

SOLENOID VALVES | General Purpose

Direct Operated | Manifolds



GEM-V/VL | Modular Manifold Installation



Brass | 5 valves

Mazak | 6 valves

Technical Data

Function	2 Way, 3 Way NC, NO
Pressure range	<ul style="list-style-type: none">• See table• Valves for pressure higher than 25 bar cannot be supplied with manual override.
Kv (l/min)	See table
Temperature range	Fluid : -10°C to 80°C (no freezing) Ambient : -10°C to 50°C
Mounting	Vertical, on sub-base, 2 screws M4. Any number of valves on the same sub-base plate. Any combination of 2/2, 3 Way NC or NO valves may be grouped together. * Standard valve orientation : Manual override and base port on the same side
Materials in contact with media	Manual override: Plastic, Brass screw or finger knob. NOa* - manual override is not available. *pressure is supplied through the base Main Valve: Mazak, Brass Solenoid Operator: Stainless Steel AISI 300 & 400 series Seals: NBR, FKM, EPDM
Media	Air, water, oil
Coil voltage	<ul style="list-style-type: none">• Voltage and power consumption - see table• All Baccara coil voltages are ± 10% of nominal
Standard / Certification	<ul style="list-style-type: none">• UL 429* Available on selected models only. Please contact our technical sales department for details.
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP Coil)

- Latch valves are available upon request.
- Pressure separation plug is available.

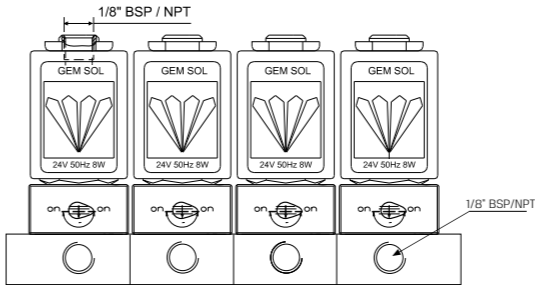
Two types of NO valves :

- Supply pressure is through the base like NC valves. These valves can be combined in a standard manifold. They are not supplied with manual override.
- Supply pressure is through the tube. These valves cannot be combined in a standard manifold. They are supplied with manual override.

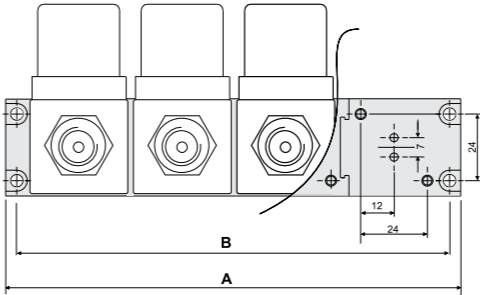
When using a manifold with more than 8 stations, it is advisable to use two air supplies, one at each end.

