



## LANDSCAPE CATALOG

Solenoids & Irrigation Accessories for Landscape Applications

Tackling climate  
change together







## BACCARA LANDSCAPE

Due to climate change, declining resources and limitations in space, automation technology is a necessity for gardening and farming. In order to grow year round, gardeners and farmers must rely on technology to plant, grow, irrigate and harvest fruits and vegetables. Gardening and technology don't have to exist at odds with each other. Baccara provides automated irrigation solutions for the gardening world, bringing to it smart garden technology which encompasses advanced computerized irrigation systems, environmental control, cycle irrigation for temperature control, irrigation by volume of water, electric remote control and Smartphone operated controller.



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## GEM-FLOW | G75-A

## 2-Way / 3-Way N.C., N.O. Metal Direct Operated

As a pioneering solenoids developers and manufactures, Baccara offers the widest range of solenoid operators with various configurations for irrigation and water applications.

The G75-A solenoids family - reliable and durable solenoids for various applications

### Features & Benefits

- Most reliable and economical solenoids
- Variety of orifice sizes
- Robust body material built for heavy duty applications
- Wide range of pressure ratings and sizes
- Manual override - Close, Open and Auto functions
- Low power consumption
- High stability in voltage fluctuations
- Optimal for open field conditions (rain, UV)
- Simple installation and maintenance

### Applications

- Controlled electric valves
- Irrigation - fast actuation on medium to large control valves
- Water supply systems
- Actuation of hydraulic systems in remote areas with Baccara G75 controllers
- Compatible with AC/DC irrigation controllers\*
- Solenoids manifolds for irrigation central distribution and RTUs

### Models

- Functions: 2 Way, 3 Way NC, NO, AC, DC, Latch
- Port sizes: 1/8", 1/4", BSP & NPT
- Valve materials: Brass or Reinforced Nylon



G75-A | GEM-FLOW 3W  
Plastic



G75-A | GEM-FLOW 2W  
Plastic



G75-A | GEM-FLOW  
Brass

\* Plastic base available in 1.2 and 1.6 mm orifice

\* For specific models, please contact Baccara's sales team

## Technical Data

- Temperature range Fluid: 5°C to 50°C; Ambient: -10°C to 50°C
- Manual override: Reinforced Nylon
- Main Valve: Brass or Reinforced Nylon
- Solenoid Operator: Stainless Steel AISI 300 & 400 series
- Seals: EPDM
- IP66

## Max. Pressure (bar) table

Function	Orifice (mm)	AC	DC	DC Latch
2W NC	up to 2.0*	12	12	12
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 & Current table

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	

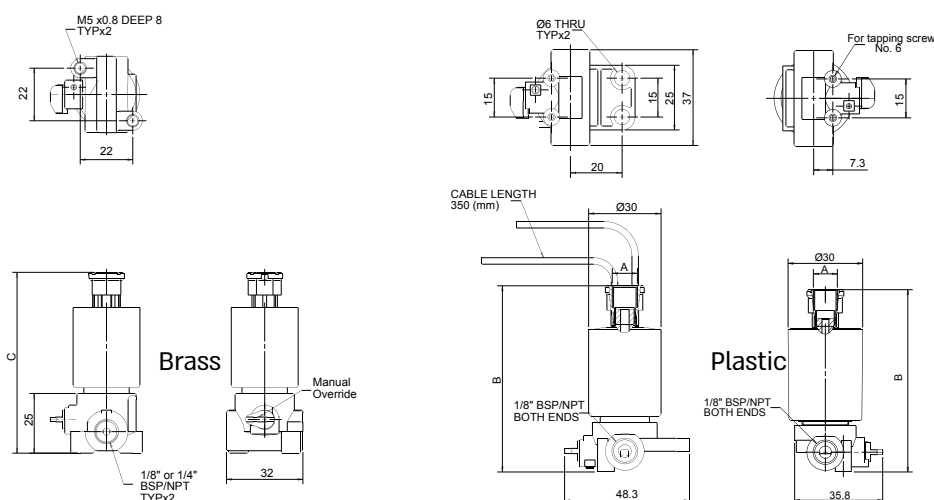
\* Except 24V AC without Diode

## Voltage & Power Consumption

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

\* Available Options

## Dimensions



	A	B	C
2W NC	-	59	65
3W	1/8	70	77

\* Available Options

\* Plastic base available in 1.2 and 1.6 mm orifice

## GEM-FLOW | G-75VM

## 3-Way N.C.,N.O. Plastic Direct Operated Modular Manifold

Modular Manifold, combines 1/8" size 3 way Latch & AC Solenoid valves with Manual Override, easy and simple mounting option

Introducing the next generation of modular manifolds, featuring an innovative manual mounting solution performing a fast and safe connection between valves for process application. The valves also features two COMM ports for flexible and fast installation.



