

AG

Poppet valves for vacuum G1/8 ÷ G1 1/2

- A complete range: G1/8 - G1/4 - G3/8 - G1/2 - G3/4 - G1 - G1 1/2
- UNIVER Original poppet system appreciated for decades
- Servoassisted version
- A complete range of solenoid valves and pneumatic valves for vacuum with connection from G1/8 ÷ G1 1/2 to satisfy all requirements
- The internal system ensures high reliability and long life

Available ATEX version upon request

CE Ex II 2Gc IIC T5 II 2Dc T100°C

CE Ex II 3 GD c nA II T5-10°C ≤ Ta ≤ 45°C



TECHNICAL CHARACTERISTICS

Ambient temperature								+50 °C
Fluid temperature								-5 ÷ +60 °C
Fluid	50 µm filtered air, with or without lubrication - vacuum							
Commutation system	poppet							
Ways/Positions	2/2 NC (upon request), 3/2 NC, 3/2 NO, 3/2 NC-NO							
Control	indirect vacuum							
Return	automatic by vacuum							
Connections	G 1/8	G 1/4	G 3/8	G 1/2	G 3/4	G 1	G 1 1/2	
Nominal Ø (mm)	5,5	8	10	15	19	25	39	

CONSTRUCTIVE CHARACTERISTICS

Valve body	G1/8 ÷ G1 = zamak G1 1/2 = aluminium
Seals	valve for vacuum with external air operation polyurethane conical poppets and Vulkollan diaphragm valve for direct vacuum with external vacuum operation silicon poppets
Actuators	G1/8 ÷ G1 = zamak G1 1/2 = aluminium
Spool	G1/8 ÷ G3/8 = aluminium G1/2 ÷ G1 1/2 = steel + plastic

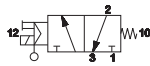
ELECTRIC CHARACTERISTICS

	G1/8	G1/4 ÷ G1 1/2
Electropilot	U1	U2
Coil	DA	DB
Power consumption	3,5 W (DC) - 5 VA (AC)	11 W (DC) - 10 VA (AC)
Connector	AM 5110	AM 5111
Voltage	12 V DC - 24 V DC - 24 V AC - 110 V AC - 230 V AC	
Manual override	impulse screw - 2 positions	

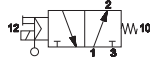
3/2 Solenoid valve for vacuum with external pilot air supply



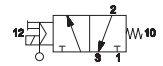
3/2 NC G1/8
AG-3001



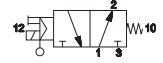
3/2 NO G1/8
AG-3002



3/2 NC G1/4 - G3/8
AG-3009
AG-3011

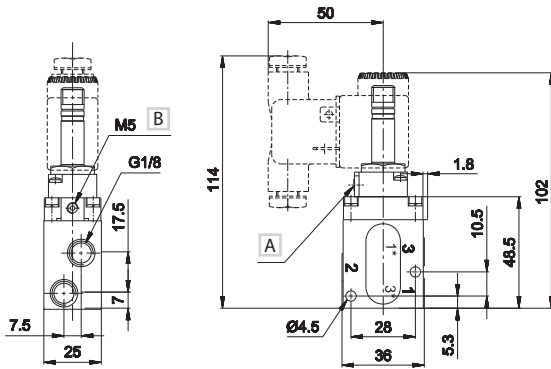


3/2 NO G1/4 - G3/8
AG-3010
AG-3012



	Connect.	Control	Return	Ø	Resp. Time (ms)		Minimum control pressure bar	Pump max m³/h	Max vacuum		Weight Kg	Coil	Part no.
					mm	En.			De-en.	mm Hg			
3/2 NC	G1/8	electric amplified	mechanical spring	5,5	14	25	1,5	1,5	759,5	0,5	0,25	U1	AG-3001
	G1/4			8	16	27	2,5	4	759,5	0,5	0,58	U2	AG-3009
	G3/8			10	16	27	2,5	10	759,5	0,5	0,56	U2	AG-3011
3/2 NO	G1/8	electric amplified	mechanical spring	5,5	14	25	1,5	1,5	759,5	0,5	0,25	U1	AG-3002
	G1/4			8	16	27	2,5	4	759,5	0,5	0,58	U2	AG-3010
	G3/8			10	16	27	2,5	10	759,5	0,5	0,56	U2	AG-3012

