



VM-R VM-R/OT

**SOLENOID SAFETY VALVES FOR AIR AND GAS
FAST OPENING AND FAST CLOSING TYPE**

**ELEKTROMAGNETISCHES SICHERHEITSVENTIL FÜR LUFT UND GAS
SCHNELL ÖFFNEND UND SCHNELL SCHLIESSEND**

**VALVOLE ELETTROMAGNETICHE DI SICUREZZA PER ARIA E GAS
APERTURA E CHIUSURA RAPIDA**

**ELECTROVANNE AUTOMATIQUE DE SECURITE POUR L'AIR ET LE GAZ
OUVERTURE ET FERMETURE RAPIDE**



Mar99



VMR FAST SAFETY SOLENOID VALVE

CLASS A - GROUP 2

100% TESTED

TWO YEARS WARRANTY

The VMR type valve is a fast opening solenoid valve that is normally closed. When not energized the spring works on the seat keeping the gas passage closed. When the coil is powered the valve opens. When power is cut off the valve rapidly shuts.

This type of device is suitable for gas and air blocking and releasing controls and is qualified for continuous service (permanently live).

INSTALLATION AND ADJUSTMENT

Check correspondence of flow direction with arrow printed on valve body, check correct alignment of connecting pipes and allow enough space from the walls to allow free air circulation. Valve may be mounted with coil in horizontal or vertical position. Coil may be oriented 360 degrees in any direction. Install in an area that is protected from rain and water splashes or drops. Capacity may be adjusted from 0 cubic meters/h to the maximum marked on the plate (excepting 1/2" brass model and 4" model). Remove coil fastener cap, turn adjustment screw under locking dowel. Make sure that capacity adjustments are made while burner is in operation, and when adjustment is completed screw back locking dowel. Adjustments below 40% capacity are unadvisable since they may cause turbulence.

ELECTRICAL CONNECTION

Remove protection cover and connect power cables to rectifier circuit terminal board. Should cables pass through originally closed opening, use the rubber capsule placed underneath the cap to close any other opening. In case of 12V or 24V powered valves two entries are provided marked with the symbols "L,N" and "+,-" (except for models VMR7-8-9 and coils with plastic overinjection). With alternating voltage connect to entries "L,N". If it is rectified or direct, with entries "+,-".

CLEANING AND MAINTENANCE

Dust and any foreign bodies may be easily removed from the filter or the gas passage zone. After shutting off upstream gas and electric current, remove the coil and unscrew the 4 screws fixing the counter-flange to valve body. During this operation care should be taken not to cause damage to the seat housing and the teflon sliding clamps.

TECHNICAL CHARACTERISTICS

f/f Connections	: gas threaded from 3/8" to 2" : flanged PN16 – UNI 2223 from DN65 to DN100
Voltage rating	: 230V-110V AC, 24V-12V AC/DC
Voltage tolerance	: -15% ÷ + 10%
Working temperature	: -15°C ÷ + 60°C
Working pressure	: 200 - 360 mbar
Opening/Closing time	: < 1 second
Protection class	: IP 54
Cable gland	: DIN plug PG 9 - Box PG11
Pressure inlets	: 1/4" on two sides (except brass model)
Limit switch	: by request from 3/4" to 4"

Executed according to EN rules in force.

GASTEC PIN ratification: 63AQ1350, October 1995

This control must be installed in compliance with the laws in force.

Elektrogas reserves the right to update or make technical changes without prior advice.