### Features & Benefits

- Suitable for both Latch & AC solenoids
- Suitable to actuate up to 10 stations simultaneously
- NC & NO options
- Dual command ports
- Fast and easy mounting, saves assembly time and cost
- UV protected
- Manual override - Close, Open and Auto functions
- Low maintenance cost in field

### Applications

- Irrigation - automation of hydraulic valves
- Waterworks - ultimate solution for medium to high flow rates
- Filtration systems - single units and array systems

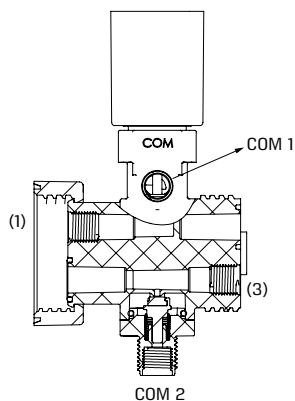


## Technical Data

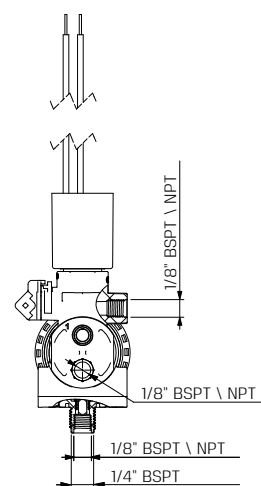
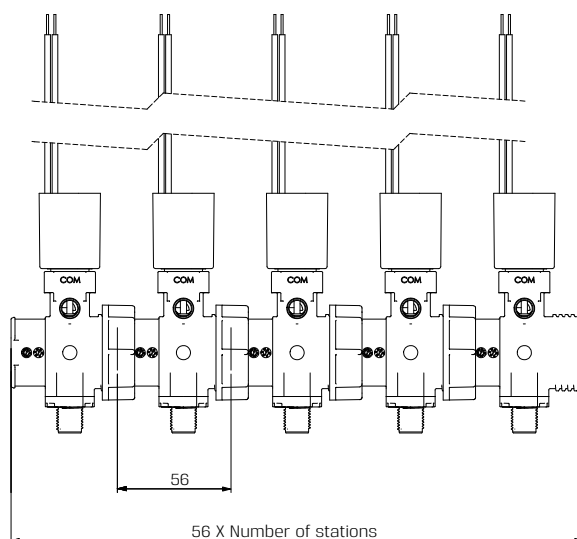
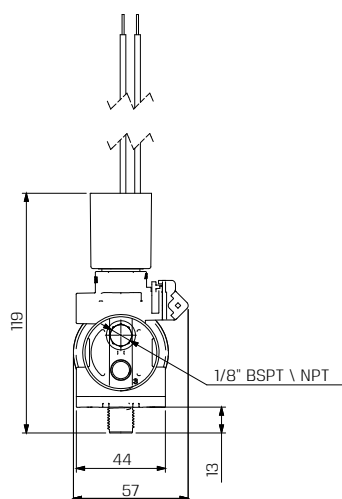
- Port size: 1/8"
- 3 Way Direct Operated Valve
- Manual Operated - 3 positions
- No. of Stations: 1 - 10
- Function: NO / NC
- Orifice Size: 1.8 mm
- Media: Liquid and Gases
- Media Temperature: 0° C to 50° C (no freezing)
- Ambient Temperature: (no freeze) -10° C to 50° C
- Pressure range: Up to 8 bars
- Voltage: Latch & AC

## Hydraulic Connections

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



## Dimensions



### **GEM-FLOW | G75-A3P**

### 1/8" size 3 Way Latch Solenoid With Large Orifice

The next generation of 3 way LATCH solenoid valve with manual override. The large orifice size facilitate a faster actuation on hydraulic systems like large irrigation valves and improves flushing time on filtration systems. The unique manual override mechanism guarantee a safer manual actuation with three positions (Open - Auto - Closed). The G75-A3P is the most reliable latch solenoid in the market today.

