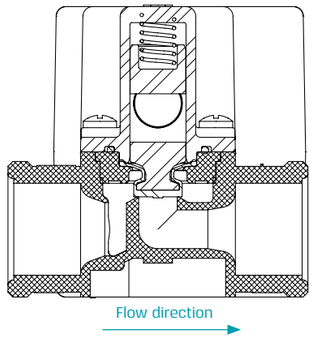
SOLENOID VALVES

SPECIAL PURPOSE

SOLENOID VALVES | Special Purpose

Proportional

GEM-CPR | Precise Isolated Proportional 2 Way NC



Technical Data

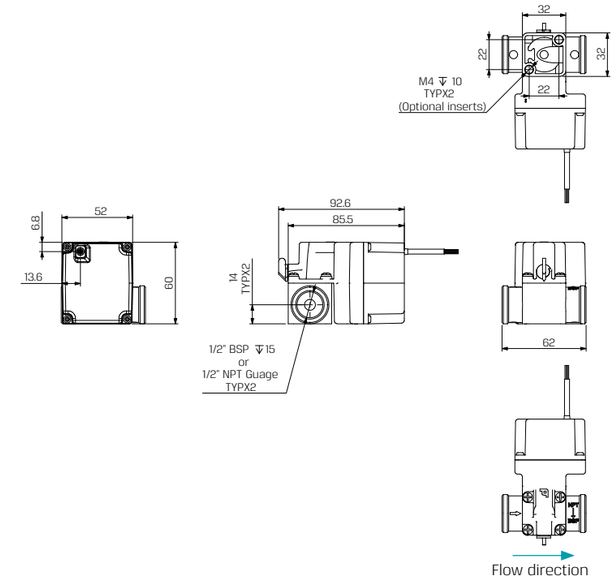
Function	2 Way NC (with back-up battery)
Ports size	1/2" BSP & NPT
Orifice size	8mm (Up to 600 l/hour)
Pressure range	• **Vacuum applications :** (-1) - 0 Bar • **Pressure applications :** 0 - (+1) Bar *For other pressures, please consult our technical sales department
Temperature range	**Fluid :** -10º to 45ºC (no freezing) **Ambient :** -10ºC to 45ºC
Materials	**In contact with media :** **Valve body :** • **Standard :** PVC (UV Protection) • **Optional :** According to customer demand or application (e.g Stainless steel) **Diaphragm & seals :** FKM, EPDM **Not in contact with media :** **Operator housing :** PP (UV protection) **Manual override :** Acetal **(Manual override is standard)**
Media	• **Liquids & Gases** *Please consult our technical sales department for a specific media • **Application examples :** · Irrigation fertilizing systems · Medical devices
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	• **Standby Mode (Holding position):** 25 [mA] • **Active Control Mode:** Up to 120 [mA] • **Full Open/Close Mode (starting current):** Up to 600 [mA]
Supply voltage	**12-24 [V] ±5% AC (50 or 60Hz) Or 12-24[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) : • **Black & red :** Supply voltage (polarity is not restricted) • **Green :** 0-5 V analog control signal • **Blue :** 4-20 mA analog control signal • **Yellow :** Analog control signal common
Recommended control signal resolution	Voltage : 20 mV | Current : 0.064 mA
Standard / Certification	**CE** • 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

Media : Water
△p : 0.9 [bar]
Temp : 20ºC

Proportional | GEM-SOL | Precise Isolated Proportional 2 Way NC

Dimensions



How to Order

GEM-CPR	-	PORT		FUNCTION		PRESSURE		SEALS		MANUAL OVERRIDE		-	CONTROL SIGNAL		VOLTAGE	
		1/2" BSP	40	2W NC	1	Vacuum	1	FKM	V	Plastic	1		0-5 V	1	12-24 VDC	1
		1/2" NPT	41			Pressure(1)	2	EPDM	E				4-20 mA	2	12-24 VAC	2

Example : GEM-CPR-4011E1-11
Precise Isolated proportional valve, 1/2" BSP, 2W NC, Vacuum,
EPDM seals, plastic manual override, with 0-5V control signal, 12-24 VDC

GEM-CPR	-	40	1	1	E	1	-	1	1

(1) Maximum inlet pressure : 1 bar

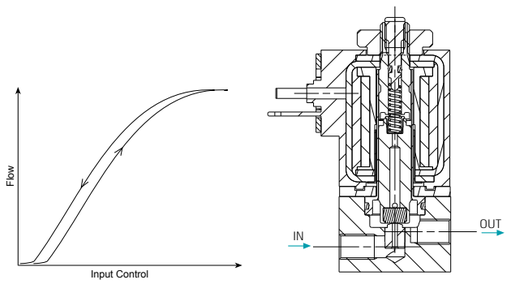
*Please specify the working pressure range when placing an order

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

SOLENOID VALVES | Special Purpose

Proportional

G65-PR | Proportional 2 Way NC



Technical Data

Function	2 Way NC
Ports size	M5, #10UNF, 1/8" BSP & NPT
Orifice size	See table
Pressure range	Vacuum - see table
Kv (l/min)	See table
Temperature range	**Fluid :** -10°C to 80°C (no freezing) **Ambient :** -10°C to 55°C
Materials in contact with media	**Main Valve:** Aluminium, Brass, Stainless Steel AISI 316 **Solenoid Operator:** Stainless Steel AISI 300 & 400 series, Brass **Seals:** NBR, FKM, EPDM (other, on request) **Guide rings:** PTFE
Media	Air, water, oil
The control parameter is the current in the coil! Operating current	Max. 1500[mA] standard voltage 24V DC(=)
Electrical connection	Per DIN 43650-b, or 2 flying leads 18AWG (0.75mm²) 300 mm length
Standard protection class	IP65 with connector

• Media : Max. viscosity 21mm²/s

Guidelines for selection :

1. The pressure drop (△P) on the valve should be 30-50% or higher, of the total pressure drop in the system.
2. Special consideration should be taken in choosing the right Kv of the valve as this factor determines the flow and pressure drop of the valve.
3. To achieve better regulation performance when working without a control unit, the maximum pressure should be 1.2 times the working pressure. The maximum pressure can be adjusted using the upper screw.
4. Inlet pressure should be kept constant during operation.

Standard calibration pressure (bar)

	Orifice size (mm)			
	0.8	1.0	1.2	1.6
Pressure rating [bar] (1)	10	8	6	4
Flow factor Kv(l/min)	0.4	0.5	0.65	1.2

(1) From technical vacuum to max. rating
(2) Other calibration pressures on request

Flow regulation :

With control unit PWM 500[Hz] measured at constant △P (delta P)

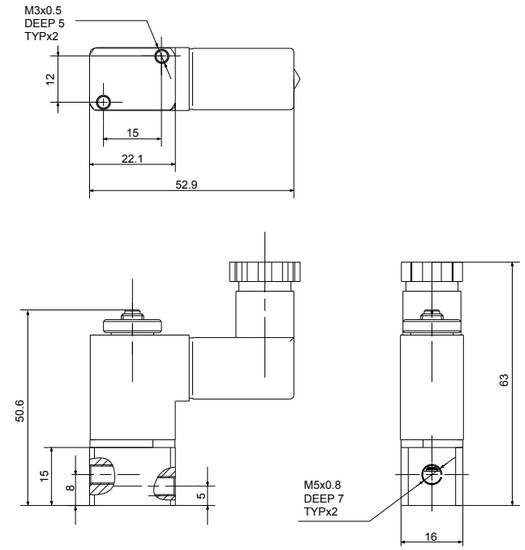
Hysteresis	<5% of F.S
Repeatability	<3% of F.S
Sensitivity	<2% of F.S

Voltage & Power Consumption

	AC 50Hz		DC (W)
V	3.2VA	3.6VA	3
12			•
24			•
110			
230			

• Available options

Dimensions



How to Order

G65-PR	-	BODY (1)	PORT	FUNCTION	ORIFICE	SEALS	MANUAL OVERRIDE	-	CONNECTOR
		Aluminium 1	M5 00	2W NC 1	0.8 1	NBR N	None 0		without 0
		Brass 2	#10UNF 01		1.0 2	FKM V			with 1
		Stainless Steel 3	1/8" BSP 10		1.2 3	EPDM E			
			1/8" NPT 11		1.6 4				

Example : G65-PR-21014N0-1

G65 proportional direct operated, brass, 1/8" BSP, 2W NC, 1.6 orifice, NBR, without manual override, with connector.

G65-PR	-	2	10	1	4	N	0	-	1

(1) For Stainless Steel tube, add "s" : e.g | G65-PR | - | Xs | X | X | X | X | X | - | X |

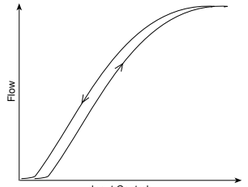
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

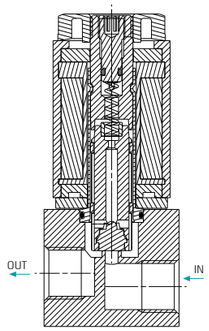
SOLENOID VALVES | Special Purpose

Proportional

G80-PR | Proportional 2 Way NC

Stainless Steel | 1/8"





Technical Data

Function	2 Way NC
Ports size	M5, #10UNF, 1/8" BSP & NPT
Orifice size	See table
Pressure range	**Vacuum** - see table
Kv (l/min)	See table
Temperature range	**Fluid :** -10°C to 80°C (no freezing) **Ambient :** -10°C to 55°C
Materials in contact with media	**Main Valve:** Aluminium, Brass, Stainless Steel AISI 316 **Solenoid Operator:** Stainless Steel AISI 300 & 400 series, Brass **Seals:** NBR, FKM, EPDM (other, on request) **Guide rings:** PTFE
Media	Neutral gases, water, oil Max. viscosity 21mm²/s
The control parameter is the current in the coil! Operating current	 100-500[mA] standard voltage 24V DC(=)
Electrical connection	Per DIN 43650-b, or 2 flying leads 18AWG (0.75mm²) 300 mm length
Standard protection class	IP65 with connector

Guidelines for selection

1. The pressure drop (△P) on the valve should be 30-50% or higher, of the total pressure drop in the system.
2. Special consideration should be taken in choosing the right Kv of the valve as this factor determines the flow and pressure drop of the valve.
3. To achieve better regulation performance when working without a control unit, the maximum pressure should be 1.2 times the working pressure. The maximum pressure can be adjusted using the upper screw.
4. Inlet pressure should be kept constant during operation.

Standard calibration pressure (bar)

	Orifice size (mm)					
	1.0	1.2	1.6	2.0	2.4	3.0
Pressure rating (bar)(1)	10	8	6	5	4	2.5
Flow factor Kv(l/min)	0.5	0.65	1.0	1.6	2.0	2.8

(1) From technical vacuum to max. rating
(2) Other calibration pressures on request

Flow regulation :

With control unit PWM 500[Hz] measured at constant △P (delta P)

Hysteresis	<5% of F.S
Repeatability	<3% of F.S
Sensitivity	<2% of F.S

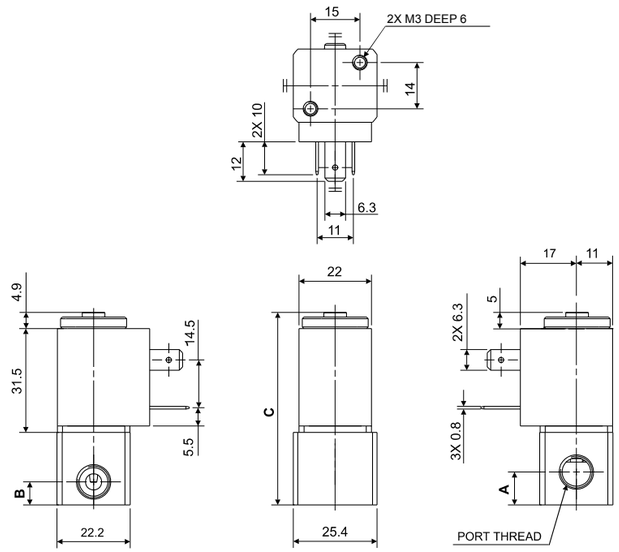
Voltage & Power Consumption

	DC (W)	
V	6.5	3
6	•	•
12	•	•
24	•*	•
110		
230		

• Available options

* 24VDC is 6Watt, 12VDC is 6.5Watt

Dimensions



Port thread	A	B	C
M5, #10UNF	5.5	4	51.5
1/8"	10	7	58.5

How to Order

G80-PR	-	BODY (1)		PORT		FUNCTION		ORIFICE		SEALS		MANUAL OVERRIDE		-	CONNECTOR	
		Aluminium	1	M5	00	2W NC	1	1.0	1	NBR	N	None	0		without	0
		Brass	2	#10 UNF	01			1.2	2	FKM	V				with	1
		Stainless Steel	3	1/8" BSP	10			1.6	3	EPDM	E					
				1/8" NPT	11			2.0	4							
								2.4	5							
								3.0	6							
								other	9							

Example : G80-PR-21015N0-1
G80 proportional direct operated, brass, 1/8"BSP,
2W NC, 2.4 orifice, NBR, without manual override, with connector.

G80-PR	-	2	10	1	5	N	0	-	1

(1) For Stainless Steel tube, add "s" : e.g

G80-PR	-	Xs	X	X	X	X	X	X	-	X

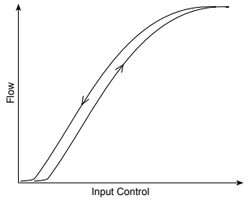
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

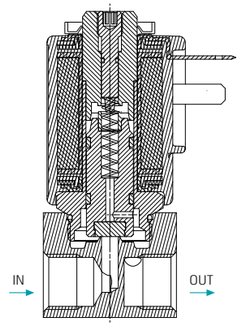
SOLENOID VALVES | Special Purpose

Proportional

GEM-PR | Proportional 2 Way NC

Stainless Steel





Technical Data

Function	2 Way NC
Ports size	1/8", 1/4" BSP & NPT
Orifice size	See table
Pressure range	See table
Kv (l/min)	See table
Temperature range	**Fluid :** -10°C to 80°C (no freezing) **Ambient :** -10°C to 55°C
Materials in contact with media	**Main Valve:** Aluminium, Brass, Stainless Steel AISI 316 **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Seals:** NBR, FKM, EPDM, polyurethane, PTFE **Guide rings:** PTFE
Media	Neutral gases, water, oil Max. viscosity 21mm²/s
The control parameter is the current in the coil. Operating current	 100-500[mA] standard voltage 24V DC(=)
Electrical connection	Per DIN 43650-a, or 2 flying leads 18AWG (0.75mm²) 300 mm length
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP Coil)

Guidelines for selection

1. The pressure drop (△P) on the valve should be 30-50% or higher, of the total pressure drop in the system.
2. Special consideration should be taken in choosing the right Kv of the valve as this factor determines the flow and pressure drop of the valve.
3. To achieve better regulation performance when working without a control unit, the maximum pressure should be 1.1 times the working pressure. The maximum pressure can be adjusted using the upper screw.
4. Inlet pressure should be kept constant during operation.

Standard calibration pressure (bar)

	Orifice size (mm)						
	0.8	1.2	1.6	2.0	2.4	3.0	4.0
Pressure rating(bar) (1)	16	12	10	8	6	3.5	2
Flow factor Kv(l/min)	0.6	1.1	1.7	2.5	3.5	4.5	5

(1) From technical vacuum to max. rating
(2) Other calibration pressures on request

Flow regulation :
With control unit PWM 500[Hz] measured at constant △P (delta P).

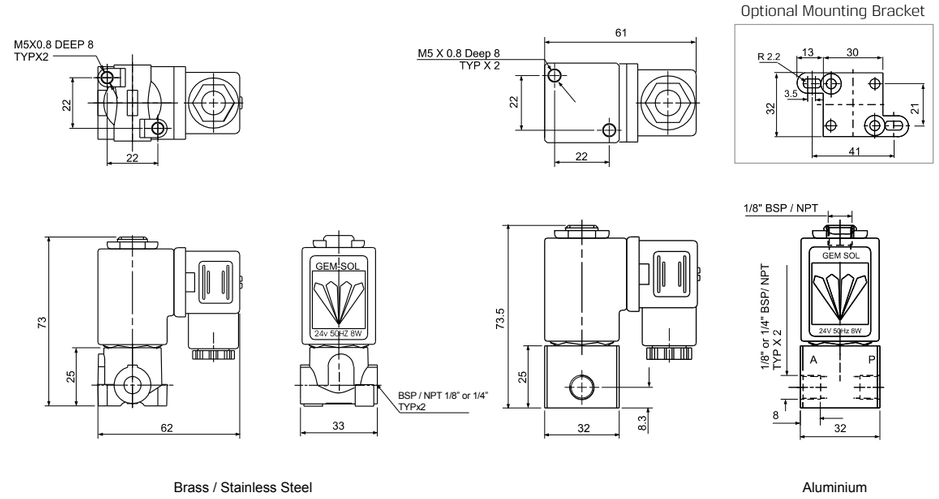
Hysteresis	<5% of F.S
Repeatability	<3% of F.S
Sensitivity	<2% of F.S

Voltage & Power Consumption

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

• Available options

Dimensions



Brass / Stainless Steel

Aluminium

How to Order

GEM-PR	-	BODY		PORT		FUNCTION		ORIFICE		SEALS		MANUAL OVERRIDE		-	CONNECTOR	
		Brass	2	1/8" BSP	10	2W NC	1	0.8	1	NBR	N	None	0		without	0
		Stainless Steel	3	1/8" NPT	11			1.2	2	FKM	V				with	1
		Aluminium	5	1/4" BSP	20			1.6	3	EPDM	E					
				1/4" NPT	21			2.0	4	Polyurethane	P					
								2.4	5	PTFE	T					
								3.0	6							
								4.0	7							

Example : GEM-PR-21015N0-1
GEM-SOL proportional direct operated, brass, 1/8"BSP,
2W NC, 2.4 orifice, NBR, without manual override, with connector.

GEM-PR	-	2	10	1	5	N	0	-	1

* 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.

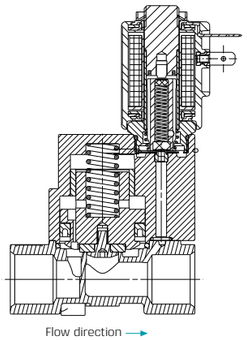
SOLENOID VALVES | Special Purpose

High pressure

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

Brass | 1/2"

Stainless Steel | 1/2"



Technical Data

Function	2 Way NC, NO
Ports size	1/4", 3/8", 1/2", 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:** Polyurethane, FKM*, EPDM*, PTFE * The orifice seal is PTFE
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)

• Latch valves are available upon request.

