

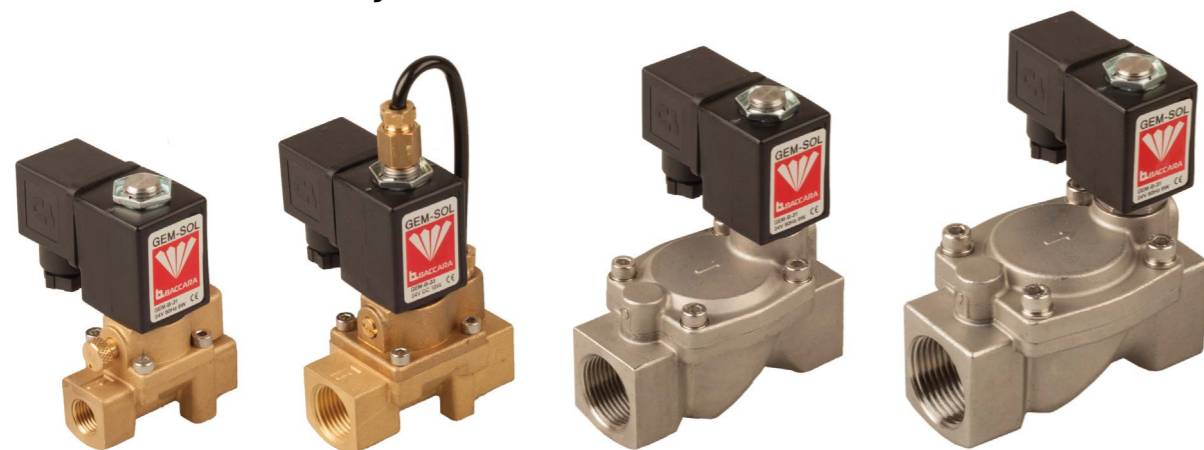
SOLENOID VALVES | General Purpose

Pilot Operated | 2W



* Available on selected models only

GEM-S | 1/4" - 1" 2 Way NC, NO



Brass | NC |
knob manual override

Brass | NO |
slot manual override

Stainless Steel | 1/2"

Stainless Steel | 1"

Technical Data

Function	2 Way NC, NO
Ports size	1/4", 3/8", 1/2", 3/4", 1" BSP & NPT
Pressure range	See table *Minimum pressure differential of 0.3 or 0.5 is required
Kv (l/min)	See table
Temperature range	Fluid : -10°C to 80°C (no freezing) Ambient : -10°C to 50°C
Materials in contact with media	Manual override: NC/NO - Brass screw NOa* - manual override is not available *pressure is supplied through the base Main Valve: Brass Stainless Steel AISI 316 Solenoid Operator: Stainless Steel AISI 300 & 400 series Seals: NBR, FPM (Viton®), EPDM
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. Please contact our technical sales department for details.
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP Coil)

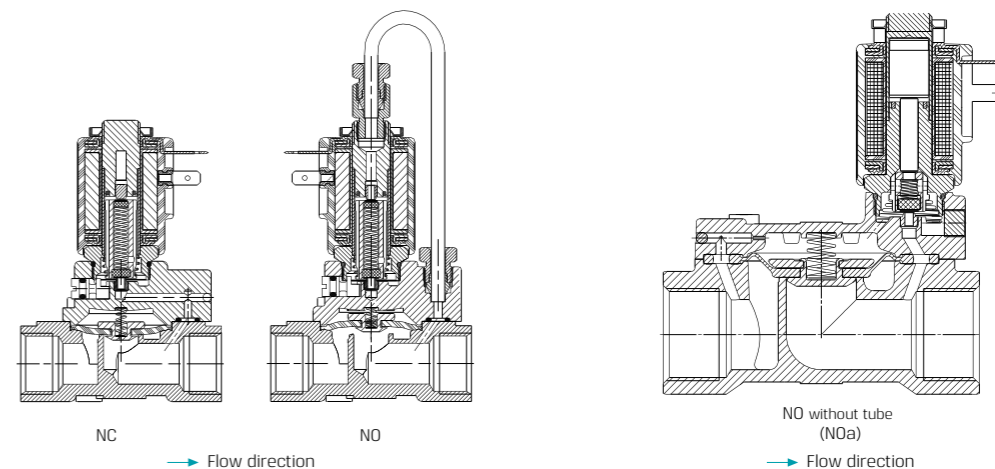
• Slow closing system to prevent water hammer effect