#### Features & Benefits

- Latch solenoid
- Quicker hydraulic response, large orifice 2.6mm
- Designed for high flowrate
- Compatible with Baccara G75 controllers
- Best solution for irrigation automation and filtration systems
- Suitable for long distance operation

#### Applications

- Irrigation - fast actuation on medium to large control valves
- Filtration - quick flushing response time in filtration systems
- Water supply systems - ultimate solution for high flow rates
- Actuation of hydraulic systems in remote areas with Baccara G75 controllers
- Compatible with AC/DC irrigation controllers \*

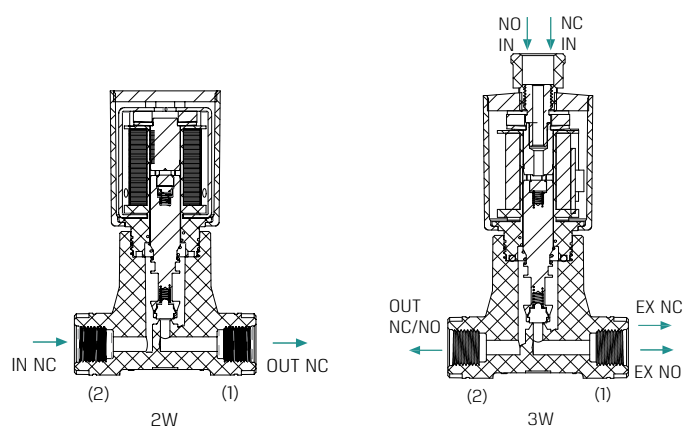




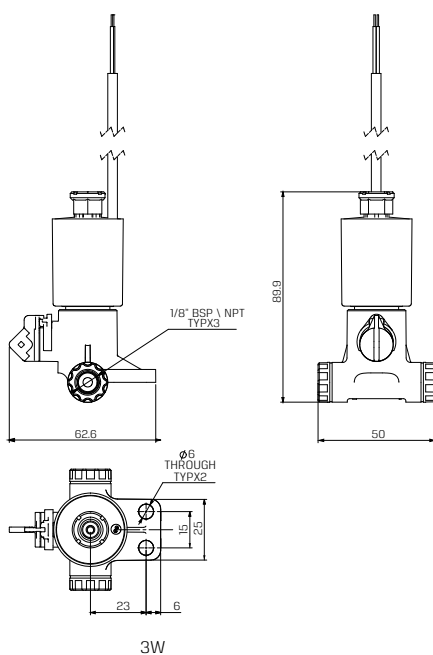
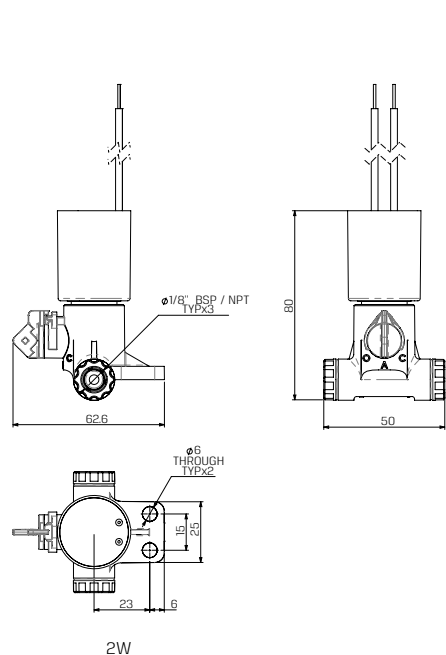
## Technical Data

- Ports size: 1/8" BSP & NPT
- Pressure range: 1-10 bar
- Orifice Size: up to 2.6mm
- Function: 3 Way NO,NC
- Voltage: LATCH, 8-12VDC (1Ω) or 12-18VDC (4Ω)
- IP66 class

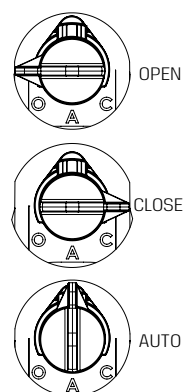
\* for specific models, please contact Baccaraws sales team