Pressure (bar) & Flow table NC

Size	Orifice (mm)	Pressure (bar)	Kv(l/min)
1/4"	8	1 to 60	12
3/8"	8		16
1/2"	12		35
3/4"	20		130
1"	25		200

Pressure (bar) & Flow table NO

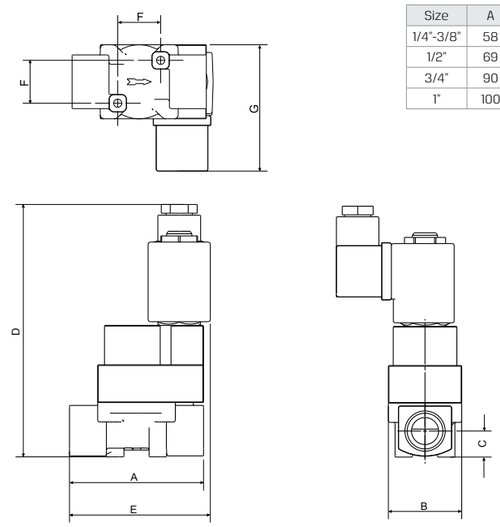
Size	Orifice (mm)	Pressure (bar)	Kv(l/min)
1/4"	8	1 to 30	12
3/8"	8		16
1/2"	12		35
3/4"	20		130
1"	25		200

Voltage & Power Consumption

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

Dimensions



Size	A	B	C	D	E	F	G
1/4"-3/8"	58	32	10.5	118	91.5	22	58.9
1/2"	69	38	13	130	102.5	22	64.9
3/4"	90	55	17	140	-	-	73.1
1"	100	65	21	151	-	-	78.1

How to Order

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

GEM-HP	-	BODY		PORT		FUNCTION		SEALS		-	VOLTAGE		POWER		CONNECTOR	
		Brass	2	1/4" BSP	20	2W NC	1	Polyurethane	P		W/out coil	0	No coil	0	without	0
		Stainless Steel	3	1/4" NPT	21	2W NO	2	FKM (1)	V		6	1	AC8W 50Hz	1	with	1
				3/8" BSP	30			EPDM (1)	E		12	2	AC8W 60Hz	2	with LED	2
				3/8" NPT	31			PTFE	T		24	3	DC10W	3	with bi- color LED	3
				1/2" BSP	40						48	4			flying leads coil	4
				1/2" NPT	41						110	5			with 1/2" Hub	5
				3/4" BSP	50						120	6			surge protec-tion with LED	6
				3/4" NPT	51						220	7A			connector with moulded cable	7
				1" BSP	60						230	7			other	9
				1" NPT	61						240	8				
											Latch/ other (2)	9				

Example : GEM-HP-2201P-321

GEM-SOL high pressure pilot operated, brass, 1/4"BSP,
2W NC, polyurethane seals, 24V AC 8W 60Hz with connector.

GEM-HP	-	2	20	1	P	-	3	2	1

(1) The orifice seal is PTFE
(2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.

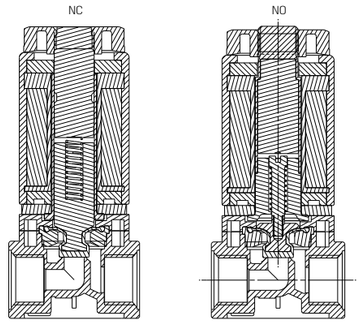
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Isolated

G80-CS | Chem-Sol 1/8" 2 Way NC, NO

2W NC | Pressure



Technical Data

Function	2 Way NC, NO
Ports size	1/8" BSP & NPT
Orifice size	4 mm
Pressure range	-1 to 1 bar Note : for other pressures, please contact our technical sales department
Kv (l/min)	4 l/min
Temperature range	**Fluid :** 5ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Main Valve:** PVC **Solenoid Operator:** Stainless Steel AISI 300 & 400 series, Brass **Seals:** FKM, EPDM
Typical applications	• Chemical process • Water treatment • Analysis device etc
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard protection class	IP65 with plug attached

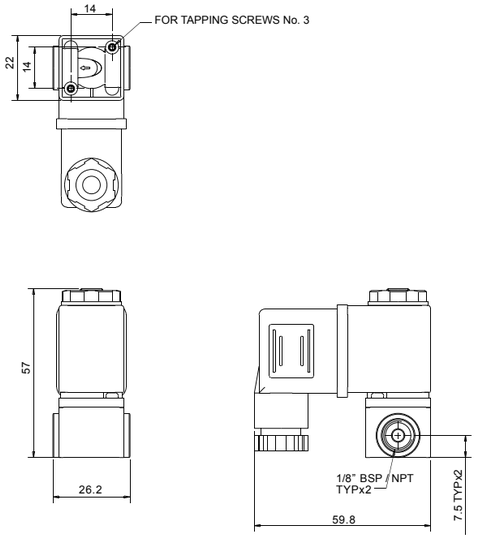
Voltage & Power Consumption

	AC (W)				DC (W)	
	50 Hz		60 Hz			
V	7.5	4	6	3	6.5	3
6					•	•
12	•	•	•	•	•	•
24	•	•	•	•	• (1)	•
110	•	•	•	•		
230	•	•	•	•		

• Available options

Isolated | G80 | Chem-Sol 1/8" 2 Way NC, NO

Dimensions



How to Order

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

G80-CS	-	BODY	PORT	FUNCTION	PRESSURE	SEALS	-	VOLTAGE	POWER	CONNECTOR
		Plastic 4	1/8" BSP 10	2W NC 1	Vacuum 1	FKM V		W/out coil 0	No coil 0	without 0
			1/8" NPT 11	2W NO 2	Pressure 2	EPDM E		6 1	AC7.5W 50Hz 1	with 1
								12 2	AC6W 60Hz 2	with bi-color LED 2
								24 3	DC6.5W (1) 3	surge protection with LED 3
								110 5	AC4W 50Hz 4	flying leads coil 4
								230 7	AC3W 60Hz 5	other 9
								other 9	DC3W 7	

Example : G80-CS-41012V-321
G80 Chem-Sol, PVC body, 1/8"BSP, 2W NC, pressure,
FKM, 24V AC 6W 60Hz with connector.

G80-CS	-	4	10	1	2	V	-	3	2	1

(1) 24VDC is 6Watt, 12VDC is 6.5Watt

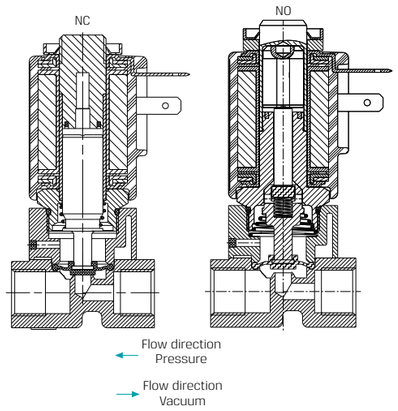
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Isolated

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

2WNC | Vacuum



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	**Fluid :** 5º to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Manual override:** NC : Plastic NO : Manual override is not available **Main Valve:** Reinforced PPA **Seals:** FKM, EPDM, Silicone
Applications	• Chemical process • Water treatment • Analysis device etc
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)**

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 (1)
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

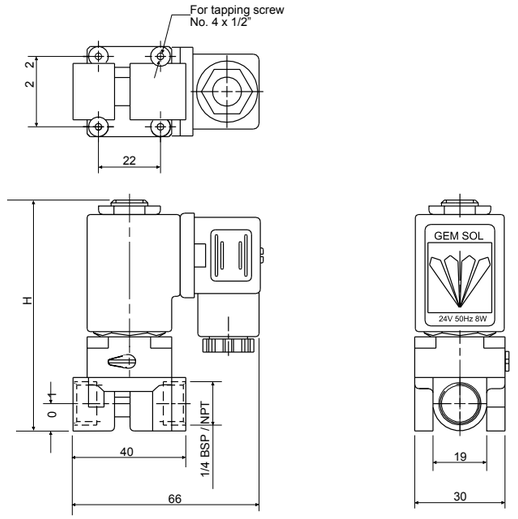
* ADC valves are only suitable for use with AC8W or DC10W coils.

Voltage & Power Consumption NC & NO valves

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

Dimensions



Notes

Type	Valve Description	H
NC	GEM-C-12 □1...	81
NO	GEM-C-12 □2...	84.5

How to Order

GEM-C	-	BODY		PORT		FUNCTION		PRESSURE		SEALS		MANUAL OVERRIDE (1)	-	VOLTAGE		POWER		CONNECTOR	
		Plastic	1	1/4" BSP	20	2W NC	1	Vacuum	1	FKM	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 (2)	9				

Example : GEM-C-12012V1-321

GEM-SOL Chem-Sol, PPA, 1/4"BSP, 2W NC, Pressure, FKM, 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.

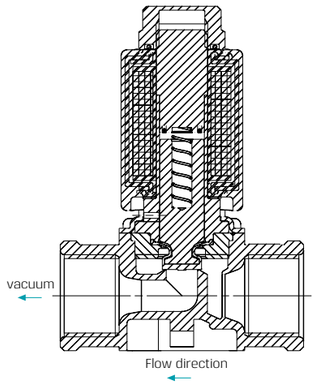
SOLENOID VALVES | Special Purpose

Isolated

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

1/2" | Vacuum

with Manual Override



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	**Fluid :** 5ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Manual override:** Plastic * Available for vacuum application only **Main Valve:** PVC **Seals:** FKM, EPDM
Applications	• Chemical process • Water treatment • Analysis device etc
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are from -5% to ±10% of nominal
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

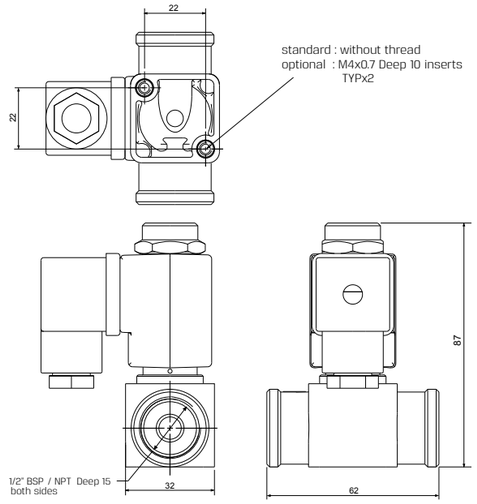
Voltage & Power Consumption

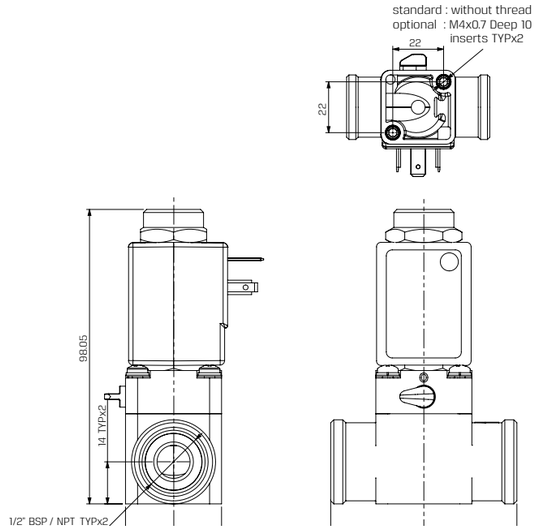
	AC (W)						DC (W)		
	50 Hz			60 Hz					
V	8	5.5	2.5	8	5.5	2.5	10	5.5	3.5
6							• •		
12	• •			• •			• •		
24	• •	•		• •	•		• •		
48	• •			• •			• •		
110	• •			• •	•		• •		
120	• •			• •					
220	• •	•		• •	•		• •		
230	• •	•		• •	• •				
240	• •			• •			• •		

• Available options :
• Vacuum
• Pressure

Isolated | GEM-SOL | Chem-Sol 1/2" 2 Way NC

Dimensions





With Manual Override

How to Order

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

GEM-C	-	PORT		FUNCTION		PRESSURE		SEALS		MANUAL OVERRIDE		-	VOLTAGE		POWER		CONNECTOR	
		1/2" BSP	40	2W NC	1	Vacuum	1	FKM	V	None	Null		W/out coil	0	No coil	0	without	0
		1/2" NPT	41			Pressure	2	EPDM	E	Plastic [1]	1		6	1	AC8W 50Hz	1	with	1
													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			surge protection with LED	6
													220	7A			connector with moulded cable	7
													230	7			other	9
													240	8				
													Latch/ other [2]	9				

Example : GEM-C-4011V1-321
GEM-SOL Chem-Sol, 1/2"BSP, 2W NC for vacuum, FKM, plastic manual override, 24V AC 8W 60Hz with connector.

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

(1) Available for Vacuum application only
(2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table

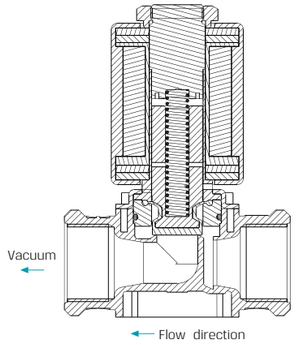
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Isolated

GEM-C | Chem-Sol 3/4" 2 Way NC

3/4" | Vacuum



Technical Data

Function	2 Way NC
Ports size	3/4" BSP & NPT
Orifice size	14mm
Pressure range	See table
Kv (l/min)	40 l/min
Temperature range	**Fluid :** 5ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Main Valve:** PVC **Seals:** FKM, EPDM
Applications	• Chemical process • Water treatment • Analysis device etc
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are from -5% to ±10% of nominal • AC - inrush 65VA at 50 Hz holding 32VA (18W) at 50 Hz • DC - 38W
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
AC / DC	0 to 3 bar	Min dp 1 bar

* Coil : Suitable for all available wattage, see How to Order table

Vacuum (bar) table NC

Coil *	Flow direction not restricted	Flow direction restricted
AC / DC	-1 to 0.5 bar	-1 to 0.5 bar

* Coil : Suitable for all available wattage, see How to Order table

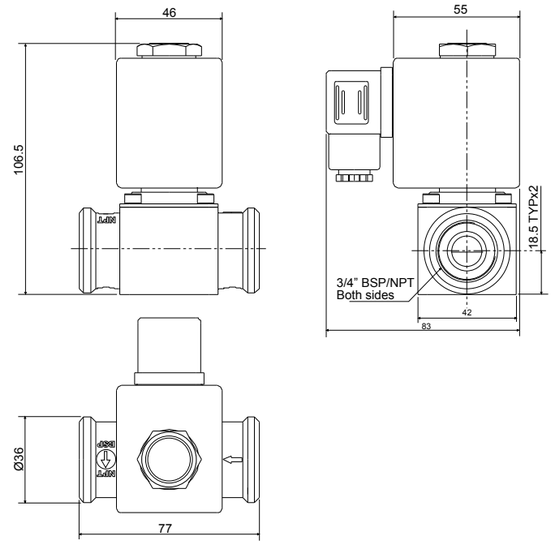
Voltage & Power Consumption

	AC (W)			DC (W)
	50 Hz		60 Hz	
V	38	18	38	38
12				•
24	•	•		•
110		•		
120			•	•
230	•			•

• Available options

Isolated | GEM-SOL | Chem-Sol 3/4" 2 Way NC

Dimensions



How to Order

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

GEM-C	-	PORT		FUNCTION		PRESSURE		SEALS		-	VOLTAGE		POWER		CONNECTOR	
		3/4" BSP	50	2W NC	1	Vacuum	1	FKM	V		W/out coil	0	No coil	0	without	0
		3/4" NPT	51			Pressure	2	EPDM	E		12	2	AC38W 50Hz	E	with	1
											24	3	AC38W 60Hz	F	with LED	2
											110	5	AC18W 50Hz	G	with bi- color LED	3
											120	6	DC38W	J	with 1/2" Hub	5
											230	7			surge protection with LED	6
											Latch/ other (1)	9			connector with moulded cable	7
															other	9

Example : GEM-C-5011V-3G1

GEM-SOL Chem-Sol, 3/4"BSP, 2W NC for vacuum, FKM, 24V AC 18W 50Hz with connector.

GEM-C	-	50	1	1	V	-	3	G	1

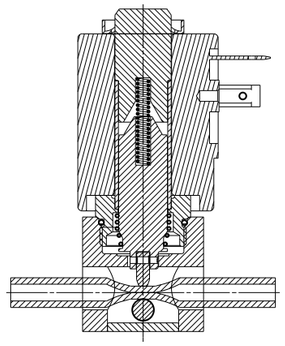
(1) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.

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

SOLENOID VALVES | Special Purpose

Pinch Valves

GEM-P | Pinch valve 2 Way NC



Technical Data

Function	2 Way NC
Tubes	Silicone tubes : 6x4mm, 8x5mm, 9.5x6.5mm
Pressure range	0-1 bar
Temperature range	**Fluid :** -10°C to 80°C (no freezing) **Ambient :** -10°C to 50°C
Materials	**Valve:** Aluminium **Solenoid Operator:** Stainless Steel AISI 300 & 400 series
Materials in contact with media	None *** fluid flows through silicone tube**
Applications	Where corrosive or contaminated fluid must be controlled, such as in : • Laboratories • Industrial and irrigation control • Analysis devices
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal • DC10W • DC 14W - max 70% duty cycle • Ton = 7 [min] max
Standard protection class	IP65 with connector *** Option : IP68 (please refer to GEM-BP Coil)**

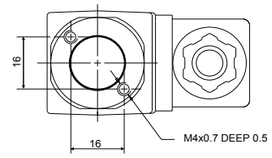
• For AC, use rectifier connector.

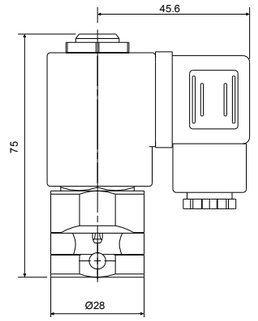
Voltage & Power Consumption

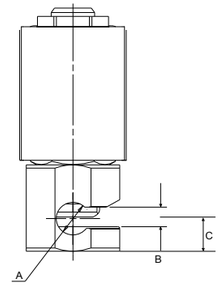
	DC (W)			
V	14	10	5.5	3.5
6		•		
12		•		
24	•	•		
48		•		
110		•		
120				
220		•		
230				
240		•		

• Available options

Dimensions







	A	B	C
GEM - P - 1□	6.5	5	10
GEM - P - 2...3□	9.5	6.5	10

How to Order

GEM-P	-	TUBE		FUNCTION		-	VOLTAGE		POWER (2)		CONNECTOR	
		Ø 6x4	1	2W NC	1		6	1	DC 10W	3	without	0
		Ø 8x5	2				12	2	DC 14W	8	with	1
		Ø 9.5x6.5	3				24	3			with LED	2
							48	3			with bi- color LED	3
							110	5			flying leads coil	4
							220	7A			with 1/2" Hub	5
							240	8			surge protection with LED	6
							Latch/ other (1)	9			connector with moulded cable	7
											other	9

Example : GEM-P-11-331
GEM-SOL pinch valve for Ø6x4 silicone tube,
2W NC 24V DC 10W with connector

GEM-P	-	1	1	-	3	3	1

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

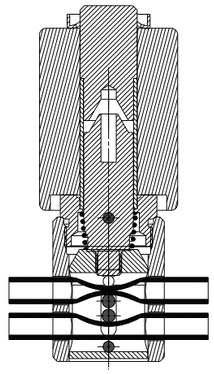
GEM - P - 1□	10W
GEM - P - 2...3□	14W

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

SOLENOID VALVES | Special Purpose

Pinch Valves

GEM-P | Pinch valve 3 Way



Technical Data

Function	3 Way
Tubes	Silicone tubes : 6x4mm
Pressure range	0-1 bar
Temperature range	**Fluid :** -10°C to 80°C (no freezing) **Ambient :** -10°C to 50°C
Materials	**Valve:** Aluminium **Solenoid Operator:** Stainless Steel AISI 300 & 400 series
Materials in contact with media	None * fluid flows through silicone tube
Applications	Where corrosive or contaminated fluid must be controlled, such as in : • Laboratories • Industrial and irrigation control • Analysis devices
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal • DC 14W - max 70% duty cycle • Ton = 7 [min] max
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP Coil)

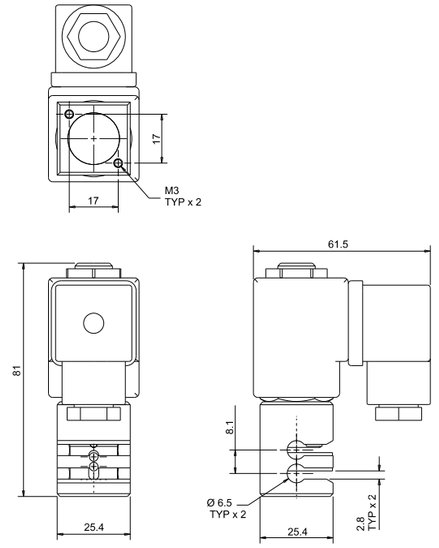
• For AC, use rectifier connector.