VALVES IDENTIFICATION - VENTILE IDENTIFIKATION
IDENTIFICAZIONE VALVOLE - IDENTIFICATION DES ELECTROVANNE

		230V AC		110V AC		24V AC/DC		12V AC/DC	
		360 mbar	200 mbar	360 mbar	200 mbar	200 mbar	130 mbar	200 mbar	130 mbar
3/8"	DN10	VMR0	VMR02A	VMR0B	VMR02AB	VMR02C	-	VMR02D	-
1/2"-OT	DN15	-	VMR12O	-	VMR12OB	-	-	-	-
1/2"	DN15	VMR1	VMR12A	VMR1B	VMR12AB	VMR12C	-	VMR12D	-
3/4"	DN20	VMR2	-	VMR2B	-	VMR22C	-	VMR22D	-
1"	DN25	VMR3	-	VMR3B	-	VMR32C	-	VMR32D	-
1 1/4"	DN32	VMR35	-	VMR35B	-	VMR352C*	-	VMR352D*	-
1 1/2"	DN40	VMR4	-	VMR4B	-	VMR42C*	-	VMR42D*	-
2"	DN50	VMR6	-	VMR6B	-	-	VMR62C*	-	VMR62D*
2 1/2"	DN65	VMR7	VMR72	VMR7B	VMR72B	VMR72C	-	-	-
3"	DN80	VMR8	VMR82	VMR8B	VMR82B	VMR82C	-	-	-
4"	DN100	VMR9	VMR92	VMR9B	VMR92B	VMR92C*	-	-	-