## 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

## GEMSOL-32 | GEM-A

## 2-Way/3-Way N.C., N.O. Metal Direct Operated

The GEM-A solenoids family - Heavy duty, durable, high flow solenoids for various applications

### Features & Benefits

- Heavy duty applications
- Extended life span
- Designed for high flow rates
- Highest pressure ranges
- Wide range of sizes, and resilient materials
- Manual override - Close, Open and Auto functions (also available in Latch)
- Low power consumption (Latch)
- High stability in voltage fluctuation

### Applications

- High frequency controlled electric valves
- Irrigation - fast actuation on medium to large control valves
- Water supply systems - ultimate solution for high flow rates
- Actuation of hydraulic systems in remote areas with Baccara G75 controllers
- Compatible with AC/DC irrigation controllers \*
- Solenoids manifolds for irrigation central distribution and RTUs

### Models

- Functions: 2 Way, 3 Way NC, NO, AC, DC, Latch
- Port sizes: 1/8", 1/4", BSP & NPT
- Valve materials: Brass and Stainless Steel



GEM-A | GEM-SOL 2W/3W  
Stainless Steel



GEM-A | GEM-SOL 2W/3W  
Brass



GEM-A3P | GEM-SOL 2W/3W

\* for specific models, please contact Baccara's sales team

## Technical Data

- Temperature range Fluid: (no freezing) -10°C to 80°C; Ambient: -10°C to 50°C
- Manual override: Brass , Stainless Steel, Plastic
- Main Valve: Brass, Stainless Steel
- Solenoid Operator: Stainless Steel AISI 300 & 400 series
- Seals: NBR, FPM , EPDM
- Media: Water, Air
- IP65 (IP68 optional)

## Max. Pressure (bar) 2W NC table

Coil Current/Power	Orifice (mm)						
	0.8	1.2	1.6	2.0	2.4	3.0	4.0
ADC *	60	50	35	20	15	10	5
AC8W, DC/10W	80	80	60	38	30	18	10
AC5.5W	80	60	40	28	20	15	6
AC2.5W	60	50	35	20	15	9	5
DC5.5W	60	30	18	12	9	6	3
DC3.5W	40	20	12	8	6	4	2
Flow factor Kv(l/min)	0.5	1.1	1.7	2.5	3.5	4.5	5

## 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, DC/10W	35	30	17	14	10	6
AC5.5W	23	20	15	10	8	5.5
AC2.5W						
DC5.5W	20	16	10	9	5	4
DC3.5W						
Flow factor Kv(l/min)	0.6	1.1	1.7	2.5	3.5	4.5

## Max. Pressure (bar) 2W NO table

Coil Current/Power	Orifice (mm)						
	0.8	1.2	1.6	2.0	2.4	3.0	4.0
ADC *	25	25	25	20	15	10	
Flow factor Kv(l/min)	0.5	1.1	1.4	2.5	3.0	3.5	

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

## Max. Pressure (bar) 2W NO table

Coil Current/Power	Orifice (mm)					
	0.8	1.2	1.6	2.0	2.4	3.0
ADC *	25	20	15	11	8	6
AC/8W DC/10W	30	22	17	12	10	7
AC/5.5W,DC/5.5W	25	20	15	11	8	6
AC/2.5W,DC/3.5W	20	18	12	8	6	4
Flow factor Kv(l/min)	0.6	1	1.4	2.2	3.0	3.5

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

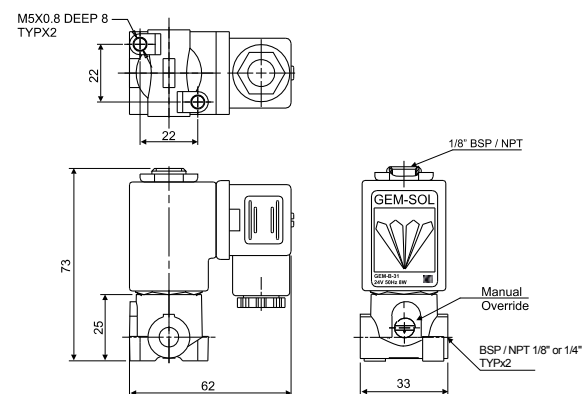
## Voltage & Power Consumption

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							<div></div>	<div></div>	<div></div>
12	<div></div>			<div></div>			<div></div>	<div></div>	<div></div>
24	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>		
48	<div></div>			<div></div>			<div></div>		
110	<div></div>			<div></div>	<div></div>		<div></div>		
120	<div></div>			<div></div>					
220	<div></div>	<div></div>	<div></div>	<div></div>			<div></div>		
230	<div></div>	<div></div>							
240	<div></div>			<div></div>			<div></div>		

