SMART PCS is an integrated control unit to manage the pressure management areas automatically. It reduces the water loss by regulating the pressure in the water network.

The length of the mechanical components of the product is 110 cm for DN150 pipelines and can be used in narrow manholes.

Systems components:
• Pressure breaker valve with a proportional actuator controller pilot.
• AQUA CNT 100S Compact Type Controlling Device
• Electromagnetic flowmeter that requires no straight pipelines for installation (%0.2 sensitivity)
• Compact type silt trap (filter)
• 3 Pressure sensors (system input pressure, filter output pressure, and system output pressure)
• Lithium Cell or Lead-Carbon (CGD) battery, solar panel post, and charge regulator.

Abilities:
• The valve can be operated manually.
• The valve can regulate the pressure in the water network by PID operations automatically according to the pressure value set by the user for each 12 time zones.
• The valve can be operated according to the output pressure or a pressure linked from a distant measuring station.
• By setting up upper and lower levels for the water flow and the pressure, emergency scenarios can be created and in case of an emergency, the actions such as opening or closing the valve can be set by the user.

Optional Specifications:
• Can work with DC UPS and SMPS in the manholes where electrical energy is available.

OPTIONAL COMPONENTS

PRESSURE SENSOR
• Measurement range: 0-60 bars with 0.3% sensitivity
• 4-20 mA and MODBUS outputs

ULTRASONIC FLOWMETER
• Measurement range: -12…+12m/s with ± 1%sensitivity
• 4-20 mA and MODBUS outputs

ENERGY ANALYZER
• Measure 3-phase voltage and currents, power factor, and harmonics
• MODBUS output

POWER SUPPLY
• Universal AC input and 2 +24VDC and 3 GND outputs

HYDROSTATIC WATER LEVEL TRANSMITTER
• Range: 0-500 meters
• Sensitivity: 0,3%
• 4-20mA output

ELECTROMAGNETIC FLOWMETER
• Measurement range: -12…+12m/s with ± 0.5% sensitivity
• 4-20 mA and MODBUS outputs

SOLAR PANEL
• 20W-500W Solar panels for AQUA CNT Control Devices

POWER PANEL
• 0,37kW – 200kW Power panels with Contactor, Soft Starter or Inverters.

LITHIUM-ION BATTERY PACKAGES
• **LS11**: 9-30VDC input   24VDC 2A output 11.2Ah
• **LS33**: 9-30VDC input   24VDC 2A output 33.6Ah
• **LU11**: 24VDC input   24VDC 5A output 11.2Ah

ABOUT

envest
if you can't measure it, you can't manage.

PRODUCT CATALOGUE

AQUA LP LOGGER
AQUA CNT 80
AQUA CNT 100
AQUA SMART PCS

envest
if you can't measure it, you can't manage.

Usage Areas:

• Monitoring the pressure, water flow, and cathodic protection in water networks.
• Monitoring the water level in observation wells.
• Monitoring the ambient and humidity.
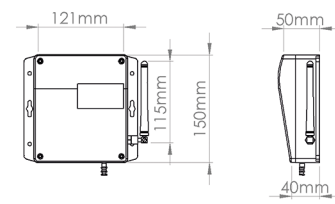
Technical Specifications:
• Extremely Low Power Consumption
• Can be used for 5 years without the need for energy with the help of the built-in lithium battery *
• Hourly and weekly data acquisition and transfer
• The wake-up period can be set as 1 min – 10 mins – 1 hour.
• Modular communication unit: 2G, 4G, or Lora.
• 3 analog inputs (Two 4-20mA inputs and one 0-10V input).
• Supports wire temperature and humidity sensor
• I2C Sensor Input
• Two digital Inputs (Acquiring data from the inputs and creating alarms)
• Alarms can be defined for analog and digital inputs
• Can be communicated with and configured over HTTPS Rest API in JSON Format
• ABS Polymer Outer Case with an IP65 protection class.
• Operating temperature: -30oC to +60 oC
• "Wake up and transfer data" button
• 2 LEDs to indicate the device status (For GSM and Processor)
• 8MB Flash LOG Memory
• 3,6V and 24V Sensor supply voltage output
• Can be operated with a 3,6V battery or USB power supply.
• Can be configured through a USB terminal
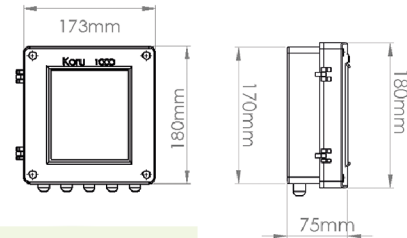• Offline data transfer over USB port

*In case of acquiring data once a day and transferring the data once a week.

Usage Areas:

• Submersible and Inline pump control
• Water tank monitoring
• Monitoring the pressure and water flow in water networks
• Monitoring the water level in observation wells

Technical Specifications:
• Built-in WiFi communication unit
• MODBUS TCP Master/Slave Communications (up to 5 communications simultaneously)
• Two analog inputs (4-20mA, 12 bits)
• Three digital inputs and two digital outputs (transistor outputs)
• Built-in assignable IO table
• Operating temperature: -30oC to +60 oC
• +24VDC Supply voltage
• Can work directly with 50W 15V-24V solar panels with the help of the built-in regulator
• 24VDC 200mA sensor supply output
• Battery Management Unit (DC UPS + Charging Unit)
• IP Filtering and APN Support
• ABS Polymer Outer Case with an IP65 protection class.
• Can be configured with a mobile application over WiFi
• 5 LEDs to indicate the device status
• Alarms can be defined for digital and analog inputs
• Reservoir Filling Mode and Pressure Mode Scenarios

Optional Specifications:
• 868 Mhz Lora Support: Communication between the pump station and the water tank (open space distance of up to 10 kilometers)
• 11,2V 5,6A Lithium Battery
• Modular Communication Unit: 2G, 4G, or Ethernet

Order Configuration Table

	LoRa	Modular Communication	Battery
AQUA	L	2G	B
CNT		4G	
80		E	

Usage Areas:

• For production and distribution of drinking water, Submersible, and Inline pump control
• Water tank monitoring
• Monitoring the pressure and water flow in district-metered areas (DMA)
• Irrigation Applications

Technical Specifications:
• Low power-consuming processor
• LCD Screen (64x128 Graphic) and membrane keypad
• GSM/GPRS Modem + External Antenna
• Battery Management Unit (DC UPS + Charging Unit)
• 14,8V 11,2A Lithium Battery
• 8MB Built-in Flash Memory
• Three analog inputs (16 bits) and one analog output (12 bits)
• 4 Digital inputs and 2 digital outputs (Relay)
• Built-in assignable IO table
• MODBUS TCP Master/Slave Communications (up to 5 communications simultaneously)
• IP Filtering and APN Support
• Can work directly with 50W 15V-24V solar panels with the help of the built-in regulator
• 24VDC 200mA sensor supply output
• Corrosion-resistant ABS Polymer outer case
• Operating temperature: -20oC to +60 oC
• Compatible with TS EN 61000-6-1 and TS EN 61000-6-3 and has CE Certificate of Conformity
• Updating RTC over GSM
• IP65 Protection

Optional Specifications:
• AQUA 100F models come with a built-in ultrasonic flowmeter and clamp-on probes. 100S models can also be used with external flowmeters.