

# SOLENOID VALVES | General Purpose

Direct Operated | 3W



\* Available on selected models only

Direct Operated | 3W | GEM-SOL | 1/8", 1/4" NC, NO

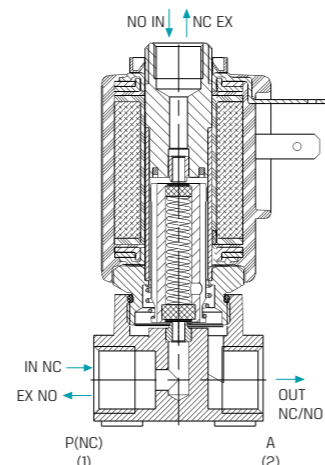
## GEM-A | 1/8", 1/4" 3 Way NC, NO



Stainless Steel | slot manual override



Brass | slot manual override



### Technical Data

Function	3 Way NC, NO
Ports size	1/8" and 1/4" BSP & NPT
Orifice size	See table
Pressure range	• See table • Valves for pressure higher than 25 bar cannot be supplied with manual override
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
Materials in contact with media	<b>Manual override:</b> Plastic, Brass screw or Brass finger knob, Stainless Steel for Stainless Steel valves (1) Plastic manual override : Maximum pressure : 16 bar (2) Manual override is unavailable in 3W NO through base applications <b>Main Valve:</b> Brass or Stainless Steel AISI 316 <b>Solenoid Operator:</b> Stainless Steel AISI 300 & 400 series <b>Seals:</b> NBR, FKM, EPDM, FFKM, PTFE
Media	Air, water, oil
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard / Certification	• UL 429 * Available on selected models only. 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.

### Max. Pressure (bar) 3W NC table

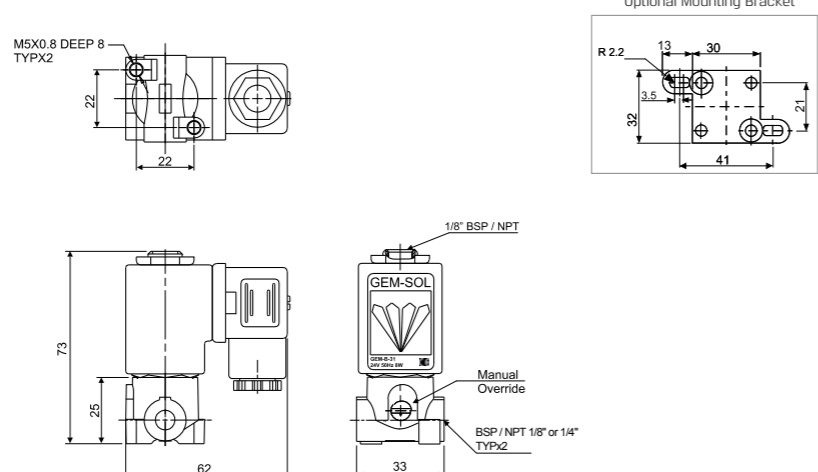
Coil Current/Power	Orifice (mm)					
	0.8	1.2	1.6	2.0	2.4	3.0
ADC *	23	20	15	10	8	5.5
AC8W, DC10W	35	30	17	14	10	6
AC5.5W	23	20	15	10	8	5.5
AC2.5W DC5.5W DC3.5W	20	16	10	9	5	4
Flow factor Kv(l/min)	0.6	1.1	1.7	2.5	3.5	4.5

### Max. Pressure (bar) 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
AC/8W DC/10W	30	22	17	12	10	7
AC/5.5W,DC/5.5W	25	20	15	11	8	6
AC/2.5W,DC/3.5W	20	18	12	8	6	4
Flow factor Kv(l/min)	0.6	1	1.4	2.2	3.0	3.5

\* ADC valves are only suitable for use with AC8W or DC10W coils.

