



VM-L

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

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

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

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





VML SLOW OPENING SAFETY SOLENOID VALVE

CLASS A - GROUP 2

100% TESTED

TWO YEARS WARRANTY

The VML type valve is a safety valve that is normally closed, with fast or slow opening, with adjustable rapid section for initial gas flow. When not in working position the spring works on the seat keeping the gas passage closed. When the coil is powered the valve opens rapidly in the first section of the flow, then slowly, with adjustable speed. When power is cut off the valve rapidly shuts.

This type of device is suitable for gas and air locking 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 by turning internal adjustment screw under the upper cap, and by turning the outer screw, the length of the rapid flow section may be adjusted. Make sure that capacity adjustments are made while burner is in operation. Adjustments below 40% capacity are unadvisable since they may cause turbulence. It is also possible to regulate open time by turning the screw located on the side of the shock absorber. One fourth of a turn clockwise increases open time by 2÷3 s, up to a maximum of about 25 s (slow run). Manufacture calibration is about 14 s.

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.

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, the coil is removed by unscrewing the shock absorber located on its top. Great care should be taken not to force the rod sideways, and to check cleanliness and centering of the 2 sealing O-Rings. 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.

Avoid dissembling or tampering with the shock absorber.

TECHNICAL CHARACTERISTICS

f/f Connections	: gas threaded from 3/8" to 2"
	: flanged PN16 – UNI 2223 DN65
Voltage rating	: 230V-110V AC, 24V-12V AC/DC
Voltage tolerance	: -15% ÷ + 10%
Working temperature	: -15°C ÷ + 60°C
Working pressure	: 200 - 360 mbar
Closing time	: < 1 second
Protection class	: IP 54
Cable gland	: PG 11
Pressure inlets	: 1/4" on two sides

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	VML0	-	VML0B	-				
1/2"	DN15	VML1	-	VML1B	-				
3/4"	DN20	VML2	-	VML2B	-			By request	
1"	DN25	VML3	-	VML3B	-			Auf Anfrage	
1"¼	DN32	VML35	-	VML35B	-			Su richiesta	
1"½	DN40	VML4	-	VML4B	-			Sur demande	
2"	DN50	VML6	-	VML6B	-				
2"½	DN65	VML7	VML72	VML7B	VML72B				

