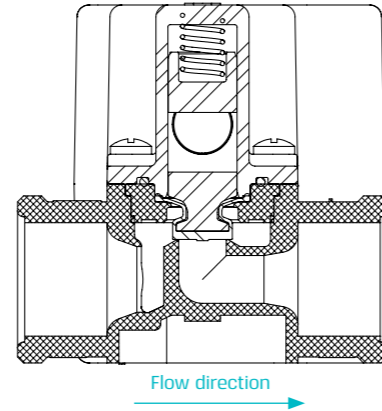


# ISOLATED/FERTILIZER SOLENOIDS

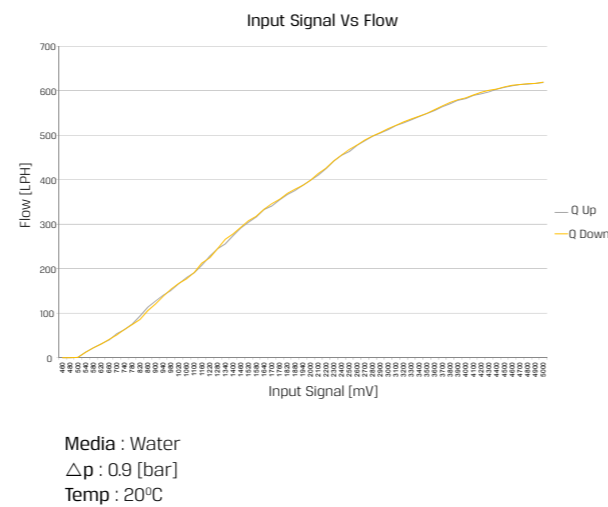
GEM-CPR | Isolated Proportional 2 Way NC



## Technical Data

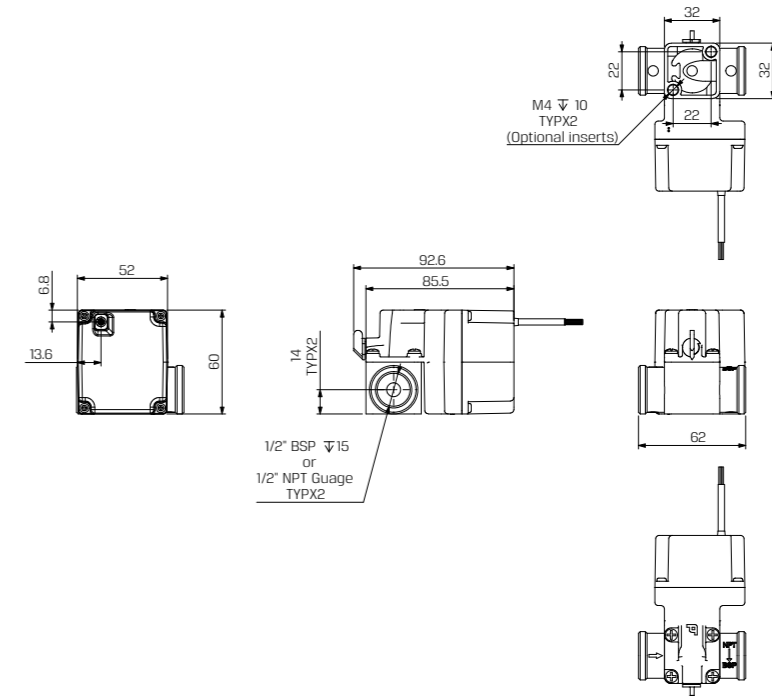
Function	2 Way NC (with back-up battery)
Ports size	1/2" BSP & NPT
Orifice size	8mm (Up to 600 l/hour)
Pressure range	<ul style="list-style-type: none"> <li>Vacuum applications : (-) - 0 Bar</li> <li>Pressure applications : 0 - (+) Bar</li> </ul> *For other pressures, please consult our technical sales department
Temperature range	Fluid : -10° to 45°C (no freezing) Ambient : -10°C to 45°C
Materials	<b>In contact with media :</b> Valve body : PVC (UV protection) Diaphragm & seals : FPM (Viton®), EPDM  <b>Not in contact with media :</b> Operator housing : PP (UV protection) Manual override : Acetal (Manual override is standard)
Media	<ul style="list-style-type: none"> <li>Liquids &amp; Gases</li> </ul> *Please consult our technical sales department for a specific media <b>Application examples :</b> <ul style="list-style-type: none"> <li>Irrigation fertilizing systems</li> <li>Medical devices</li> </ul>
Control signal	0-5V or 4-20mA
Valve stroke resolution	< 0.01mm
Valve stroke accuracy	< ± 0.01 mm
Full stroke duration	0.6 sec, each direction
Current consumption	<ul style="list-style-type: none"> <li>Standby Mode (Holding position): 25 [mA]</li> <li>Active Control Mode: Up to 120 [mA]</li> <li>Full Open/Close Mode (starting current): Up to 600 [mA]</li> </ul>
Supply voltage	12-24 [V] ±5% AC (50 or 60Hz) Or 14-24[V] ±10% DC *For other supply voltages, please consult our technical sales department *Current and voltage spikes protections might be required. Please consult our technical sales department
Connection	5 wires cable (3m length) : <ul style="list-style-type: none"> <li>Black &amp; red : Supply voltage (polarity is not restricted)</li> <li>Green : 0-5 V analog control signal</li> <li>Blue : 4-20 mA analog control signal</li> <li>Yellow : Analog control signal common</li> </ul>
Recommended control signal resolution	Voltage : 20 mV   Current : 0.064 mA
Standard / Certification	<b>CE</b> • EMC : EN55011 Group 1 - Class A   EN61000-6-1 CFR 47 FCC Class A • SAFETY : IEC/EN61010-1
Standard protection class	IP67