Direct Operated | Manifolds | GEM-SOL

Dimensions

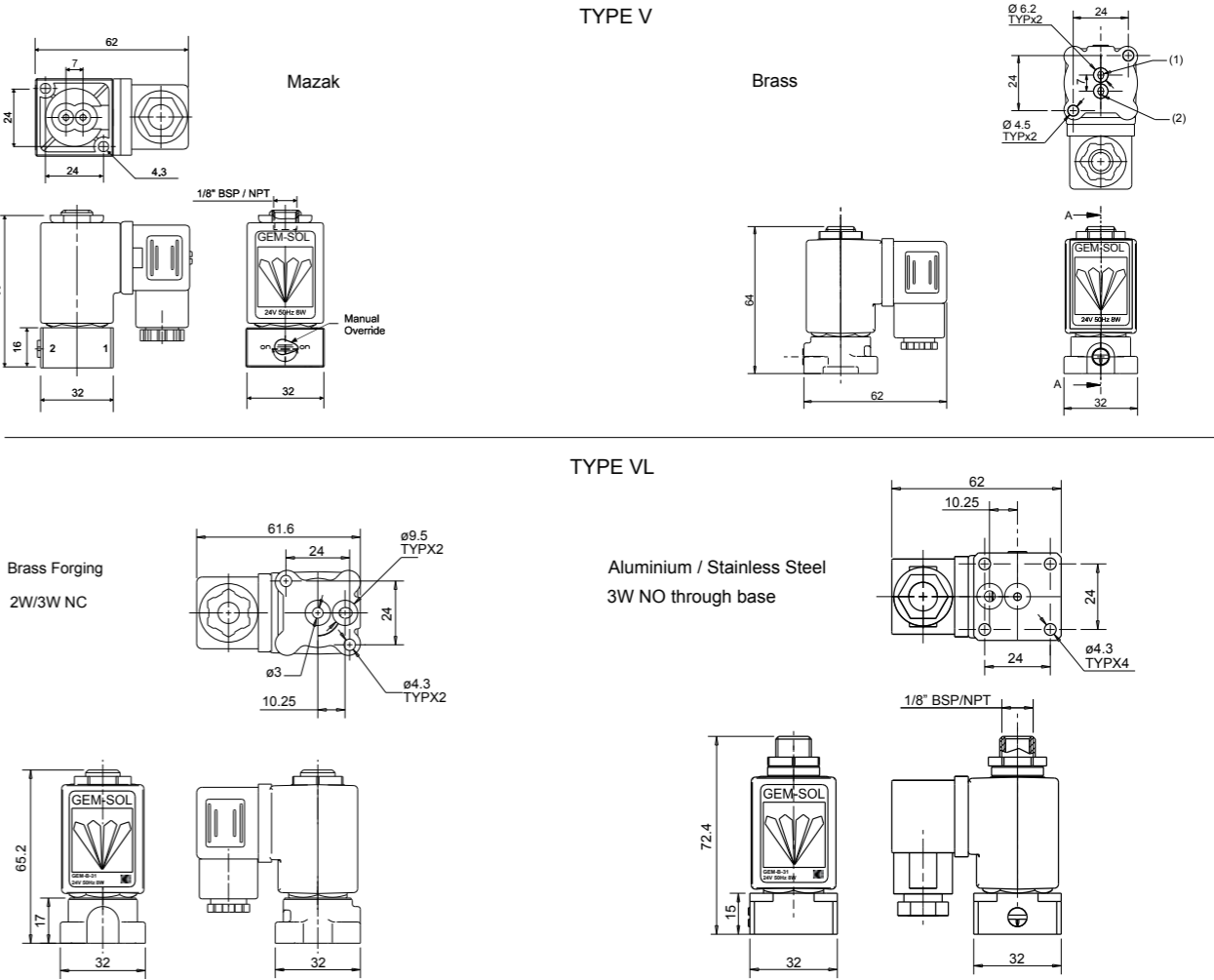
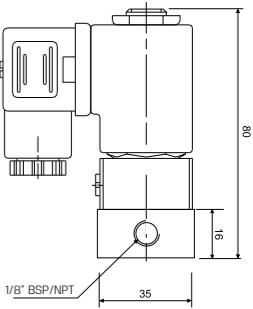


*Standard valve orientation : Manual override and base port on the same side

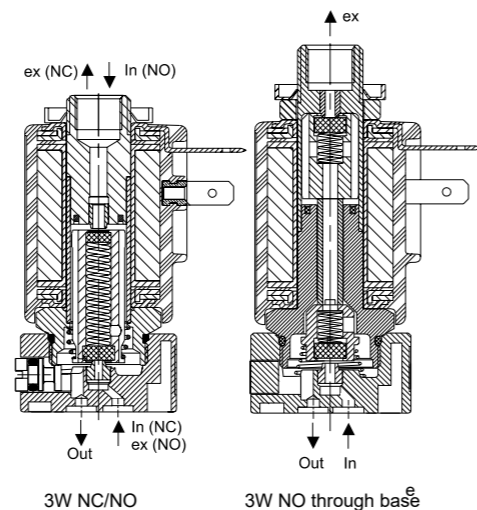
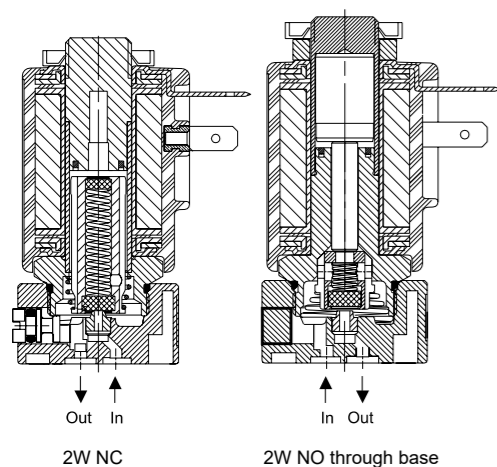


*Pressure separation plug can be ordered on request.