Voltage & Power Consumption

	DC (W)			
V	14	10	5.5	3.5
6				
12				
24	•			
48				
110				
120				
220				
230				
240				

• Available options

Dimensions



How to Order

GEM-P	-	TUBE		FUNCTION		-	VOLTAGE		POWER		CONNECTOR	
		Ø 6x4	1	3W	3		24	3	DC 14W	8	without	0
											with	1
											with LED	2
											with bi- color LED	3
											flying leads coil	4
											with 1/2" Hub	5
											surge protec-tion with LED	6
											connector with moulded cable	7
											other	9

Example : GEM-P-13-381
GEM-SOL pinch valve for Ø6x4 silicone tube, 3W, 24V DC 14W with connector

GEM-P	-	1	3	-	3	8	1

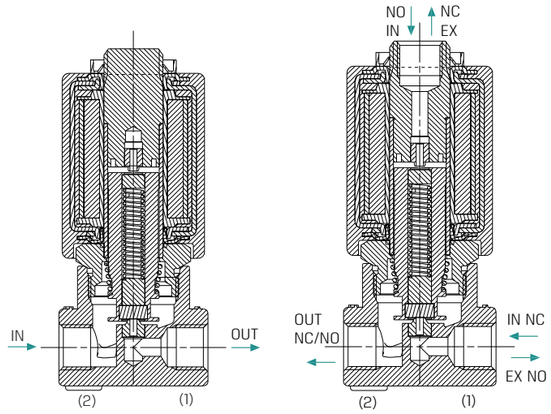
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Latch

GEM-A3P | Latch 3 positioning manual override
2 Way, 3 Way NC, NO

Brass | 1/8"



Technical Data

Function	2 Way, 3 Way NC, NO
Ports size	1/8" and 1/4" BSP & NPT
Orifice size	See table
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	**Manual override:** Plastic **Main Valve:** Brass **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Seals:** NBR, FKM, EPDM, FFKM or PTFE
Media	Air, water, oil
Coil type	Latch
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP Coil)

Max. Pressure (bar) 2W NC table

Orifice (mm)	0.8	1.2	1.6	2.0	2.4	3.0	4.0
Pressure (bar)	16	16	16	16	16	16	8
Flow factor Kv(l/min)	0.5	1.1	1.7	2.5	3.5	4.5	5

Max. Pressure (bar) 2W NO table

Orifice (mm)	0.8	1.2	1.6	2.0	2.4	3.0
Pressure (bar)	16	16	16	16	15	10
Flow factor Kv(l/min)	0.5	1.1	1.7	2.5	3.5	4.5

Max. Pressure (bar) 3W NC table

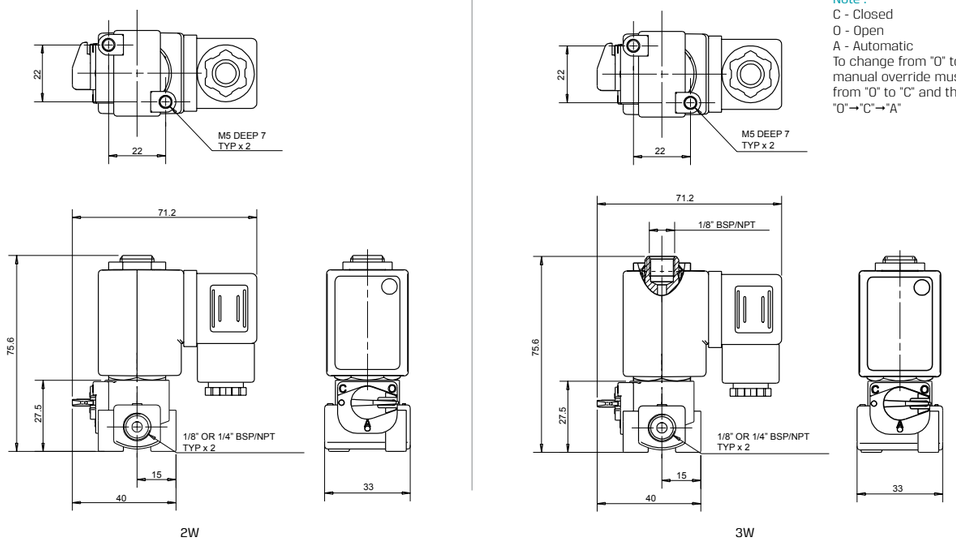
Orifice (mm)	0.8	1.2	1.6	2.0	2.4	3.0
Pressure (bar)	16	16	16	14	9	5
Flow factor Kv(l/min)	0.5	1.1	1.7	2.5	3.5	4.5

Max. Pressure (bar) 3W NO table

Orifice (mm)	0.8	1.2	1.6	2.0	2.4	3.0
Pressure (bar)	16	16	16	12	10	7
Flow factor Kv(l/min)	0.5	1.1	1.7	2.5	3.5	4.5

Latch | GEM-SOL | 3 positioning manual override 2, 3 Way NC, NO

Dimensions



Note :
C - Closed
O - Open
A - Automatic
To change from "O" to "A", the manual override must be turned from "O" to "C" and then to "A" :
"O"→"C"→"A"

How to Order

GEM-A3P	-	BODY		PORT		FUNCTION		ORIFICE		SEALS		-	LATCH TYPE (1)		CONNECTOR	
		Brass	2	1/8" BSP	10	2W NC	1	0.8	1	NBR	N		2Ω	LDO	without	0
				1/8" NPT	11	2W NO	2	1.2	2	FKM	V		5Ω	IL	with	1
				1/4" BSP	20	3W NC	3	1.6	3	EPDM	E		13Ω	EL	flying leads coil	4
				1/4" NPT	21	3W NO	4	2.0	4	FFKM	K		20Ω	OL	with 1/2" Hub	5
								2.4	5	PTFE	T		53Ω	DL	connector with moulded cable	7
								3.0	6						other	9
								4.0	7							

Example : GEM-A3P-21015N-LDO1
GEM-SOL latch 3 positioning manual override, brass, 1/8"BSP, 2W NC, 2.4 orifice, NBR, 2Ω latch with connector.

GEM-A3P	-	2	10	1	5	N	-	LDO	1

(1) Choose latch type according to which latch system you have.

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

SOLENOID VALVES | Special Purpose

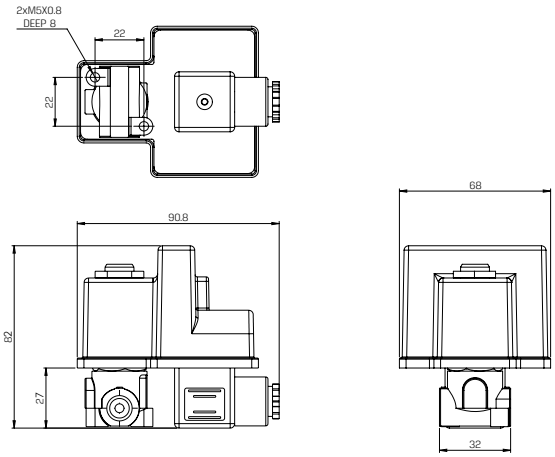
Long Distance | GEM-SOL

LDOS | Long distance operating solenoid

LDOS unit

Assembled with GEM-S solenoid

Assembled with GEM-A solenoid



A small section conductor can be used at a distance of up to 5 kms.

Technical Data

Current	**24V AC** : Inrush 210mA | Holding 18mA **12V DC** : Inrush 120mA | Holding 5mA
Pressure range	See table
Delay time	See table
Connection	DIN 43650 Connecting box
Ambient temp	-10°C to 70°C
Operation	Only with a Baccara valve
Applications	• Cost saving wiring for remote solenoid operation • Power saving and heat prevention on continuous energized solenoid
Voltage	• Voltage and power consumption - see table • +10% -10% of nominal
Standard protection class	IP65 with connector

* For recommended wire parameters, please refer to Long distance operators charts

Pressure (bar) table

Function	Orifice (mm)	Pressure
3W NC	1.6	16
	2.0	10
	2.4	8
3W NO	1.6	16
	2.0	12
	2.4	8

Delay time (sec) at a nominal voltage	Distance (Km)	Conduit Section (mm)
4-5	2.4	0.5
	4.8	1.0
	7.5	1.5

How to Order

LDOS	-	VOLTAGE	-	Please refer to the "How to Order" definitions of the assembled GEM-SOL valve

24V AC	1
12V DC	2

Voltage & Power Consumption

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

• Available options

Example : LDOS-1-GEM-A-21035N0

LDOS 24V AC is attached to a GEM-SOL latch coil, direct operated, brass, 1/8"BSP, 3W NC, 2.4 orifice, NBR, no manual override.

LDOS	-	1	-	GEM-A	-	2	10	3	5	N	0

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

SOLENOID VALVES | Special Purpose

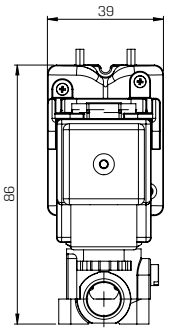
Long Distance | GEM-SOL

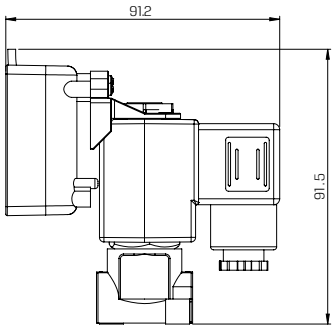
GEM-LDO | Long distance operator 2 Way, 3 Way NC, NO

LDO unit

Assembled with GEM-S solenoid

Assembled with GEM-A solenoid





A small section conductor can be used at a distance of up to 5 kms

Technical Data

Function	2 Way, 3 Way NC, NO
Current	Holding 4mA
Pressure range	Refer to working pressure definitions of the valve that the GEM-LDO is assembled on, with DC10W/AC8W
Power	• DC12V (0.05W) up to DC24V (0.1W) • 24V AC: 0.3W
Connection	Red/Black - power supply | Green/Black - coil Lead wire length - 28cm PVC coated AWG 18 UL 1007
Ambient temp	-10°C to 70°C
Operation	Only with GEM-BL-LDO coil and Baccara valve
Applications	• Cost saving wiring for remote solenoid operation • Power saving and heat prevention on continuous energized solenoid
Voltage	Voltage and power consumption - see table
Standard protection class	IP67 (LDO only)

* For recommended wire parameters, please refer to Long distance operators charts

Voltage	Distance (km)	Conduit section (mm²)	Delay Time (sec)	
			On	Off
12/24	0		3	1
12	5	0.5	12	1
24	5	0.5	8	1

* Max conduit resistance 390Ω at nominal voltage

Voltage & Power Consumption

	AC (W)		DC(W)	
	50 Hz	60 Hz		
V	0.3	0.3	0.05	0.1
12			•	
24	•	•		•

• Available options

How to Order

GEM-LDO	-	VOLTAGE	-	Please refer to the "How to Order" definitions of the assembled GEM-SOL valve.

24 VAC & 12-24 VDC	9

Example : GEM-LDO-9-GEM-A-21035N0

GEM-LDO is attached to a GEM-SOL latch coil, direct operated, brass 1/8"BSP, 3W NC, 2.4 orifice, NBR, no manual override.

GEM-LDO	-	9	-	GEM-A	-	2	10	3	5	N	0

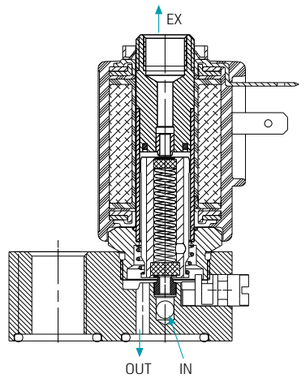
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Sub-base

GEM-N | NAMUR 3 Way NC

Aluminium |
plastic manual override



Technical Data

Function	3 Way NC
Orifice size	See table
Pressure range	See table • Higher pressures are available
Kv (l/min)	See table
Temperature range	**Fluid :** -10ºC to 80ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Manual override:** Plastic, Brass **Main Valve:** Aluminium **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Seals:** NBR, FKM
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)**

Max. Pressure (bar) 2W NC table

Coil Current/Power	Orifice (mm)	
	1.6	2.4
ADC *	15	8
AC8W, DC10W	17	10
AC5.5W	15	8
AC2.5W, DC5.5W,3.5W	10	5
Flow factor Kv(l/min)	1.7	3.5

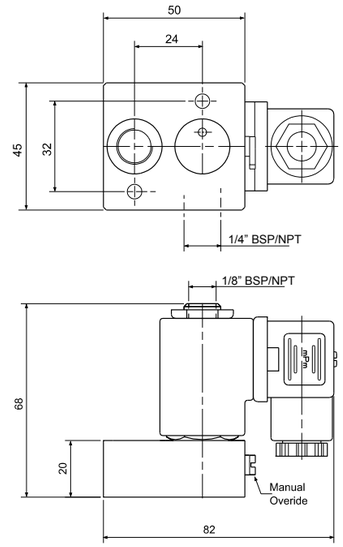
* ADC valves are only suitable for use with AC8W or DC10W coils.

Voltage & Power Consumption

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

Dimensions



How to Order

GEM-N	-	BODY		FUNCTION		ORIFICE		SEALS		MANUAL OVERRIDE		-	VOLTAGE		POWER		CONNECTOR	
		Aluminium	5	3W NC	3	1.6	3	NBR	N	None	0		W/out coil	0	No coil	0	without	0
						2.4	5	FKM	V	Plastic	1		6	1	AC8W 50Hz	1	with	1
										Slot	2		12	2	AC8W 60Hz	2	with LED	2
										Knob	3		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	AC2.5W 50/60Hz	6	surge protection with LED	6
													220	7A	DC5.5W	7	connector with moulded cable	7
													230	7	DC3.5W	8	other	9
													240	8				
													Latch/ other (1)	9				

Example : GEM-N-535N1-311
GEM-SOL direct operated NAMUR, aluminium, 3W NC,
2.4 orifice, NBR, plastic manual override, 24V AC 8W 50Hz with connector.

GEM-N	-	5	3	5	N	1	-	3	1	1

(1) 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.

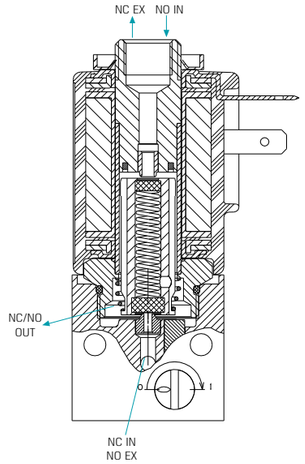
SOLENOID VALVES | Special Purpose

Sub-base

* Available on selected models only

GEM-H | Type HF (CNOMO) 3 Way NC, NO

Mazak |
90º turn brass manual override



Technical Data

Function	3 Way NC, NO
Ports size	Ø 2.7mm holes
Orifice size	See table
Pressure range	See table • Higher pressures are available
Kv (l/min)	See table
Temperature range	**Fluid :** -10ºC to 80ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Manual override:** Brass **Main Valve:** Mazak **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Seals:** NBR, FKM, EPDM
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. Please contact our technical sales department for details.
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP Coil)

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
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	1.4	2.2	3.0	3.5

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

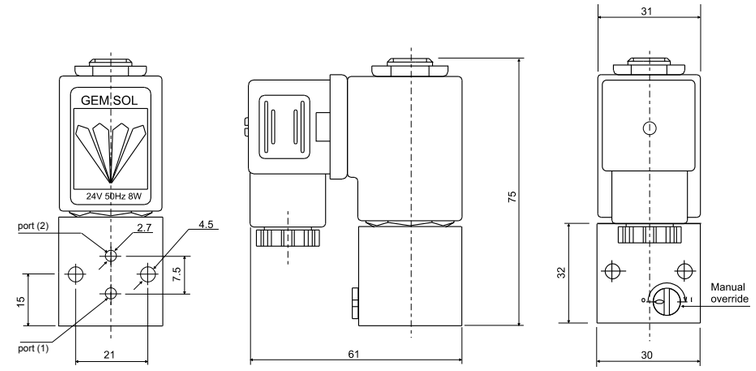
Voltage & Power Consumption: NC & NO valves

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

Sub-base | GEM-SOL | Type HF (CNOMO) 3 Way NC, NO

Dimensions



How to Order

GEM-H	-	BODY		FUNCTION		ORIFICE		SEALS		MANUAL OVERRIDE		-	VOLTAGE		POWER		CONNECTOR	
		Mazak	1	3W NC	3	0.8	1	NBR	N	None	0		W/out coil	0	No coil	0	without	0
				3W NO	4	1.2	2	FKM	V	90ºturn	1		6	1	AC8W 50Hz	1	with	1
						1.6	3	EPDM	E	Push-in	2		12	2	AC8W 60Hz	2	with LED	2
						2.0	4						24	3	DC10W	3	with bi- color LED	3
						2.4	5						48	4	AC5.5W 50Hz	4	flying leads coil	4
						3.0	6						110	5	AC5.5W 60Hz	5	with 1/2" Hub	5
													120	6	AC2.5W 50/60Hz	6	surge protec-tion with LED	6
													220	7A	DC5.5W	7	connector with moulded cable	7
													230	7	DC3.5W	8	other	9
													240	8				
													Latch/ other (1)	9				

Example : GEM-H-135N1-311
GEM-SOL direct operated HF, Mazak, 3W NC, 2.4 orifice, NBR, 90º turn manual override, 24V AC8W 50Hz with connector.

GEM-H	-	1	3	5	N	1	-	3	1	1

(1) 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.

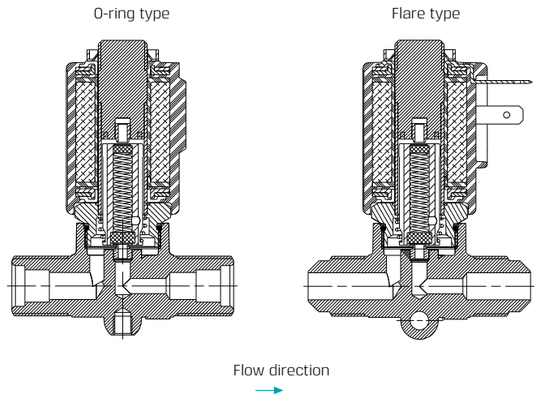
SOLENOID VALVES | Special Purpose

Refrigeration

GEM-R | For air conditioning systems 2 Way NC

1/2" NF Flare

5/8" NF O-ring



Technical Data

Function	2 Way NC
Orifice size	See table
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 **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Seals:** NBR for R-134a Neoprene for R12 & R22
Media	Refrigeration fluids
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)

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

Max. Pressure (bar) 2W NC table

Coil Current/Power	Orifice(mm)
	2.4
AC8W, DC10W	30
Flow factor Kv(l/min)	3.5

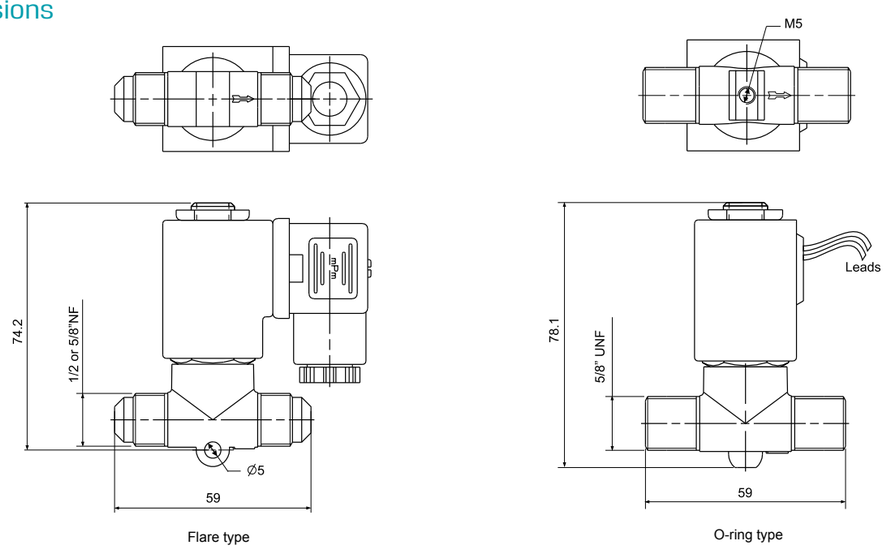
Voltage & Power Consumption

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

Refrigeration | GEM-SOL | For air conditioning systems 2 Way NC

Dimensions



How to Order

GEM-R	-	BODY		PORT		FUNCTION		ORIFICE		SEALS		-	VOLTAGE		POWER		CONNECTOR	
		Brass	2	1/2" NF Flare	1	2W NC	1	2.4	5	NBR	N		W/out coil	0	No coil	0	without	0
				5/8" NF Flare	2					Neoprene	C		6	1	AC8W 50Hz	1	with	1
				5/8" NF O-ring	4								12	2	AC8W 60Hz	2	with LED	2
													24	3	DC10W	3	with bi- color LED	3
													48	4			flying leads coil	4
													110	5			with 1/2" Hub	5
													120	6			surge protection with LED	6
													220	7A			connector with moulded cable	7
													230	7			other	9
													240	8				
													Latch/ other (1)	9				

Example : GEM-R-2415N-311
GEM-SOL direct operated, brass, 5/8" NF O-ring, 2W NC,
2.4 orifice, NBR, 24V AC 8W 50Hz with connector.