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

Pilot Operated | 2W | GEM-SOL | 1/4" - 1" NC, NO



Pressure (bar) & Flow table NO/NC GEM-S-□-20...41

Size	Orifice (mm)	Pressure (bar)	Kv (l/min)
1/4"	8	0.5 to 20	12
3/8"	8		16
1/2"	12		35

Pressure (bar) & Flow table NO/NC GEM-S-□-□r

Size	Orifice (mm)	Pressure (bar)	Kv (l/min)
1/2"	16	0.5 to 20	60
3/4"	16		80

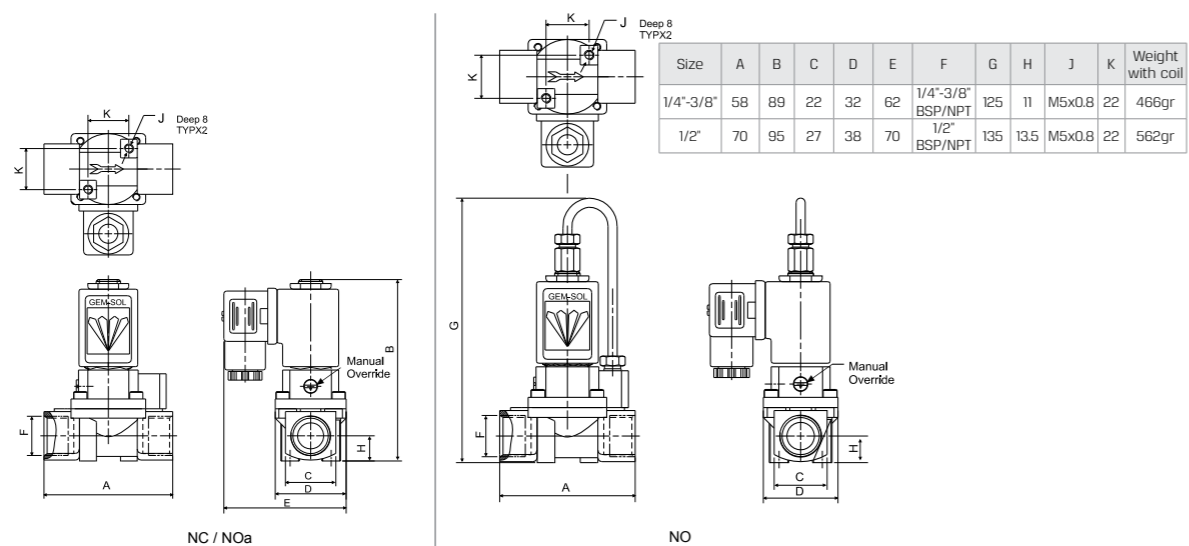
Pressure (bar) & Flow table NO/NC GEM-S-□-50...60

Port Connection	Orifice (mm)	Pressure range (bar)		Kv (l/min)
		AC	DC	
3/4"	20	0.3-15	0.3-15	130
1"	25	0.5-15	0.5-15	200