POWER ABSORPTION - LEISTUNGS-AUFNAHME
POTENZA ASSORBITA - PUISSANCE ABSORBÉE

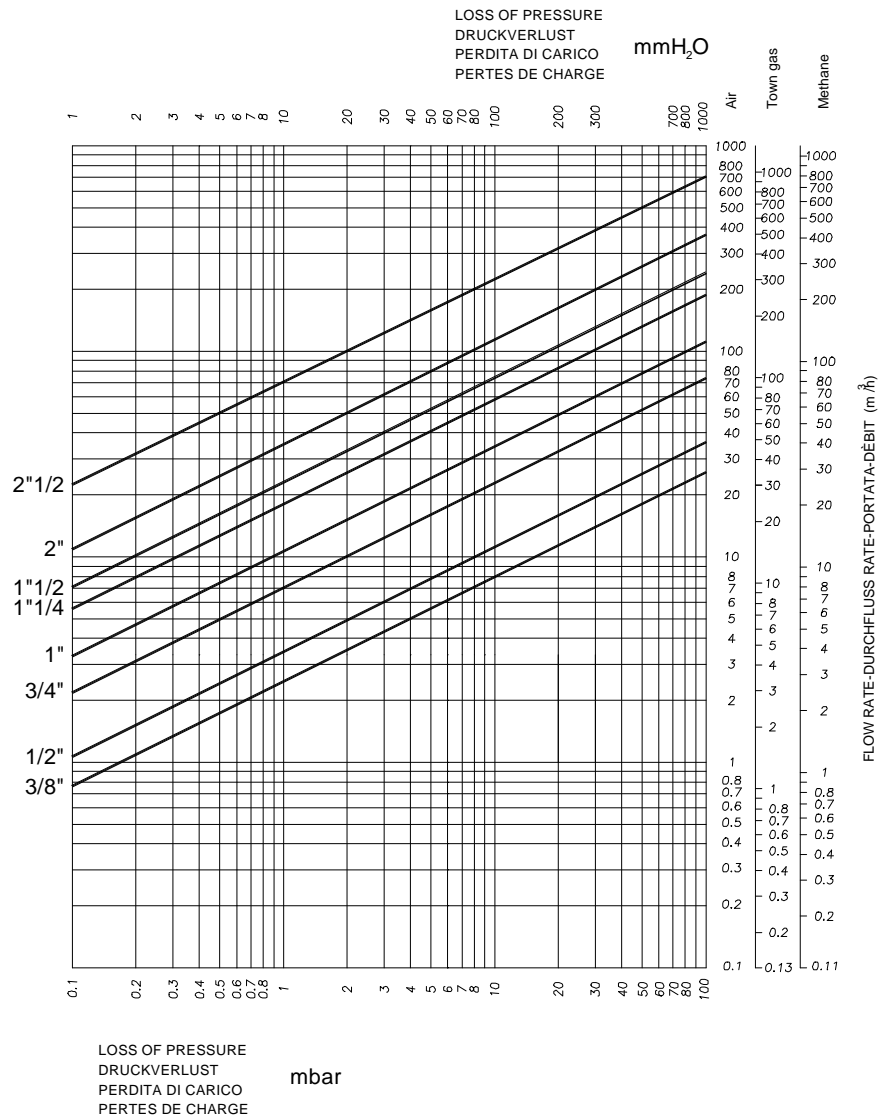
Watt

		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	-	20	-				
1/2"	DN15	20	-	20	-				
3/4"	DN20	45	-	45	-			By request	
1"	DN25	45	-	45	-			Auf Anfrage	
1"¼	DN32	80	-	80	-			Su richiesta	
1"½	DN40	80	-	80	-			Sur demande	
2"	DN50	80	-	80	-				
2"½	DN65	50	45	50	45	Working			
		210	190	210	190	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 SPÉCIFIQUE (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 Á UN AUTRE GAZ