GEM-R	-	2	4	1	5	N	-	3	1	1

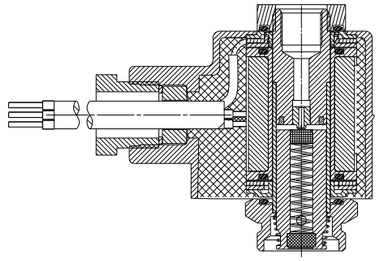
(1) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.
* Note: When ordering without coil, please define what current and pressure rating is needed (DC, AC or ADC), otherwise an ADC valve will be supplied.

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

SOLENOID VALVES | Special Purpose

IP68

GEM-BP | IP68 coil



Technical Data

Construction	Housing : encapsulated polyurethane
Coil winding insulation	H 180°C
Temperature range	**Ambient :** -5°C to 50°C (no icing)
Duty cycle	100% ED
Protection	IP68 infinite time immersion under water, up to 2m depth
Electrical connection	3x18 AWG (0.75mm²), hook up wire, 200cm *** other lengths are available**
Assembly	In any position
Coil fixing	One nut G1/4" hexagonal 19mm
Standard / Certification	European Standards IEC 60529 code IP68
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ±10% of nominal

• The coil should not be energized without being assembled on the operator

Power Consumption table (AC)

Type	Inrush	Holding
8W	26VA-13W	16VA-8W
5.5W	16VA-8W	12VA
2.5W	2.5W	2.5W

Power Consumption table (DC)

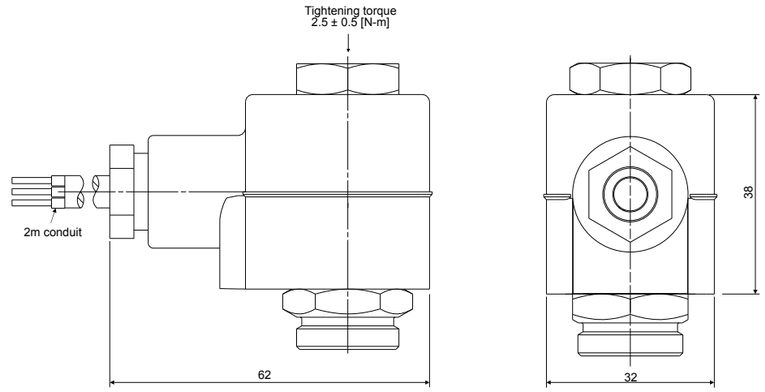
Type
10W
5.5W
3.5W

Voltage & Power Consumption

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

Dimensions



How to Order

GEM-BP	-	VOLTAGE		POWER	
		12	2	AC8W 50Hz	1
		24	3	AC8W 60Hz	2
				DC10W	3
				AC5.5W 50Hz	4
				AC5.5W 60Hz	5
				AC2.5W 50/60Hz	6
				DC5.5W	7
				DC3.5W	8

Example : GEM-BP-31

IP68 GEM-SOL coil 24V AC 8W 50Hz.

GEM-BP	-	3	1

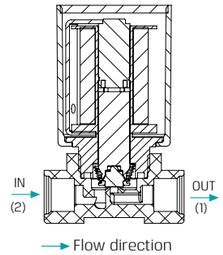
* To order coils manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Plastic

G75-A | 1/8" 2 Way NC

With flange |
plastic manual override



Technical Data

Function	2 Way NC
Ports size	1/8" BSP & NPT
Orifice size	See table
Pressure range	See table
Temperature range	**Fluid :** 5ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Manual override:** Reinforced Nylon **Main Valve:** Reinforced Nylon **Solenoid:** See solenoid specifications **Seals:** EPDM
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard protection class	IP66

• Available with brass adaptor upon request.

Max. Pressure (bar) table

Function	Orifice (mm)	AC	DC	DC Latch
2W NC	up to 2.0	12	12	12

Voltage & Power Consumption

	AC (W) 50 Hz	DC (W)
V	2	4.5
12	•	•
24	•	•
110	•	

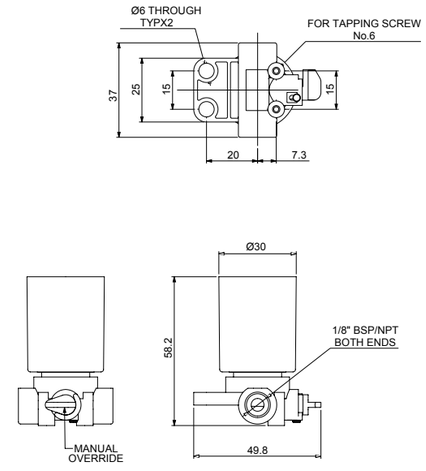
• Available options

Voltage & Current
AC & DC

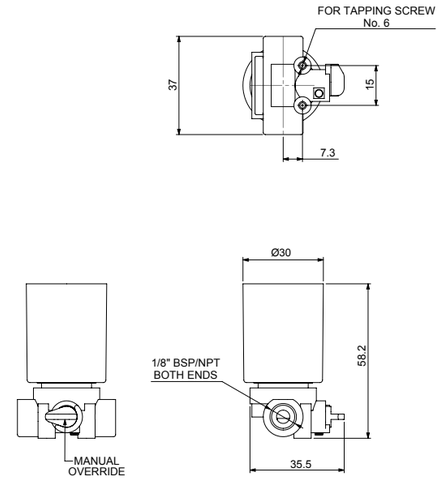
Solenoid	Voltage	Inrush [A]	Holding [A]
2W 50 Hz	V +10% n-20%	0.3	0.19
2W 60 Hz		0.2	0.14
3W 50/60 Hz *		0.125	0.125
DC		4.5W	

Plastic | G75 | 1/8" 2 Way NC

Dimensions



With Flange



Without Flange

How to Order

G75-A	-	TYPE (1)	PORT	FUNCTION	MANUAL (2) OVERRIDE	ORIFICE	-	VOLTAGE (4)	WIRES
		with flange 1	1/8" BSP 10	2W NC 1	None 0	1.0 1		24V AC 1	two Null
		without flange 2	1/8" NPT 11		Plastic 1	1.2 2		12V AC 3	three (3) a
						1.6 3		12V DC 4	
						2.0 4		24V DC 5	
								23Ω 6	
								110V AC 7	
								4Ω B	
								9Ω C	
								12Ω D	

Latch coil resistance vs Input voltage
Recommendations chart

Resistance [Ω]	Input voltage range [V]
4	6 - 9
9	12 - 14
12	14 - 16
23	18 - 21

Example : G75-A-110102-1
G75 with flange, 1/8" BSP, 2W NC, no manual override,
1.2 orifice, 24V AC coil, two wires.

G75-A	-	1	10	1	0	2	-	1

(1) These valves are also available in Brass
(2) For Latch valves : manual override is optional
(3) For Latch only
(4) For Latch : Refer to Latch coil resistance vs Input voltage | Recommendations chart

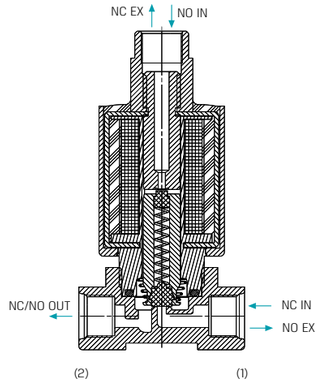
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Plastic

G75-A | 1/8" 3 Way NC, NO

With flange |
plastic manual override



Technical Data

Function	3 Way NC, NO
Ports size	1/8" BSP & NPT
Orifice size	See table
Pressure range	See table
Temperature range	**Fluid :** 5ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Manual override:** Reinforced Nylon **Main Valve:** Reinforced Nylon **Solenoid:** See solenoid specifications **Seals:** EPDM
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard protection class	IP66

• Available with brass adaptor upon request.

Max. Pressure (bar) table

Function	Orifice (mm)	AC	DC	DC Latch
3W NC	1	16	12	16
	1.2	11	9	11
	1.6	6	5	6
3W NO	1.0	16	16	16
	1.2	12	12	12
	1.6	10	10	10

Voltage & Power Consumption

	AC (W) 50 Hz	DC (W)
V	2	4.5
12	•	•
24	•	•

• Available options

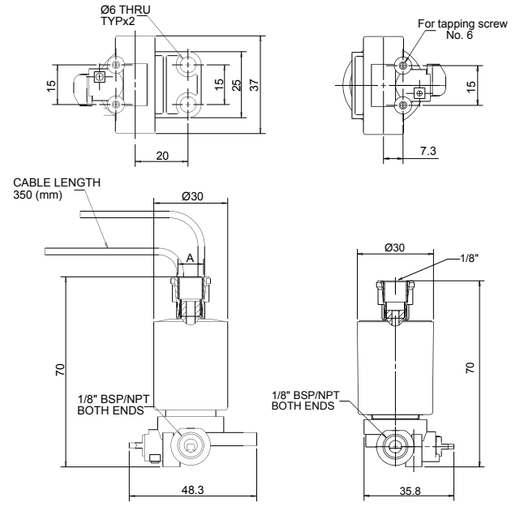
Voltage & Current
AC & DC

Solenoid	Voltage	Inrush [A]	Holding [A]
2W 50 Hz	V +10% n-20%	0.3	0.19
2W 60 Hz		0.2	0.14
3W 50/60 Hz *		0.125	0.125
DC		4.5W	

* Except 24V AC without Diode

Plastic | G75 | 1/8" 3 Way NC, NO

Dimensions



How to Order

G75-A	-	TYPE (1)	PORT	FUNCTION	MANUAL (3) OVERRIDE	ORIFICE	-	VOLTAGE (6)	WIRES
		with flange 1	1/8" BSP 10	3W NC 3	None 0	1.0 1		24V AC 1	two Null
		without flange 2	1/8" NPT 11	3W NO 4	Plastic 1	1.2 2		24V AC w/out Diode (5) 1R	three (4) a
						1.6 3		12V AC 3	
						2.0 (2) 4		12V DC 4	
								24V DC 5	
								23Ω 6	
								4Ω B	
								9Ω C	
								12Ω D	

Latch coil resistance vs Input voltage
Recommendations chart

Resistance [Ω]	Input voltage range [V]
4	6 - 9
9	12 - 14
12	14 - 16
23	18 - 21

Example : G75-A-110302-1
G75 with flange, 1/8" BSP, 3W NC, no manual override,
1.2 orifice, 24V AC coil, two wires.

G75-A	-	1	10	3	0	2	-	1

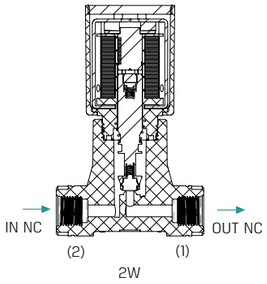
(1) These valves are also available in Brass
(2) For 2mm orifice : top orifice is 1.6mm
(3) For Latch valves : manual override is optional only in 2W valves
(4) For Latch only
(5) 3W NO 1.6 mm : Max pressure is 8 bars
(6) For Latch : Refer to Latch coil resistance vs Input voltage | Recommendations chart

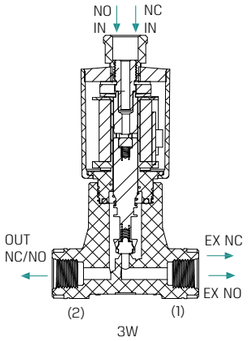
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Plastic

G75-A3P | 1/8" Latch 2 Way, 3 Way NC, NO





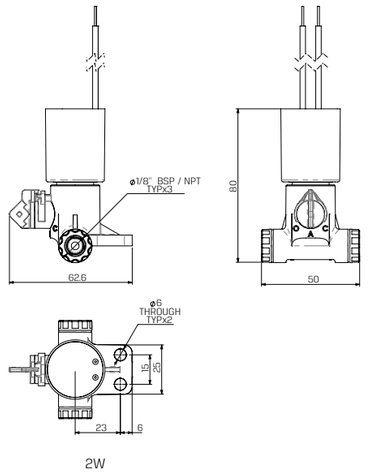
Technical Data

Function	2 Way NC, 3 Way NC, NO
Ports size	1/8" BSP & NPT
Orifice size	2.6 mm
Pressure range	**NC** 2 Way : 10 bar **NC** 3 Way : 8 bar **NO** 3 Way : 10 bar
Temperature range	**Fluid :** 5ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Manual override:** Plastic **Main Valve:** UV Stabilized - Reinforced Nylon 6 30% GF **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Seals:** NBR
Mounting	2 x Ø6 mm holes
Manual override	3 positions (Open/Auto/Close)
Media	Air, water
Coil voltage	Latch
Switching time	40-60 msec
Electric connection	22AWG cable
Standard protection class	IP66

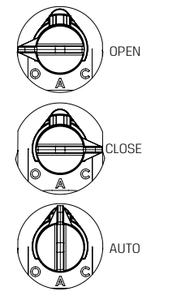
* Can **only** be operated with supplied coil

Plastic | G75 | 1/8" Latch 2 Way, 3Way NC, NO

Dimensions



Manual Override Operation



To manually open the valve :
turn selector switch to OPEN

NO : To change from OPEN to AUTO:
turn the selector switch to AUTO

NC : To change from OPEN to AUTO:
turn the selector switch to CLOSE,
and then to AUTO

How to Order

G75-A3P	-	TYPE		PORT		FUNCTION (1)		ORIFICE	-	LATCH TYPE (2)		WIRES	
		with flange	1	1/8" BSP	10	2W NC	1	2.6	5a	1Ω	PA	two	Null
				1/8" NPT	11	3W NC	3			4Ω	PB	three	a
						3W NO	4			9Ω	PC		

Latch coil resistance vs Input voltage
Recommendations chart

Resistance [Ω]	Input voltage range [V]
1	8 - 12
4	12 - 18
9	16 - 24

Example : G75-A3P-11015a-PA

G75-A3P, with flange, 1/8"BSP, 2W NC, 2.6 orifice, 1Ω latch with two wires

G75-A3P	-	1	10	1	5a	-	PA

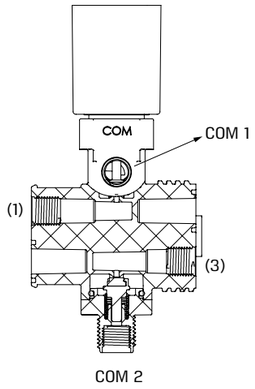
(1) To order NC configuration, please consult with our technical sales department
(2) Refer to Latch coil resistance vs Input voltage | Recommendations chart

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

SOLENOID VALVES | Special Purpose

Plastic

G75-VSA | Stand-alone solenoid 3 Way NC, NO



Technical Data

Function	3 Way NC, NO
Ports size	1/8" BSPT & NPT
Orifice size	1.8 mm
Pressure range	0 to 8 bar
Switching time	30-50 ms
Temperature range	**Fluid :** 0ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Manual override:** Plastic (Reinforced Nylon) **Main Valve:** Plastic (Reinforced Nylon & POM) **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Seals:** EPDM
Mounting	Lock nut on the bottom COM port
Manual override	**Latch** : 3 position latch : Auto, Close, Open **AC** : 2 position : Auto, Open
Media	Air, water
Coil voltage	Latch, AC (according to table)
Standard protection class	IP66

* Can **only** be operated with supplied coil

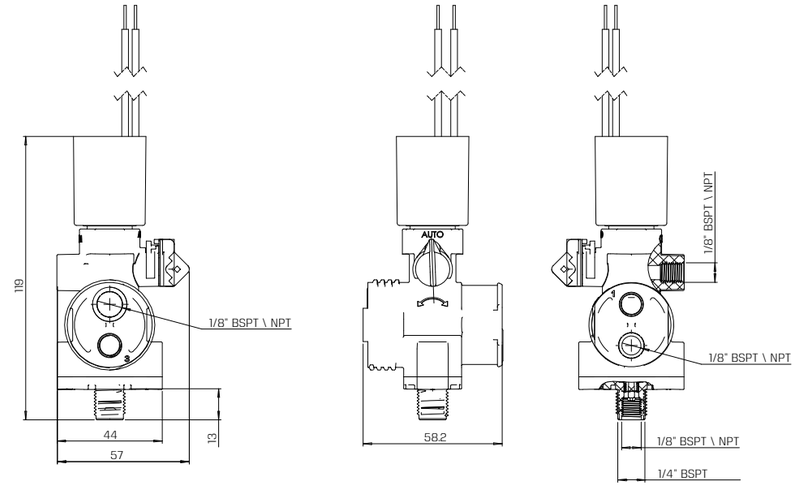
PORT	NO	NC
1	Exhaust	Pressure
3	Pressure	Exhaust
COM	Out	Out

Voltage & Current
AC & DC

Coil	Inrush [A]	Holding [A]
24VAC-50 Hz	0.33	0.21

Plastic | G75 | Stand-alone solenoid 3 Way NC, NO

Dimensions



How to Order

G75-VSA	-	BODY	PORT	FUNCTION	MANUAL OVERRIDE	ORIFICE	SEALS	-	TYPE	OUTLET (3)	WIRES
		Plastic 4	1/8" BSPT 10	3W NC 3	Plastic 1	1.8 3a	EPDM E		24VAC-50Hz (1) S1	COM 1 1	two Null
			1/8" NPT 11	3W NO 4					4Ω (2) SB	COM 2 2	three (4) a
									9Ω (2) SC		
									12Ω (2) SD		
									23Ω (2) S6		

Latch coil resistance vs Input voltage
Recommendations chart

Resistance [Ω]	Input voltage range [V]
4	6 - 9
9	12 - 14
12	14 - 16
23	18 - 21

Example : G75-VSA-410313aE-SB1

G75-A stand-alone solenoid, plastic, 1/8" BSPT, 3W NC, plastic manual override, 1.8 orifice, EPDM seals, 4Ω latch, COM 1 outlet, two wires

