

# INSIGHT INTO YOUR ENERGY AND WATER CONSUMPTION FOR A BETTER ENVIRONMENT AND LOWER COSTS

**Door beter inzicht in uw energiegebruik kunt u betere, gerichte beslissingen nemen om het energie- en watergebruik te reduceren.**

With the help of NRGVision you can make better, targeted decisions to reduce energy and water use. NRGVision is an easy-to-use platform that continuously measures and monitors your energy and water flows. Electricity, gas and water usage are registered and reported with NRGVision. It is also possible to monitor grid pollution. Besides energy, gas and water quantities, gas and water pressures can also be measured and monitored.

#### **Possibilities:**

- Electricity with the use of single & three phase meters
- Read out existing Gas and Water meters using Pulse or with the use of a P1 Port
- Gas and water pressure measuring with pressure sensors
- Water detection sensors for leakage
- Connection and integration with energy management solutions of third parties
- Additional measurements such as air quality and climate information





## A CUSTOM MADE EASY-TO-USE PLATFORM

An important aspect of energy management is to maintain an overview when large quantities of objects need to be monitored. In NRGVision you can easily add buildings and energy meters. By using a tree structure, analyses can be made at any level. Details of the meter can be seen when you click on it. The complete picture of the energy flows can be seen at a higher level in the tree. Additional information such as indoor or outdoor temperatures can be included in your analyses.

## ENERGYMETERS

- Can be used for LV / HV voltage system
- True-RMS meter
- High accuracy according to: IEC62053-22 class 0.5s
- MODBUS-RTU via RS485 port
- 31st Harmonic analysis, K factor, unbalance etc.
- CE / KEMA / UL / CATIII certificate!

## AVIC NRGVISION

Offers you a complete hard- and software solution that gives insight into your energy and water consumption. Whether you want to monitor your electricity, gas, or water usage or want an alarm in case of leakage, NRGVision makes it possible. NRGVision is available in our web based online portal, therefore can be opened on every possible device. Reports can be generated manually or fully automatically, making compliance with laws and regulations a lot easier. The hardware is very reliable and accurate.

- The hardware is universal so additional sensors can also be connected (e.g. to monitor your indoor climate) - Any deviations in measured values can be sent directly via an alarm. The advanced alarm module gives you complete freedom how the alarm follow-up should take place
- 24/7 access with an uptime of better than 99.9%. All systems are fully redundant.
- A UPS ensures security even in the event of a power failure
- All measurements are continuously backed up. The data is stored at different locations to guarantee the highest possible availability
- The system is very easy to use despite its advanced capabilities
- Even when you need customization, the platform offers various options to match the visualization exactly to your needs.

### AirQVision staat voor:

- Ease of use
- Accuracy
- Reliability



RELIABLE  
AND SAFE



PLUG & PLAY



2-WAY  
SIGNAL



ALKALINE  
BATTERIES



ALARM



REPORT

## YOUR PERSONAL DASHBOARD WITH NRGVISION

You can easily consult your personal Energy Dashboard via the Internet. NRGVision automatically generates your reports and sends them to you and to other recipients of your choice. If desired, an SMS message can be sent if the measurements deviate too much from the desired value.

