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ii.ri-C |

Smartphone Operated Irrigation Controller

INSTRUMENTATION & CONTROL

ii.ri-C | Smart Irrigation Controller 2 Way



- Single station Irrigation Controller
- Wireless operated by smart device
- Four irrigation program types
- Minimum required iOS 7 or Android V4.3
- Battery included

Technical Data

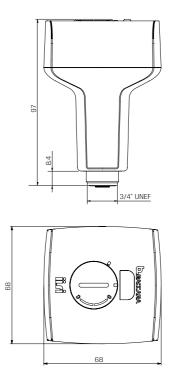
Function	2 Way Latch
Pressure range	0 to 8 bar
Temperature range	Fluid: 5° to 50°C (no freezing) Ambient: -5° to 50°C
Communication protocol	Wireless BLE
App Downloading	Ger it on Google play
Pairing code	Not required
Communication range	Up to 10 m (32.8 feet)
Battery type	CR123
Mounting	Direct mounting on UNEF 3/4"
Standard / Certification	• CE • Federal Communications Commission (FCC)
Standard protection class	Dust and watertight IP68

Programming key features

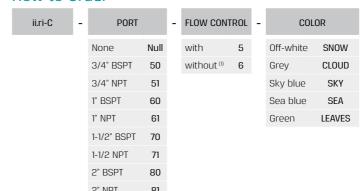
• Four different irrigation plans

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								
Option to set different irrigation durations per cycle Set start a for irrigati									

Dimensions



How to Order



Example : ii.ri-C-51-6-CLOUD

ii.ri controller with 3/4" NPT valve, without flow control, color CLOUD



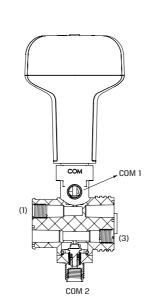
(1) For 3/4" and 1" valves only

^{*} To order controllers manufactured according to your specific requirements, please contact our technical sales department.

ii.ri-C-VSA | Smart Irrigation Controller 3 Way



- Single station Irrigation Controller
- Wireless operated by smart device
- Four irrigation program typesMinimum required iOS 7 or Android V4.3
- Battery included



Technical Data

INSTRUMENTATION & CONTROL

Function	3 Way Latch
Pressure range	0 to 8 bar
Temperature range	Fluid: 5° to 50°C (no freezing) Ambient: -5° to 50°C
Communication protocol	Wireless BLE
App Downloading	Get it on Available on the Google play
Pairing code	Not required
Communication range	Up to 10 m (32.8 feet)
Battery type	CR123
Mounting	Direct mounting on UNEF 3/4"
Standard / Certification	• CE • Federal Communications Commission (FCC)
Standard protection class	Dust and watertight IP68

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

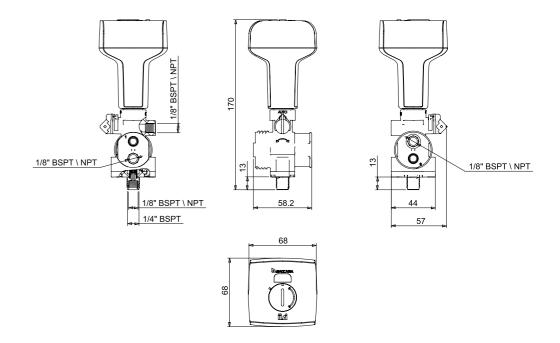
Programming key features

• 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								
Option to set different irrigation durations per cycle Set start and end ti for irrigation									

Smartphone Operated Irrigation Controller | ii.ri

Dimensions



How to Order

ii.ri-C-VSA	-	BODY		PORT		FUNCTION		SEALS	
		Plastic	4	1/8" BSP	10	3W NC	3	EPDM	Ε
				1/8" NPT	11	3W NO	4		

Example: ii.ri-C-VSA-4103E

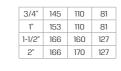
ii.ri smart irrigation controller with 1/8" BSP valve, 3W NC, EPDM seals

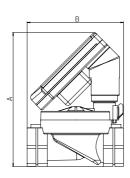


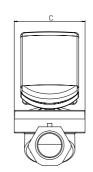
^{*} To order controllers manufactured according to your specific requirements, please contact our technical sales department.