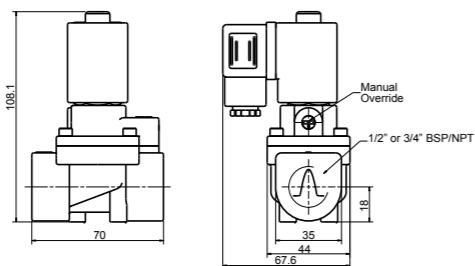
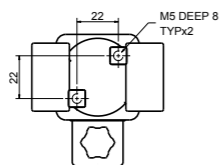
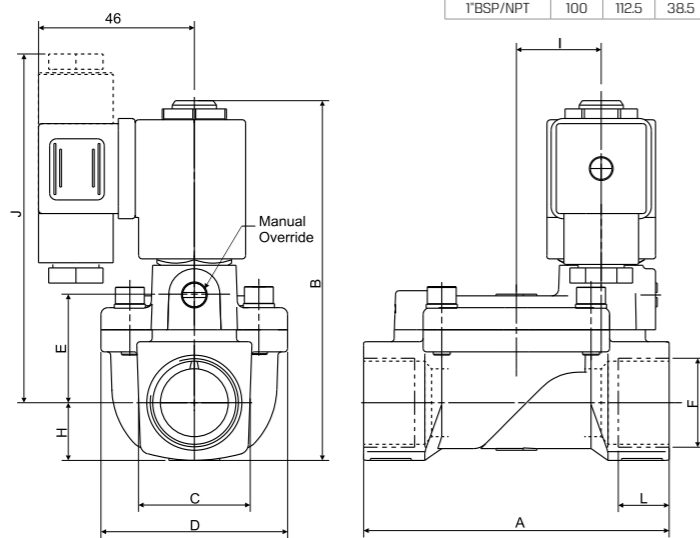
SOLENOID VALVES | General Purpose

Pilot Operated | 2W | GEM-SOL

Dimensions



Size	A	B	C	D	E	H	L	I	J
3/4" BSP/NPT	90	106	32	55	32	17	15	25	103
1" BSP/NPT	100	112.5	38.5	65	34	21	16	29.5	109.50



GEM - □ r 16mm orifice
NC / NOa

Pilot Operated | 2W | GEM-SOL | 1/4" - 1" NC, NO

How to Order

GEM-S	BODY	PORT	FUNCTION	SEALS	MANUAL OVERRIDE	VOLTAGE	POWER	CONNECTOR							
Brass	2	1/4" BSP	20	2W NC	1	NBR	N	None	0	W/out coil	0	No coil	0	without	0
Stainless Steel	3	1/4" NPT	21	2W NO ⁽¹⁾	2	FPM (Viton®)	V	Slot	2	6	1	AC8W 50Hz	1	with	1
										12	2	AC8W 60Hz	2	with LED	2
		3/8" BSP	30	2W NO ⁽²⁾ w/out tube	2a	EPDM	E	Knob	3	24	3	DC10W	3	with bi-color LED	3
										48	4		4	flying leads coil	4
		1/2" BSP	40							110	5		5	with 1/2" Hub surge protection with LED connector with moulded cable	5
										120	6		6		6
		3/4" BSP	50							220	7A		7	connector with moulded cable	7
										230	7		7	other	9
		1" BSP	60							240	8		8		
										Latch/other ⁽³⁾	9		9		
1" NPT	61														

Example : GEM-S-2202V2-321
GEM-SOL pilot operated, brass, 1/4" BSP, 2W NO, FPM (Viton®) seals, slot manual override, 24V AC8W 60Hz with connector.

GEM-S - 2 20 2 V 2 3 2 1

- (1) Option available in 1/4" - 1/2"
 - (2) Without manual override
 - (3) 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.