G1/8



NC

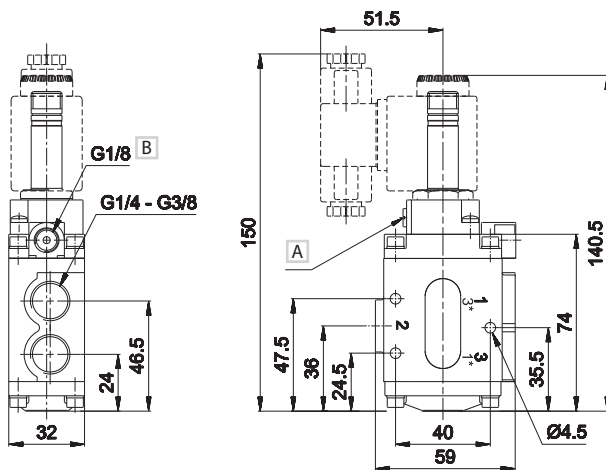
- 1 = Supply port (vacuum)
- 2 = Use
- 3 = Exhaust

NO

- 1* = Supply port (vacuum)
- 2 = Use
- 3* = Exhaust

- A Manual override
- B Supply port for external servoassistance of the pilot

G1/4 - G3/8



NC

- 1 = Supply port (vacuum)
- 2 = Use
- 3 = Exhaust

NO

- 1* = Supply port (vacuum)
- 2 = Use
- 3* = Exhaust

- A Manual override
- B Supply port for external servoassistance of the pilot

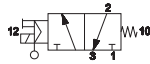
Electrovalves are supplied without coil, connector and locking ring

3/2 Solenoid valve for vacuum with external pilot air supply



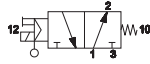
3/2 NC G1/2 - G3/4 - G1

AG-3020
AG-3040
AG-3050



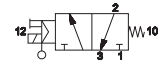
3/2 NO G1/2 - G3/4 - G1

AG-3021
AG-3041
AG-3051



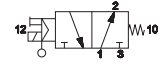
3/2 NC G1 1/2

AG-3062



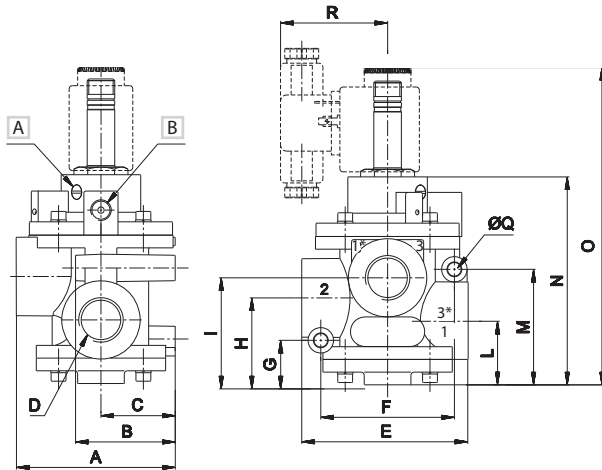
3/2 NO G1 1/2

AG-3063



	Connect.	Control	Return	Ø	Resp. Time (ms)		Minimum control		Pump		Max vacuum		Weight	Coil	Part.no
		12	10	mm	En.	De-en.	pressure bar	max m ³ /h	mm Hg	Torr	Kg				
3/2 NC	G1/2	electric amplified	mechanical spring	15	16	40	3	20	759,5	0,5	1,19	U2	AG-3020		
	G3/4			19	16	40	3	35	759,5	0,5	1,13	U2	AG-3040		
	G1			25	18	42	3	90	759,5	0,5	1,62	U2	AG-3050		
	G1 1/2			39	60	38	4	180	759,5	0,5	2,25	U2	AG-3062		
3/2 NO	G1/2	electric amplified	mechanical spring	15	16	40	3	20	759,5	0,5	1,19	U2	AG-3021		
	G3/4			19	16	40	3	35	759,5	0,5	1,13	U2	AG-3041		
	G1			25	18	42	3	90	759,5	0,5	1,62	U2	AG-3051		
	G1 1/2			39	60	38	4	180	759,5	0,5	2,25	U2	AG-3063		

