

aquaSub

Groundwaters Monitoring Unit

aquaSub is an online datalogger for groundwater applications compatible with the market-leading probes. It stands out for the easy integration with standard acquisition systems and other data management systems. aquaSub is provided with integrated 3G wireless connectivity, Modbus over IP protocol and an OPC Server that makes easier its integration with commercial SCADA software.

The low power technology employed by aquaSub allows the aquaSub to derive all its power needs from an internal battery pack allowing operation for more than eight years or, alternatively, from a small 5W solar panel reaching long autonomy periods. This, together with the integral 3G modem, ensures a long service life with low infrastructure costs.

The aquaSub monitoring unit allows the assessment of groundwater conditions, volumes, recharge rates and saline intrusion almost on real time.

SYSTEM

- aquaSub: groundwater monitoring unit.
- UCR OPC Server: communications management software. All information sent and received by the aquaSub is stored by the OPC Server and can be managed through any control center using the standard OPC (Open Platform Communications).

The main advantage of aquaSub is the low cost and easy deployment with its various power modes, 3G communication and the equipment flexibility for the integration of different probes.

OPERATION

The aquaSub groundwater monitoring unit allows:

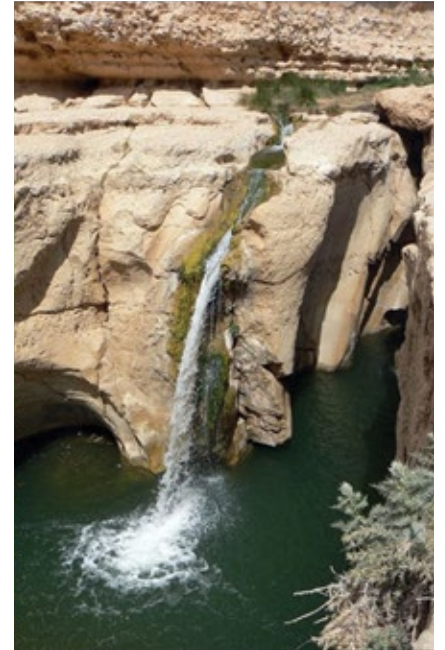
- Monitoring, recording and reporting the level and water quality in aquifers and bores
- The integration of almost all types of probes available on the market, giving it flexibility to meet the needs of each site and presenting the results in a single front-end communication (OPC Server) to facilitate the data integration.
- Definition of the reading frequency of the various probes independently connected.
- Transmission of information in real or deferred time as needed and depending on the power supply system.

NOTEWORTHY CHARACTERISTICS

- 3G Communication
- MODBUS master function for reading multiple probes.
- Analog inputs for voltage and current probes
- Advanced power supply management to minimize consumption
- Versatile Power System with integrated SLA battery charger.
- High data storage capacity.
- 8 years autonomy in typical groundwater monitoring applications

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

Digital Inputs :

No.Inputs 8

Filtering period 1... 60 seconds

Alarm generation Set up by overcoming number of pulses

Analog inputs:

No.Inputs 4

Range 0...25 mA / 0...10V

Accuracy 1%

Alarm generation: Set up by low and/or high level

Protection: Over current and over voltage to 24Vdc

Communications:

RS232 - 3.3V

RS232 - 12V (optional)

RS485 (optional)

USB (optional)

3G MODBUS Serial / IP

ASCII

SMS text alarms

Menu display / configuration (ANSI)



Adasa reserves the right to modify the technical features.

ADASA

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All ADASA products are designed and manufactured according to the highest standards of quality:

ISO 9001 Quality Management

UNE 166002:2006 R&D and innovation Management

ISO 14001 Environmental Management

OHSAS 18001 Health and Safety