How to Order

GEM-S	BODY	PORT	FUNCTION	SEALS	MANUAL OVERRIDE	VOLTAGE	POWER	CONNECTOR							
Brass	2	1/2" BSP	40r	2W NC	1	NBR	N	None	0	W/out coil	0	No coil	0	without	0
Stainless Steel	3	1/2" NPT	41r	2W NO	2	FPM (Viton®)	V	Slot	2	6	1	AC8W 50Hz	1	with	1
										12	2	AC8W 60Hz	2	with LED	2
		3/4" BSP	50r	2W NO ⁽¹⁾ w/out tube	2a	EPDM	E	Knob	3	24	3	DC10W	3	with bi-color LED	3
										48	4		4	flying leads coil	4
3/4" NPT	51r							110	5		5	with 1/2" Hub surge protection with LED connector with moulded cable	5		
								120	6		6		6		
220	7A							230	7		7	connector with moulded cable	7		
								240	8		8				
Latch/other ⁽²⁾	9														

- (1) Without manual override
 - (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.

SOLENOID VALVES | General Purpose

Pilot Operated | 2W

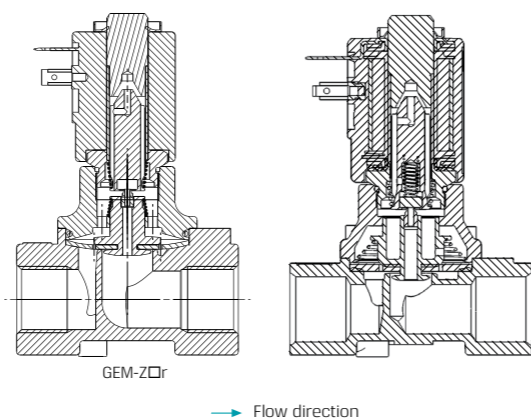
GEM-Z | Zero differential pressure 1/4" - 3/4" 2 Way NC, NO



Brass | 1/2" | NC



Stainless Steel | 1/2" | NC



Technical Data

Function	2 Way NC, NO
Ports size	1/4", 3/8", 1/2", 3/4" BSP & NPT
Pressure range	See table
Kv (l/min)	See table
Temperature range	Fluid : -10°C to 80°C (no freezing) Ambient : -10°C to 50°C
Materials in contact with media	Main Valve: Brass, Stainless Steel AISI 316 Solenoid Operator: Stainless Steel AISI 300 & 400 series Seals: NBR, FPM (Viton®), EPDM
Media	Air, water, oil
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP Coil)

- When switching from an AC to a DC coil, the solenoid operator must be changed as well.
- Can be used in vacuum application from -1 bar to maximum pressure - see tables.

Pressure (bar) & Flow table NC (GEM-Z)

Size	Orifice (mm)	Pressure (bar)		Kv (l/min)
		AC	DC	
1/4"	8	0 to 14	0 to 7	12
3/8"	12	0 to 14	0 to 8	17
1/2"	12	0 to 14	0 to 8	18

Pressure (bar) & Flow table NC (GEM-Z □ □ r)

Size	Orifice (mm)	Pressure (bar)		Kv (l/min)
		AC	DC	
1/2"	16	0 to 10	0 to 6	60
3/4"	16	0 to 10	0 to 6	80

Pressure (bar) & Flow table NO (GEM-Z)

Size	Orifice (mm)	Pressure (bar)		Kv (l/min)
		AC	DC	
1/4"	8	0 to 8	0 to 8	12
3/8", 1/2"	12	0 to 8	0 to 8	20