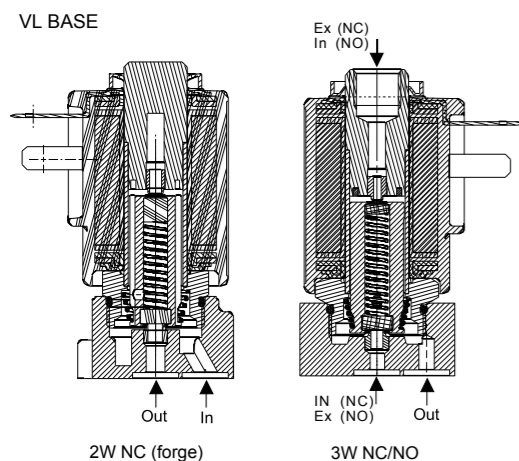
$A = 81 + (n - 2) \times 33$
 $B = 73 + (n - 2) \times 33$
 $n = \text{the number of valves}$
Example : For 6 Valves
 $A = 81 + 4 \times 33 = 213$
 $B = 73 + 4 \times 33 = 205$



Type V 2 Way, 3 Way NC, NO



Type VL 2 Way, 3 Way NC, NO



Size :	Any number of stations, built from three basic components: left end section, right end section and middle section.
Assembly :	Push in and turn 90° clockwise
Port size :	1/8" BSP or NPT
Material :	Mazak, Brass

How to Order manifold components

GEM-V	-	PORT	COMPONENT		BODY	
		BSP 10	Left	1	Mazak	1
		NPT 11	Right	2	Brass	2
			Middle	3		

Example : GEM-V-1021
GEM-SOL V type manifold 1/8" BSP, right component, Mazak body.

GEM-V	-	10	2	1
-------	---	----	---	---

Max. Pressure (bar) 2W, 3W NC table

Coil Current/Power	Orifice (mm)					
	0.8	1.2	1.6	2.0	2.4	3.0
ADC •	23	20	15	10	8	5.5
AC8W, DC10W	35	30	17	14	10	6
AC5.5W	23	20	15	10	8	5.5
AC2.5W, DC5.5W, DC3.5W	20	16	10	9	5	4
Flow factor Kv(l/min)	0.6	1.1	1.7	2.5	3.5	4.5

Max. Pressure (bar) 2W, 3W NO table

Coil Current/Power	Orifice (mm)					
	0.8	12	1.6	2.0	2.4	3.0
ADC •	25	20	15	11	8	6
*AC8W, DC10W	30	22	17	12	10	7
*AC5.5W, DC5.5W	25	20	15	11	8	6
*AC2.5W, DC3.5W	20	18	12	8	6	4
Flow factor Kv(l/min)	0.6	1	1.4	2.2	3.0	3.5

- * These are not applicable for NO through base valves
- ADC valves are only suitable for use with AC8W or DC10W coils.

Voltage & Power Consumption

AC (W)							DC (W)		
	50 Hz			60 Hz					
V	8	5.5	2.5	8	5.5	2.5	10	5.5	3.5
6							•	•	•
12	•			•			•	•	•
24	•	•	•	•	•	•	•		
48	•			•			•		
110	•			•	•		•		
120	•			•					
220	•	•	•	•			•		
230	•	•							
240	•			•			•		

- Available options

Direct Operated | Manifolds | GEM-SOL

How to Order | GEM-V manifold | all valves having identical functions

GEM-V		No. of VALVES		No. of STATIONS		PORT		BODY		FUNCTION		ORIFICE		SEALS		MANUAL OVERRIDE		VOLTAGE		POWER		CONNECTOR	
		specify quantity		specify quantity without manifold		1/8"BSP 10		Mazak 1		2W NC 1		0.8 1		NBR N		None 0		W/out coil 0		No coil 0		without 0	
				1/8"NPT 11		Brass 2		2W NO 2		1.2 2		FKM V		Plastic 1		6 1		AC8W 50Hz 1		with 1			
								2W NO (1) 2a		1.6 3		EPDM E		Slot 2		12 2		AC8W 60Hz 2		with LED 2			
								3W NC 3		2.0 4				Knob 3		24 3		DC10W 3		with bi- color LED 3			
								3W NO 4						Push 4		48 4		AC5.5W 50Hz 4		flying leads coil 4			
								3W NO (1) 4a		2.4 5				Push lock 5		110 5		AC5.5W 60Hz 5		with 1/2" Hub 5			
																120 6		AC2.5W 50/60Hz 6		connector with moulded cable 7			
																220 7A		DC5.5W 7		other 9			
																230 7		DC3.5W 8					
																240 8							
																Latch/ other (2) 9							

Example : GEM-V-6/6-10132V2-220
GEM-SQL direct operated sub-base V type,
1/8"BSP with Mazak body, 3WNC, 1.2, FKM,
slot M/O, 12V AC 8W 60Hz without connector.

GEM-V - 6 / 6 - 10 1 3 2 V 2 - 2 2 0

(1) Supply pressure through base
(2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.

