

# SOLENOID VALVES | General Purpose

## Direct Operated | Manifolds



\* Available on selected models only

### GEM-V/VL | Modular Manifold Installation



Brass | 5 valves

#### Technical Data

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

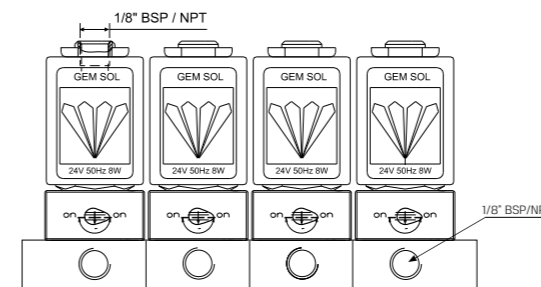
#### Two types of NO valves :

- 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.

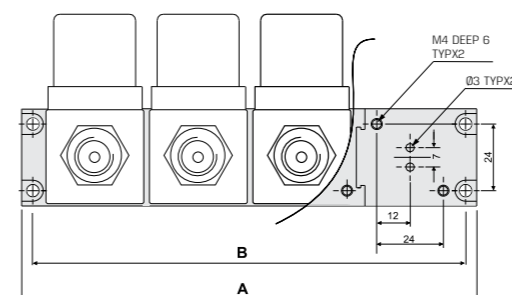
When using a manifold with more than 8 stations, it is advisable to use two air supplies, one at each end.

## Direct Operated | Manifolds | GEM-SOL

#### Dimensions



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



$$A = 80 + (n - 2) \times 33$$

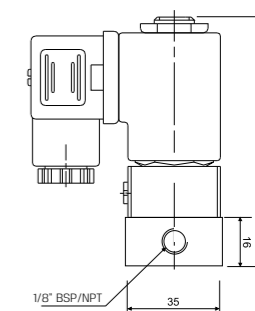
$$B = 72 + (n - 2) \times 33$$

n = the number of valves

**Example : For 6 Valves**

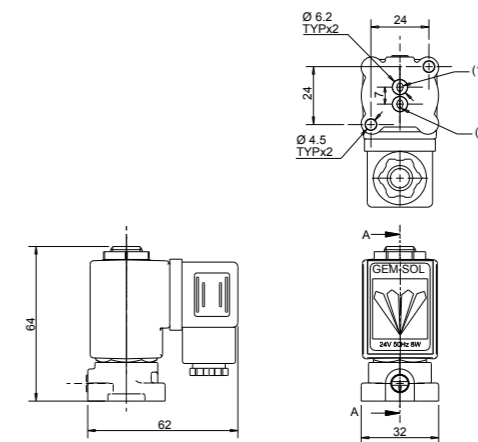
$$A = 80 + 4 \times 33 = 212$$

$$B = 72 + 4 \times 33 = 204$$

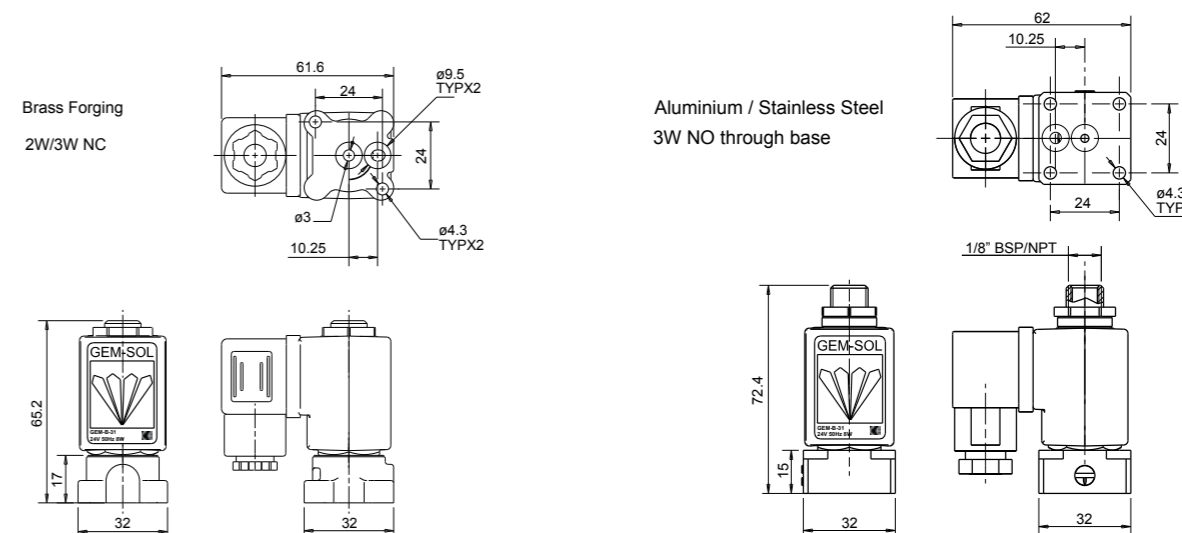


\*Pressure separation plug can be ordered on request.