Voltage & Power Consumption

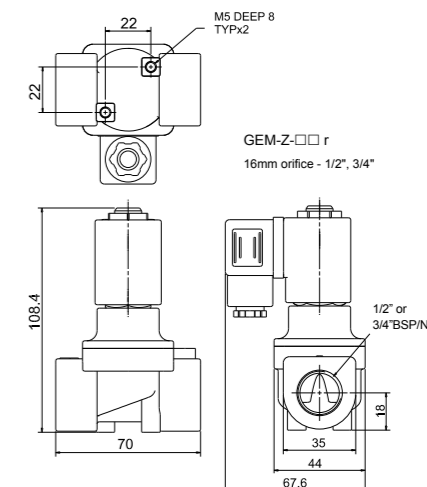
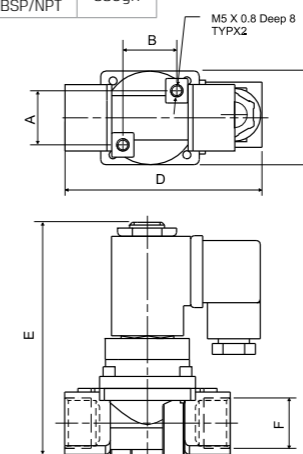
V	AC (W)						DC (W)		
	50 Hz			60 Hz			10	5.5	3.5
	8	5.5	2.5	8	5.5	2.5			
6							•		
12	•			•			•		
24	•			•			•		
48	•			•			•		
110	•			•			•		
120	•			•					
220	•			•			•		
230	•								
240	•			•			•		

• Available options

Pilot Operated | 2W | GEM-SOL | Zero differential pressure 1/4" - 3/4" NC, NO

Dimensions

Size	A	B	C	D	E	F	Weight with coil
1/4"	22	22	32	58	89	1/4" BSP/NPT	415gr.
3/8"	22	22	38	70	95	3/8" BSP/NPT	530gr.
1/2"	22	22	38	70	95	1/2" BSP/NPT	530gr.



How to Order

GEM-Z	BODY ⁽¹⁾	PORT	FUNCTION	SEALS	* When ordering without coil, please define what current and pressure rating is needed (DC, AC)		
					VOLTAGE	POWER	CONNECTOR
	Brass 2	1/4" BSP 20	2W NC 1	NBR N	W/out coil 0	No coil 0	without 0
	Stainless Steel ⁽²⁾ 3	1/4" NPT 21	2W NO ⁽⁴⁾ 2a	FPM (Viton®) V	6	1	AC8W 50Hz 1
		3/8" BSP 30		EPDM E	12	2	AC8W 60Hz 2
		3/8" NPT 31			24	3	DC10W 3
		1/2" BSP 40			48	4	with bi-color LED 3
		1/2" NPT 41			110	5	flying leads coil 4
		1/2" BSP 40r			120	6	with 1/2" Hub surge protection with LED 5
		1/2" NPT 41r			220	7A	connector with LED 6
		3/4" BSP 50r			230	7	connector with moulded cable 7
		3/4" NPT ⁽³⁾ 51r			240	8	other 9
					Latch/other ⁽⁵⁾	9	

Example : GEM-Z-2401N-221
GEM-SOL zero differential, brass, 1/2" BSP, 2W NC, NBR, 12V AC8W 60Hz with connector.

GEM-Z - 2 40 1 N - 2 2 1

- (1) This valve is also available in plastic
- (2) Not available for GEM-Z □ □ r
- (3) 16mm orifice
- (4) NO function without M/O, not available for GEM-Z □ □ r
- (5) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.

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SOLENOID VALVES | General Purpose

Pilot Operated | 2W

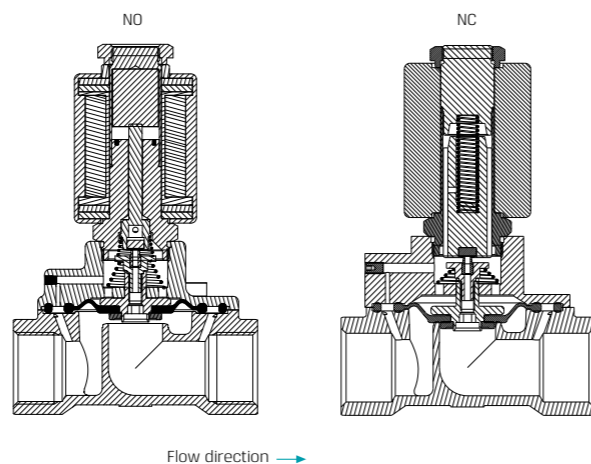
GEM-Z | Zero differential pressure 3/4", 1" 2 Way NC, NO