G75-C | Irrigation Controller | 1, 2 & 4 Valves









Technical Data

Temperature range	-10° to 60°C
Mounting	Various mounting options: Directly on a 28mm diameter solenoid in horizontal or vertical position with adaptor Wall mounting with four screws Accessories provided
Electrical	Powered by single 9V alkaline battery; use best quality to ensure at least one year's autonomous operation. Back-up memory Low battery warning Power saving LCD Battery included
Solenoid	Compatible with G75 4 Ω latch operator
Valve	Can operate any valve equipped with 3/4" UNEF solenoid cavity (Richdel® type).
Software	• 24 hours real time clock• See 'Programming key features' table
Options	Solar panel Charger Accurate clock (low time drift)
Standard / Certification	CE
Standard protection class	Dust and watertight IP67 and NEMA 4X

Mounting options

Horizontal mounting





Programming key features

One valve 1

Two valves 2 Four valves 4

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

How to Order

No valve	00								
3/8" BSP	30								
3/8" NPT	31								
1/2" BSP	40								
1/2" NPT	41								
3/4" BSP	50								
3/4" NPT	51								
1" BSP	60								
1" NPT	61								
1-1/2"BSP	70								
1-1/2"NPT	71								
2" BSP	80								
2" NPT	81								
G75-A *		G75-A *		G75-A *		G75-A *		G75-A *	

* G75-A

with flange	1	1/8" BSP	10	2W NC	1	None	0	1.0	1
without flange	2	1/8" NPT	11	3M NC	3			1.2	2
Brass	3	1/4" BSP (1)	20	3W NO	4			1.6	3
		1/4" NPT (1)	21						

1) Example: G75-C-2-50-60

GEVA 75 Two Valves controller: Valve 1: 3/4" BSP, Valve 2: 1" BSP G75-C - 2 - 50 - 60

2) Example: G75-C-4-50-70-80-00-60

GEVA 75 Four Valves controller:

Valve 1: 3/4" BSP, Valve 2: 1-1/2"BSP, Valve 3: 2" BSP,

Valve 4: No Valve, Master Valve: 1" BSP,

4 |- 50 | 70 |- 80 |- 00 |- 60

3) Example: G75-C-2-60-G75-A-110102

GEVA 75 Two Valves controller:

Valve 1: 1" BSP, Valve 2: G75-A with flange, 1/8" BSP, 2W NC,

no manual override, 1.2 orifice



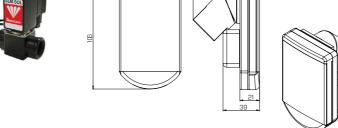
(1) Brass only

(2)For Four Valves controller only

^{*} To order controllers manufactured according to your specific requirements, please contact our technical sales department.

G75-C-1W & 1W+ | Window Controller





Irrigation cycles within a defined time frame

Technical Data

Temperature range	-10° to 60°C
Mounting	Various mounting options: • Directly on a 28mm diameter solenoid in horizontal or vertical position with adaptor • Wall mounting with four screws • Accessories provided
Electrical	Powered by single 9V alkaline battery; use best quality to ensure at least one year's autonomous operation. Back-up memory Low battery warning Power saving LCD Battery included
Solenoid	Both Window and Window ⁺ controllers have identical programming. • Window: compatible with G75 4Ω latch operator • Window ⁺ : has a stronger output to operate G80 latch and GEM-SOL 'IL' latch coils
Valve	Window: can operate any valve equipped with 3/4" UNEF solenoid cavity (Richdel® type) Window*: only with Baccara latch valve
Software	24 hours real time clockSee 'Programming key features' table
Options	Solar panel Charger Accurate clock (low time drift)
Standard / Certification	CE
Standard protection class	Dust and watertight IP67 and NEMA 4X

Mounting options



Programming key features

Set start and end hours
Set On time (1 second to 12 hours)
Set Off time (1 min to 12 hours)
Day select
OFF

How to Order: G75 Window

G75-C-1W	-	VALVE	
		No valve	00
		3/8" BSP	30
		3/8" NPT	31
		1/2" BSP	40
		1/2" NPT	41
		3/4" BSP	50
		3/4" NPT	51
		1" BSP	60
		1" NPT	61
		1-1/2"BSP	70
		1-1/2"NPT	71
		2" BSP	80
		2" NPT	81
		G75-A *	

 $\ensuremath{^{\star}}$ This controller will only operate with G75 operators

* G75-A

TYPE		PORT		FUNCTIO	ON	MANUAL OVERRIDE		ORIFICE	Ξ
with flange	1	1/8" BSP	10	2W NC	1	None	0	1.0	1
without flange	2	1/8" NPT	11	3W NC	3			1.2	2
rass	3	1/4" BSP (1)	20	3W NO	4			1.6	3
		1/4" NPT (1)	21						

Example: G75-C-1W-50

GEVA 75 Window controller with 3/4" BSP valve.