G1/2 - G3/4 - G1



NC

- 1 = Supply port
- 2 = Use
- 3 = Exhaust

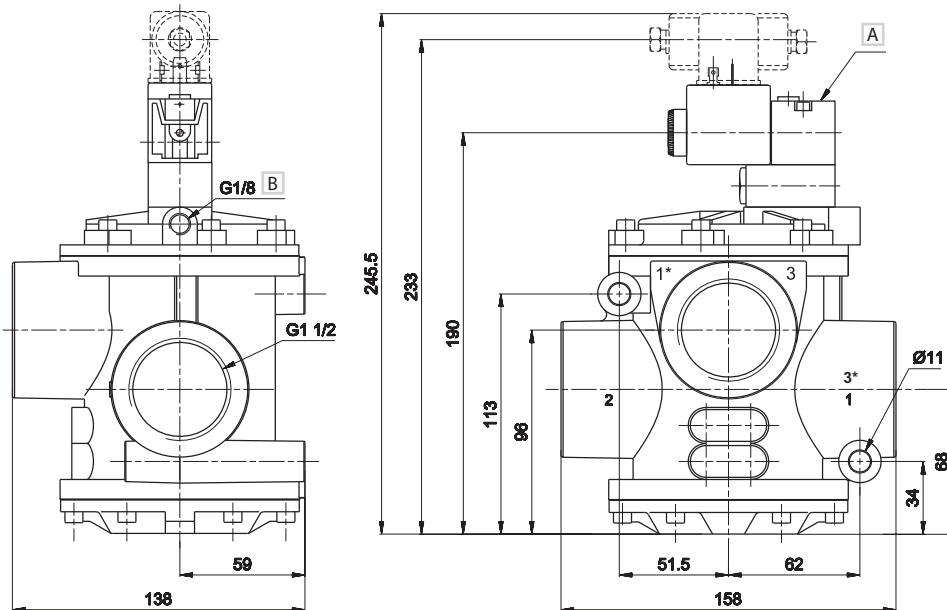
NO

- 1* = Supply port
- 2 = Use
- 3* = Exhaust

- A Manual override
- B Supply port for external servoassistance of the pilot

	A	B	C	D	E	F	G	H	I	L	M	N	O	Q	R
G1/2	75	47	35	G1/2	78,5	63	21	41	50,5	30	54,5	100	150	6,4	50,5
G3/4	75	47	35	G3/4	78,5	63	21	41	50,5	30	54,5	100	150	6,4	50,5
G1	89	55	40	G1	101	76	25,5	51	64	38	62,5	115	167	8,4	50

G1 1/2



NC

- 1 = Supply port
- 2 = Use
- 3 = Exhaust

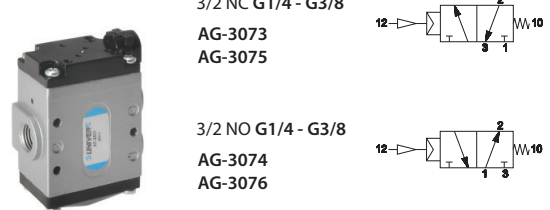
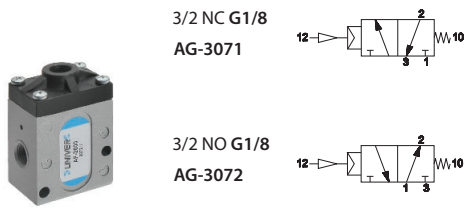
NO

- 1* = Supply port
- 2 = Use
- 3* = Exhaust

- A Manual override
- B Supply port for external servoassistance of the pilot

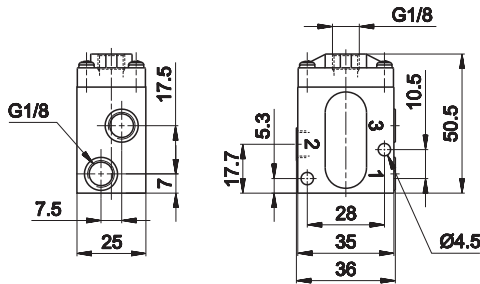
Electrovalves are supplied without coil, connector and locking ring