### Wireless Sensor capabilities (PicoWise):

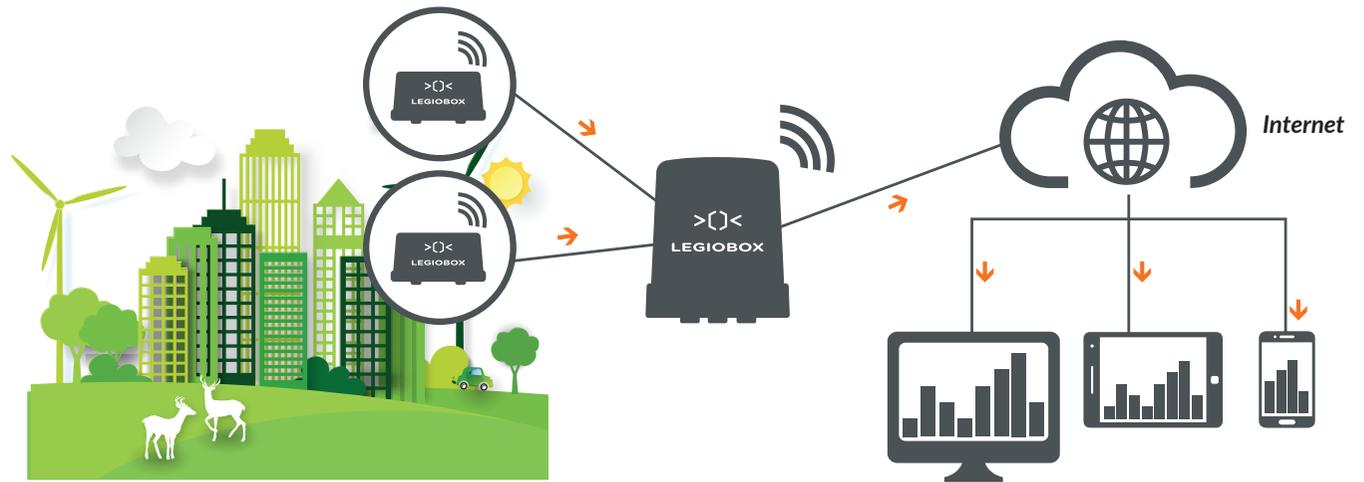
- Count and convert pulses from existing electricity meters to power and energy
- Count and convert pulses from water meters to water consumption and instantaneous flow
- Read out sensors to detect water
- Read out the P1 port of existing meters
- Read out pressure sensors for gas and water pressure
- Digital inputs for failure contact

### Gateway (NanoGate & SolarGate) properties

- Sensors
  - Air pressure
  - Optional: Fine dust (PM1, PM.5)
  - Optional: CO<sub>2</sub>
- Communication capabilities
  - Standard 2G-GPRS and 4G-CatM1 & NBIoT
  - Avic WISE RF network capabilities
  - RS485 or RS232 interface for reading out energy meters via MODbus and the P1 port
- Optional
  - LAN connection and UPS for mains monitoring
  - Additional inputs for 4-20mA & 0-10 Volt and temperature sensors. And digital inputs
  - Digital outputs for switching

### Accessories

- Single and three phase energy meters
- Pressure sensors, water detection sensors
- Wall bracket, Magnetic mount, hanging bracket, stand for easy mounting of the wireless sensors (PicoWise) and gateway (NanoGate)
- P1 cable, MODbus cable, Power adapter



*Energy, gas and water information is collected from the energy meters and sensors using the PicoWise and the NanoGate*

*The NanoGate acts as GateWay and sends the data to the data center Internet*

*NRGVision is the cloud-based platform that gives insight into your energy gas and water usage.*

## WHAT DOES THE SOLUTION LOOK LIKE?

**Energy meters are already installed in most buildings. These meters often have a pulse output or a P1 port that can be measured with either a PicoWise or a NanoGate. For pressure sensors and for leak detection sensors both the PicoWise and the NanoGate can be used as well. The main advantage of the PicoWise is that this battery is powered and can wirelessly transmit the information over long distances to a Gateway (NanoGate) that sends the information directly to the data center. Additional energy meters can be added when more detailed information on energy consumption is required. Avic has an extensive range of energy meters that can be used in almost any situation. These energy meters are read out via MODbus, which means that in addition to kW and KWh many other parameters can be read out, such as the presence of higher harmonic and detailed information about currents and voltages.**

The Gateway (NanoGate) takes care of the transfer of all measurements to the cloud. The NanoGate also measures various properties of the environment such as Room Temperature, Relative Humidity and Barometric Pressure. Optionally, the NanoGate can also measure CO<sub>2</sub> and particulate matter for an assessment of air quality. The data connection to the server works completely independent and uses modern mobile networks (2G&4G), LAN communication is optional. An optional UPS battery ensures continuous operation even in the event of a power failure. If you want to measure or monitor more in your building this is also possible. Avic has a wide range of IoT solutions to monitor and monitor virtually any installation in your building. The PicoWises and the NanoGates are available with various mounting options, partly because the transmitters are battery powered, the installation is very simple.



IoT made simple.



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