(1) Brass only

How to Order: G75 Window⁺

G75-C-1W ⁺	-	VALVE
		Refer to How to Order section of GEM-SOL valves. Consult with us to discuss your specific requirements.

Example: G75-C-1W⁺-GEM-A-21045N0

GEVA 75 Window⁺ controller with: GEM-A valve, brass, 1/8" BSP, 3W NO,

2.4 orifice, NBR, no manual override.

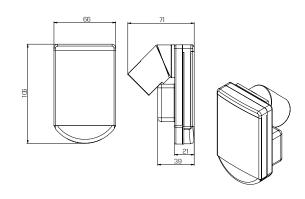


^{*} To order controllers manufactured according to your specific requirements, please contact our technical sales department.

Water Meter Controller

G75-BWM | Baccara Water Meter Controller





- Single station water volume controller
- Connected to a water meter with pulse outlet
- Opens at a set time and closes when required water volume has been reached

Technical Data

Temperature range	-10° to 60°C
Electrical	Powered by single 9V alkaline battery; use best quality to ensure at least one year's autonomous operation. Back-up memory Low battery warning Power saving LCD Battery included
Mounting	Various mounting options: Directly on a 28mm diameter solenoid in horizontal or vertical position with adaptor Wall mounting with four screws Accessories provided
Solenoid	Compatible with G75 4 Ω latch operator
Measurement units per pulse	100 liters 1m³ 10m³ 100 gallons 1000 gallons
Software	24 hours real time clock See 'Programming key features' table
Options	Solar panel, charger
Standard protection class	Dust and watertight IP67 and NEMA 4X

Programming key features

Set start time
Set required water volume
Day select
OFF

How to Order

G75-BWM	-	VALVE	
		No valve	00
		3/8" BSP	30
		3/8" NPT	31
		1/2" BSP	40
		1/2" NPT	41
		3/4" BSP	50
		3/4" NPT	51
		1" BSP	60
		1" NPT	61
		1-1/2"BSP	70
		1-1/2"NPT	71
		2" BSP	80
		2" NPT	81
		G75-A *	

* G75-A

TYPE	TYPE PORT		FUNCTION		MANUAL OVERRIDE		ORIFICE		
with flange	1	1/8" BSP	10	2W NC	1	None	0	1.0	1
without flange	2	1/8" NPT	11	3W NC	3			1.2	2
Brass	3	1/4" BSP (1)	20	3W NO	4			1.6	3
		1/4" NPT (1)	21						

1) Example : G75-BWM-G75-A-110102

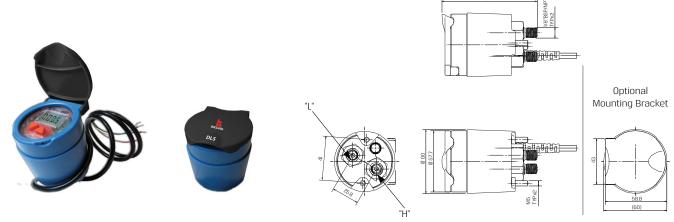
G75-A with flange, 1/8" BSP, 2W NC, no manual override, 1.2 orifice

G75-BWM - G75-A]-[1	10	1	0	2

^{*} To order controllers manufactured according to your specific requirements, please contact our technical sales department.

