

# aquaReg

## Irrigation Water Monitoring Unit with GSM/GPRS

aquaReg is an irrigation water monitoring unit prepared for automating and controlling hydrants in an irrigation system.

It incorporates a solid GSM/GPRS communications system that ensures maximum coverage and minimizes the costs of transmitting guidelines and commands from the control centre.

### STRUCTURE SYSTEM

- aquaReg: irrigation water monitoring unit.
- UCR OPC Driver: communication management software. It is the bridge between the control center or SCADA and aquaReg equipment.

The main advantage of the system based on GSM / GPRS communication is the simplicity of its architecture since all computers directly communicate with the UCR OPC Driver. This architecture allows data transmission in real or deferred time, as needed and depending on feed-in system.

### OPERATION

The proposed system ensures:

- Control, acquisition and storage of information of the entire network (consumption, pressure, levels...).
- Double solenoid valves operation management.
- Control and alarm in case of intrusion, flooding, valves failure...

All information sent and received by aquaReg equipment is stored by the UCR OPC Driver and can be managed by any control center using standard OPC communications.

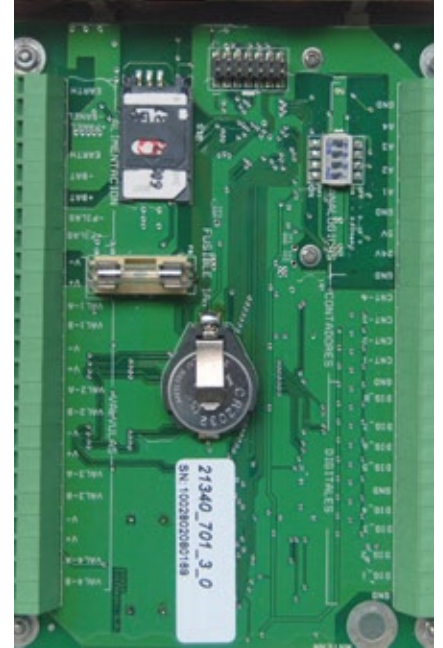
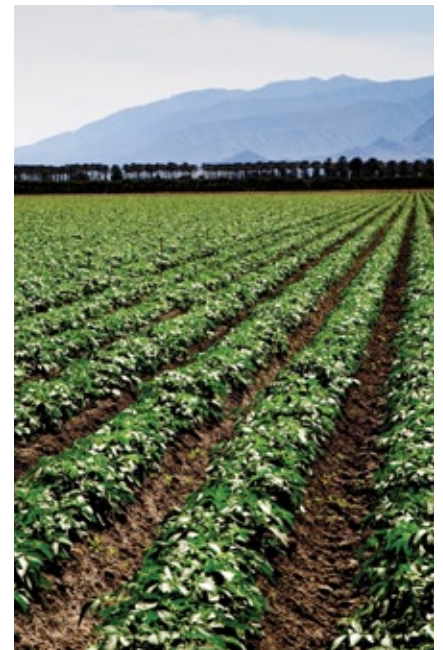
### NOTEWORTHY CHARACTERISTICS

- Management of 4 hydrants.
- GSM / GPRS communication.
- 8 years autonomy (See conditions).
- Versatile power system with integrated SLA battery charger.
- Reading smart meters.
- Storage capacity of irrigation programs.
- Hydrant failure alarms.



# ADASA

INNOVATIVE SOLUTIONS  
FOR WATER & ENVIRONMENT



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### GENERAL CHARACTERISTICS

**Temperature Range** -30°C to +60°C

**Protection Degree** IP66

**External Power** (Limited power source)

- Nominal: 12Vdc
- Tolerance: +7,2Vdc ... +20Vdc
- Maximum current: 0.5 A

**Power Solar Panel**

- Voltage nominal panel: 12Vdc
- Maximum current load: 150mA
- Nominal voltage battery: 12 Vdc
- Float Voltage: 13.8 Vdc
- Protections: Reverse polarity, overvoltage and temperature compensation.

**Internal Power:** (Limited power source)

- Batteries: 8 Lithium Batteries (4 groups of 7,2V in parallel)

**Power Output:** (Optional)

- Nominal voltage/current: 24Vdc / 100mA y 5Vdc / 50mA
- Activation: Set up activation time to minimize consumption
- Protection: Short circuit

**Pulse Inputs:**

- No. Meters: 4 meters
- Minimum Pulse: 1 ms
- Maximum frequency: 65535 pulses / registration period or 10Hz
- Cable Maximum length: 100m
- Alarm generation: Set up by overcoming number of pulses

**Smart Meters** (Optional)

- Bus: CZBus (3 wires, SEL, SDATA, GND)
- Frames: A Type
- No. Meters: 4 meters
- Reading time: 60 seconds
- Cable Maximum length: 20m

**Digital Inputs :**

- No. Inputs: 8
- Filtering period: 1... 60 seconds
- Alarm generation: Set up by low level

**Analog inputs:**

- No. Inputs: 4
- Range: 0...25 mA / 0...10V
- Accuracy: 1%
- Alarm generation: Low and/or high level
- Protection: Over current and over voltage to 24Vdc

**Valve excitation output:**

- No. Outputs: 4
- Configuration: 2 / 3 Wires
- Nominal: 9 V / 12 V / 24 V, setup configuration
- Maximum current: 500 mA / 0.5 sec
- Cable Maximum length: 100m
- Protection: Short-circuit

**Communications:**

- Modem: GSM / GPRS
- RS232C: 19200 bps / No parity / 2 Stop bits
- USB: (Optional)



Adasa reserves the right to modify the technical features.



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