – AG550-1,0
Inel O:	NBR -40 ÷ +60 °C
Părți interne:	Otel, cupru, otel inoxidabil, G20 M25 turnata

Calcularea sarcinii gaz

În cazul raportului de presiune sub critic

$$p_a/p_e \geq 0,52$$

$$Q = KG * \sqrt{p_a(p_e - p_a)} \quad [m^3n/h]$$

În cazul raportului de presiune peste critic

$$p_a/p_e \leq 0,52$$

$$Q = KG * p_e / 2 \quad [m^3n/h]$$

Adjusting range for

Regulating class:	AC 2,5 / AC 5*
Closing class:	SG 10 / SG 20*
Flow rate:	design depended
Design temperature:	-20 / (-40) ÷ 60 °C
Design acc. to:	EN 334
Flange connections:	Connection flanges acc. to EN1092-1 PN 40, PN63, PN100 ANSI 300RF, ANSI 600RF

Materials

Casing:	P 355 NL2 DIN EN 10028-3 galvanizat
Diaphragm:	553N – AG550-1,0
O-rings:	NBR -40 ÷ +60 °C
Internals:	steel, MS, stainless steel, Cast G20 M25

Flow calculation

At undercritical conditions

$$p_a/p_e \geq 0,52$$

$$Q = KG * \sqrt{p_a(p_e - p_a)} \quad [m^3n/h]$$

At overcritical conditions

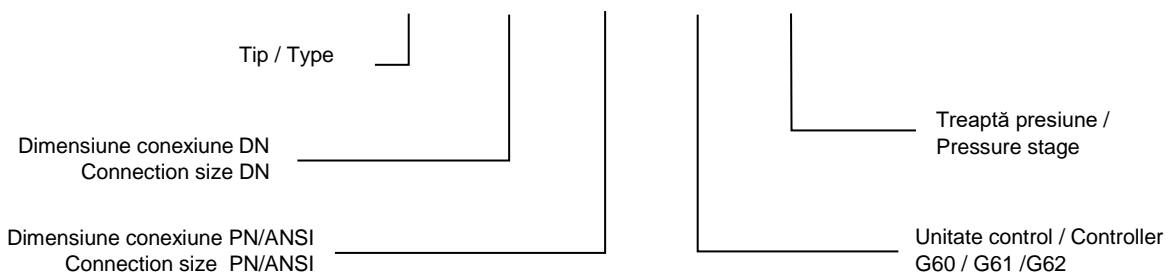
$$p_a/p_e \leq 0,52$$

$$Q = KG * p_e / 2 \quad [m^3n/h]$$

Codificare

Type code

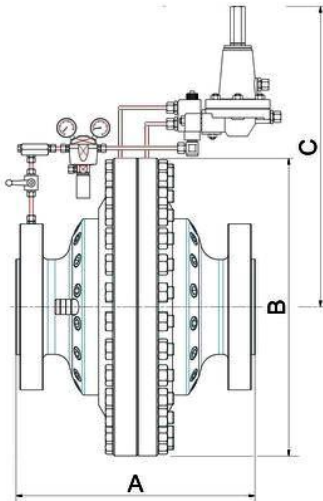
MF 80 . 1 . 2 . 61 PN 63



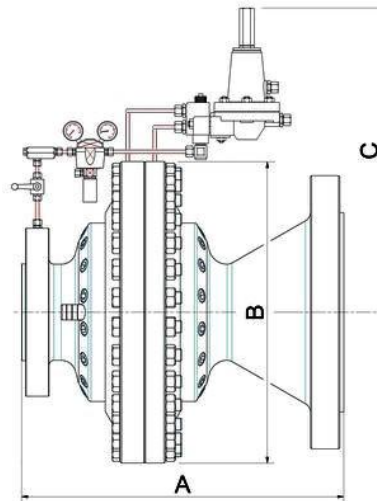
Dimensiuni

Dimensions

MF fara amortizor de zgomot
MF without silencer



MF cu amortizor de zgomot
MF with silencer



Tip Type	KG	Conectare Connection		Lungime de instalare / Length A		ØB	C
		Code	DN1 / DN2	Code 2. PN40 Code 4. ANSI 300	Code 5. PN63 Code 6. ANSI 600		
MF25	540	1.	25 / 25	210	210	298	400
	470*	2.	25 / 100	300	300		
	470*	3.	25 / 150	360	360		
MF50	2.180	1.	50 / 50	286	286	350	425
	1.940*	2.	50 / 150	400	400		
	1.940*	3.	50 / 200	460	460		
MF80	5.310	1.	80 / 80	337	337	420	460
	5.070*	2.	80 / 200	450	450		
	4.900*	3.	80 / 250	500	500		
MF100	8.220	1.	100 / 100	394	394	490	495
	7.770*	2.	100 / 250	525	525		
	7.890*	3.	100 / 300	570	570		
MF150	19.100	1.	150 / 150	508	508	625	562
	14.900*	2.	150 / 300	640	640		
	15.760*	3.	150 / 400	720	720		
MF200	31.700	1.	200 / 200	568	610	680	590
	26.190*	2.	200 / 400	722	750		
	29.720*	3.	200 / 500	800	820		
MF250	52.720	1.	250 / 250	708	752	790	645
	38.270*	2.	250 / 500	850	880		
	47.190*	3.	250 / 600	940	970		

* cu amortizor de zgomot

* included silencer

HEAT

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