Digital Level Switch

G75-DLS | Digital Level Switch



- Measuring level of two set points: top and bottom
- Gives a signal to pump or valve
- Dry installation no elements inside the tank
- Main applications : filling or draining of water reservoir and tanks

Technical Data

Mechanical	 Operating temperature: -10°C to 60°C (no freezing) Outdoor UV protection Front panel cover protection
Electrical	Power supply: 6-24V DC or 12-24V AC RED + BLK power supply GRN / WHT N.O contact Low power detect Dry contact (N.O) 0.5A at 24V AC Internal memory to retain "set-up data" at power down.
Mounting	 2" (52mm) diameter 2ft (60cm) 4 wires cable Pressure ports 1/8" BSP/NPT (male) High pressure port is marked by the letter "H" on the housing Connect the water tank to the "H" port only
Software	See 'Programming key features' table
Display	The LCD display shows the water level above the DLS mounting place "ON" is displayed when the switch contacts are closed Display resolution: 10 cm in a range of 0.0 - 70.0m 0.01 bar in the range 0.0 - 7 bar
Standard protection class	Dust and watertight IP66

Programming key features

Manual operation
Time interval between level measurements function
Function : "SET" for fill "RESET" for empty
Zero calibration

How to Order

G75-DLS	-	TYPE		ACCESSORIES	;
		Stand alone	1	Mounting bracket	В

Example: G75-DLS-1B

Digital Level Switch, stand alone, with mounting bracket

G75-DLS	-	1	В

^{*} To order controllers manufactured according to your specific requirements, please contact our technical sales department.

Filtration Controller Set

G75-DFC-DC | Baccara Filtration Controller Set (DFC)



- Filtration backwash controller 1-3 stations
- Backwash by DP or time interval
- The assembly includes controller and differential pressure sensor
- Mounting bracket optional

Technical Data

Controller Set Supplied with	DFC controller, suitable for DC only, and one analog sensor
Mechanical	 Operating temperature: -10°C to 60°C Outdoor UV protection Front panel cover protection "H" proof pressure: 14 bar (203 PSI) "H" pressure must be ≥ "L" pressure.
Electrical	DC units are powered by single 9V alkaline battery; use best quality to ensure at least one year's autonomous operation. Back-up memory Low battery warning Power saving LCD
Mounting	Pressure ports 1/8" BSP/NPT (male) High pressure port is marked by the letter "H" on the housing Connect high pressure before low pressure Disconnect low pressure before high pressure Controller: Directly on a 28mm diameter solenoid in horizontal or vertical position with adaptor Wall mounting with four screws Accessories provided Sensor: 2" (52 mm diameter)
Software	See 'Programming key features' table
Options	Option to change default factory settings
Standard protection class	• IP66 Dust and watertight
Solenoid	G75-A, GALIT Latch 4 Ω , G75-A3P 1 Ω

How to Order

	٠.	ac.					
G75-DFC-DC	-	TYPE		-	MOUNTING BRACKET		
		3 Valves	0		without	0	
		3 Valves + 1 Main Valve	1		with	1	

Example: G75-DFC-DC-1-1

GEVA 75 DFC-DC, 3 Valves + 1 Main valve, with mounting bracket

G75-DFC-DC - 1 - 1

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

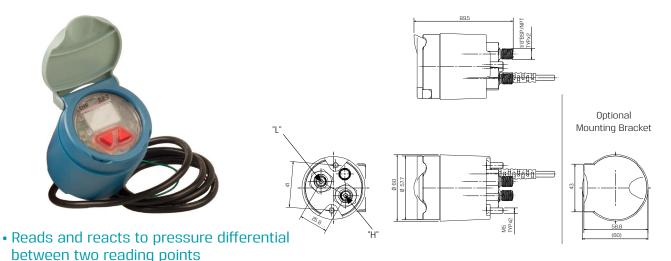
Programming key features





Differential Pressure Switch

G75-DP | Baccara Differential Pressure Gauge Switch



- Suitable to work with both media air and liquid
- Main applications : filters backwash, pumps control, pressure control

Technical Data

Mechanical	 Operating temperature: -10°C to 60°C (no freezing) Outdoor UV protection Front panel cover protection "H" proof pressure: 14 bar (203 PSI) "H" pressure must be ≥ "L" pressure.
Electrical	Power supply: 6-24V DC or 12-24V AC RED + BLK power supply GRN / WHT N.O contact Low power detect Dry contact (N.O) 0.5A at 24V AC Internal memory to retain "set-up data" at power down.
Mounting	 2" (52mm) diameter 2ft (60cm) 4 wires cable Pressure ports 1/8" BSP/NPT (male) High pressure port is marked by the letter "H" on the housing Connect high pressure before low pressure Disconnect low pressure before high pressure
Software	See 'Programming key features' table
Display	The LCD display: • DIF: measured differential pressure • SET: pressure differential trigger setting • ON: displayed when the switch contacts are closed Display resolution: 1 PSI in the range 0 - 99 psi 0.1 bar in the range 0.0 - 7 bar.
Standard protection class	Dust and watertight IP66