3/2 Pneumatic valve for vacuum with external air operation



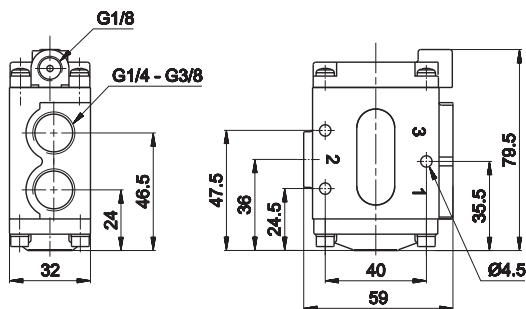
	Connect.	Control	Return	Ø	Resp. Time (ms)		Minimum control pressure bar	Pump max m ³ /h	Max vacuum		Weight Kg	Part no.
					En.	De-en.			mm Hg	Torr		
3/2 NC	G1/8	pneumatic amplified	mechanical spring	5,5	3	6	1,5	1,5	759,5	0,5	0,21	AG-3071
	G1/4			8	4	8	2,5	4	759,5	0,5	0,54	AG-3073
	G3/8			10	4	8	2,5	10	759,5	0,5	0,52	AG-3075
3/2 NO	G1/8	pneumatic amplified	mechanical spring	5,5	3	6	1,5	1,5	759,5	0,5	0,21	AG-3072
	G1/4			8	4	8	2,5	4	759,5	0,5	0,54	AG-3074
	G3/8			10	4	8	2,5	10	759,5	0,5	0,52	AG-3076

G1/8



- 1 = Supply port (vacuum)
- 2 = Use
- 3 = Exhaust

G1/4 - G3/8



- 1 = Supply port (vacuum)
- 2 = Use
- 3 = Exhaust

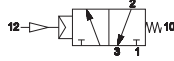
3

3/2 Pneumatic valve for vacuum with external air operation



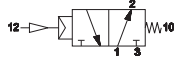
3/2 NC G1/2 - G3/4 - G1

AG-3081
AG-3091
AG-3100



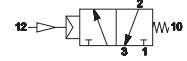
3/2 NO G1/2 - G3/4 - G1

AG-3082
AG-3092
AG-3101



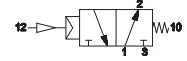
3/2 NC G1 1/2

AG-3110



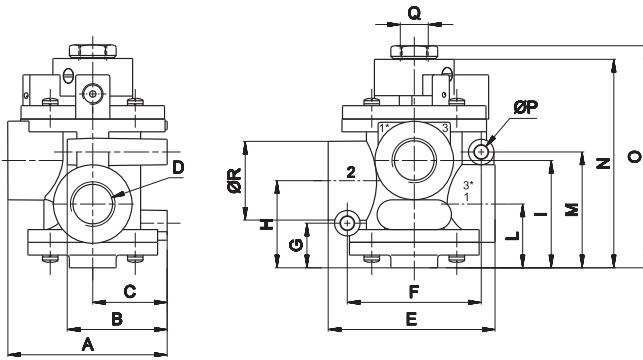
3/2 NO G1 1/2

AG-3111



	Connect.	Control	Return	Ø	Times (ms)		Minimum control pressure bar	Pump max m ³ /h	Max vacuum		Weight Kg	Part no.
					mm	En.			De-en.	mm Hg		
3/2 NC	G1/2	pneumatic amplified	mechanical spring	15	6	15	3	20	759,5	0,5	1,16	AG-3081
	G3/4			19	6	15	3	35	759,5	0,5	1,10	AG-3091
	G1			25	7	16	3	90	759,5	0,5	1,59	AG-3100
	G1 1/2			39	65	25	4	180	759,5	0,5	2,19	AG-3110
3/2 NO	G1/2	pneumatic amplified	mechanical spring	15	6	15	3	20	759,5	0,5	1,16	AG-3082
	G3/4			19	6	15	3	35	759,5	0,5	1,10	AG-3092
	G1			25	7	16	3	90	759,5	0,5	1,59	AG-3101
	G1 1/2			39	65	25	4	180	759,5	0,5	2,19	AG-3111

G1/2 - G3/4 - G1



NC

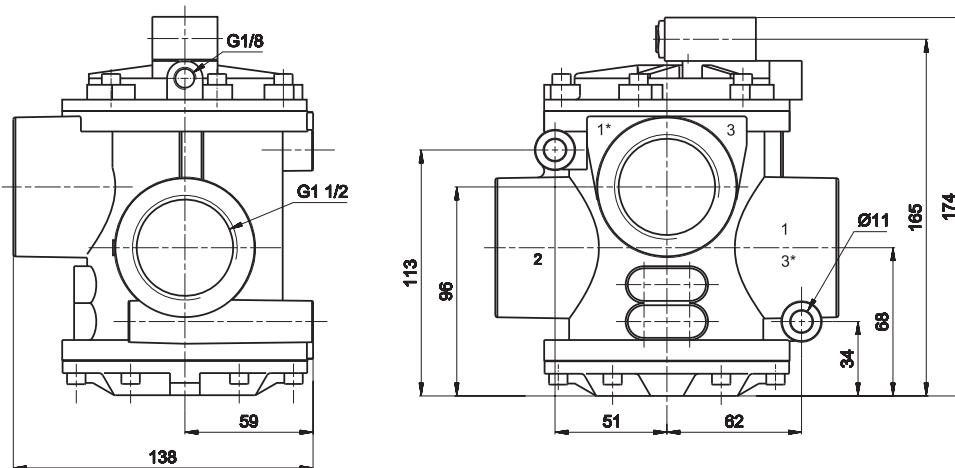
- 1 = Supply port (vacuum)
- 2 = Use
- 3 = Exhaust

