# **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> <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	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 NC 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.         N0a* - 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> <li>Voltage and power consumption - see tabl</li> <li>All Baccara coil voltages are ± 10% of nomina</li> </ul>
Standard / Certification	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)

#### Two types of NO valves :

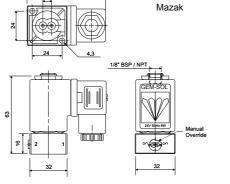
• Supply pressure is through the base like NC valves. These valves can be combined in a standard manifold. They are not supplied with manual override.

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\* Available on selected models only

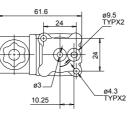
• Supply pressure is through the tube. These valves cannot be combined in a standard manifold. They are supplied with manual override.

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



### TYPE VL

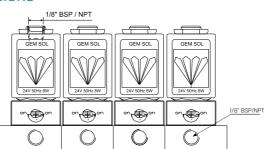
Brass Forging 2W/3W NC



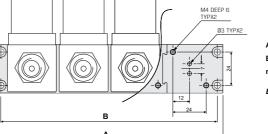
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**SOLENOID VALVES** 

Dimensions



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



\*Pressure separation plug can be ordered on request.

TYPE V

• Latch valves are available upon request.

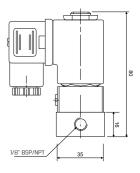
• Pressure separation plug is available.

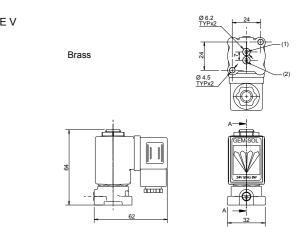


# Direct Operated | Manifolds | GEM-SOL

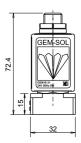


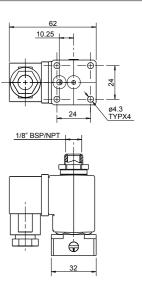
Example : For 6 Valves A = 80 + 4 x 33 = 212 B = 72 + 4 x 33 = 204





Aluminium / Stainless Stee 3W NO through base

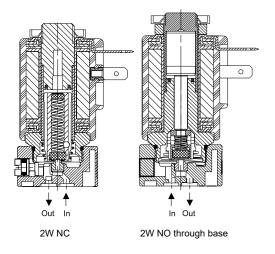




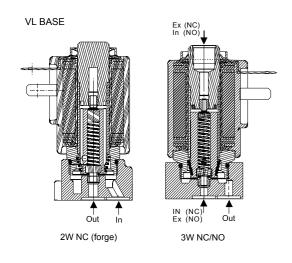
# **SOLENOID VALVES** General Purpose

# 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 :	Mazak, Brass

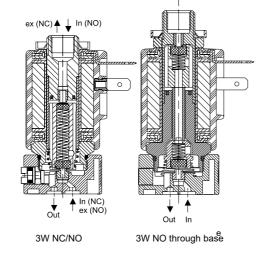
### How to Order manifold components

GEM-V	-	POF	RT	COMPON	IENT	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	Orifice (mm)												
Current/Power	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	Orifice (mm)												
Current/Power	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

			AC (W)					DC (W)			
		50 Hz			60 Hz		DG (W)				
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

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

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

GEM-V –	No. of VALVES	No. of Stations	- PORT	BODY	FUNCTION	I OF	RIFICE	SEALS	SEALS			- VOLTAGE		POWER		CONNECTOR	
	specify quantity	specify quantity	1/8"BSP 10	Mazak 1	2W NC 1	0.8	1	NBR	Ν	None	0	W/out coil	0	No coil	0	without	0
	without 0 1/8'NPT 11 Brass 2 2W NO 2 12 2 FKM V Plastic 1													AC8W 50Hz	1	with	1
	2W NO (1) 2a 1.6 3 EPDM E Slot 2 1.													AC8W 60Hz	2	with LED	2
3W NC         3         2.0         4         Knob         3         2.4         3         Default           Example : GEM-V-6/6-10132V2-220 GEM-SQL direct operated sub-base V type,         3W N0         4         2.4         5         Push         4         48         4         ACS5W SOFAULT															3	with bi- color LED	3
	Example : GEM-V-6/6-10132V2-220 3W NO 4 2.4 5 Push 4 48														4	flying leads coil	4
	1/8"BSP with Mazak body, 3WNC, 1.2, FKM, Push lock 5 1														5	with 1/2" Hub	5
slot M/0, 12	V AC 8W 60H	z without con	nector.									120	6	AC2.5W 50/60Hz	6	connector with moulded cable	7
GEM-V - 6	6 - 10	1 3 2	V 2	2 2	0							220	7A	DC5.5W	7	other	9
	ssure through I ving Latch type	base coil, please refe	er to GEM-A3P v	alve - How to	Order table	<u>.</u>						230	7	DC3.5W	8		
	, , , , ,											240	8				
How to	Order I 0	GEM-V   ir	ndividual	valves	with ir	ndep	ende	ent fu	inc	ctions		Latch/ other <sup>(2)</sup>	9				
GEM-V -	No. of VALVES	No. of STATIONS	- PORT	BODY	FUNCTION	OR	IFICE	SEALS	5	MANUAL	-	VOLTAGE		POWER		CONNECTOR	
	specify	specify															