G75-VSA	-	4	10	3	1	3a	E	-	SB	1

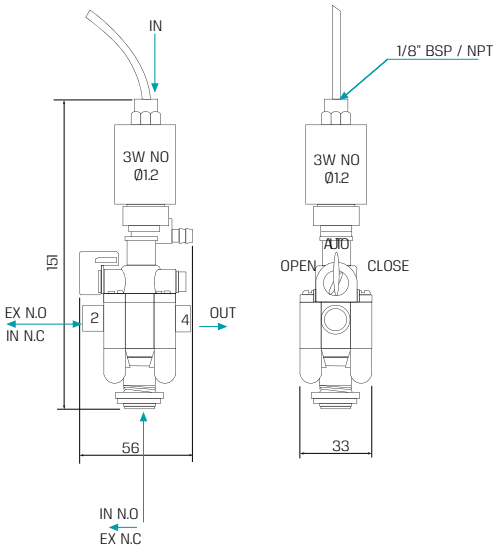
(1) Refer to Voltage & Current AC & DC
(2) Refer to Latch coil resistance vs Input voltage | Recommendations chart
(3) A plug will be fitted on the other outlet port
(4) Latch only

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

SOLENOID VALVES | Special Purpose

Plastic

GALIT | 3 Way pilot operated NC, NO



Technical Data

Function	3 Way NC, NO
Ports size	1/8" BSP & NPT
Orifice size	5mm
Pressure range	1 to 10 bar
Temperature range	**Fluid :** 5ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Main Valve:** Reinforced Nylon **Solenoid Operator:** Stainless Steel 300 & 400 series **Seals:** NBR **Spring:** Stainless Steel AISI 300 series
Manual override	Manual override with 3 positions : • **AUTO** - for automatic operation (valve is open when solenoid is energized) • **MANUAL** - valve is kept open • **CLOSE** - valve is kept closed
Solenoid	Assembled with 3W NO 1.2mm G75 operator
Coil voltage	• Voltage and power consumption - see table
Standard protection class	IP66

Voltage & Current

AC & DC

Solenoid	Voltage		Inrush [A]	Holding [A]
2W 50 Hz	V	+10%	0.3	0.19
2W 60 Hz			0.2	0.14
3W 50/60 Hz *		n-20%	0.125	0.125
DC			4.5W	

* Except 24V AC without Diode

Voltage & Power Consumption

	AC (W) 50 Hz	DC (W)
V	2	4.5
12	•	•
24	•	•

• Available options

How to Order

GALIT -	PORT		VOLTAGE (1)		MOUNTING BRACKET		WIRES	
	1/8" BSP	10	24V AC	1	without	0	two	Null
	1/8" NPT	11	24V AC w/out Diode	1R	with	1	three (2)	a
			12V AC	3				
			12V DC	4				
			24V DC	5				
			23Ω	6				
			4Ω	B				
			9Ω	C				
			12Ω	D				

Latch coil resistance vs Input voltage

Recommendations chart

Resistance [Ω]	Input voltage range [V]
4	6 - 9
9	12 - 14
12	14 - 16
23	18 - 21

Example : GALIT-1011

GALIT pilot operated, 1/8" BSP, 24V AC,
with mounting bracket, two wires

GALIT	-	10	1	1

(1) For Latch : Refer to Latch coil resistance vs Input voltage | Recommendations chart

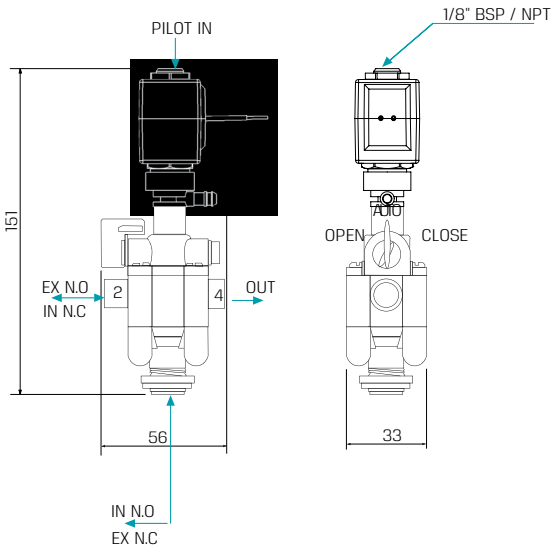
(2) For Latch only

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

SOLENOID VALVES | Special Purpose

Plastic | GEM-SOL

GEM-GALIT | 3 Way pilot operated NC, NO



Technical Data

Function	3 Way NC, NO
Ports size	1/8" BSP & NPT
Orifice size	5mm
Pressure range	1 to 10 bar
Temperature range	**Fluid :** 5°C to 50°C (no freezing) **Ambient :** -10°C to 50°C
Materials in contact with media	**Main Valve:** Reinforced Nylon **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Seals:** NBR **Spring:** Stainless Steel AISI 300 series
Manual override	Manual override with 3 positions : • **AUTO** - for automatic operation (valve is open when solenoid is energized) • **MANUAL** - valve is kept open • **CLOSE** - valve is kept closed
Solenoid	Assembled with 3W NO GEM-OG operator, 1.6
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard protection class	IP66

Voltage & Power Consumption

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

How to Order

GEM-GALIT	-	PORT		-	VOLTAGE		POWER		CONNECTOR		MOUNTING BRACKET	
		1/8" BSP	10		w/out coil	0	No coil	0	w/out	0	w/out	0
		1/8" NPT	11		6	1	AC8W 50Hz	1	with	1	with [2]	1
					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	AC2.5W 50/60Hz	6	surge protec-tion with LED	6		
					220	7A	DC5.5W	7	connec-tor with moulded cable	7		
					230	7	DC3.5W	8	other	9		
					240	8						
					Latch/ other [1]	9						

Example : GEM-GALIT-10-3110

GEM-GALIT pilot operated, 1/8" BSP, 24V AC8W 50Hz, with connector, without mounting bracket.

GEM-GALIT	-	10	-	3	1	1	0

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

(2) For Latch only

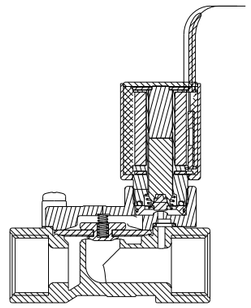
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Plastic

G75-S | Pilot operated 3/8", 1/2" 2 Way NC

Plastic | 1/2"



Technical Data

Function	2 Way NC
Ports size	3/8", 1/2" BSP & NPT
Orifice size	12mm
Pressure range	0.5 to 12 bar * Minimum pressure differential of 0.5 is required
Kv (l/min)	35 l/min
Temperature range	**Fluid :** 5ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Main Valve:** Reinforced Nylon **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Seals:** NBR, EPDM, FKM **Spring:** Stainless Steel AISI 300 series
Solenoid	G75 2W NC solenoids, all voltages.
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard protection class	IP65

Voltage & Power Consumption

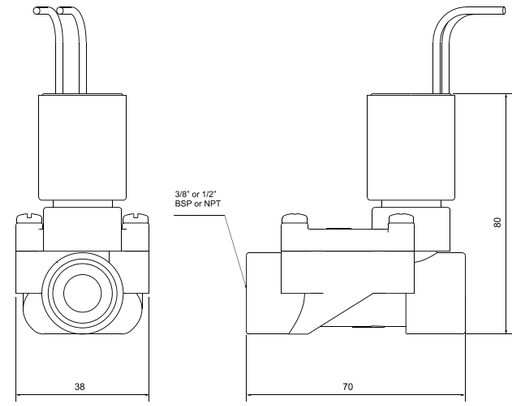
	AC (W) 50 Hz	DC (W)
V	2	4.5
12	•	•
24	•	•
110	•	

• Available options

Voltage & Current
AC & DC

Solenoid	Voltage	Inrush [A]	Holding [A]
2W 50 Hz	V +10%	0.3	0.19
2W 60 Hz	V +10%	0.2	0.14
3W 50/60 Hz	V n-20%	0.125	0.125
DC	V n-20%	4.5W	

Dimensions



How to Order

G75-S	-	BODY		PORT		FUNCTION		SEALS		MANUAL OVERRIDE		-	VOLTAGE (1)		WIRES	
		Plastic	4	3/8" BSP	30	2W NC	1	NBR	N	None	0		24V AC	1	two	Null
				3/8" NPT	31			FKM	V				12V AC	3	three (2)	a
				1/2" BSP	40			EPDM	E				12V DC	4		
				1/2" NPT	41								24V DC	5		
													23Ω	6		
													110V AC	7		
													4Ω	B		
													9Ω	C		
													12Ω	D		

Latch coil resistance vs Input voltage
Recommendations chart

Resistance [Ω]	Input voltage range [V]
4	6 - 9
9	12 - 14
12	14 - 16
23	18 - 21

Example : G75-S-4401N0-1

G75 pilot operated, 1/2" BSP, 2W NC, NBR, no manual override, 24V AC, two wires

G75-S	-	4	40	1	N	0	-	1

(1) For Latch : Refer to Latch coil resistance vs Input voltage | Recommendations chart
(2) For Latch only

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

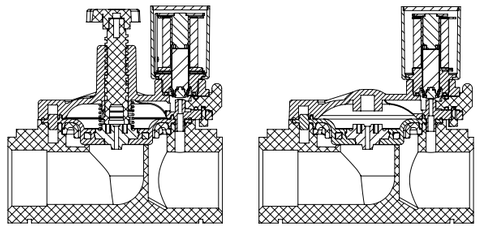
SOLENOID VALVES | Special Purpose

Plastic

G75-S | Electric 3/4"- 2" 2 Way NC

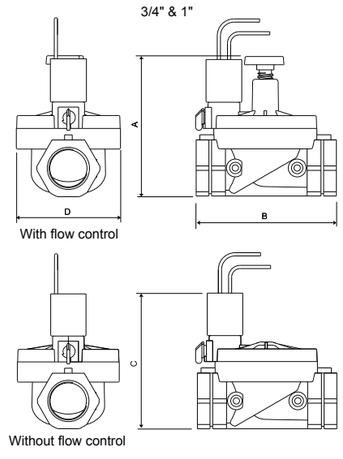
1" | NC
Plastic manual override

2" | NC Latch
Handle manual override



Dimensions

Size	A	B	C	D	Weight (gr)
3/4"	105	110	105	81	230
1"	112	110	112	81	230
1-1/2"	180	160	126	127	740
2"	190	170	126	127	790



Technical Data

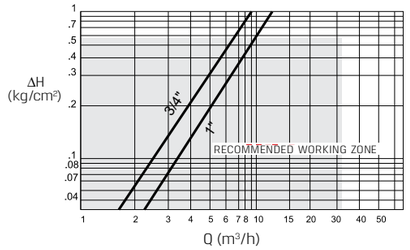
Function	2 Way NC
Ports size	3/4", 1", 1-1/2", 2" BSPT & NPT
Pressure range	0.3 to 10 bar
Temperature range	**Fluid :** 5ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Manual override:** Reinforced Nylon **Main Valve:** Reinforced Nylon **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Diaphragm:** NR **Seals:** NBR **Spring:** Stainless Steel AISI 300 series
Solenoid	• G75, 2W NC solenoids, all voltages. • AC, DC and Latch
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal

Voltage & Power Consumption

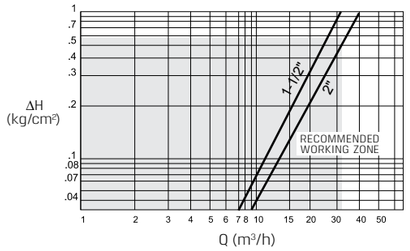
	AC (W) 50 Hz	DC (W)
V	2	4.5
12	•	•
24	•	•
110	•	

• Available options

Head loss for fully open valve



Head loss for fully open valve



Voltage & Current
AC & DC

Solenoid	Voltage	Inrush [A]	Holding [A]
2W 50 Hz	V +10% n-20%	0.3	0.19
2W 60 Hz		0.2	0.14
3W 50/60 Hz		0.125	0.125
DC		4.5W	

How to Order

G75-S	-	PORT		FUNCTION		MANUAL OVERRIDE		FLOW CONTROL		VOLTAGE (3)		WIRES	
		3/4" BSPT	50	2W NC	1	None	0	with	5	24V AC	1	two	Null
		3/4" NPT	51			Plastic	1	without (2)	6	12V AC	3	three (1)	a
		1" BSPT	60			Handle (1)	2			12V DC	4		
		1" NPT	61							24V DC	5		
		1-1/2" BSPT	70							23Ω	6		
		1-1/2" NPT	71							110V AC	7		
		2" BSPT	80							4Ω	B		
		2" NPT	81							9Ω	C		
										12Ω	D		

Latch coil resistance vs Input voltage
Recommendations chart

Resistance [Ω]	Input voltage range [V]
4	6 - 9
9	12 - 14
12	14 - 16
23	18 - 21

Example : G75-S-501051
G75 electric valve, 3/4" BSPT, 2W NC, no manual override, with flow control, 24V AC, two wires

G75-S	-	50	1	0	5	1

(1) For Latch only
(2) 3/4", 1" valves only
(3) For Latch : Refer to Latch coil resistance vs Input voltage | Recommendations chart

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

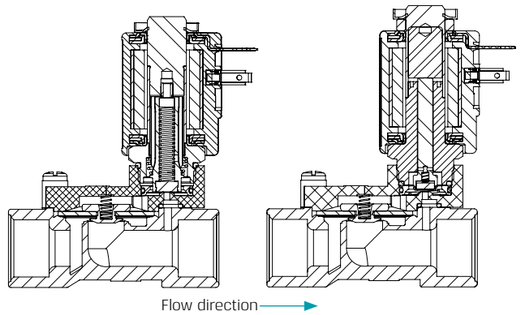
SOLENOID VALVES

SOLENOID VALVES | Special Purpose

Plastic

GEM-S | Pilot operated 3/8", 1/2" 2 Way NC, NO

1/2" | 2W NC



NC NO

Technical Data

Function	2 Way NC, NO
Ports size	3/8", 1/2" BSP & NPT
Orifice size	12mm
Pressure range	0.5 to 12 bar
Kv (l/min)	35 l/min
Temperature range	**Fluid :** 5ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Main Valve:** Reinforced Nylon **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Seals:** NBR, EPDM, FKM
Solenoid	GEM-SOL 2W NC solenoids, all voltages.
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)**

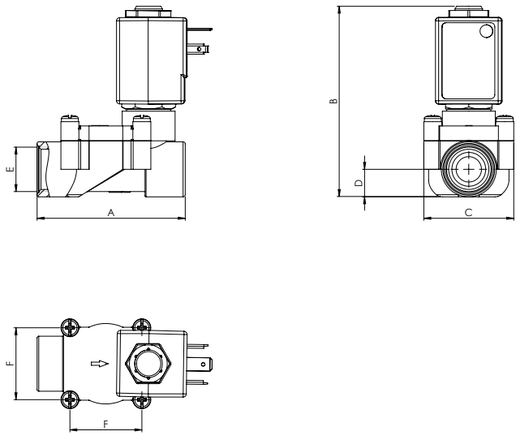
Voltage & Power Consumption

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

Plastic | GEM-SOL | Pilot operated 3/8", 1/2" 2 Way NC, NO

Dimensions



Function	A	B	C	D	E	F
NC	70	90	42.5	13	3/8" & 1/2"	34
NO	70	93.4	42.5	13	3/8" & 1/2"	34

How to Order

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

GEM-S	-	BODY		PORT		FUNCTION		SEALS		MANUAL OVERRIDE	-	VOLTAGE		POWER		CONNECTOR	
		Plastic	4	3/8" BSP	30	2W NC	1	NBR	N	None	0	W/out coil	0	No coil	0	without	0
				3/8" NPT	31	2WNO	2a	FKM	V			6	1	AC8W 50Hz	1	with	1
				1/2" BSP	40			EPDM	E			12	2	AC8W 60Hz	2	with LED	2
				1/2" NPT	41							24	3	DC10W	3	with bi-color LED	3
												48	4			flying leads coil	4
												110	5			with 1/2" Hub	5
												120	6			surge protection with LED	6
												220	7A			connector with moulded cable	7
												230	7			other	9
												240	8				
												Latch/ other (1)	9				

Example : GEM-S-4401N0-321
GEM-SOL pilot operated, 1/2" BSP, 2W NC, NBR, no manual override, 24V AC 8W 60Hz with connector.

GEM-S	-	4	40	1	N	0	-	3	2	1

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

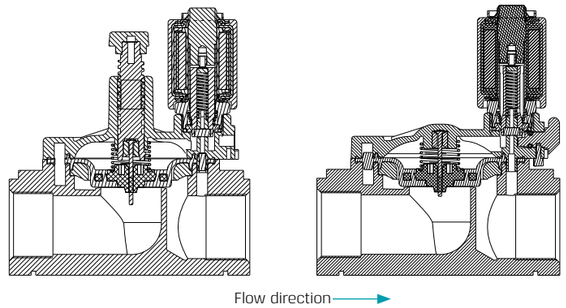
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Plastic

GEM-S | Pilot operated 3/4"- 2" 2 Way NC, NO

1" | plastic manual override



Technical Data

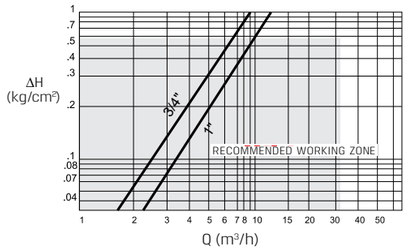
Function	2 Way NC, NO
Ports size	3/4", 1", 1-1/2", 2" BSPT & NPT
Connection	Female BSPT or NPT thread
Pressure range	0.3 - 10 bar
Temperature range	**Fluid :** 5ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Solenoid	GEM-SOL 3/4" UNEF, 2 Way NC or NO solenoids. All voltages
Materials in contact with media	**Manual override:** Reinforced Nylon **Body & cover:** Reinforced Nylon **Spring:** Stainless Steel AISI 302 **Diaphragm:** NR **Seals:** NBR **Screws:** Stainless Steel AISI 304 **Solenoid:** Stainless Steel AISI 300 & 400 series
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)**

• Progressive opening and shut off that prevents water hammer

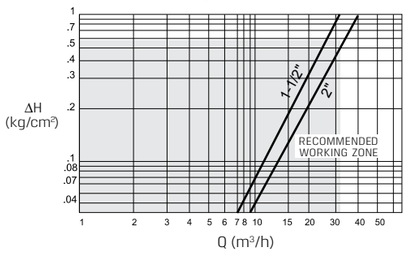
Flow & Orifice table

Size	Orifice (mm)	Kv (l/min)
3/4"	27	140
1"	27	200
1-1/2"	55	520
2"	55	600

Head loss for fully open valve



Head loss for fully open valve



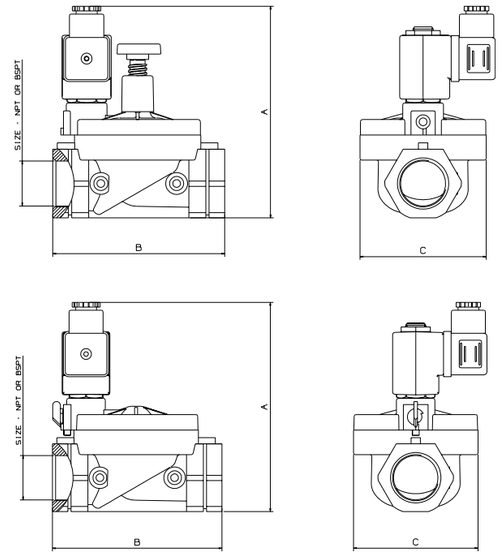
Voltage & Power Consumption

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

Plastic | GEM-SOL | Pilot operated 3/4" - 2" 2 Way NC, NO

Dimensions



with flow control

Size	A	B	C
3/4"	108	110	81
1"	135.5	110	81
1-1/2"	180	160	126
2"	190	170	126

without flow control

Size	A	B	C
3/4"	128.5	110	81
1"	135.5	110	81
1-1/2"	168	160	126
2"	179.5	170	126

How to Order

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

GEM-S	-	BODY	PORT	FUNCTION	SEALS	MANUAL OVERRIDE	FLOW CONTROL	-	VOLTAGE	POWER	CONNECTOR
		Plastic 4	3/4" BSPT 50	2W NC 1	NR N	None 0	with 1		W/out coil 0	No coil 0	without 0
			3/4" NPT 51	2WNO 2a		Plastic 1	without (1) 2		6 1	AC8W 50Hz 1	with 1
			1" BSPT 60						12 2	AC8W 60Hz 2	with LED 2
			1" NPT 61						24 3	DC10W 3	with bi- color LED 3
			1-1/2"BSPT 70						48 4	AC5.5W 50Hz 4	flying leads coil 4
			1-1/2"NPT 71						110 5	AC5.5W 60Hz 5	with 1/2" Hub 5
			2" BSPT 80						120 6		surge protection with LED 6
			2" NPT 81						220 7A		connector with moulded cable 7
									230 7		other 9
									240 8		
									Latch/ other(2) 9		

Example : GEM-S-4501N11-331

GEM-SOL pilot operated, nylon body, 3/4" BSPT, 2W NC, NR,
plastic manual override, with flow control, 24V DC 10W with connector.