* Class B/Klasse B/Classe B/Classe B

POWER ABSORPTION - LEISTUNGS-AUFNAHME
POTENZA ASSORBITA - PUISSANCE ABSORBÉE

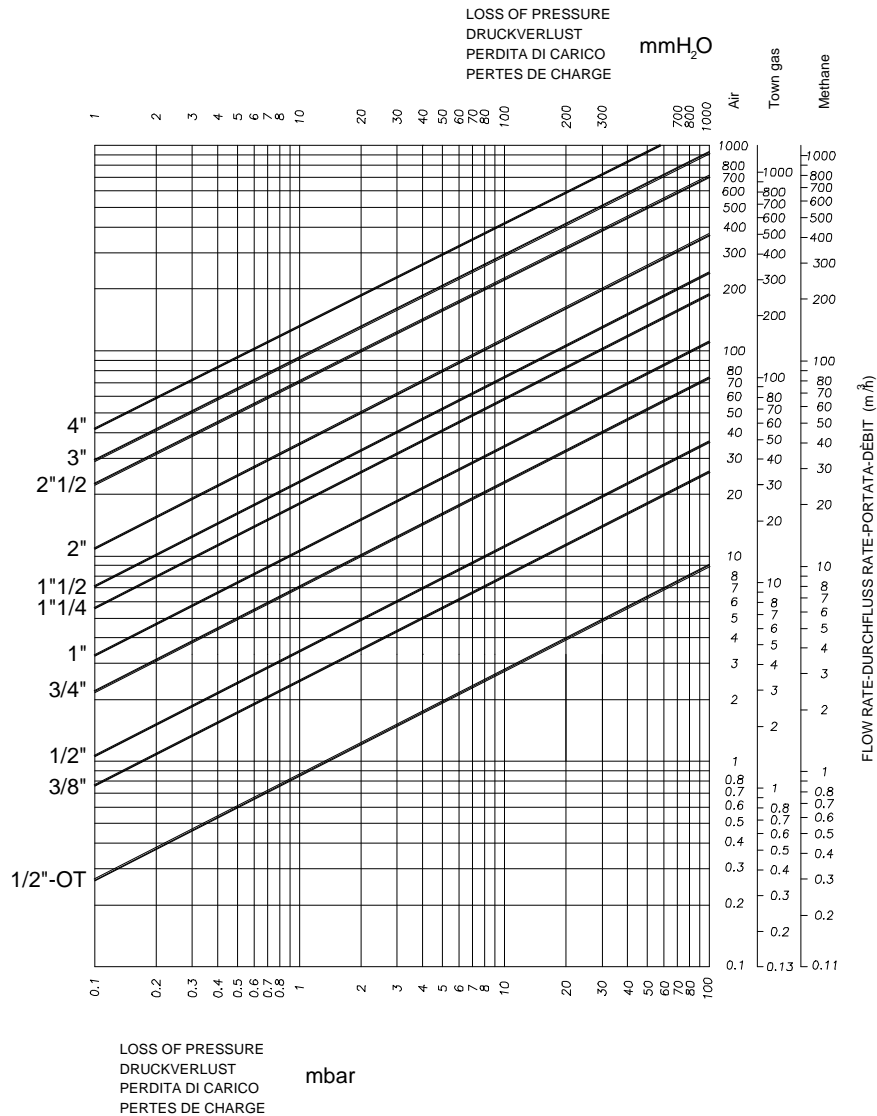
Watt

		230V AC		110V AC		24V AC/DC		12V AC/DC	
		360 mbar	200 mbar	360 mbar	200 mbar	200 mbar	130 mbar	200 mbar	130 mbar
3/8"	DN10	20	25	20	25	16	-	16	-
1/2"-OT	DN15	-	22	-	22	-	-	-	-
1/2"	DN15	20	25	20	25	16	-	16	-
3/4"	DN20	45	-	45	-	30	-	30	-
1"	DN25	45	-	45	-	30	-	30	-
1 1/4"	DN32	80	-	80	-	65	-	65	-
1 1/2"	DN40	80	-	80	-	65	-	65	-
2"	DN50	80	-	80	-	-	65	-	65
2 1/2"	DN65	50	45	50	45	10	-	Working	
		200	190	200	190	150	-	Opening	
3"	DN80	50	45	50	45	10	-	Working	
		210	190	210	190	150	-	Opening	
4"	DN100	80	70	80	70	20	-	Working	
		320	280	320	280	200	-	Opening	



DIAGRAM LOSS OF PRESSURE
DIAGRAMMA PERDITE DI CARICO

DRUCKVERLUST-DIAGRAMM
DIAGRAMME PERTES DE CHARGE



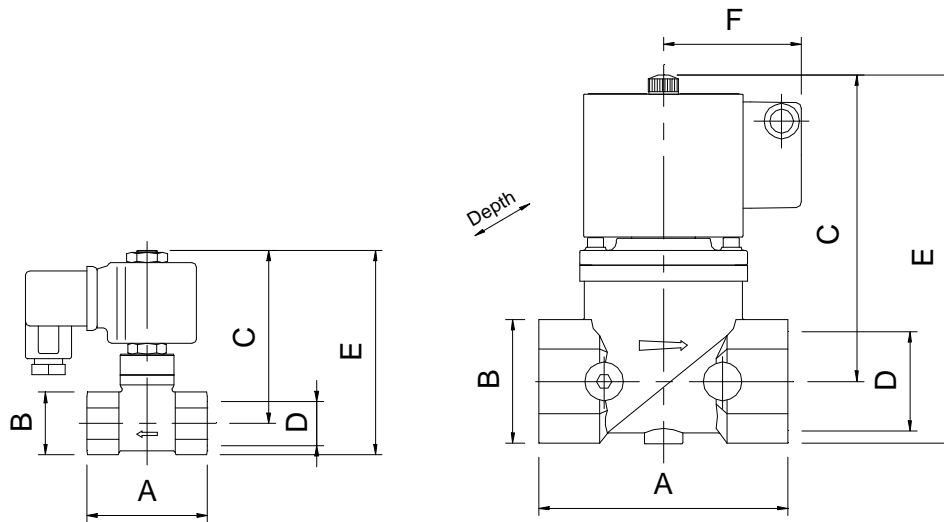
GAS SORT GAS TYP TIPO GAS TYPE DE GAZ	SPECIFIC WEIGHT (Kg/m ³) SPEZIFISCHES GEWICHT (Kg/m ³) PESO SPECIFICO (Kg/m ³) POIDS SPECIFIQUE (Kg/m ³)
NATURAL GAS ERD GAS GAS NATURELE GAZ NATUREL	0.80
TOWN GAS STADT GAS GAS DI CITTA' GAZ DE VILLE	0.57
LIQUID GAS FLUESSING GAS GAS LIQUIDO GAZ LIQUIDE	2.08
AIR LUFT ARIA AIR	1.25