#### TYPE V



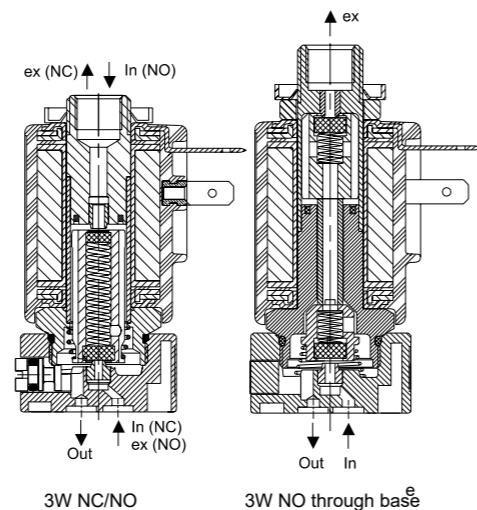
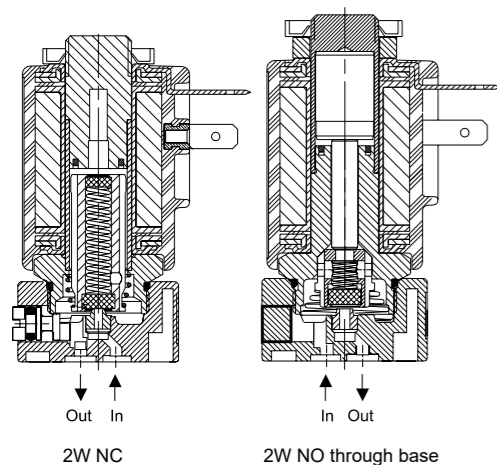
#### TYPE VL



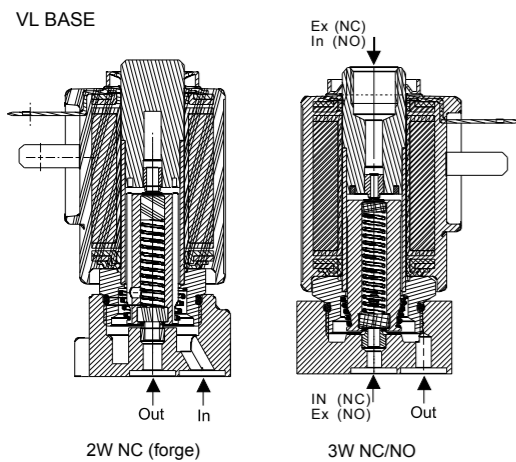
# SOLENOID VALVES | General Purpose

## Direct Operated | Manifolds | GEM-SOL

### 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 : Brass

### 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	1.2	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

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

• Available options

### How to Order manifold components

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

Example : GEM-V-1022  
 GEM-SOL V type manifold 1/8" BSP, right component, Brass body.

GEM-V - 10 2 2

\* To order manifolds manufactured according to your specific requirements, please contact our technical sales department.

## Direct Operated | Manifolds | GEM-SOL

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

GEM-V	No. of VALVES / specify quantity	No. of STATIONS / specify quantity without manifold	PORT	BODY	FUNCTION	ORIFICE	SEALS	MANUAL OVERRIDE	VOLTAGE	POWER	CONNECTOR
		0	1/8" BSP 10	Brass 2	2W NC 1	0.8 1	NBR N	None 0	W/out coil 0	No coil 0	without 0
			1/8" NPT 11		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	2.4 5		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-6/6-10232V2-220  
 GEM-SOL direct operated sub-base V type, 1/8" BSP with Brass body, 3WNC, 1.2, FKM, slot M/O, 12V AC 8W 60Hz without connector.

GEM-V - 6 6 10 2 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 / specify quantity	No. of STATIONS / specify quantity	PORT	BODY	FUNCTION	ORIFICE	SEALS	MANUAL OVERRIDE	VOLTAGE	POWER	CONNECTOR
As above table											

GEM-SOL direct operated sub-base V type of which :  
 Example : GEM-V-2/6-10232NO-221 : 2/6 stations with 1/8" BSP Brass, 3WNC, 1.2, NBR, no M/O, 12V AC 8W 60Hz with connector  
 Example : GEM-V-3/6-10242NO-221 : 3/6 stations with 1/8" BSP Brass, 3WNO, 1.2, NBR, no M/O, 12V AC 8W 60Hz with connector  
 Example : GEM-V-1/6-10212NO-221 : 1/6 stations with 1/8" BSP Brass, 2WNC, 1.2, 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	Brass 2	2W NC 1	0.8 1	NBR N	None 0	W/out coil 0	No coil 0	without 0
	1/8" NPT 11		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	2.4 5		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-BODY-10232V2-220  
 GEM-SOL direct operated V type valve, 1/8" BSP with Brass body, 3WNC, 1.2, FKM, slot M/O, 12V AC 8W 60Hz without connector.

GEM-V-BODY - 10 2 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	Brass 2	2W NC 1	0.8 1	NBR N	None 0	W/out coil 0	No coil 0	without 0
	1/8" NPT 11		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	2.4 5		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
				3.0 6			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-VL-1021V0-221  
 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