NO

- 1* = Supply port (vacuum)
- 2 = Use
- 3* = Exhaust

	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
G1/2	75	47	35	G1/2	78,5	63	21	41	50,5	30	54,5	100	105	6,4	G1/4	37
G3/4	75	47	35	G3/4	78,5	63	21	41	50,5	30	54,5	100	105	6,4	G1/4	37
G1	88,5	55	40	G1	101	76	25,5	51	64	38	62,5	115	120,5	8,4	G1/4	45

G1 1/2



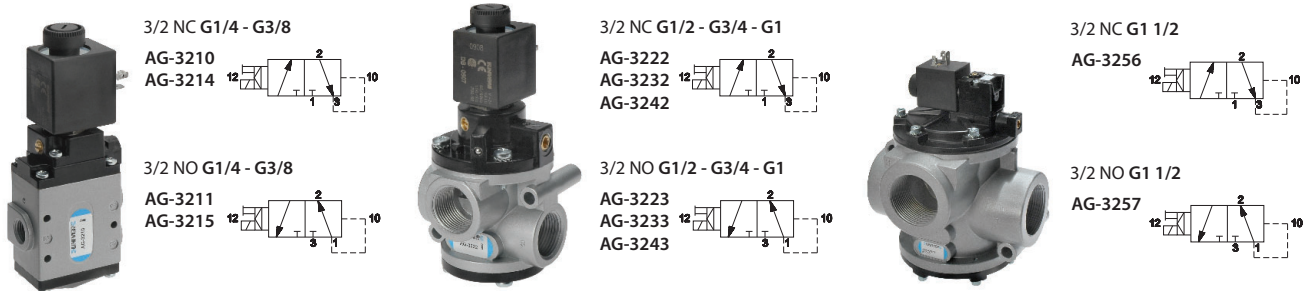
NC

- 1 = Supply port (vacuum)
- 2 = Use
- 3 = Exhaust

NO

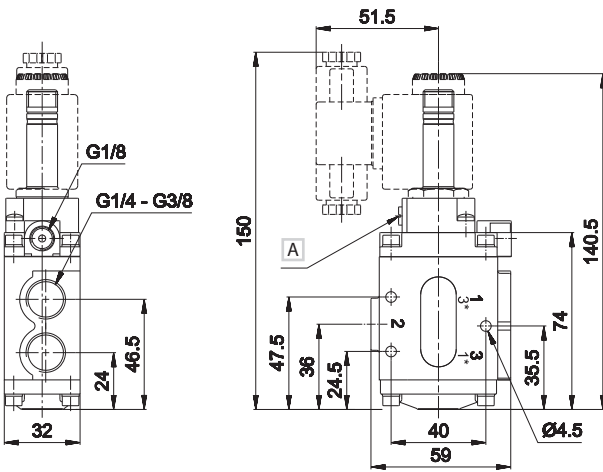
- 1* = Supply port (vacuum)
- 2 = Use
- 3* = Exhaust