GEM-S	-	4	50	1	N	1	1	-	3	3	1

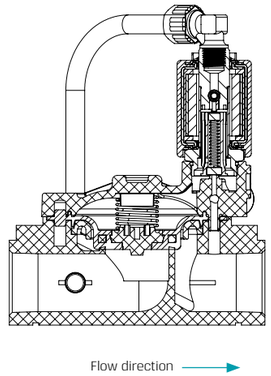
(1) 3/4", 1" valves only
(2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.

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

SOLENOID VALVES | Special Purpose

Plastic

GEM-S-4 | Upstream pilot control integrated with Gem-Sol operator
3/4" - 2" 2 Way NC, NO



Technical Data

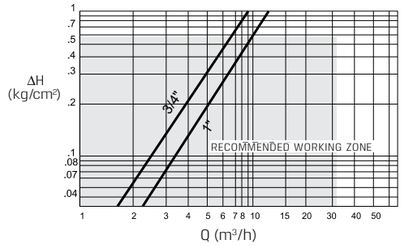
Function	2 Way NC, NO
Ports size	3/4", 1", 1-1/2", 2" BSPT & NPT
Connection	Female BSPT or NPT thread
Pressure range	0.3 to 10 bar
Temperature range	**Fluid :** 5ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Solenoid	GEM-SOL (GEM-OG)
Materials in contact with media	**Manual override:** Reinforced Nylon **Body & cover:** Reinforced Nylon **Spring:** Stainless Steel AISI 302 **Diaphragm:** NR **Seals:** NBR **Screws:** Stainless Steel AISI 304 **Solenoid:** Stainless Steel AISI 300 & 400 series
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)

• Progressive opening and shut off that prevents water hammer

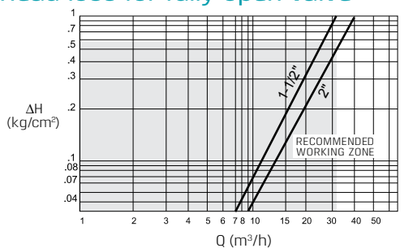
Flow factor & Orifice

Size	Orifice (mm)	Kv (l/min)
3/4"	27	140
1"	27	200
1-1/2"	55	520
2"	55	600

Head loss for fully open valve



Head loss for fully open valve



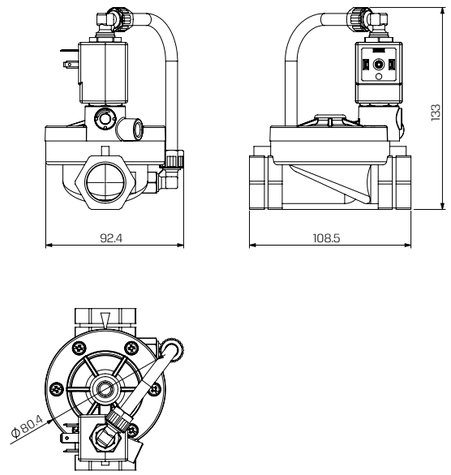
Voltage & Power Consumption

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

Plastic | GEM-SOL | Upstream pilot control integrated with Gem-Sol operator

Dimensions



How to Order

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

GEM-S-4	-	BODY		PORT		FUNCTION		SEALS		MANUAL OVERRIDE		FLOW CONTROL		-	VOLTAGE		POWER		CONNECTOR	
		Plastic	4	3/4" BSPT	50	2W NC	1	NR	N	None	0	with	1		W/out coil	0	No coil	0	without	0
				3/4" NPT	51	2WNO	2a			Plastic	1	without (1)	2		6	1	AC8W 50Hz	1	with	1
				1" BSPT	60										12	2	AC8W 60Hz	2	with LED	2
				1" NPT	61										24	3	DC10W	3	with bi- color LED	3
				1-1/2" BSPT	70										48	4	AC5.5W 50Hz	4	flying leads coil	4
				1-1/2" NPT	71										110	5	AC5.5W 60Hz	5	with 1/2" Hub	5
				2" BSPT	80										120	6			surge protection with LED	6
				2" NPT	81										220	7A			connector with moulded cable	7
															230	7			other	9
															240	8				
															Latch/other (2)	9				

Example : GEM-S-4-4501N11-331
GEM-SOL pilot operated upstream, nylon body, 3/4" BSPT, 2W NC, NR seals, plastic manual override, with flow control, 24V DC 10W with connector

GEM-S-4	-	4	50	1	N	1	1	-	3	3	1

(1) 3/4", 1" valves only
(2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table

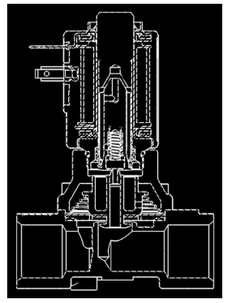
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Plastic

GEM-Z | Zero differential pressure 3/8", 1/2" 2 Way NC, NO

1/2" | 2W NC



→ Flow direction

Technical Data

Function	2 Way NC, NO
Ports size	3/8", 1/2" BSP & NPT
Pressure range	See table
Kv (l/min)	See table
Temperature range	**Fluid :** 5ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Main Valve:** Nylon **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Seals:** NBR, FKM, EPDM
Media	Air, water, inert gas
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	
3/8"	12	0 to 4	0 to 4	17
1/2"	12	0 to 4	0 to 4	18

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

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

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

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

Voltage & Power Consumption

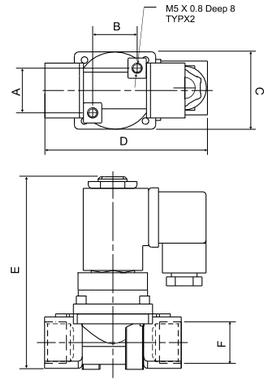
	AC (W)						DC (W)		
	50 Hz			60 Hz					
V	8	5.5	2.5	8	5.5	2.5	10	5.5	3.5
6							•		
12	•			•			•		
24	•			•			•		
48	•			•			•		
110	•			•			•		
120	•			•					
220	•			•			•		
230	•			•					
240	•			•			•		

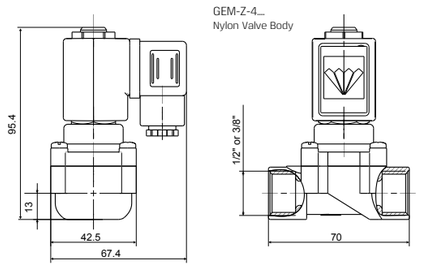
• Available options

Plastic | GEM-SOL | Zero differential pressure 3/8", 1/2" 2 Way NC, NO

Dimensions

Size	A	B	C	D	E	F	Weight with coil
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

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

GEM-Z	-	BODY (1)		PORT		FUNCTION		SEALS		-	VOLTAGE		POWER		CONNECTOR	
		Plastic	4	3/8" BSP	30	2W NC	1	NBR	N		W/out coil	0	No coil	0	without	0
				3/8" NPT	31	2W NO (2)	2a	FKM	V		6	1	AC8W 50Hz	1	with	1
				1/2" BSP	40			EPDM	E		12	2	AC8W 60Hz	2	with LED	2
				1/2" NPT	41						24	3	DC10W	3	with bi- color LED	3
				1/2"BSP	40r						48	4			flying leads coil	4
				1/2"NPT	41r						110	5			with 1/2" Hub	5
											120	6			surge protec-tion with LED	6
											220	7A			connector with moulded cable	7
											230	7			other	9
											240	8				
											Latch/ other (3)	9				

Example : GEM-Z-4401N-221

GEM-SOL zero differential, nylon, 1/2"BSP, 2W NC, NBR, 12V AC8W 60Hz with connector.

GEM-Z	-	4	40	1	N	-	2	2	1

(1) This valve is also available in Brass and Stainless steel
(2) NO function without M/O, not available for GEM-Z-☐☐r
(3) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.

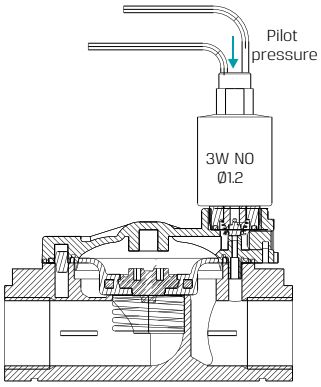
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Plastic

G75-Z | Electric zero differential pressure 3/4" - 2" 2 Way NC

1" | 2W NC |
plastic manual override



Valve in closed position

Flow direction

Technical Data

Function	2 Way NC
Ports size	3/4", 1", 1-1/2", 2" BSPT & NPT
Pressure range	Line: 0-6 bar | Pilot: 1.5 bar above line pressure
Temperature range	**Fluid :** 5°C to 50°C (no freezing)
Materials in contact with media	**Manual override:** Reinforced Nylon **Main Valve:** Reinforced Nylon **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Diaphragm:** NR **Seals:** Buna-N **Spring:** Stainless Steel AISI 300 series
Solenoid	Supplied with G75 1.2mm 3 Way NO solenoid

• For overall dimensions, refer to G75-S | Electric 3/4" - 2" 2 Way NC

Voltage & Power Consumption

	AC (W) 50 Hz	DC(W)
V	2	4.5
12	•	•
24	•	•

• Available options

Voltage & Current

AC & DC

Solenoid	Voltage	Inrush [A]	Holding [A]
2W 50 Hz	V +10% -20%	0.3	0.19
2W 60 Hz		0.2	0.14
3W 50/60 Hz*		0.125	0.125
DC		4.5W	

* Except 24V AC without Diode

Latch coil resistance vs Input voltage

Recommendations chart

Resistance [Ω]	Input voltage range [V]
4	6 - 9
9	12 - 14
12	14 - 16
23	18 - 21

How to Order

G75-Z -	PORT	FUNCTION	MANUAL OVERRIDE	FLOW CONTROL	VOLTAGE (3)	WIRES
	3/4" BSPT 50	2W NC 1	None 0	with 5	without 0	two null
	3/4" NPT 51		Plastic 1	without (1) 6	24V AC 1	three (2) a
	1" BSPT 60		Handle(2) 2		24V AC w/out Diode 1R	
	1" NPT 61				12V AC 3	
	1-1/2" BSPT 70				12V DC 4	
	1-1/2" NPT 71				24V DC 5	
	2" BSPT 80				23Ω 6	
	2" NPT 81				110V AC 7	
					4Ω B	
					9Ω C	
					12Ω D	

Example : G75-Z-601151
G75 electric valve, 1" BSPT, 2WNC, plastic manual override with flow control, 24V AC, two wires

G75-Z	-	60	1	1	5	1

(1) 3/4", 1" valves only
(2) For latch only
(3) For Latch : Refer to Latch coil resistance vs Input voltage | Recommendations chart

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

SOLENOID VALVES | Special Purpose

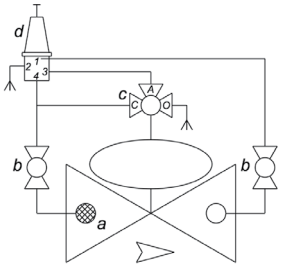
Plastic

G75-PR | Pressure reducing 3/4" - 2" NC

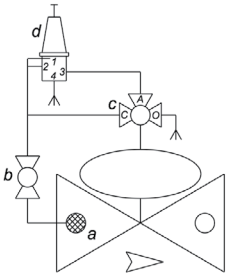
Main Components

	DESCRIPTION
a	Self flushing filter
b	Isolation ball valve (optional)
c	3W Manual selector valve
d	Multi-functional pilot valve

Pressure Reducing | **PR**



Pressure Sustaining | **PS**
Quick Pressure Relief | **QR**



Technical Data

Solenoid	Supplied with 3W NO 1.2mm G75 operator
Assembly	Supplied with finger filter
Manual override	The XR100 has a manual override with 3 positions : • **AUTO** - for automatic operation (valve is open when solenoid is energized) • **MANUAL** - valve is kept open • **CLOSE** - valve is kept closed
Pressure	• Pilot pressure must be equal to, or higher than line pressure • A minimum pressure differential of 1 bar is required

• For technical information, refer to G75-S | Electric 3/4" - 2" 2 Way NC

Voltage & Power Consumption

	AC (W) 50 Hz	DC (W)
V	2	4.5
12	•	•
24	•	•

• Available options

Latch coil resistance vs Input voltage
Recommendations chart

Resistance [Ω]	Input voltage range [V]
4	6 - 9
9	12 - 14
12	14 - 16
23	18 - 21

How to Order

G75-PR	-	PORT		FUNCTION		FLOW CONTROL		VOLTAGE (3)		WIRES		PRESSURE RANGE	
		3/4" BSPT	50	2W NC	1	with	5	No solenoid (hydraulic)	0	two	null	0.5-5 bar	Y
		3/4" NPT	51			without (1)	6	24V AC	1	three (2)	a	1-10 bar	G
		1" BSPT	60					24V AC w/out Diode	1R				
		1" NPT	61					12V AC	3				
		1-1/2" BSPT	70					12V DC	4				
		1-1/2" NPT	71					24V DC	5				
		2" BSPT	80					23Ω	6				
		2" NPT	81					4Ω	B				
								9Ω	C				
								12Ω	D				

Example : G75-PR-70151Y
G75 pressure reducing valve, 1-1/2" BSPT,
2W NC with flow control, 24V AC, two wires, 0.5-5 bar

G75-PR	-	70	1	5	1	Y

(1) For 3/4", 1" valves only
(2) For Latch only
(3) For Latch : Refer to Latch coil resistance vs Input voltage | Recommendations chart

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

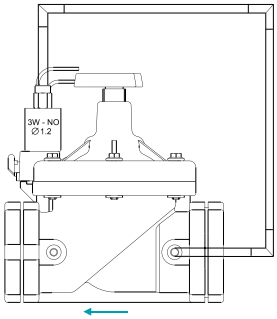
SOLENOID VALVES | Special Purpose

Plastic

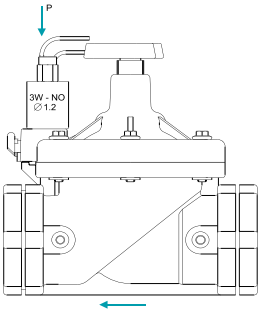
G75-S | 3 Way Integral solenoid pilot control 3/4" - 2" NC

Upstream pilot control

External pilot control



Upstream pilot control



External pilot control

Technical Data

Solenoid	Supplied with 3W NO 1.2mm G75 operator
Assembly	Upstream pilot control valve is supplied with finger filter and accessories

• For technical information, refer to G75-S | Electric 3/4" - 2" 2 Way NC

Latch coil resistance vs Input voltage
Recommendations chart

Resistance [Ω]	Input voltage range [V]
4	6 - 9
9	12 - 14
12	14 - 16
23	18 - 21

How to Order

G75-S	-	PORT		FUNCTION		MANUAL OVERRIDE		FLOW CONTROL		VOLTAGE (3)		WIRES	
		3/4" BSPT	50	External pilot	4	None	0	with	5	24V AC	1	two	Null
		3/4" NPT	51	Upstream pilot	4H	Plastic	1	without (2)	6	24V AC w/out Diode	1R	three (1)	a
		1" BSPT	60			Handle (1)	2			12 V AC	3		
		1" NPT	61							12 V DC	4		
		1-1/2" BSPT	70							24V DC	5		
		1-1/2" NPT	71							23Ω	6		
		2" BSPT	80							4Ω	B		
		2" NPT	81							9Ω	C		
										12Ω	D		

Example : G75-S-704151
G75 1-1/2" BSPT, external pilot, plastic manual override,
with flow control, 24V AC, two wires.

G75-S	-	70	4	1	5	1

(1) For Latch only
(2) For 3/4", 1" valves only
(3) For Latch : Refer to Latch coil resistance vs Input voltage | Recommendations chart

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

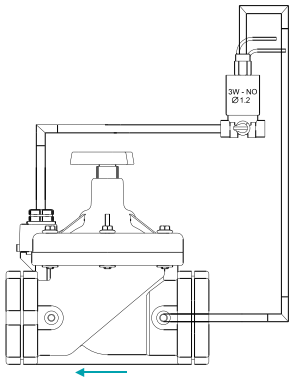
SOLENOID VALVES | Special Purpose

Plastic

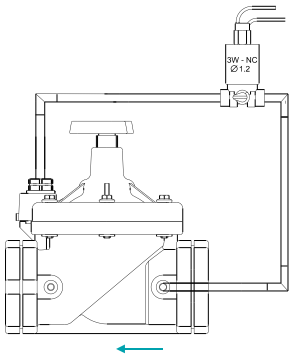
G75-SE | 3 Way External solenoid pilot control 3/4" - 2" NC, NO

NC valve

NO valve



NC valve



NO valve

Technical Data

Solenoid	Supplied with 3W 1.2mm G75 solenoid
Assembly	Supplied with finger filter and accessories

• For technical information, refer to G75-S | Electric 3/4" - 2" 2 Way NC

Latch coil resistance vs Input voltage
Recommendations chart

Resistance [Ω]	Input voltage range [V]
4	6 - 9
9	12 - 14
12	14 - 16
23	18 - 21

How to Order

G75-SE	-	PORT		FUNCTION (1)		MANUAL OVERRIDE		FLOW CONTROL		VOLTAGE (4)		WIRES	
		3/4" BSPT	50	2W NC	1	None	0	with	5	24V AC	1	two	Null
		3/4" NPT	51	2W NO	2	Plastic	1	without (3)	6	24V AC w/out Diode	1R	three (2)	a
		1" BSPT	60							12 V AC	3		
		1" NPT	61							12 V DC	4		
		1-1/2" BSPT	70							24V DC	5		
		1-1/2" NPT	71							23Ω	6		
		2" BSPT	80							4Ω	B		
		2" NPT	81							9Ω	C		
										12Ω	D		

Example : G75-SE-702151
G75 1-1/2" BSPT, 2W NO, plastic manual override,
with flow control, 24V AC, two wires.