Available options:

▲ STANDARD    ● SEMI-STANDARD    ■ SPECIAL

## Dimensions



## GEMSOL-32 | G75-S

## Electric 2-Way N.C., N.O. Plastic Pilot Operated Valve

Electric & Hydraulic Valves series for various flow control applications

### Features & Benefits

- Highly effective hydraulic design for high/low flowrate
- Robust body material built for heavy duty application
- UV protected
- Durability - designed for hard work with minimal wear and tear
- Efficient compact design for easy installation
- Easy maintenance and servicing with quick access for internal components
- Versatile configurations for various applications - Electric, Hydraulic, PR, PS and more
- Integrated G75 operator - Baccara high quality and robust irrigation solenoid line
- Very low energy consumption



### Applications

- Landscaping and Turf irrigation Systems
- Agriculture irrigation systems
- Controlled irrigation systems
- Clustering and central water distribution
- Greenhouse irrigation systems

### Models

- 3/8", 1/2", 3/4" and 1" models
- 1 1/2" and 2" models
- Electric/Hydraulic/PR/PS
- 2W, 3W, NC, NO
- Solenoid G75/Solenoid GEM-SOL
- AC/DC/Latch
- BSP/NPT
- BSPT\*



G75-S | GEM-FLOW 2"  
NC Latch with handle  
manual override



G75-S | GEM-FLOW  
Pilot operated



G75-S | GEM-FLOW 2"  
Electric pressure reducing  
0.5-5 bar

\* 3/8", 1/2" - BSP

## Technical Data

### Operating Pressure range

0.3 - 10 bar

### Temperature range

Fluid 5°C to 50°C

Ambient (no freeze) -10°C to 50°C

### Materials

**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 and GEM-Sol

Voltage ranges

AC, DC and Latch

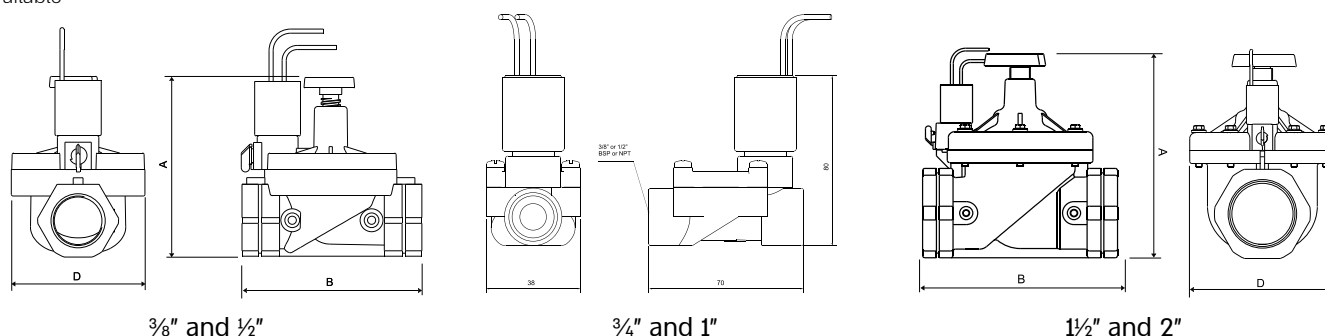
## Voltage & Power Consumption

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

\* Available

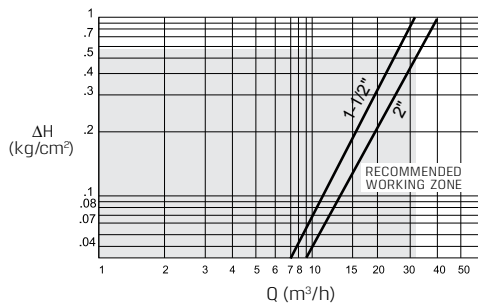
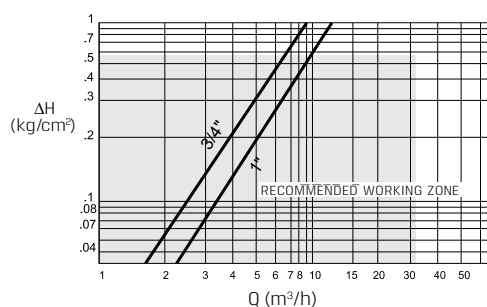
## Voltage & Current table