## Typical performance graph



GEM-CPR | Isolated Proportional 2 Way NC

## Dimensions



## How to Order

GEM-CPR	PORT	FUNCTION	PRESSURE	SEALS	MANUAL OVERRIDE	CONTROL SIGNAL
1/2" BSP	40	2W NC 1	Vacuum 1	FPM (Viton®) V	Plastic 1	0-5 V 1
1/2" NPT	41		Pressure <sup>(1)</sup> 2	EPDM E		4-20 mA 2

Example : GEM-CPR-4011E1-1

Isolated proportional valve, 1/2" BSP, 2W NC, Vacuum, EPDM seals, plastic manual override with 0-5V control signal

GEM-CPR - 40 1 1 E 1 1

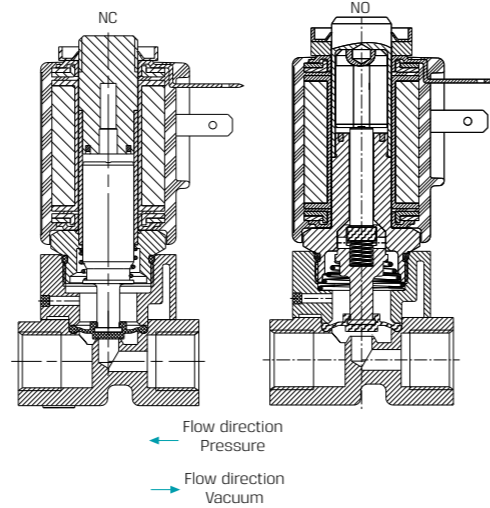
(1) Maximum inlet pressure : 1 bar

\*Please specify the working pressure range when placing an order

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

# ISOLATED/FERTILIZER SOLENOIDS

GEM-C | Chem-Sol 1/4", 2 Way NC, NO



## Technical Data

Function	2 Way NC, NO
Ports size	1/4" BSP & NPT
Orifice size	4.5mm
Pressure range	See table
Kv (l/min)	5 l/min
Temperature range	<b>Fluid</b> : 5° to 50°C (no freezing) <b>Ambient</b> : -10°C to 50°C
Materials in contact with media	<b>Manual override:</b> NC : Plastic NO : Manual override is not available <b>Main Valve:</b> Reinforced PPA <b>Seals:</b> FPM (Viton®), EPDM, Silicone
Applications	<ul style="list-style-type: none"> <li>Chemical process</li> <li>Water treatment</li> <li>Analysis device etc</li> </ul>
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 protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP coil)

## Pressure (bar) table NC

Coil	Flow direction not restricted	Flow direction restricted
ADC *	0 to 2.5 bar	0 to 0.6 bar
AC 8W	0 to 2.5 bar	0 to 0.7 bar
AC 5.5W	0 to 2 bar	0 to 0.5 bar
DC 5.5W	0 to 1.5 bar	0 to 0.4 bar

## Vacuum (bar) table NC

Coil	Flow direction not restricted	minimum Δp
ADC *	-1 to 0 bar	1 bar
AC 5.5W	-1 to 0 bar	
DC 5.5W	-1 to 0 bar	

## Pressure (bar) table NO

Coil & power rating	Flow direction not restricted	Flow direction restricted <sup>(1)</sup>
ADC*, AC 8W or DC10W	0 to 1 bar	0 to 0.5 bar
5.5W AC/DC	0 to 1 bar	0 to 0.5 bar