Programming key features

Manual operation
PSI or bar display
Time interval between pressure measurements
Contact closed time
Time interval between contact closure
Zero calibration
Zero cambration

How to Order

G75-DP	-	TYPE		ACCESSORI	IES
		Stand alone	1	Mounting bracket	В

Example: G75-DP-1B

Baccara Differential Pressure Gauge Switch, stand alone, with mounting bracket



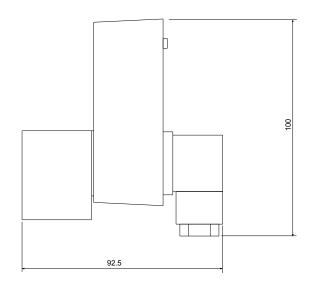
^{*} To order controllers manufactured according to your specific requirements, please contact our technical sales department.

Digital Timer Condensers | GEM-SOL

CE

GEM-T&T1 | Digital dual & global timer condensers





Technical Data

V I 16 11	0				
Valve specifications	See table				
Pressure	See table				
Digital Dead Opendance	Higher pressures are available				
Digital Dual Condenser Timer (T)	Off : 0-99.59 mins				
Time ranges	On : 0-59 sec				
Digital Global Condenser					
Timer (T1)	Off: 0-24 hrs				
Time ranges	On : 0-24 hrs				
Flectrical connection	 AMP pins, DIN 46242, 				
Liectrical confilection	• 2 poles + 1 earth				
Ambient temperature	-10°C to 50°C				
	 Flash memory to store programme 				
	 Automatic sleep mode when no power detected 				
Operation *	 Can be programmed without connection to 				
	power supply				
	*see manual for all options				
Weight	64 gr.				
Digital Display	Count down ON and OFF times.				
Bigital Bisplay	Manual override : press keys for 2 seconds.				
	Press SET for 2 seconds				
	 Press ADJ to adjust ON time 				
	• Press SET				
Time Adjustment	 Press ADJ to adjust OFF-time seconds 				
	• Press SET				
	 Press ADJ to adjust OFF-time minutes 				
	• Press SET				
Voltage	Voltage and power consumption - see table				
Standard / Certification	CE				
Standard protection class	IP65 when installed with a connector on coil				

Valve

Valve size	GEM-SOL Valve type	Orifice (mm)	Kv(l/min)
1/8"	GEM-I	3	3.8
1/4"	GEM-I	3	3.8
3/8"	GEM-S	8	16
1/2"	GEM-S	12	35
3/4"	GEM-S	25	136

Voltage & Power Consumption

	_	
V	AC (W) 50/60 Hz	DC (W)
6		
12		
24	•	
48	•	
110	•	
120	•	
220		
230	•	
240	•	

Available options

How to Order

HOW to	oraer						
GEM-T							
	- PORT		-	VOLTAC	GE	CONNECT	OR
GEM-T1	w/out valve	00		w/out coil	0	without	0
	1/8" BSP	10		24V AC	3	with	1
	1/8" NPT	11		48V AC	4	with LED	2
	1/4" BSP	20		110V AC	5		
	1/4" NPT	21		120V AC	6		
	3/8" BSP	30		220V AC	7A		
	3/8" NPT	31		230V AC	7		
	1/2" BSP	40		240V AC	8		
	1/2" NPT	41		other	9		
	3/4" BSP	50					
	3/4" NPT	51					

Example: GEM-T-21-51

GEM-SOL digital dual timer condenser, 1/4"NPT, 110V AC coil with connector.

T: Dual Timer T1: Global Timer

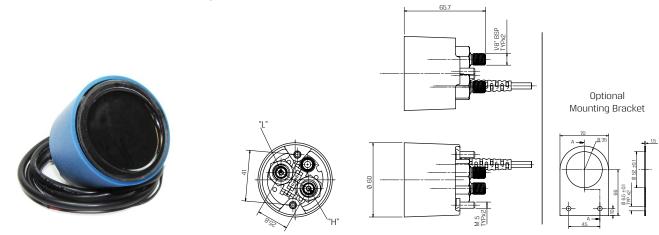
GEM-T	-	21	-	5	- 1

^{*} To order timers manufactured according to your specific requirements, please contact our technical sales department.