Solenoid	Voltage	Inrush (A)	Holding (A)
2 Way 50 Hz	V	Vn+10%	0.3
2 Way 60 Hz			0.2
3 Way 50/60 Hz		n-20%	0.125
DC			4.5W



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
1"	190	170	126	127	790

## Head loss for fully open valve



\* Dimensions and hydraulic data will be provided upon specific request

\* 3/8", 1/2"



## **ii.ri** Smartphone Operated Irrigation Controller

The ii.ri is standalone smartphone operated irrigation controller with wireless operation capability and internal battery operated.

### Features & Benefits

- Station Irrigation Controller
- Wireless operated by smart device
- Four irrigation program types
- Compatible with Bluetooth 4.0 device
- Minimum required iOS 7 or Android V4.3
- Battery included up to 3 years battery life
- IP68 Class

### Applications

- Home gardens and lawns
- Turf
- Public landscaping
- Agriculture irrigation systems
- Greenhouse irrigation systems

### Models

- The IIRI is suitable to be installed in a valve range from 1/8" up to 2",
- Stand-alone version, suitable to install in most of the valves up to 2" size.
- Available in a variety of colors



\* Standard colors



## Programming key features

- Four different irrigation plans

Weekly	Interval Days	Even / Odd Days	Window
Irrigation each day of the week	Periodical days up to 98 periods	Even / odd calendar dates	Repeated cycles within a defined time frame
Set up to 6 cycles per day			Set cycle On and Off duration
Option to set different irrigation durations per cycle			Set start and end times for irrigation

## Technical data

Function	2 Way Latch
Temperature Range	Fluid: 5°C to 50°C Ambient: -5°C to 50°C
Communication Protocol	Bluetooth 4.0
App Downloading	Insert table from
Pairing Code	Not required
Communication Range	Up to 10m. [32.8 feet]
Battery Type	CR123
Pressure Range	0 to 8 bar
Mounting	Direct mounting on UNEF ¾
Standard Protection Class	Dust and watertight IP68

## **G75-C** Baccara Irrigation Controller

A friendly compact irrigation controller that enable optimally and effectively controlling precise irrigation for gardens, turfs and lawns while conserving water and expenses. The G75 controller can stand alone or be fitted on the G75 Baccara valves. The controller can be set with 3 programs and is very easy to operate.

### Features & Benefits

- Simple/friendly operation
- Stand-alone application
- Power saving LCD
- 3 independent programs:
  - P1: 1 session every day at the same time
  - P2: 1 session per day on selected days
  - P3: up to 3 sessions per day on selected days
- "Window" model:
  - 1. Works with Baccara GEMSOL operator
  - 2. High accuracy - self correcting of time shifting over a period of time
- Manual operation and separate 'OFF' knob to stop all irrigation activities
- Available also in "Window" version - Irrigation cycle within a defined time frame
- Various language selections possible
- Clearly arranged LCD screen with 4 keypads
- Water and dust-Protection (IP67)
- Different mounting possibilities for wall or tap mounting
- Suitable for various valves with 3/4" UNEF screw thread



### Applications

- Indoor and outdoor applications
- Home gardens and lawns
- Turf
- Public landscaping
- Agriculture irrigation systems
- Greenhouse irrigation systems

### Models



Gem-Sol G75 One Valve



Gem-Sol G75 Window



Gem-Sol G75 Two Valves



Gem-Sol G75 Four Valves

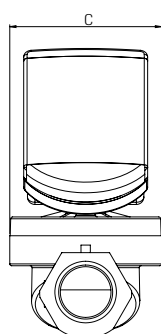
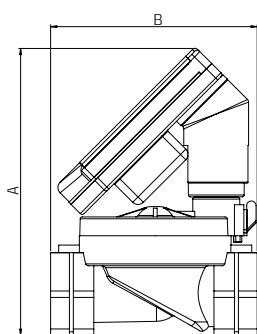
## Programming key features