Brass | 3/4"



Stainless Steel | 1"



Technical Data

Function	2 Way NC, NO
Ports size	3/4", 1" BSP & NPT
Pressure range	See table
Kv (l/min)	See table
Temperature range	Fluid : -10°C to 80°C (no freezing) Ambient : -10°C to 50°C
Materials in contact with media	Main Valve: Brass, Stainless Steel AISI 316 Solenoid Operator: Stainless Steel AISI 300 & 400 series Seals: NBR
Media	Air, water, oil
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP Coil)

- When switching from an AC to a DC coil, the solenoid operator must be changed as well.
- Can be used in vacuum application from -1 bar to maximum pressure - see tables.

Pressure (bar) & Flow table NC

Size	Orifice (mm)	Pressure (bar)		Kv(l/min)
		AC	DC	
3/4"	20	0 to 14	0 to 10	125
1"	25	0 to 14	0 to 10	180

Pressure (bar) & Flow table NO

Size	Orifice (mm)	Pressure (bar) AC/DC		Kv(l/min)
		AC	DC	
3/4"	20	0 to 10		125
1"	25	0 to 8		180

Voltage & Power Consumption

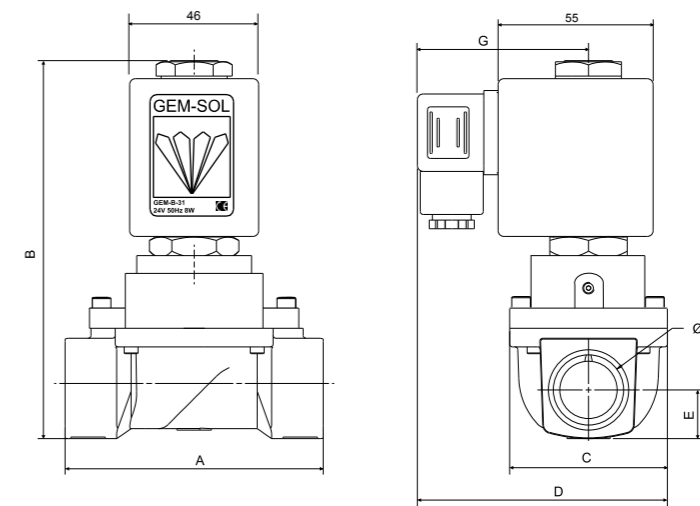
V	AC (W)		DC (W)
	50 Hz	60 Hz	
12	38	38	38
24	•	•	•
120	•	•	•
230	•	•	•

• Available options

Pilot Operated | 2W | GEM-SOL | Zero differential pressure 3/4", 1" NC, NO

Dimensions

Size	A	B	C	D	E	F	G
3/4"	90	131.8	55	87.2	17	3/4" BSP/NPT	49
1"	100	141.9	65	92.2	21	1" BSP/NPT	59.7



How to Order

GEM-Z	BODY	PORT	FUNCTION	SEALS	
Brass	2	3/4" BSP	50	2W NC 1	NBR N
Stainless Steel	3	3/4" NPT	51	2W NOa 2	
		1" BSP	60		
		1" NPT	61		

* When ordering without coil, please define what current and pressure rating is needed (DC, AC)

VOLTAGE	POWER	CONNECTOR	
W/out coil	0 No coil	0 without	0
12	2 AC38W 50Hz	E with	1
24	3 AC38W 60Hz	F with LED	2
120	6 DC38W	J with bi-color LED	3
230	7	with 1/2" Hub surge protection with LED	5
		connector with moulded cable	6
		other	7
			9

Example : GEM-Z-2601N-2J1
GEM-SOL zero differential, brass, 1" BSP, 2W NC, NBR, 12V DC 38W with connector.

GEM-Z - 2 60 1 N - 2 J 1

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