How to Order | GEM-V | individual valves with independent functions

GEM-V	No. of VALVES	No. of STATIONS	PORT	BODY	FUNCTION	ORIFICE	SEALS	MANUAL OVERRIDE	VOLTAGE	POWER	CONNECTOR
	specify quantity	specify quantity	As above table								
	specify quantity	specify quantity									
	specify quantity	specify quantity									
	specify quantity	specify quantity									

quantity	quantity	GEM-SOL direct operated sub-base V type of which :
Example : GEM-V-2/6-10132N0-221 :	2/6 stations with 1/8"BSP Mazak, 3WNC, 12, NBR, no M/O,12V AC 8W 60Hz with connector	
Example : GEM-V-3/6-10142N0-221 :	3/6 stations with 1/8"BSP Mazak, 3WNC, 12, NBR, no M/O,12V AC 8W 60Hz with connector	
Example : GEM-V-1/6-10112N0-221 :	1/6 stations with 1/8"BSP Mazak, 2WNC, 12, NBR, no M/O,12V AC 8W 60Hz with connector	

How to Order | GEM-V body

GEM-V-BODY	PORT	BODY	FUNCTION	ORIFICE	SEALS	MANUAL OVERRIDE	VOLTAGE	POWER	CONNECTOR							
1/8"BSP	10	Mazak	1	2W NC	1	0.8	1	NBR	N	None	0	W/out coil	0	without		
1/8"NPT	11	Brass	2	2W NO	2	1.2	2	FKM	V	Plastic	1	6	1	AC8W 50Hz	1	with
				2W NO ⁽¹⁾	2a	1.6	3	EPDM	E	Slot	2	12	2	AC8W 60Hz	2	with LED
				3W NC	3					Knob	3	24	3	DC10W	3	with bi- color LED
				3W NO	4	2.0	4									
				3W NO ⁽¹⁾	4a	2.4	5			Push	4	48	4	AC5.5W 50Hz	4	flying leads coil
										Push lock	5	110	5	AC5.5W 60Hz	5	with 1/2" Hub
												120	6	AC2.5W 50/60Hz	6	connector with moulded cable
												220	7A	DC5.5W	7	other
												230	7	DC3.5W	8	
												240	8			
												Latch/ other ⁽²⁾	9			

Example : GEM-V-BODY-10132V2-220

GEM-SOL direct operated V type valve,1/8"BSP with Mazak body, 3WNC, 1.2, FKM, slot M/O, 12V AC 8W 60Hz without connector.

GEM-V-BODY

-

10

1

3

2

V

-

2

2

0

(1) Supply pressure through base
(2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.

Example : GEM-V-BODY-10132V2-220
GEM-SOL direct operated V type valve,1/8"BSP with Mazak body, 3WNC, 1,2, FKM, slot M/O, 12V AC 8W 60Hz without connector.

GEM-V-BODY - 10 1 3 2 V 2 - 2 2 0

(1) Supply pressure through base
(2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.

How to Order | GEM-VL

GEM-VL	-	PORT	BODY	FUNCTION		ORIFICE		SEALS		MANUAL OVERRIDE	-	VOLTAGE	POWER	CONNECTOR		
1/8"BSP	10	Mazak	1	2W NC	1	0.8	1	NBR	N	None	0	W/out coil	0	without		
1/8"NPT	11	Brass	2	2W NO	2	12	2	FKM	V	Plastic	1	6	1	AC8W 50Hz	1	with
				2W NO ⁽¹⁾	2a	16	3	EPDM	E	Slot	2	12	2	AC8W 60Hz	2	with LED
				3W NC	3					Knob	3	24	3	DC10W	3	with bi- color LED
				3W NO	4	2.0	4									
				3W NO ⁽¹⁾	4a	2.4	5			Push	4	48	4	AC5.5W 50Hz	4	flying leads coil
						3.0	6			Push lock	5	110	5	AC5.5W 60Hz	5	with 1/2" Hub
												120	6	AC2.5W 50/60Hz	6	connector with moulded cable
												220	7A	DC5.5W	7	other
												230	7	DC3.5W	8	
												240	8			
												Latch/ other ⁽²⁾	9			

Example : GEM-VL-10211V0-221

GEM-SOL direct operated VL type valve,
1/8"BSP with brass body, 2WNC, 0.8, FKM,
no M/O, 12V AC 8W 60Hz with connector.

GEM-VL

-

10

2

1

1

V

0

-

2

2

1

(1) Supply pressure through base
(2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.

*Note: Manifolds are not available for VL valves

Example : GEM-VL-10211V0-221
GEM-SOL direct operated VL type valve,
1/8"BSP with brass body, 2WNC, 0.8, FKM,
no M/O, 12V AC 8W 60Hz with connector.

GEM-VL - 10 2 1 1 V 0 - 2 2 1

(1) Supply pressure through base
(2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.

*Note: Manifolds are not available for VL valves