3/2 Solenoid valve for direct vacuum with pilot vacuum supply

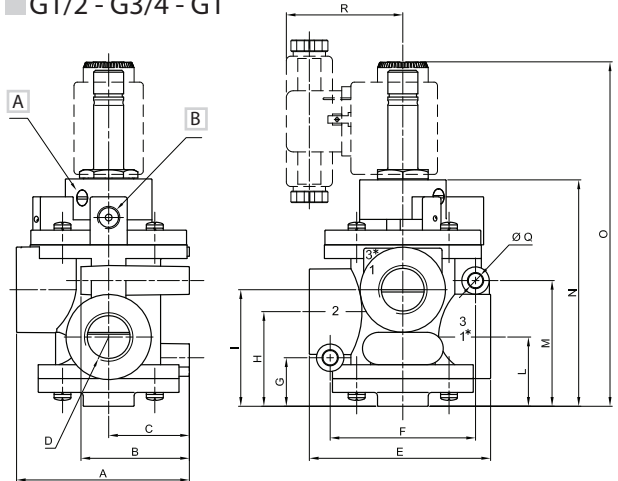


Connect.	Control	Return	Ø		Resp. Time (ms)		Pump max m ³ /h	Min. vacuum		Max vacuum		Weight Kg	Coil	Part no.
			mm	En.	De-en.	mm Hg		Torr	mm Hg	Torr				
3/2 NC	electric amplified	vacuum	G1/4	8	25	16	4	150	610	759,5	0,5	0,52	U2	AG-3210
			G3/8	10	25	16	10	150	610	759,5	0,5	0,56	U2	AG-3214
			G1/2	15	30	15	20	150	610	759,5	0,5	1,19	U2	AG-3222
			G3/4	19	30	15	35	150	610	759,5	0,5	1,13	U2	AG-3232
			G1	25	38	18	90	150	610	759,5	0,5	1,62	U2	AG-3242
G1 1/2	39	75	50	100	150	610	759,5	0,5	2	U2	AG-3256			
3/2 NO	electric amplified	vacuum	G1/4	8	20	14	4	150	610	759,5	0,5	0,58	U2	AG-3211
			G3/8	10	20	14	10	150	610	759,5	0,5	0,56	U2	AG-3215
			G1/2	15	20	18	20	150	610	759,5	0,5	1,19	U2	AG-3223
			G3/4	19	20	18	35	150	610	759,5	0,5	1,13	U2	AG-3233
			G1	25	25	20	90	150	610	759,5	0,5	1,62	U2	AG-3243
G1 1/2	39	70	60	100	150	610	759,5	0,5	2	U2	AG-3257			

G1/4 - G3/8

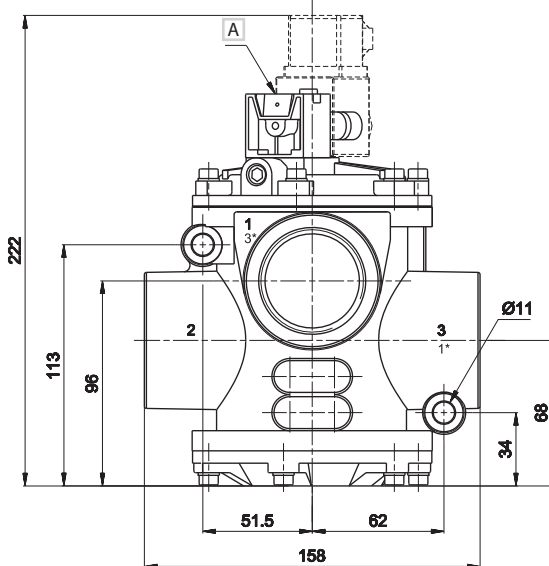
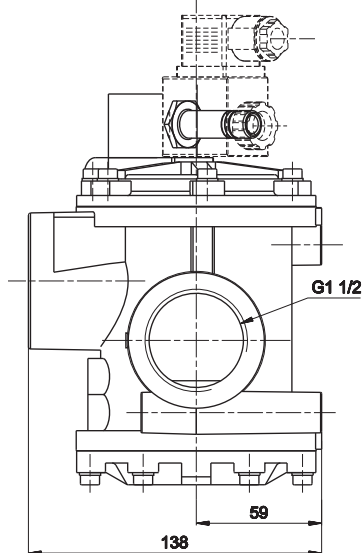


G1/2 - G3/4 - G1



	A	B	C	D	E	F	G	H	I	L	M	N	O	Q	R
G1/2	75	47	35	G1/2	78,5	63	21	41	50,5	30	54,5	100	150	6,4	50,5
G3/4	75	47	35	G3/4	78,5	63	21	41	50,5	30	54,5	100	150	6,4	50,5
G1	89	55	40	G1	101	76	25,5	51	64	38	62,5	115	167	8,4	50

G1 1/2



- NC**
 1 = Supply port (vacuum)
 2 = Use
 3 = Exhaust
- NO**
 1* = Supply port (vacuum)
 2 = Use
 3* = Exhaust