(1) Higher input pressure of up to 1atm can be achieved with minimal pressure drop on the valve of 0.3atm

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

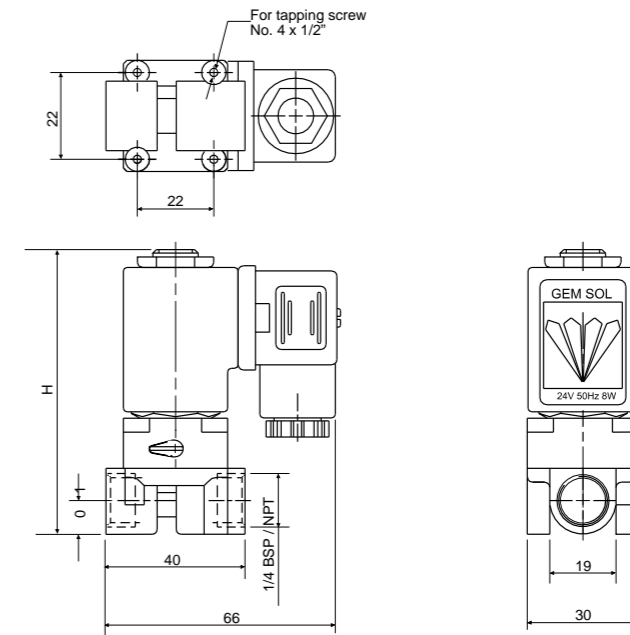
## Voltage & Power Consumption

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

• Available options

GEM-C | Chem-Sol 1/4", 2 Way NC, NO

## Dimensions



Type	Valve Description	H
NC	GEM-C-12 □L...	81
NO	GEM-C-12 □2...	84.5

## How to Order

GEM-C	-	BODY	PORT	FUNCTION	PRESSURE	SEALS	MANUAL OVERRIDE <sup>(1)</sup>	-	VOLTAGE	POWER	CONNECTOR								
		Plastic	1	1/4" BSP	20	2W NC	1	Vacuum	1	FPM (Viton®)	V	None	0	W/out coil	0	No coil	0	without	0
				1/4" NPT	21	2W NO	2	Pressure	2	EPDM	E	Plastic	1	6	1	AC8W 50Hz	1	with	1
										Silicone	S			12	2	AC8W 60Hz	2	with LED	2
														24	3	DC10W	3	with bi-color LED	3
														48	4	AC5.5W 50Hz	4	flying leads coil	4
														110	5	AC5.5W 60Hz	5	with 1/2" Hub	5
														120	6	DC5.5W	7	surge protection with LED	6
														220	7A			connector with moulded cable	7
														230	7			other	9
														240	8				
														Latch/other <sup>(2)</sup>	9				

Example : GEM-C-12012V1-321

GEM-SOL Chem-Sol, PPA, 1/4"BSP, 2W NC, Pressure, FPM (Viton®), plastic manual override, 24V AC 8W 60 Hz with connector

GEM-C - 1 20 1 2 V 1 - 3 2 1

(1) NO - manual override is not available

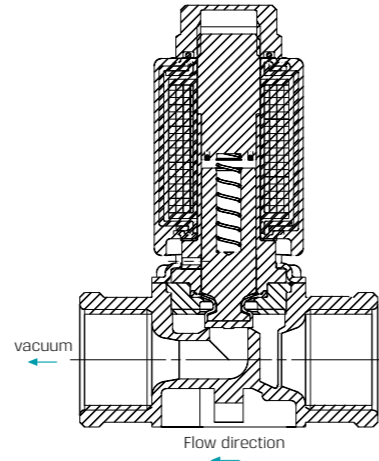
(2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table