<sup>(1)</sup> S (2) F

#### Но

GEM-V _	No. of VALVES	No. of STATIONS	-	PORT	BODY	FUNCTION	OR
	specify quantity	specify quantity					
	specify	specify					As ab
	quantity	quantity					
	specify	specify					
	quantity	quantity				GEM-	501 d
Example : Gl	EM-V-2/6-1013	32NO-221 :	2/6	stations	with 1/8"BS	P Mazak, 3V	VNC, 1
Example : Gl	EM-V-3/6-1014	42N0-221 :	3/6	stations	with 1/8"BS	P Mazak, 3V	VNO, 1
Example : Gl	EM-V-1/6-1011	2N0-221 :	1/6	stations	with 1/8"BSF	<sup>o</sup> Mazak, 2W	NC, 1.

#### How to Order | GEM-V body

GEM-V-BODY	- PORT		BODY		FUNCTIO	N	ORIFIC	E	SEALS		MANUAL OVERRIDE		VOLTAGE	E	POWER	!	CONNECTOR	
	1/8"BSP	10	Mazak	1	2W NC	1	0.8	1	NBR	Ν	None	0	W/out coi	il O	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 3W ND	3 4	2.0	4			Knob	3	24	3	DC10W	3	with bi- color LED	3
					3W NO (1)	4a	2.4	5			Push	4	48	4	AC5.5W 50Hz	4	flying leads coil	4
											Push lock	5	110	5	AC5.5W 60Hz	5	with 1/2" Hub	5
Example : GEM-													120	6	AC2.5W 50/60Hz	6	connector with moulded cable	7
GEM-SOL direct Mazak body, 3	WNC, 1.2, I		<i></i>				Hz						220	7A	DC5.5W	7	other	9
without conne	ctor.							_					230	7	DC3.5W	8		
GEM-V-BODY -	10 1	3	2	V	2 - 2	2	2 0	)					240	8				
		(1) Supply pressure through base (2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.																

#### Exar

# GEM

#### How to Order | GEM-VL

GEM-VL	- P(	RT		BODY		FUNCTIO	DN	ORIFICE		SEALS		MANUAL	-	VOLTAGE		POWER		CONNECTOR	
	1/8"BSI	10	Μ	Nazak	1	2W NC	1	0.8	1	NBR	Ν	None	0	W/out coil	0	No coil	0	without	0
	1/8"NPT 11 Brass 2			2	2W NO	2	12	2	FKM	v	Plastic	1	6	1	AC8W 50Hz	1	with	1	
							2a	1.6	3	EPDM	E	Slot	2	12	2	AC8W 60Hz	2	with LED	2
							3 4	2.0	4			Knob	з	24	3	DC10W	3	with bi- color LED	з
		3W NO (1)	4a	2.4	5			Push	4	48	4	AC5.5W 50Hz	4	flying leads coil	4				
Example : GEM								3.0	6			Push lock	5	110	5	AC5.5W 60Hz	5	with 1/2" Hub	5
GEM-SOL direc 1/8"BSP with b				· •		Λ,								120	6	AC2.5W 50/60Hz	6	connector with moulded cable	7
no M/O, 12V AC	: 8W 60	Hz wi	ith	conne	cto	r.								220	7A	DC5.5W	7	other	9
GEM-VL - 10	2	1	1	V	0	- 2	2	1						230	7	DC3.5W	8		
<ol> <li>Supply press</li> <li>For specifying</li> </ol>					efer	to GEM-A	3P \	alve - How	/ to	Order tab	le.			240	8				
(2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.     240     8       *Note: Manifolds are not available for VL valves     Latch/ other <sup>(2)</sup> 9																			

# Direct Operated | Manifolds | GEM-SOL

above table

direct operated sub-base V type of which : C, 1.2, NBR, no M/0,12V AC 8W 60Hz with connector D, 1.2, NBR, no M/0,12V AC 8W 60Hz with connector 1/6 stations with 1/8"BSP Mazak, 2WNC, 1.2, NBR, no M/0,12V AC 8W 60Hz with connector