Pietro Fiorentini

AQUALOG SMART

AQUALOG SMART is a **compact RTU designed specifically for the water sector**, ideal for controlling stations with a limited number of quantities to monitor. Equipped with advanced and innovative features, it allows local automation of systems, supporting complex logic directly on board. The **Integrated Web Server** allows secure remote access, ensuring real-time monitoring and facilitating control and maintenance operations by operators. For immediate assessment of critical situations, a display is available (optional) that offers an intuitive and immediate view of key parameters.

- Water reservoirs
- Drinking water treatment plants
- District metering areas
- Pumping stations
- Monitoring systems
- Water quality samplers

Features	Values
Analogue inputs (AI)	8 inputs, 12-bit resolution, 4-20 mA / 0-10 Vdc (with the possibility of converting them into digital inputs)
Digital inputs (DI)	3 inputs, 10-30 Vdc, opto-isolated and with ESD protection ± 15 kV, configurable as status inputs or meter inputs
Digital outputs (DO)	2 outputs, 10-30 Vdc, opto-isolated and with ESD protection ± 15 kV
Expandability	Up to 320 DI, 128 DO, 64 AI, 32 AO via modular I/O systems
Communication vector	External Modem/Router, typical channels GSM/GPRS-LAN 4G/5G/wired (other communication technologies available upon request)
Protocol	IEC 60870-5-104, IEC 60870-5-101, Modbus RTU Master/Slave, Modbus TCP/IP Master/Slave, Siemens S7
Local communication	1 Ethernet port (LAN TCP/IP), 1 RS485 serial port, 1 RS232 serial port, 1 configurable RS485/422 serial port
Case	IP 20
HMI	Local LCD 7" colour touch screen display: Mod. DE VISU (optional)
Power supply	10 – 30 Vdc
Typical absorption	1 - 4 W
Expandable memory	USB, Micro SD CARD (on request)
Environmental conditions	from -20°C to + +70°C
Dimensions	125x85x40 mm

Table 1 Features

Materials and **Approvals**

Features	Values
Automation	PLC EMBEDDED compliant with standard IEC 61131-3
User messages	SMS / email
Alarms	Warning and management of alarms and events generated by exceeding thresholds and/or reaching physical/logical states
Datalogging	Data acquisition and logging with the following features: Basic acquisition time: 1" Basic storage time: 5' - 1h Maximum number of variables that can be acquired: 10000 Maximum number of samples stored: 6000000 Sample processing: instantaneous, min, max, average
OPC connectivity	Supported via OPC SERVER
Configuration	Through the integrated WEB server or through the Rainbow Configurator SW
User Application	Using languages in a LINUX environment
Operating system	LINUX embedded

Table 2 Features and values

AQUALOG SMART is CE marked and complies with Directive 2014/30/EU (Electromagnetic Compatibility).

EMC

AQUALOG SMART competitive advantages

- Hydraulic valve adjustment according to 6 modes
- Pump regulation
- Dedicated algorithms for pressure optimization and energy efficiency
- Multimedia and multi-access connectivity
- Reduced energy consumption
- Modular and scalable I/O configuration
- Extended programmability through Embedded PLC