\* 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

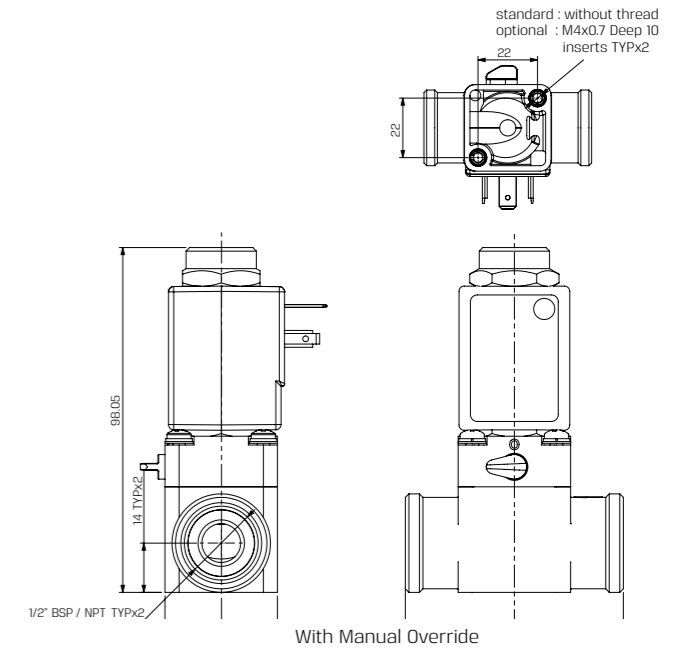
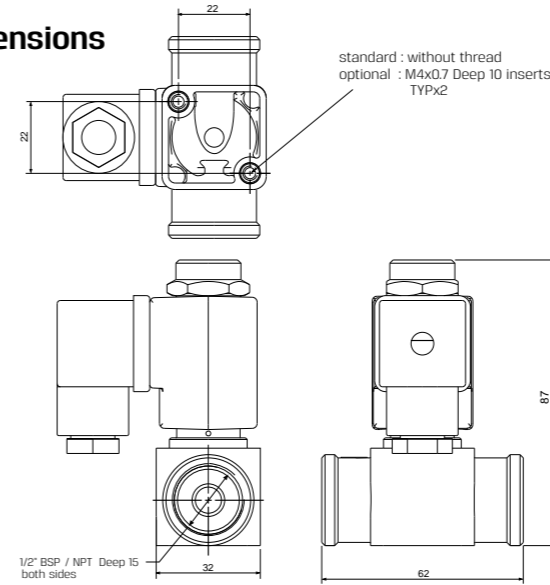
# ISOLATED/FERTILIZER SOLENOIDS

## GEM-C | Chem-Sol 1/2" 2 Way NC



## GEM-C | Chem-Sol 1/2", 2 Way NC

### Dimensions



### Technical Data

Function	2 Way NC
Ports size	1/2" BSP & NPT
Orifice size	8mm
Pressure range	See table
Kv (l/min)	18 l/min
Temperature range	<b>Fluid</b> : 5°C to 50°C (no freezing) <b>Ambient</b> : -10°C to 50°C
Materials in contact with media	<b>Manual override:</b> Plastic <b>Main Valve:</b> PVC <b>Seals:</b> FPM (Viton®), EPDM
Applications	<ul style="list-style-type: none"> <li>Chemical process</li> <li>Water treatment</li> <li>Analysis device etc</li> </ul>
Coil voltage	<ul style="list-style-type: none"> <li>Voltage and power consumption - see table</li> <li>All Baccara coil voltages are from -5% to ±10% of nominal</li> </ul>
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP coil)

• Supplied with mounting threads on request, please specify

### Pressure (bar) table NC

Coil	Flow direction not restricted	Flow direction restricted
AC 8W, DC10W	0 to 0.7 bar	Min dp 0.3 bar

### Vacuum (bar) table NC

Coil	Flow direction not restricted	Flow direction restricted
AC 8W	-1 to 0.5 bar	-1 to 0.5 bar
AC 5.5W	-0.5 to 0.5 bar	-0.8 to 0.5 bar
DC 10W	-0.4 to 0.5 bar	-0.6 to 0.5 bar

### 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 :

- Vacuum
- Pressure

### How to Order

GEM-C	PORT	FUNCTION	PRESSURE	SEALS	MANUAL OVERRIDE	* When ordering without coil, please define what current and pressure rating is needed (DC, AC)			
						VOLTAGE	POWER	CONNECTOR	
1/2" BSP	40	2W NC 1	Vacuum 1	FPM (Viton®) V	None Null	W/out coil 0	No coil 0	without 0	0
1/2" NPT	41		Pressure 2	EPDM E	Plastic 1	6	1	AC8W 50Hz	1
						12	2	AC8W 60Hz	2
						24	3	DC10W	3
						48	4	AC5.5W 50Hz	4
						110	5	AC5.5W 60Hz	5
						120	6		6
						220	7A		7
						230	7		9
						240	8		
						Latch/other (1)	9		

Example : GEM-C-4011V1-321

GEM-SOL Chem-Sol, 1/2"BSP, 2W NC for vacuum, FPM (Viton®), plastic manual override, 24V AC 8W 60Hz with connector

GEM-C - 40 1 1 V 1 - 3 2 1

(1) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table

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