



ARANET WIRELESS MONITORING SOLUTION FOR POULTRY FARMS

Ammonia resistant temperature and relative humidity, NH₃, CO₂, CO, differential pressure, light, water, electricity and heating monitoring

The Aranet wireless IoT solution for chicken farms is a new disruptive technology for the poultry industry. Environmental sensors using proprietary Aranet radio technology offer unprecedented ease of use in both setup and operation. Now you can obtain a detailed view of the microclimate in your barns allowing you to avoid negative consequences on bird health, such as respiratory diseases or footpad infections. The in-built alarm functionality allows you to react within minutes to any potential problems that may occur with ventilation, saving you enormous costs in lost chicken lives.

The Aranet System

The Aranet Poultry solution consists of **wireless environmental sensors** that send the data to the **Aranet PRO base station** using Aranet 868/920 MHz radio technology. The base station comes equipped with internal memory for storing data up to 10 years, a built-in webserver with free software for alarms, graphing, data export and configuration. Additionally, several base stations can be connected to the **Aranet Cloud** to be managed in a single dashboard for large scale operations. The system is plug-and-play, with industry leading installation simplicity – it can be deployed rapidly by anyone without any prior IT knowledge.





Ammonia resistant temperature and relative humidity sensors – these are the most basic of all measurements. Ensuring a correct climate is key to producing healthy birds, that are efficient in growing and are not impaired by stress. However, the climate is typically not uniform across the barn, therefore Aranet wireless temperature and relative humidity sensors are easy tools to get a detailed 3D view of the temperature and humidity distribution inside. They are made to be ammonia resistant, to ensure correct operation in a challenging environment.

Ammonia sensors – increased levels of ammonia pose many health risks to both the farmers and the animals themselves. Inhalation of NH_3 can result in irritation of eyes and respiratory tract, loss of appetite and lethargy. Therefore, it is critical to control NH_3 levels through monitoring and making sure they do not exceed norms.



CO₂ sensors – even though birds can typically withstand higher CO₂ levels than humans, it’s still important to check whether limits are not exceeded, and the health of birds is not unnecessarily harmed. CO₂ is also a good indicator of the quality of ventilation in chicken barns.

CO sensors are used in cases where heating is done with natural gas. As CO buildup can be fatal for both animals and humans working inside, it is helpful to have an alarm system, like the one built in the Aranet base, that will inform you when the environment has become potentially hazardous.



Light sensor – lighting is an essential factor for the development and correct functioning of chickens’ reproductive system and growth. It is important factor for control of many physiological processes. Light intensity affects broiler behavior. The Aranet lux sensor is used to monitor light intensity and duration helping you to ensure healthy development of your birds as well as controlling feed intake.

Impulse counters – adding these sensors to your water, electricity and heat meters will allow you to easily aggregate all of your utility data in one place, for easy cost evaluation and optimisation.





Additionally, wireless **Aranet differential pressure sensors** can be installed for immediate feedback to assess ventilation problems as they occur. If ventilation fails, temperature may rise too slowly for you to react, but the pressure drop can be noticed within a minute, with the Aranet base station sending you an alarm and allowing you to save your precious birds in good time.



Machine hour sensors can be used to monitor feed dispensing devices. This will allow you to track chicken feed consumption precisely letting you know of any irregularities. A sudden drop in the amount of food that your chickens eat can be an indication for health problems, that should be addressed as soon as possible.

Try the Aranet wireless monitoring solution for poultry farms now, increase your profits, optimize your costs and ensure a healthy and productive life for your chickens!



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For more detailed information about Aranet products, please visit www.aranet.com, contact your Aranet representative or write to info@aranet.com. Product specifications are subject to change without prior notice.
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