G75-SE	-	70	2	1	5	1

1) Refers to the valve : 3W NC solenoid = NO valve
3W NO solenoid = NC valve
(2) For Latch only
(3) For 3/4", 1" valves only
(4) For Latch : Refer to Latch coil resistance vs Input voltage | Recommendations chart

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

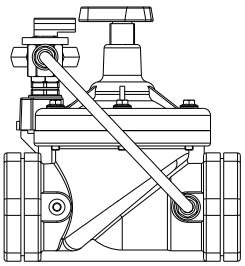
SOLENOID VALVES | Special Purpose

Plastic

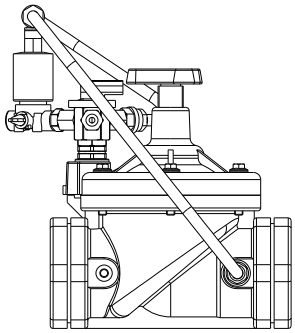
G75-SM | 3 Way Manual selector 3/4" - 2" NC, NO

3W Manual selector | 1"

3W Manual selector | 2" with solenoid



3W Manual selector



Manual selector with external 3W NO solenoid

Flow direction

Technical Data

Solenoid	Supplied with 3W 1.2mm G75 solenoid
Assembly	Supplied with finger filter and accessories
Manual override	Manual override with 3 positions : • **AUTO** - for automatic operation (valve is open when solenoid is energized) • **MANUAL** - valve is kept open • **CLOSE** - valve is kept closed
Pressure	A minimum pressure differential of 1 bar is required

• For technical information, refer to G75-S | Electric 3/4" - 2" 2 Way NC

Latch coil resistance vs Input voltage
Recommendations chart

Resistance [Ω]	Input voltage range [V]
4	6 - 9
9	12 - 14
12	14 - 16
23	18 - 21

How to Order

G75-SM	-	PORT		FUNCTION (1)		FLOW CONTROL		VOLTAGE (4)		WIRES	
		3/4" BSPT	50	2W NC	1	with	5	No solenoid (hydraulic)	0	two	null
		3/4" NPT	51	2W NO	2	without (2)	6	24V AC	1	three (3)	a
		1" BSPT	60					24V AC w/out Diode	1R		
		1" NPT	61					12V AC	3		
		1-1/2" BSPT	70					12V DC	4		
		1-1/2" NPT	71					24V DC	5		
		2" BSPT	80					23Ω	6		
		2" NPT	81					4Ω	B		
								9Ω	C		
								12Ω	D		

Example : G75-SM-70151

G75 3 Way manual selector valve, 1-1/2" BSPT, 2W NC with flow control, 24V AC, two wires

G75-SM	-	70	1	5	1

(1) Refers to the valve : 3W NC solenoid = NO valve
3W NO solenoid = NC valve
(2) For 3/4", 1" valves only
(3) For Latch only
(4) For Latch : Refer to Latch coil resistance vs Input voltage | Recommendations chart

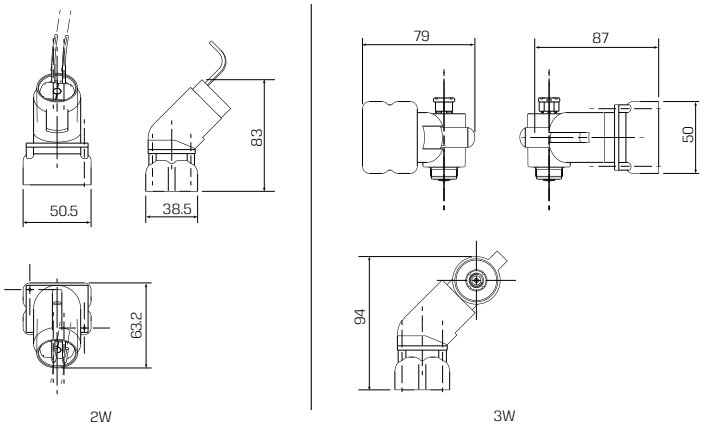
* To order valves manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Plastic

G75-LDO | Long distance operator 2 Way, 3 Way NC, NO

LDO unit assembled with G75-A operator and solenoid



A small section conductor can be used at a distance of up to 5 kms

Technical Data

Function	2 Way, 3 Way NC, NO
Current	Holding 4mA
Pressure range	Refer to G75 Latch operator
Power	**DC12V** (0.05W) up to **DC24V** (0.1W)
Connection	Red/Black - power supply | Green/Black - coil
Ambient temp	-10°C to 60°C
Solenoid	Compatible with G75 4Ω latch operator
Valve	Can operate any valve equipped with 3/4" UNEF solenoid cavity (Richdel® type).
Applications	• Cost saving wiring for remote solenoid operation • Power saving and heat prevention on continuous energized solenoid
Voltage	Voltage and power consumption - see table
Standard protection class	IP67 (LDO only)

* For recommended wire parameters, please refer to Long distance operators charts

Voltage	Distance (km)	Conduit section (mm^2)	Delay time (sec)	
			On	Off
12/24	0	0.5	3	1
12	5	0.5	12	1
24	5	0.5	8	1

Max conduit resistance 390Ω at nominal voltage

Voltage & Power Consumption

	AC (W)		DC(W)
	50 Hz	60 Hz	
V	0.3	0.3	0.3
12			•
24	•	•	

• Available options

How to Order

G75-LDO	-	VOLTAGE	-	Please refer to the "How to Order" definitions of the assembled G75 valve.
		24 VAC & 12-24 VDC 9		

Example : G75-LDO-9-G75-A-11032B-1

G75-LDO 24V AC is attached to a G75-A with flange, 1/8" BSP, 3W NC 1.2 orifice, no manual override, 4Ω latch coil, two wires

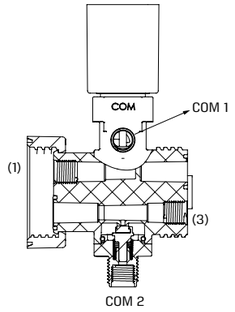
G75-LDO	-	9	-	G75-A	-	1	10	3	2	B	-	1

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

SOLENOID VALVES | Special Purpose

Plastic

G75-VM | Modular Manifold



Technical Data

Function	3 Way NC, NO
Orifice size	1.8 mm
Pressure range	0 to 8 bar
Temperature range	**Fluid :** 0ºC to 50ºC (no freezing) **Ambient :** -10ºC to 50ºC
Materials in contact with media	**Manual override:** Plastic (Reinforced Nylon) **Main Valve:** Plastic (Reinforced Nylon & POM) **Solenoid Operator:** Stainless Steel AISI 300 & 400 series **Seals:** EPDM
Mounting	With bracket
Modular connection type	Thread type connection
Modular connection assembly recommendation	• Manually tighten one station to another • Using tools and/or excessive torques may lead to irreversible damage
Manual override	**Latch** : 3 position latch : Auto, Close, Open **AC** : 2 position : Auto, Open
Media	Air, water
Coil voltage	Latch, AC (according to table)
Standard protection class	IP66

* Can **only** be operated with supplied coil

PORT	NO	NC
1	Exhaust	Pressure
3	Pressure	Exhaust
COM	Out	Out

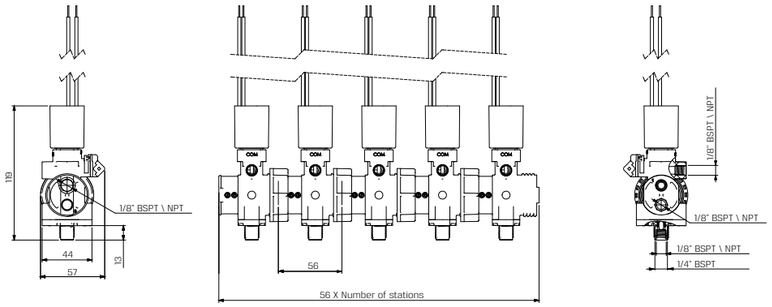
Voltage & Current
AC & DC

Coil	Inrush [A]	Holding [A]
24VAC-50 Hz	0.33	0.21

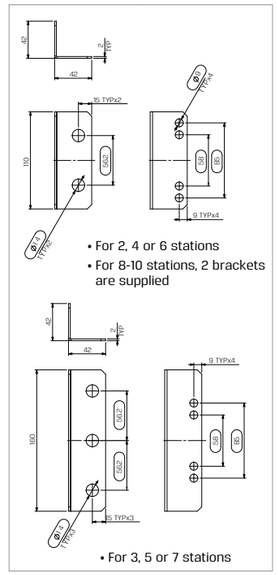
Latch coil resistance vs Input voltage
Recommendations chart

Resistance [Ω]	Input voltage range [V]
4	6 - 9
9	12 - 14
12	14 - 16
23	18 - 21

Dimensions



Mounting Bracket



How to Order | Manifold

G75-VM	-	No. OF STATIONS (1)	BODY	PORT	FUNCTION	MANUAL OVERRIDE	ORIFICE	SEALS	-	TYPE	MOUNTING BRACKET	OUTLET (4)	WIRES
		Specify quantity: 2 - 10	Plastic 4	1/8" BSPT 10 1/8" NPT 11	3W NC 3 3W NO 4	Plastic 1	1.8 3a	EPDM E		24VAC-50Hz (2) S1 4Ω (3) SB 9Ω (3) SC 12Ω (3) SD 23Ω (3) S6	with 1	COM 1 1 COM 2 2	two Null three (5) a

Example : G75-VM-3410313aE-SB11
G75-VM manifold, 3 stations, plastic, 1/8" BSPT, 3W NC, plastic manual override, 1.8 orifice, EPDM seals, 4Ω latch, with mounting bracket, COM 1 outlet, two wires

G75-VM	-	3	4	10	3	1	3a	E	-	SB	1	1

(1) Manifold designed for a maximum of 10 stations, the use of more will reduce the outlet flow rate to all
(2) Refer to Voltage & Current AC & DC
(3) Refer to Latch coil resistance vs Input voltage | Recommendations chart
(4) A plug will be fitted on the other outlet port
(5) Latch only

How to Order | Manifold Components

G75-VM	-	TYPE	BODY	PORT	FUNCTION	MANUAL OVERRIDE	ORIFICE	SEALS	-	TYPE	OUTLET (3)	WIRES
		Left L Right R Middle M	Plastic 4	1/8" BSPT 10 1/8" NPT 11	3W NC 3 3W NO 4	Plastic 1	1.8 3a	EPDM E		24VAC-50Hz (1) S1 4Ω (2) SB 9Ω (2) SC 12Ω (2) SD 23Ω (2) S6	COM 1 1 COM 2 2	two Null three (4) a

Example : G75-VM-L410313aE-SB1
G75-VM Left component, plastic, 1/8" BSPT, 3W NC, plastic manual override 1.8 orifice, EPDM seals, 4Ω latch, COM 1 outlet, two wires

G75-VM	-	L	4	10	3	1	3a	E	-	SB	1

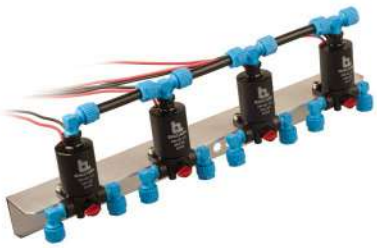
(1) Refer to Voltage & Current AC & DC
(2) Refer to Latch coil resistance vs Input voltage | Recommendations chart
(3) A plug will be fitted on the other outlet port
(4) Latch only
* To order manifolds manufactured according to your specific requirements, please contact our technical sales department.

SOLENOID VALVES | Special Purpose

Plastic

G75-M | Manifold

GALIT



G75-A

GEM-A

How to Order |

G75-M	-	TYPE		# STATIONS		Please refer to the "How to Order" definitions of GALIT, G75-A or GEM-A valve
		G75-A	1	2	2	
		GEM-A	2	3	3	
		GALIT	3	4	4	
				5	5	
				6	6	
				7	7	
				8	8	
				9	9	
				10	10	

Example : G75-M-25-GEM-A-21035N0

G75 manifold installation, GEM-SOL type, 5 stations with GEM-A direct operated, brass 1/8"BSP, 3W NC, 2.4 orifice, NBR, no manual override.

G75-M	-	2	5	-	GEM-A	-	2	10	3	5	N	0

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

SOLENOID VALVES | Special Purpose

Plastic

G500 series | Hydraulic control valves

General Description

500 series valves are direct diaphragm closing automatic hydraulic control valves which work with line pressure. They ensure easy and smooth flow with minimum pressure losses thanks to excellent design of the valve body and diaphragm. No wearable parts such as stem, bearing and seat exist in the main valve body and valve life is much longer than other competitor valves. The only movable part of the valve is the valve diaphragm.

500 series hydraulic control valves are designed so that they can be used in portable water force network, agricultural irrigation, filtration and industrial applications by even unskilled personnel.

General Features

- Easy use and maintenance due to simple design
- Low cost
- Operation in wide pressure range
- Perfect modulation even in lower flow rates
- Anti-surge closing and opening with flexible diaphragm
- Full tightness thanks to reinforced diaphragm and inner spring
- Long life with Glass Reinforced Polyamide material
- Wide control application range by using different pilot valves
- Operation in both horizontal and vertical positions in application areas

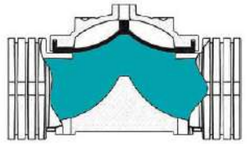
Plastic | G500 series

Operating principals

It is an automatic hydraulic control valve designed to make desired modulation in main valve network line as full hydraulically by means of line pressure without requiring different energy sources such as electric, pneumatic or mechanical energy.

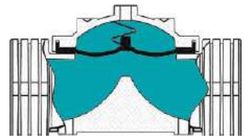
Valve opening mode

When the pilot valve located on the main valve being in closed position, is brought into relief position, pressurized water within control chamber on main valve diaphragm is released. When line pressure (P1) reaches to a value which will overcome spring force, water carries valve to fully open position by applying a hydraulic force to valve diaphragm from bottom.



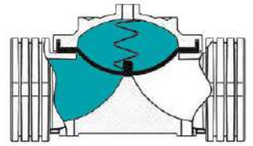
Modulation mode

Pilot valves which are connected to main valve actuator ensure that main valve works in modulated mode. According to flow rate or pressure conditions, it ensures that main valve works in modulation mode by controlling pressure of fluid within main valve actuator (control chamber).



Valve closing mode

Pilot valves which are connected to main valve actuator ensure that main valve works in modulated mode. According to flow rate or pressure conditions, it ensures that main valve works in modulation mode by controlling pressure of fluid within main valve actuator (control chamber).



SOLENOID VALVES | Special Purpose

Plastic

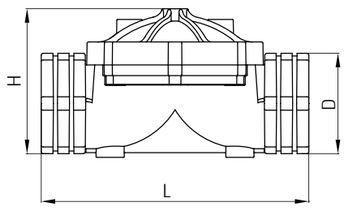
G500 series | Available Models

Technical Data

Pressure range	Standard	0.7 - 10 bar (10 - 160 psi)
Temperature range	Fluid Ambient	(-10ºC to 60ºC (no freezing -10ºC to 60ºC
Connection	Threaded	BSPT-NPT
Hydraulic connections	Standard	Reinforced Nylon (Air Brake) Hydraulic Pipe-SAE J 844
Actuator type	Standard	Diaphragm Closing Type with Single Control Chamber and Diaphragm Actuator

Available Models

MODEL	G500	
Connection	Threaded	
Material	Glass reinforced polyamide	
Body	Globe	
Maximum working pressure	10 bar	160psi
Available sizes	inch	mm
	1-1/2"	40
	2"	50
	2-1/2"	65
	3"	80



model G500

Dimensions

DN		D		L		H	
inch	mm	inch	mm	inch	mm	inch	mm
1-1/2"	40	2-1/2"	62	7-7/8"	200	4-3/8"	110
2"	50	3"	75	7-7/8"	200	4-3/8"	110
2-1/2"	65	3-3/4"	95	9-7/8"	250	5-3/8"	138
3"	80	4-1/4"	109	9-7/8"	250	5-3/8"	145

Order Information

Please submit following information to our sales department when ordering :

Maximum flow rate.....m³/h
Maximum network/line pressure.....bar
Main line size.....mm
Valve connection type.....
Maximum upstream pressure.....bar
Minimum upstream pressure.....bar
Desired downstream pressure.....bar
Electric voltage value to be used.....volt

Plastic | G500 series

Hydraulic Performance

Hydraulic Performance Chart

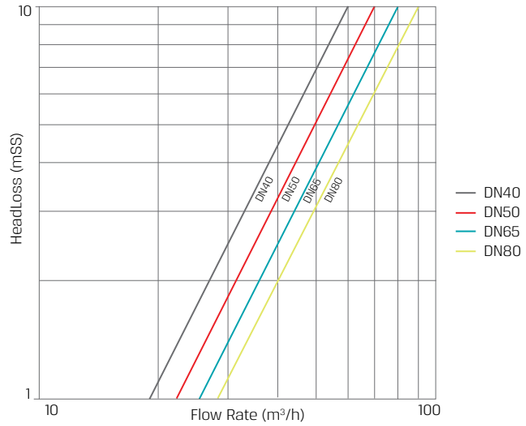
VALVE SIZE	mm	40	50	65	80
	inch	1-1/2"	2"	2-1/2"	3"
Kv	m³/h @ 1 bar	60	70	80	90
Cv	gpm @ 1 psi	70	85	95	105

- Kv : Valve Flow Coefficient (fluid passing under 1 bar pressure difference in m³/h @ 1 bar)
- Cv : Valve Flow Coefficient (fluid passing under 1 bar pressure difference in gpm @ 1 bar)
- Q : Flow Rate (m³/h)
- △P : Head Loss (bar)
- G : Specific weight of water (1.0 for water)

$$Kv, (Cv) = Q\sqrt{\frac{G}{\triangle P}}$$

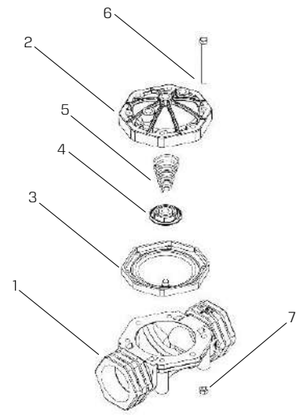
Cv=1,155 Kv

Head Loss Chart



Main Parts

NO.	PART NAME	MATERIAL
1	Body	Glass reinforced polyamide
2	Bonnet	Glass reinforced polyamide
3	Diaphragm	Natural Rubber
4	Spring thrust ring	Glass reinforced polyamide
5	Spring	SST302
6	Bolt	SST304
7	Nut	Brass



SOLENOID VALVES | Special Purpose

Plastic

G500 series | 4" Hydraulic Valves

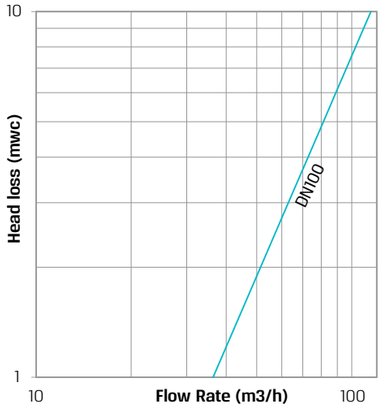
Typical Applications

- Agricultural irrigation
- Landscaping applications
- Greenhouse applications
- Mining process
- Industrial process

Technical Data

General Specifications	
Pressure range	0.7~10 bar / 9~145 Psi
Temperature range	-10ºC to 80ºC (no freezing)
Valve size	4" (100 mm)
Material Properties	
Body | Cover	PA GFR
Diaphragm	NR
Spring thrust ring	PA GFR
Spring	Stainless Steel AISI 302
Bolts	Stainless Steel A2
Flange, Flange adaptor	PA GFR
Threaded adaptor	PA GFR
O-rings	NBR
Connection	
Flanged	ISO, ANSI
Threaded	BSP, NPT

Head loss chart



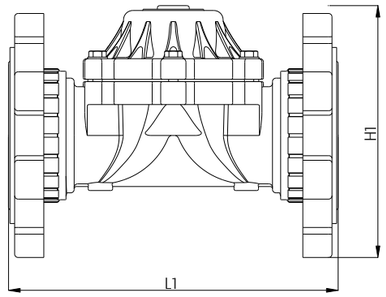
Plastic | G500

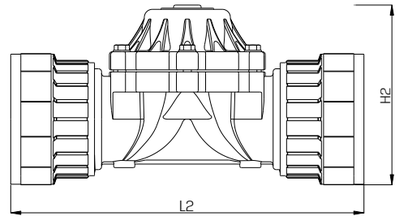
4" Hydraulic Valves

Hydraulic Specifications

Maximum continuous flow	100 m^3/h
Maximum intermittent flow	145 m^3/h
Minimum working pressure	0.7 bar
Maximum working pressure	10 bar
Kv	115 m^3/h @ 1 bar

Dimensions





L1	280 mm
L2	350 mm
H1	220 mm
H2	180 mm
W1	213 mm
W2	172 mm
Port Connections	1/4" BSP, 1/4" NPT
Weight (Flange type)	2.6 kg
Weight (Threaded type)	1.9 kg

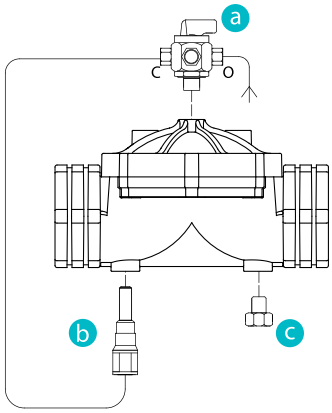
Available applications

Basic valve	B
Manual control valve	M
Solenoid control valve	EL
Electric control valve + control device (1 outlet)	EL/C
Pressure reducing control valve	PR
Solenoid controlled pressure reducing valve	PREL
Pressure reducing & sustaining control valve	PRPS
Quick pressure relief control valve	QR
Pressure sustaining valve	PS
Float level control valve	FL
Electric float level control valve	FLEL
Flow rate control valve	FR

SOLENOID VALVES | Special Purpose

Plastic

G500-S | Hydraulic with Manual selector 1-1/2" - 4"



a 3W selector valve
b In-line finger filter
c Plug

Description

G500-S model valve is the hydraulic control valve operated by line pressure and designed to ensure opening/closing process by means of a 3 Way selector valve. Minimum opening pressure of valve is 0.7 bar. Thanks to its flexible diaphragm, it makes easy and fast control process in high pressure applications and is closed completely tight without causing surge. It may be used in different applications by adding different pilot valves on its main body.