One Valve	Two Valves	Four Valves
Once daily, at the same time	Up to three starts per day	Up to three starts per day
Once daily on selected days	Starts select	Starts select
Three starts per day	Day select	Day select
OFF	Season adjustment 10% - 200%	Season adjustment 10% - 200%
	OFF	OFF
		Master valve will be opened for each command

## Technical data

Operating temperature	-10° to 60°C
Mounting	Various mounting options: <ul style="list-style-type: none"> <li>• Direct mount on a solenoid operator (28mm diameter) solenoid in horizontal or vertical position with adaptor</li> <li>• Wall mounting with four screws</li> </ul>
Electrical	Powered by single 9V alkaline battery; <ul style="list-style-type: none"> <li>• Back-up memory</li> <li>• Low battery warning</li> <li>• Power saving LCD</li> <li>• Battery included</li> </ul>
GEM-Sol Solenoid	Compatible with Four G75 Latch operators
Valve	Can operate any valve equipped with 3/4" UNEF solenoid cavity
Software	<ul style="list-style-type: none"> <li>• 24 hours real time clock G75 Valves series</li> <li>• See 'Programming key features' table</li> </ul>
Standard / Certification	CE
Standard protection class	• IP67 and NEMA 4X

## Dimensions

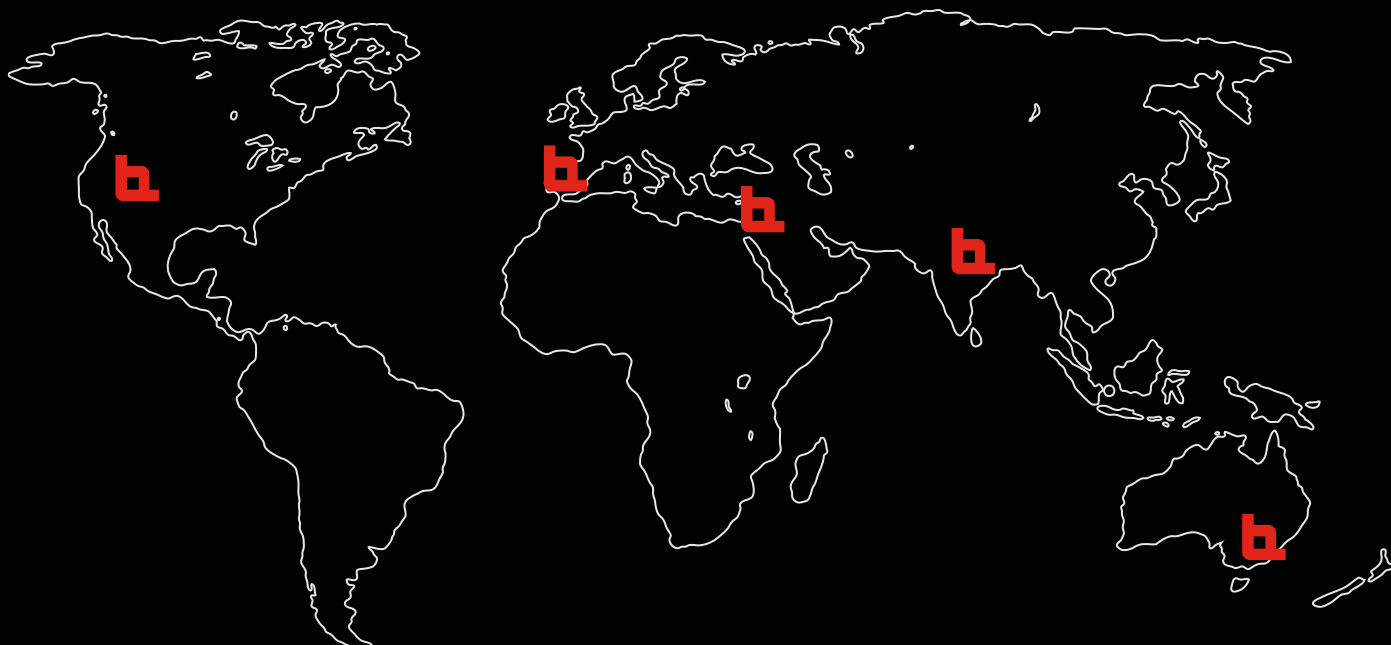


Size	A	B	C
3/4"	145	110	81
1"	153	110	81
1 1/2"	166	160	127
2"	166	170	127









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