### Dimensions



### Three Product Ordering Categories available

- STANDARD** | Reduced lead times, No MOQ
- SEMI-STANDARD** | Normal lead times, No MOQ
- SPECIAL** | Extended lead times, Non-stock items, MOQ may be applicable

### Ordering Chart

**STANDARD ITEMS** | Reduced lead times, No MOQ  
ADC operator only

MODEL	PORT	FUNCTION	ORIFICE (mm)	SEAL MATERIAL	MANUAL OVERRIDE	CONNECTOR	MOPD (bar)	PART NO. PER VOLTAGE & POWER			
								24VDC 10W	24VAC 8W 50Hz	110VAC 8W 60Hz	230VAC 8W 50Hz
GEM-A BRASS	1/8" BSP	3W NC	1.6	NBR	Slot	with	15	1253088030 GEM-A-21033N2-331 ADC	1253088201 GEM-A-21033N2-311 ADC	1253088202 GEM-A-21033N2-521 ADC	1253088203 GEM-A-21033N2-711 ADC
			10				1253090201 GEM-A-21034N2-331 ADC	1253090202 GEM-A-21034N2-311 ADC	1253090203 GEM-A-21034N2-521 ADC	1253090204 GEM-A-21034N2-711 ADC	
			8				1253093201 GEM-A-21035N2-331 ADC	1253093202 GEM-A-21035N2-311 ADC	1253093203 GEM-A-21035N2-521 ADC	1253093204 GEM-A-21035N2-711 ADC	
			15				1253088204 GEM-A-21133N2-331 ADC	1253088205 GEM-A-21133N2-311 ADC	1253088206 GEM-A-21133N2-521 ADC	1253088207 GEM-A-21133N2-711 ADC	
			10				1253090205 GEM-A-21134N2-331 ADC	1253090206 GEM-A-21134N2-311 ADC	1253090632 GEM-A-21134N2-521 ADC	1253090207 GEM-A-21134N2-711 ADC	
			8				1253093205 GEM-A-21135N2-331 ADC	1253093206 GEM-A-21135N2-311 ADC	1253093207 GEM-A-21135N2-521 ADC	1253093208 GEM-A-21135N2-711 ADC	
	1/8" NPT	3W NO	1.6	15	1253127251 GEM-A-21043N2-331 ADC	1253127536 GEM-A-21043N2-311 ADC	1253127252 GEM-A-21043N2-521 ADC	1253127587 GEM-A-21043N2-711 ADC			
			2.0	11	1253130201 GEM-A-21044N2-331 ADC	1253130202 GEM-A-21044N2-311 ADC	1253130203 GEM-A-21044N2-521 ADC	1253130204 GEM-A-21044N2-711 ADC			
			2.4	8	1253138201 GEM-A-21045N2-331 ADC	1253138202 GEM-A-21045N2-311 ADC	1253138203 GEM-A-21045N2-521 ADC	1253138204 GEM-A-21045N2-711 ADC			
			1.6	15	1253127253 GEM-A-21143N2-331 ADC	1253127254 GEM-A-21143N2-311 ADC	1253127556 GEM-A-21143N2-521 ADC	1253127255 GEM-A-21143N2-711 ADC			
			2.0	11	1253130205 GEM-A-21144N2-331 ADC	1253130206 GEM-A-21144N2-311 ADC	1253130207 GEM-A-21144N2-521 ADC	1253130208 GEM-A-21044N2-711 ADC			
			2.4	8	1253138042 GEM-A-21145N2-331 ADC	1253138205 GEM-A-21145N2-311 ADC	1253138206 GEM-A-21145N2-521 ADC	1253138207 GEM-A-21145N2-711 ADC			
	1/4" BSP	3W NC	1.6	15	1255088333 GEM-A-22033N2-331 ADC	1255088202 GEM-A-22033N2-311 ADC	1255088203 GEM-A-22033N2-521 ADC	1255088204 GEM-A-22033N2-711 ADC			
			2.0	10	1255091030 GEM-A-22034N2-331 ADC	1255091202 GEM-A-22034N2-311 ADC	1255091203 GEM-A-22034N2-521 ADC	1255091204 GEM-A-22034N2-711 ADC			
			2.4	8	1255093030 GEM-A-22035N2-331 ADC	1255093202 GEM-A-22035N2-311 ADC	1255093203 GEM-A-22035N2-521 ADC	1255093204 GEM-A-22035N2-711 ADC			
			1.6	15	1255088032 GEM-A-22133N2-331 ADC	1255088352 GEM-A-22133N2-311 ADC	1255088205 GEM-A-22133N2-521 ADC	1255088382 GEM-A-22133N2-711 ADC			
			2.0	10	1255091205 GEM-A-22134N2-331 ADC	1255091206 GEM-A-22134N2-311 ADC	1255091207 GEM-A-22134N2-521 ADC	1255091208 GEM-A-22134N2-711 ADC			
			2.4	8	1255093205 GEM-A-22135N2-331 ADC	1255093206 GEM-A-22135N2-311 ADC	1255093207 GEM-A-22135N2-521 ADC	1255093208 GEM-A-22135N2-711 ADC			
	1/4" NPT	3W NO	1.6	15	1255127201 GEM-A-22043N2-331 ADC	1255127530 GEM-A-22043N2-311 ADC	1255127203 GEM-A-22043N2-521 ADC	1255127580 GEM-A-22043N2-711 ADC			
			2.0	11	1255130030 GEM-A-22044N2-331 ADC	1255130530 GEM-A-22044N2-311 ADC	1255130203 GEM-A-22044N2-521 ADC	1255130581 GEM-A-22044N2-711 ADC			
			2.4	8	1255138201 GEM-A-22045N2-331 ADC	1255138202 GEM-A-22045N2-311 ADC	1255138203 GEM-A-22045N2-521 ADC	1255138204 GEM-A-22045N2-711 ADC			
			1.6	15	1255127032 GEM-A-22143N2-331 ADC	1255127534 GEM-A-22143N2-311 ADC	1255127207 GEM-A-22143N2-521 ADC	1255127584 GEM-A-22143N2-711 ADC			
			2.0	11	1255130205 GEM-A-22144N2-331 ADC	1255130533 GEM-A-22144N2-311 ADC	1255130207 GEM-A-22144N2-521 ADC	1255130208 GEM-A-22144N2-711 ADC			
			2.4	8	1255138205 GEM-A-22145N2-331 ADC	1255138206 GEM-A-22145N2-311 ADC	1255138207 GEM-A-22145N2-521 ADC	1255138208 GEM-A-22145N2-711 ADC			