Applications

- Use G500-S for local operation of hydraulic valve by a manual command
- Use G500-S for water distribution and field

Standards

- G500-S : manual control valve with 3 Way selector valve, polyethylene plastic tubing and nylon fittings

How to Order

G500	-	TYPE		-	PORT	
		Hydraulic	S		1-1/2" BSPT	70
		with Manual Selector	SM		1-1/2" NPT	71
					2" BSPT	80
					2" NPT	81
					2-1/2"BSPT	85
					2-1/2" NPT	86
					3" BSPT	90
					3" NPT	91
					4" BSPT	100
					4" NPT	101
					4" Flange	100F

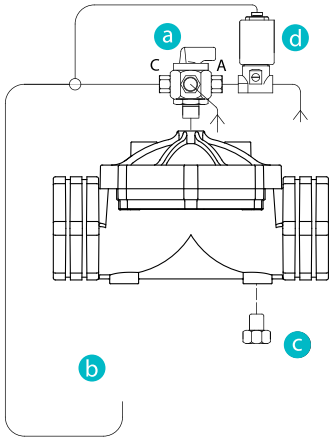
Example : G500-SM-80
G500 Hydraulic
with manual selector, 2" BSPT

G500 - SM - 80

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

Plastic | G500 series

G500-EL | Electric Solenoid Control Valve 1-1/2" - 4"



a 3W selector valve
b In-line finger filter
c Plug
d Solenoid Pilot Valve

Description

G500-EL model valve is the hydraulic control valve operated by line pressure and designed to ensure opening/closing process by means of built-in 3 Way solenoid pilot valve controlled remotely with electric signal. Electric signal for solenoid pilot valve is ensured by means of a control device, time relay, main switch and PLC control units etc. Opening/Closing process may be realized easily thanks to manual control on solenoid pilot valve, depending on requirements, 24V AC 50Hz/60Hz or 12V DC, 9V Latch and 12V DC Latch normally open (NO) or normally closed (NC), solenoids coils may be used on main valve.

Applications

- Use G500-EL to remove operation of hydraulic valve by an electric command
- Use G500-EL for water distribution

Standards

- G500-EL : 3 Way NO Solenoid, polyethylene plastic tubing system and nylon fittings
- G500-ELM : 3 Way NO Solenoid, polyethylene plastic tubing system, nylon fittings and 3 Way selector

How to Order

G500	-	TYPE		-	PORT		VOLTAGE		WIRES	
		Electric	EL		1-1/2" BSPT	70	No solenoid (hydraulic)	0	two	null
		with Manual Selector	ELM		1-1/2" NPT	71	24V AC	1	three(1)	a
					2" BSPT	80	24V AC w/out Diode	1R		
					2" NPT	81	12V AC	3		
					2-1/2" BSPT	85	12V DC	4		
					2-1/2" NPT	86	24V DC	5		
					3" BSPT	90	24 Latch (23Ω)	6		
					3" NPT	91	6 Latch (4Ω)	B		
					4" BSPT	100	12 Latch (9Ω)	C		
					4" NPT	101	16Latch (12Ω)	D		
					4" Flange	100F				

Example : G500-ELM-801
G500 Electric with manual selector, 2" BSPT, 24V AC, two wires

G500	-	ELM	-	80	1

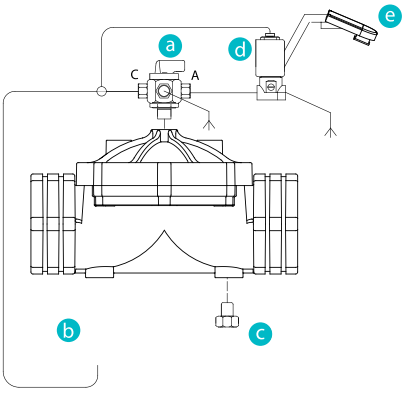
(1) For Latch only

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

SOLENOID VALVES | Special Purpose

Plastic

G500-C | DC Battery Controller 1-1/2" - 4"



- **a** 3W selector valve
- **b** In-line finger filter
- **c** Plug
- **d** Solenoid Pilot Valve
- **e** Controller

Description

G500-C model valve is the hydraulic control valve operated by line pressure and designed to ensure opening/closing process by means of built-in solenoid pilot valve controlled remotely with electric signal at required time or required duration. Electric signal for solenoid pilot valve is ensured by means of a control device, time relay, main switch and PLC control units etc. Opening/Closing process may be realized easily thanks to manual control on solenoid pilot valve, depending on requirements. The controller irrigates in cycles, during a window of time according to your needs.

Applications

- Use G500-C for programmed irrigation
- Use G500-C for water distribution

Standards

- G500-C : 9V DC Latch solenoid, Control Unit (1 Outlet), polyethylene plastic tubing system, nylon fittings and 3 Way selector

How to Order

G500-C	-	TYPE		-	PORT	
		One valve	null		1-1/2" BSPT	70
		Window	W		1-1/2" NPT	71
		Window +	W+		2" BSPT	80
					2" NPT	81
					2-1/2" BSPT	85
					2-1/2" NPT	86
					3" BSPT	90
					3" NPT	91
					4" BSPT	100
					4" NPT	101
					4" Flange	100F

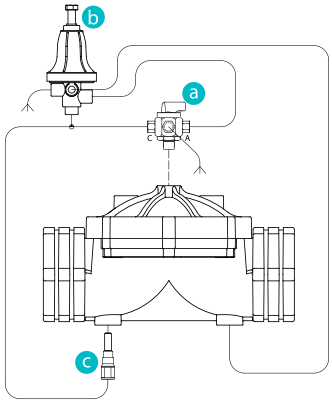
Example : G500-C-W-90
G500 DC Battery controller, Window, 3" BSPT100F

G500-C	-	W	-	90

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

Plastic | G500 series

G500-PR | Pressure reducing 1-1/2" - 4"



a 3W selector valve
b Plastic Pilot
c In-line finger filter

Description

G500-PR model pressure reducing control valve is the hydraulic control valve which reduces high upstream pressure value to desired lower pressure value by means of built-in pressure reducing pilot valve. Pressure reducing control valve controls downstream pressure value continuously and maintains it constant without being affected from flow rate and upstream pressure values. When no flow exists in the system, it closes itself automatically. When valve upstream pressure value is lower than set point, it is opened fully by itself. Valve may be used in vertical or horizontal positions in the system.

Applications

- Use G500-PR for irrigation, water distribution and filtration systems
- Smart designed G500-PR provides high corrosion resistance

Standards

- G500-PR : 3 Way plastic pressure reducing pilot, polytethylene plastic tubing system and nylon fittings
- G500-PRM : 3 Way plastic pressure reducing pilot, polytethylene plastic tubing system, nylon fittings and 3 Way selector
- Standard pressure adjustment from factory : 2.5 bar

How to Order

G500	-	TYPE		-	PORT		PRESSURE RANGE	
		without Manual Selector	PR		1-1/2" BSPT	70	0.5-5 bar	Y
		with Manual Selector	PRM		1-1/2" NPT	71	1-10 bar	G
					2" BSPT	80		
					2" NPT	81		
					2-1/2" BSPT	85		
					2-1/2" NPT	86		
					3" BSPT	90		
					3" NPT	91		
					4" BSPT	100		
					4" NPT	101		
					4" Flange	100F		

Example : G500-PR-80G
G500 pressure reducing without manual selector, 2" BSPT, 1-10 bar

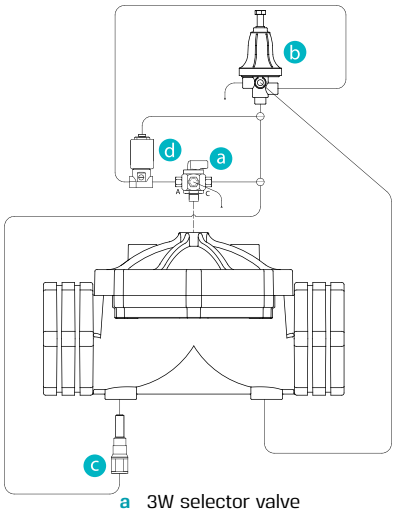
G500	-	PR	-	80	G

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

SOLENOID VALVES | Special Purpose

Plastic

G500-PREL | Solenoid controlled pressure reducing 1-1/2" - 4"



a 3W selector valve
b Plastic Pilot
c In-line finger filter
d Solenoid Pilot Valve

Description

G500-PREL model pressure reducing valve is the hydraulic control valve which reduces high upstream pressure value into desired lower pressure value. Control of main valve is achieved by means of built-in solenoid pilot valves. Electric signal for solenoid pilot valves is ensured by means of a control device, time relay, main switch and PLC control units etc. Automated control may be easily ensured by this way in application systems.

Applications

- Use G500-PREL for water distribution, where downstream pressure should be reduced, the valve is commanded to open

Standards

- G500-PREL : 3 Way plastic pressure reducing pilot, solenoid 24V AC NO, polytethylene plastic tubing system and nylon fittings
- G500-PRELM : 3 Way plastic pressure reducing pilot, solenoid 24V AC NO, polytethylene plastic tubing system and nylon fittings and 3 Way selector
- Standard pressure adjustment from factory : 2.5 bar

How to Order

G500	-	TYPE		-	PORT		VOLTAGE		WIRES		PRESSURE RANGE	
		without Manual Selector	PREL		1-1/2" BSPT	70	No solenoid (hydraulic)	0	two	null	0.5-5 bar	Y
		with Manual Selector	PRELM		1-1/2" NPT	71	24V AC	1	three(1)	a	1-10 bar	G
					2" BSPT	80	24V AC w/out Diode	1R				
					2" NPT	81	12V AC	3				
					2-1/2" BSPT	85	12V DC	4				
					2-1/2" NPT	86	24V DC	5				
					3" BSPT	90	24 Latch (23Ω)	6				
					3" NPT	91	6 Latch (4Ω)	B				
					4" BSPT	100	12 Latch (9Ω)	C				
					4" NPT	101	16Latch (12Ω)	D				
					4" Flange	100F						

Example : G500-PRELM-851G

G500 Solenoid controlled pressure reducing, with manual selector, 2-1/2" BSPT, 24V AC, two wires, 1-10 bar

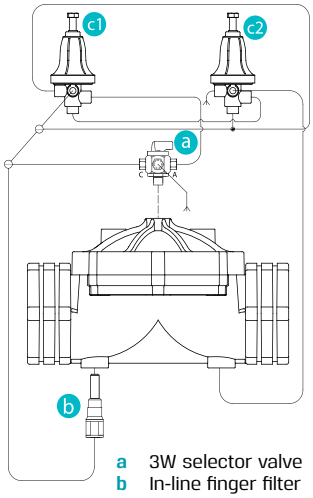
G500	-	PRELM	-	85	1	G

(1) For Latch only

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

Plastic | G500 series

G500-PRPS | Pressure reducing & sustaining control valve 1-1/2" - 4"



a 3W selector valve
b In-line finger filter
c1 Plastic Pressure Sustaining Pilot
c2 Plastic Pressure Reducing Pilot

Description

G500-PRPS model pressure reducing/sustaining hydraulic control valve reduces valve downstream pressure to desired value by sustaining upstream pressure. Two pilot valves exist on the valve. Pilot valve on upstream side is the pressure sustaining pilot valve and sustains upstream pressure. The other pilot valve is pressure reducing pilot valve and keeps downstream pressure constant by reducing it to desired value. Reducing/sustaining control valve pumps fluid downwards; it ensures that the system works within normal values by regulating overflow and high pressure in pumping systems. It controls upstream and downstream pressure continuously and keeps them within constant values.

Applications

- Use G500-PRPS for protecting booster pumps and preserving set pressure downstream

Standards

- G500-PRPS : 3 Way plastic pressure reducing pilot, 3 Way plastic pressure sustaining valve, polytethylene plastic tubing system, nylon fittings and 3 Way selector

How to Order

G500-PRPS	-	PORT		PRESSURE RANGE	
		1-1/2" BSPT	70	0.5-5 bar	Y
		1-1/2" NPT	71	1-10 bar	G
		2" BSPT	80		
		2" NPT	81		
		2-1/2" BSPT	85		
		2-1/2" NPT	86		
		3" BSPT	90		
		3" NPT	91		
		4" BSPT	100		
		4" NPT	101		
		4" Flange	100F		

Example : G500-PRPS-80G

G500 pressure reducing & sustaining 2" BSPT, 1-10 bar

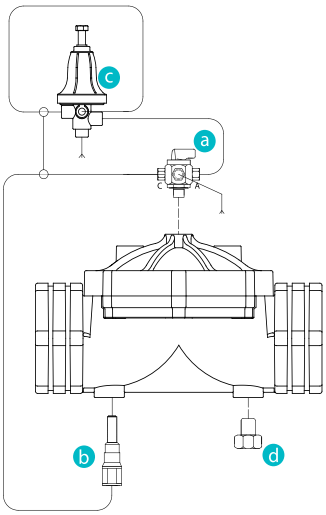
G500-PRPS	-	80	G

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

SOLENOID VALVES | Special Purpose

Plastic

G500-QR | Quick pressure relief 1-1/2" - 4"



a 3W selector valve
b In-line finger filter
c Plastic Pilot
d Plug

Description

G500-QR model quick pressure relief valve is the safety control valve designed to protect the system by releasing pressure surges, which are caused by sudden changes in water speed due to pumps put into/out of service, in water network elevation lines to the atmosphere quickly. When network pressure exceeds set point, the valve opens by itself quickly and protects the system by releasing over pressure. When the line pressure decreases to normal level, it is tightly closed slowly and automatically without causing a surge.

Applications

- Use G500-QR when wishing to avoid unwanted high pressure

Standards

- G500-QR : 3 Way plastic pilot, polytethylene plastic tubing system and nylon fittings
- G500-QRM : 3 Way plastic pilot, polytethylene plastic tubing system and nylon fittings and 3 Way selector

How to Order

G500	-	TYPE		-	PORT		VOLTAGE		WIRES		PRESSURE RANGE	
		without Manual Selector	QR		1-1/2" BSPT	70	No solenoid (hydraulic)	0	two	null	0.5-5 bar	Y
		with Manual Selector	QRM		1-1/2" NPT	71	24V AC	1	three(1)	a	1-10 bar	G
					2" BSPT	80	24V AC w/out Diode	1R				
					2" NPT	81	12V AC	3				
					2-1/2" BSPT	85	12V DC	4				
					2-1/2" NPT	86	24V DC	5				
					3" BSPT	90	24 Latch (23Ω)	6				
					3" NPT	91	6 Latch (4Ω)	B				
					4" BSPT	100	12 Latch (9Ω)	C				
					4" NPT	101	16Latch (12Ω)	D				
					4" Flange	100F						

Example : G500-QR-701G
G500 quick pressure relief, without manual selector, 1-1/2" BSPT, 24V AC, two wires, 1-10 bar

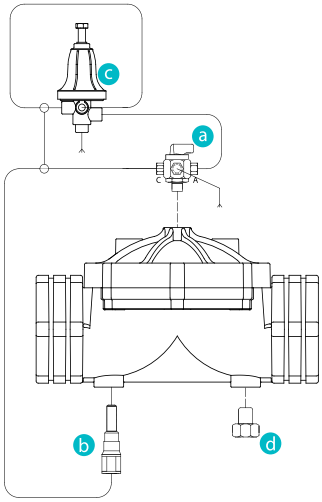
G500	-	QR	-	70	1	G

(1) For Latch only

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

Plastic | G500 series

G500-PS | Pressure sustaining control valve 1-1/2" - 4"



a 3W selector valve
b In-line finger filter
c Plastic Pilot
d Plug

Description

G500-PS model pressure sustaining hydraulic control valve maintains valve upstream pressure value constant. Valve is opened when line pressure reaches the preset pressure level. It ensures that pump motor within pumping systems will start without load. It also prevents positive pressure waves caused by pump during start-up. The valve controls upstream pressure value continuously and keeps it at a constant value without being affected from changes in flow rate. When no flow exists, it closes tightly by itself.

Applications

- Use G500-PS for maintaining a constant upstream pressure or to avoid unwanted high pressure

Standards

- G500-PS : 3 Way plastic pressure sustaining pilot, polytethylene plastic tubing system and nylon fittings
- G500-PSM : 3 Way plastic pressure sustaining pilot, polytethylene plastic tubing system, nylon fittings and 3 Way selector
- Standard pressure adjustment from factory : 2.5 bar

How to Order

G500	-	TYPE		-	PORT		VOLTAGE		WIRES		PRESSURE RANGE	
		without Manual Selector	PS		1-1/2" BSPT	70	No solenoid (hydraulic)	0	two	null	0.5-5 bar	Y
		with Manual Selector	PSM		1-1/2" NPT	71	24V AC	1	three[1]	a	1-10 bar	G
					2" BSPT	80	24V AC w/out Diode	1R				
					2" NPT	81	12V AC	3				
					2-1/2" BSPT	85	12V DC	4				
					2-1/2" NPT	86	24V DC	5				
					3" BSPT	90	24 Latch (23Ω)	6				
					3" NPT	91	6 Latch (4Ω)	B				
					4" BSPT	100	12 Latch (9Ω)	C				
					4" NPT	101	16Latch (12Ω)	D				
					4" Flange	100F						

Example : G500-PSM-801G

G500 pressure sustaining with manual selector, 2" BSPT, 24V AC, two wires, 1-10 bar

G500	-	PSM	-	80	1	G

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