Analog Differential Pressure Sensor

G75-ADP | Baccara Analog Differential Pressure Sensor



- Differential pressure to current transducer
- Suitable to work with both media air and liquid
- Main application : analog sensor for filters backwash

Technical Data

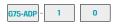
Mechanical	 Operating temperature: -10°C to 60°C (no freezing) Outdoor UV protection Measuring pressure range: 0-7 bar (0-101.5 PSI) "H" proof pressure: 14 bar (203 PSI) "H" pressure must be ≥ "L" pressure
Electrical	 Power supply: 5V DC RED: (+) 5V BLACK: (-)5V ORANGE: analog output Analog output value: 0.2V to 4.7V, [V out = (0.006429xKpa+0.2)± Error] Ouput accuracy: 2.5% of full scale
Mounting	2" (52mm) diameter 2ft (60cm) 3 wires cable Pressure ports 1/8" BSP/NPT (male) High pressure port is marked by the letter "H" on the housing Connect high pressure before low pressure Disconnect low pressure before high pressure
Standard protection class	• IP66

How to Order

G75-ADP	-	TYPE		MOUNTING BRACKET	
		Stand alone	1	without	0
				with	1

Example: G75-ADP-10

Baccara Analog Differential Pressure Sensor, stand alone, without mounting bracket.



^{*} To order controllers manufactured according to your specific requirements, please contact our technical sales department.

Special Purpose Connectors

Timer Connector

Technical Data

On / Off time range	up to 24 hours (hh:mm:ss)	
	On delay	
	Off delay	
Timing	 Sequential timing options are fixed. 	
	Any timing combination can be	
	pre-ordered from Baccara.	
Temperature range	-20°C to 100°C	
	• 110V AC ±15%	
Voltage range	• 24V AC ±15%	
	• 230V AC ±15%	
Maximum coil power	• AC : 8W	
Connector	DIN 43650	
0	• AC : 3x0.75 mm², 1m length	
Connector cable	Cable included	
Standard protection class	IP65	



Integrated timer for solenoid valves GEM-SOL series

INSTRUMENTATION & CONTROL

Special Purpose Connectors

Latch Driver & Feedback Connector

Technical Data

Power supply	12 ~ 24V DC ±10%	
Temperature range	-20°C to 80°C	
Maximum output current	2 A	
Connector cable	4 wires, 1m long Red : Power supply (+) 12~24V DC Black : Common ground (-) White : Control input signal : • Valve open (9~24V DC) • Valve close (0V) Green : Feedback output signal : • Valve open (12~24V DC) • Valve close (0V)	
Feedback signal response time	500 ms	
Connector package	DIN 43650	
Standard protection class	IP65	



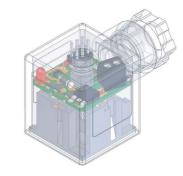
Latch driver and feedback connector for solenoid valves GEM-SOL series

PWM (pulse width modulation) **Connector**

Technical Data

INSTRUMENTATION & CONTROL

Operating voltage	V _{dc} = 24V DC * There is no over-voltage protection
Voltage range	12 ~ 48V DC
Maximum current	1 A
Output frequency	5 Khz approx.
Switching frequency	3.1 Khz @ 24V DC
Duty cycle	25% - 75%
Delay	ca. 175ms
Pulse-pause ratio of PWM signal	8 fix variation
Polarity sensitive	✓
Standard / Certification	EN 175301-803 / ISO 4400

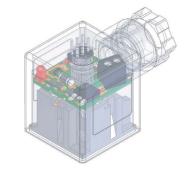


Provides energy savings and extends the life expectancy of the valve coil

Proportional Driver Connector

Technical Data

Power supply	12 ~ 24V DC ±10%
Maximum voltage	30V
Maximum output current	1000 mA
Output current range	0 ~ 1000 mA
Command signal	0 ~ 5V DC (Analog)
PWM Duty cycle range	0 - 100%
PWM frequency	1000 Hz
Maximum resolution	0.1FS (10-bit)
Sampling rate	50 Hz (20ms)
Ramp time range	50ms - 5sec
Connector package	DIN 43650
Mounting	Central nut
Standard protection class	IP65



Integrated proportional circuit board for solenoid valves GEM-SOL series

^{*} To receive further information about these connectors, please contact our technical sales department.

^{*} To receive further information about these connectors, please contact our technical sales department.