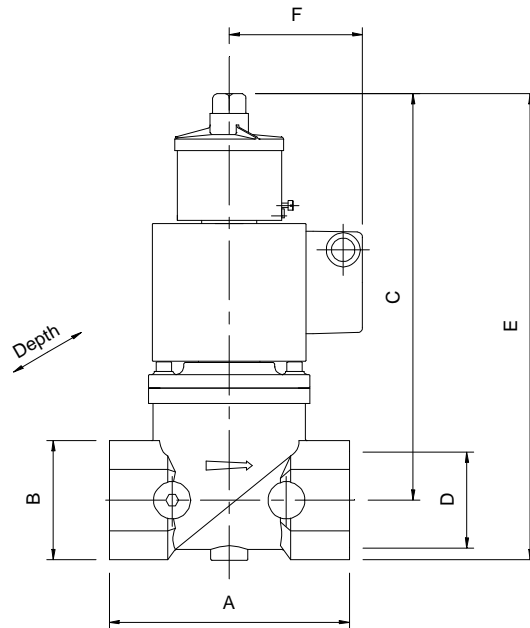
$$V_{\text{AIR}} = \frac{V}{K}$$

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

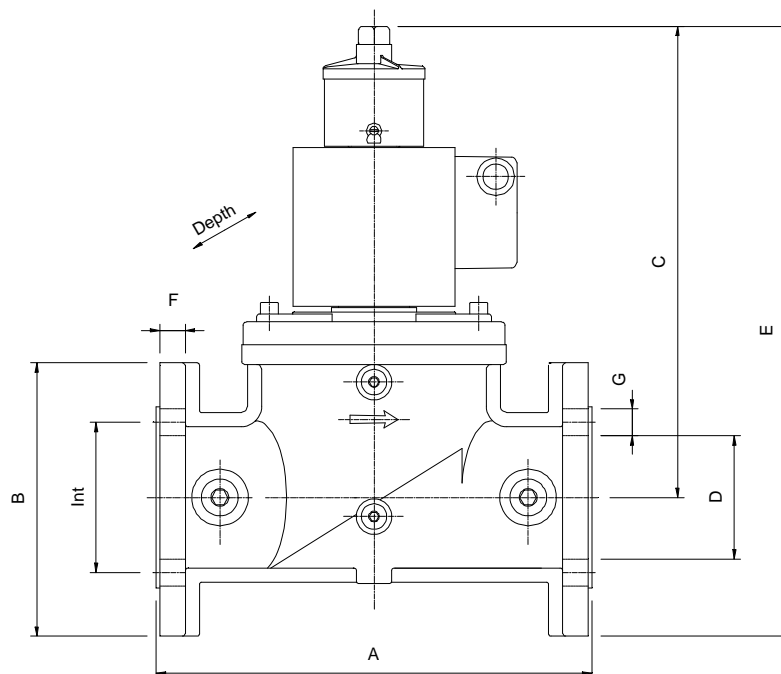
$$K = \frac{V}{V_{\text{AIR}}}$$

AIR SPECIFIC WEIGHT/SPEZIFISCHES GEWICHT LUFT
PESO SPECIFICO ARIA/POIDS SPÉCIFIQUE AIR

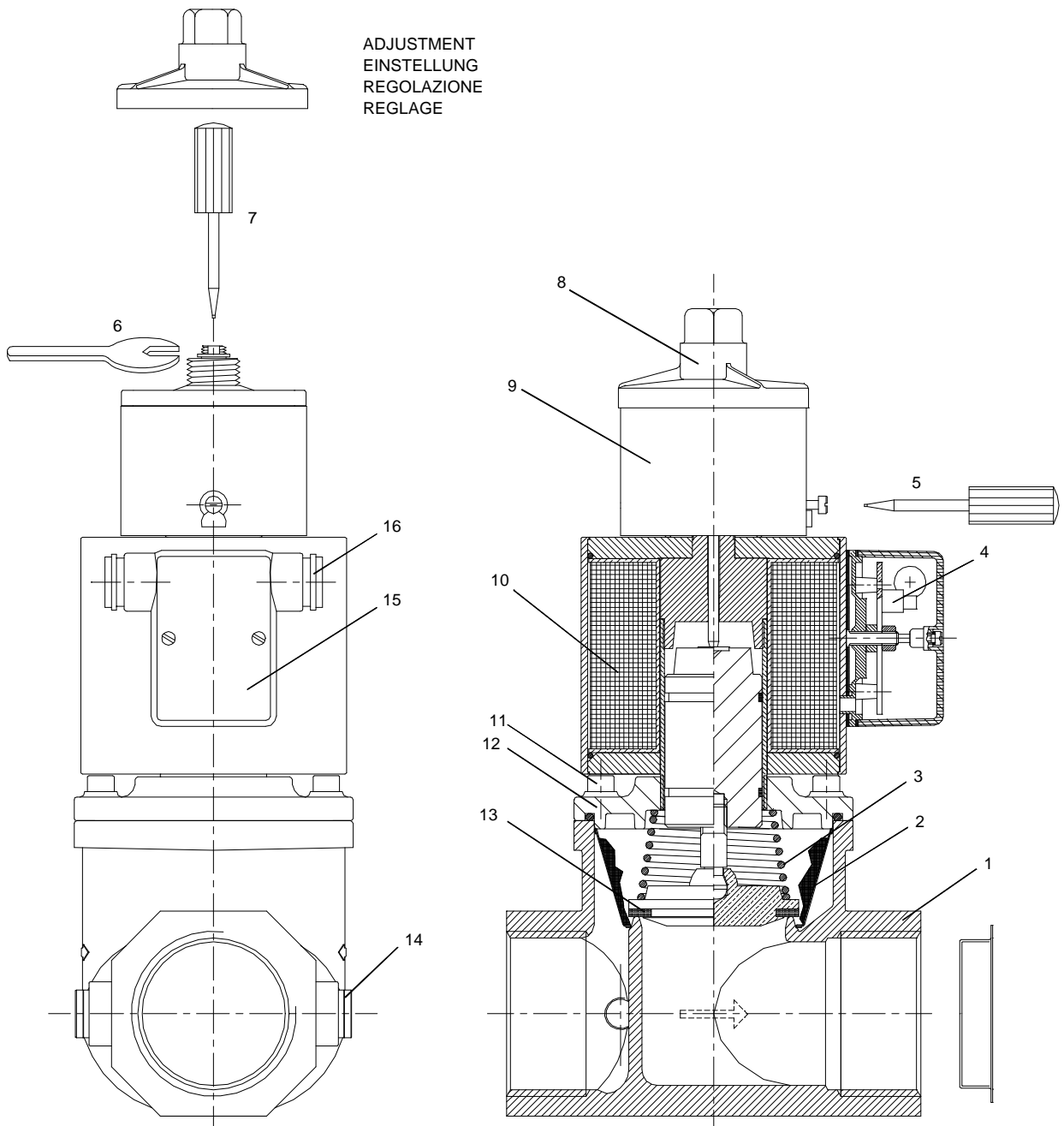
GAS SPECIFIC WEIGHT
SPEZIFISCHES GEWICHT VON BENNETZTEN GAS
PESO SPECIFICO GAS DA UTILIZZARE
POIDS SPÉCIFIQUE GAZ Á UTILISER



	A	B	C	D	E	F	Depth	Kg
VML0	77	32	180	G3/8"	196	65	88	1,8
VML1	77	32	180	G1/2"	196	65	88	1,8
VML2	96	46	200	G3/4"	222	72	88	2,7
VML3	96	46	200	G1"	222	72	88	2,7
VML35	153	65	258	G1"1/4	290	80	120	6
VML4	153	65	258	G1"1/2	290	80	120	6
VML6	156	77	264	G2"	302	80	106	6,3



	A	B	C	D	E	F	G	Int	Depth	Holes	Kg
VML7	308	190	320	φ65	418	18	φ19	145	200	4	13



1	Valve body	9	Shock absorber
2	Filter	10	Coil
3	Spring	11	Fixing screw
4	Rectifier circuit	12	Counter-flange
5	Speed adjustment	13	Seal
6	Rapid stroke adjustment	14	Plug 1/4"G
7	Flow adjustment	15	Box
8	Hood	16	Cable gland