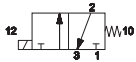
- A Manual override
 B For G1/8 plug

For 2/2 version put a plug on the exhaust (3)
 Electrovalves are supplied without coil, connector and locking ring

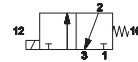
2/2 - 3/2 Solenoid valve for vacuum with direct operation



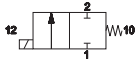
3/2 NC G1/4
 AG-3310
 AG-3311
 AG-3312
 AG-3313



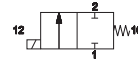
3/2 NC G1/2
 AG-3330
 AG-3331
 AG-3332



2/2 NC G1/4
 AG-3300
 AG-3301
 AG-3302
 AG-3303



2/2 NC G1/2
 AG-3320
 AG-3321
 AG-3322



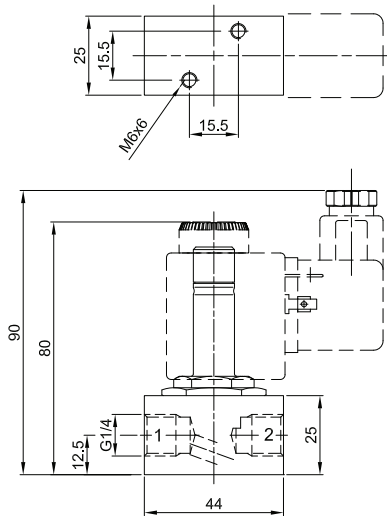
Material:
 valve body G1/4 = brass
 G1/2 = aluminium
 tube/sleeve stainless steel
 nucleus and spring stainless steel
 seals (a) G1/4 = NBR
 G1/2 = vulkollan
 (a) = vulkollan + NBR for valves 3/2 version

	Connect.	Control	Return	Ø mm	Resp. Time (ms)		Pump max m ³ /h	Max vacuum		Weight Kg	Part no.
					En.	De-en.		mm Hg	Torr		
3/2 NC	G1/4	electric	mechanical spring	3-3*	10	10	1,8	759,5	0,5	0,22	AG-3310
	G1/4			4-3*	12	8	2,5	759,5	0,5	0,22	AG-3311
	G1/4			5-3*	13	8	4	759,5	0,5	0,22	AG-3312
	G1/4			6-3*	15	8	5	759,5	0,5	0,22	AG-3313
	G1/2			8-3*	17	8	6	759,5	0,5	0,25	AG-3330
	G1/2			10-3*	20	10	7,5	759,5	0,5	0,25	AG-3331
2/2 NC	G1/4	electric	mechanical spring	3	10	-	1,8	759,5	0,5	0,22	AG-3300
	G1/4			4	12	-	2,5	759,5	0,5	0,22	AG-3301
	G1/4			5	13	-	4	759,5	0,5	0,22	AG-3302
	G1/4			6	15	-	5	759,5	0,5	0,22	AG-3303
	G1/2			8	17	-	6	759,5	0,5	0,25	AG-3320
	G1/2			10	20	-	7,5	759,5	0,5	0,25	AG-3321
	G1/2			11	28	-	10	759,5	0,5	0,25	AG-3322

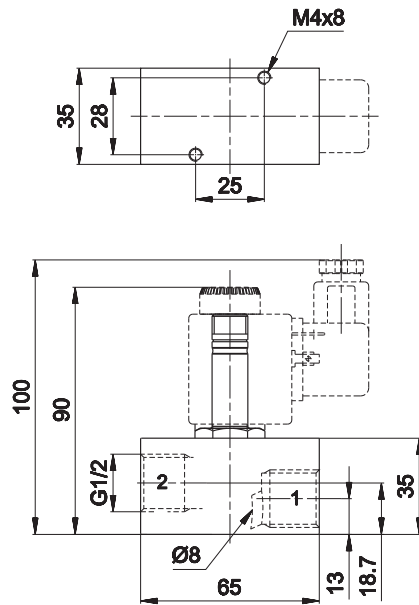
* = solenoid valves with 3 mm fixed exhausts

G1/4

G1/2



1 = Supply port (vacuum)
 2 = Use
 3 = Exhaust



1 = Supply port (vacuum)
 2 = Use
 3 = Exhaust



Coil U2 - 17 VA

Voltage
 24 V CA - 50/60 Hz DB-0607
 110 V CA - 50/60 Hz DB-0608
 220 V CA - 50/60 Hz DB-0610

Electrovalves are supplied without coil, connector and locking ring