FORMULA OF CONVERSION FROM AIR TO OTHER GASES
UMRECHNUNGSFORMEL VON LUFT AUF ANDERE GASE
FORMULA DI CONVERSIONE DA ARIA AD ALTRI GAS
FORMULE DE CONVERSION DE L'AIR A UN AUTRE GAZ

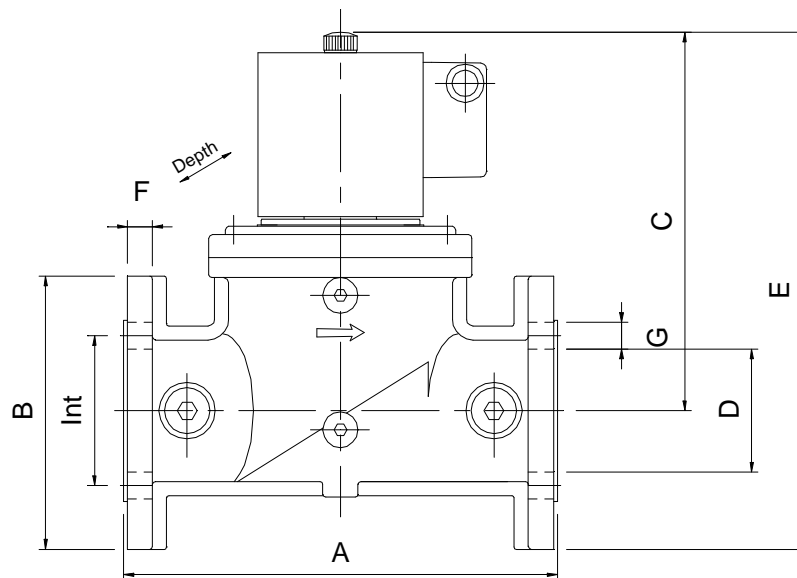
$$V_{\text{AIR}} = \frac{V}{K}$$

GAS TO BE USED/GAS ZU VERWENDEN
GAS DA UTILIZZARE/GAZ A UTILISER

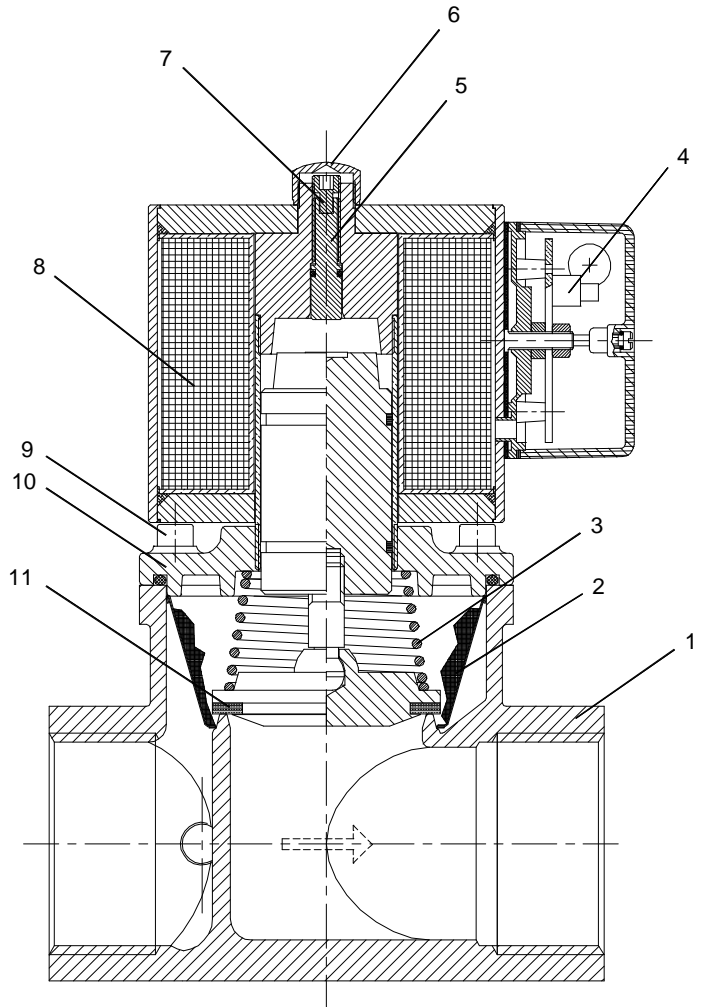
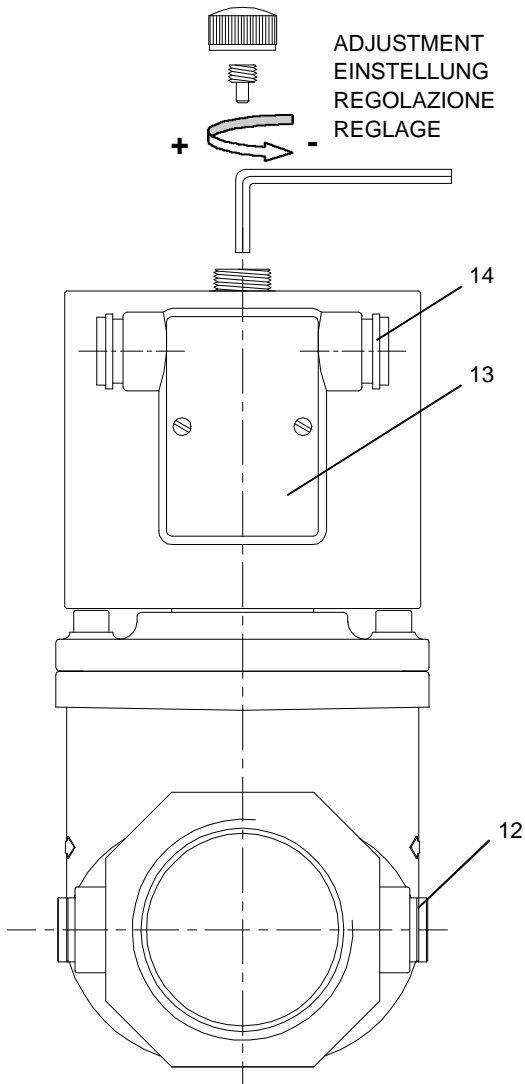
$$K = \sqrt{\frac{\text{AIR SPECIFIC WEIGHT/SPEZIFISCHES GEWICHT LUFT
PESO SPECIFICO ARIA/POIDS SPECIFIQUE AIR}}{\text{GAS SPECIFIC WEIGHT
SPEZIFISCHES GEWICHT VON BENUTZTEN GAS
PESO SPECIFICO GAS DA UTILIZZARE
POIDS SPECIFIQUE GAZ A UTILISER}}}$$



	A	B	C	D	E	F	Depth	Kg
VMR1/OT	58	30	95	G1/2"	110	50	30	0,4
VMR02	77	32	124	G3/8"	140	60	70	1
VMR0	77	32	124	G3/8"	140	65	88	1,4
VMR12	77	32	124	G1/2"	140	60	70	1
VMR1	77	32	124	G1/2"	140	65	88	1,4
VMR2	96	46	150	G3/4"	164	72	88	2,5
VMR3	96	46	150	G1"	164	72	88	2,5
VMR35	153	65	188	G1"1/4	220	80	120	5,7
VMR4	153	65	188	G1"1/2	220	80	120	5,7
VMR6	156	77	192	G2"	230	80	106	6



	A	B	C	D	E	F	G	Int	Depth	Holes	Kg
VMR7	308	190	262	φ65	355	18	φ19	145	200	4	12,5
VMR8	308	190	262	φ80	355	18	φ19	160	200	8	13
VMR9	350	220	352	φ100	492	18	φ19	180	252	8	38



1 Valve body	8 Coil
2 Filter	9 Fixing screw
3 Spring	10 Counter-flange
4 Rectifier circuit	11 Seal
5 Adjustment screw	12 Plug 1/4"G
6 Hood	13 Box (DIN plug)
7 Locking dowel	14 Cable gland