(continued on next page)

# SOLENOID VALVES | General Purpose

## Direct Operated | 3W

### GEM-A | 1/8", 1/4" 3 Way NC, NO

#### Ordering Chart

**STANDARD ITEMS** | Reduced lead times, No MOQ  
ADC operator only

MODEL	PORT	FUNCTION	ORIFICE (mm)	SEAL MATERIAL	MANUAL OVERRIDE	CONNECTOR	MOPD (bar)	PART NO. PER VOLTAGE & POWER				
								24VDC 10W	24VAC 8W 50Hz	110VAC 8W 60Hz	230VAC 8W 50Hz	
GEM-A	1/4" BSP	3W NC	1.6	FKM	Slot	with	15	1255088211 GEM-A-32033V2-331 ADC	1255088212 GEM-A-32033V2-311 ADC	1255088213 GEM-A-32033V2-521 ADC	1255088214 GEM-A-32033V2-711 ADC	
			2.0				10	1255091211 GEM-A-32034V2-331 ADC	1255091212 GEM-A-32034V2-311 ADC	1255091213 GEM-A-32034V2-521 ADC	1255091214 GEM-A-32034V2-711 ADC	
			2.4				8	1255093211 GEM-A-32035V2-331 ADC	1255093212 GEM-A-32035V2-311 ADC	1255093213 GEM-A-32035V2-521 ADC	1255093214 GEM-A-32035V2-711 ADC	
			1.6				15	1255088215 GEM-A-32133V2-331 ADC	1255088216 GEM-A-32133V2-311 ADC	1255088217 GEM-A-32133V2-521 ADC	1255088218 GEM-A-32033V2-711 ADC	
			2.0				10	1255091215 GEM-A-32034V2-331 ADC	1255091216 GEM-A-32134V2-311 ADC	1255091217 GEM-A-32134V2-521 ADC	1255091218 GEM-A-32134V2-711 ADC	
			2.4				8	1255093215 GEM-A-32135V2-331 ADC	1255093216 GEM-A-32135V2-311 ADC	1255093217 GEM-A-32135V2-521 ADC	1255093218 GEM-A-32135V2-711 ADC	
	SST	1/4" BSP	3W NO	1.6	FKM	Slot	with	15	1255127211 GEM-A-32043V2-331 ADC	1255127074 GEM-A-32043V2-311 ADC	1255127213 GEM-A-32043V2-521 ADC	1255127214 GEM-A-32043V2-711 ADC
				2.0				11	1255130211 GEM-A-32044V2-331 ADC	1255130212 GEM-A-32044V2-311 ADC	1255130213 GEM-A-32044V2-521 ADC	1255130214 GEM-A-32044V2-711 ADC
				2.4				8	1255138049 GEM-A-32045V2-331 ADC	1255138212 GEM-A-32045V2-311 ADC	1255138213 GEM-A-32045V2-521 ADC	1255138214 GEM-A-32045V2-711 ADC
				1.6				15	1255127149 GEM-A-32143V2-331 ADC	1255127215 GEM-A-32143V2-311 ADC	1255127216 GEM-A-32143V2-521 ADC	1255127217 GEM-A-32143V2-711 ADC
				2.0				11	1255130215 GEM-A-32144V2-331 ADC	1255130216 GEM-A-32144V2-311 ADC	1255130217 GEM-A-32144V2-521 ADC	1255130218 GEM-A-32144V2-711 ADC
				2.4				8	1255138215 GEM-A-32145V2-331 ADC	1255138216 GEM-A-32145V2-311 ADC	1255138217 GEM-A-32145V2-521 ADC	1255138218 GEM-A-32145V2-711 ADC

**PART NO. PER VOLTAGE & POWER**

\*Standard coils are not vacuum impregnated

## Direct Operated | 3W | GEM-SOL | 1/8", 1/4" NC, NO

#### Model Selection

- STANDARD** | Reduced lead times, No MOQ. Please refer to **Standard Items Ordering Chart**
- SEMI-STANDARD** | Normal lead times, No MOQ
- SPECIAL** | Extended lead times, Non-stock items, MOQ may be applicable. For a quote, please contact our sales department

GEM-A	BODY	PORT	FUNCTION	ORIFICE	SEALS	MANUAL OVERRIDE					
Brass	2	1/8" BSP	10	3W NC	3	0.8 1	NBR	N	None	0	
			11	3W NO	4	1.2 2	FFKM (2)	V	Plastic (3)	1	
			4a	3WNO (1) through base	1.6 3	EPDM	E	Slot	2		
		20	1/4" BSP	2	3W NC	3	2.0 4	FFKM (2)	K	Knob	3
				4	3W NO	4	2.4 5	PTFE	T		
				4a	3WNO (1) through base	3.0 6					
	21	1/4" NPT	10	3W NC	3	0.8 1	NBR	N	None	0	
			11	3W NO	4	1.2 2	FFKM (2)	V	Plastic (3)	1	
			4a	3WNO (1) through base	1.6 3	EPDM	E	Slot	2		
			2	3W NC	3	2.0 4	FFKM (2)	K	Knob	3	
			4	3W NO	4	2.4 5	PTFE	T			
			4a	3WNO (1) through base	3.0 6						

\* For available options, please refer to **VOLTAGE & POWER CONSUMPTION** table below

VOLTAGE	POWER	CONNECTOR
No coil	0	No coil
6	1	AC8W 50Hz
12	2	AC8W 60Hz
24	3	DC10W
48	4	AC5.5W50Hz
110	5	AC5.5W60Hz
120	6	AC2.5W 50/60Hz
220	7A	DC5.5W
230	7	DC3.5W
240	8	
Latch/other(4)	9	

#### Voltage & Power Consumption

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

Available options :  
 ▲ STANDARD  
 ● SEMI-STANDARD  
 ■ SPECIAL

Example : GEM-A-21035N2-311

GEM-SOL direct operated brass, 1/8"BSP, 3W NC, 2.4 orifice, NBR, slot manual override, 24V AC8W 50Hz with connector

GEM-A - 2 10 3 5 N 2 - 3 1 1

- (1) Option 4a : manual override is not available
- (2) FFKM O-ring is available only upon request. When ordering FFKM seals, please consult with our technical sales department about O-ring compound
- (3) Maximum pressure : 16 bar
- (4) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table

\* Note: When ordering without coil, please define what current and pressure rating is needed (DC, AC or ADC), otherwise an ADC valve will be supplied

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