



DURAN
electrónica



DURTOX NH₃ 4-20mA

Extended Exposure Ammonia Detector for Use in Farms



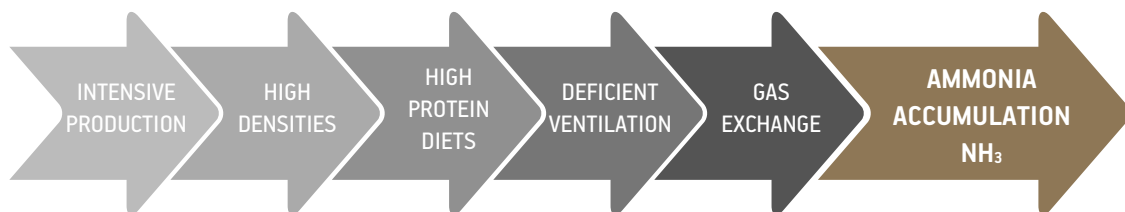
Ammonia (NH₃) detector specially designed for chicken and pig farms, where there are usually high and continuous concentrations of this gas, making it unviable to install detectors fitted with standard sensors.

Accurate and affordable

Very accurate and with a low cost of maintenance, it offers a useful life of up to 5 years, and thanks to its suspended structure, can be placed above areas where improved coverage and detection efficacy can be achieved.



Ammonia (NH₃) is an irritant toxic gas produced by animal excrements, which can easily accumulate in chicken and pig farms, negatively affecting animals' health, wellbeing, and performance. Therefore, its control is essential to guarantee the profits of the operation.



What is the effect of ammonia on animals?

Ammonia's effects on animals depends on concentration levels and exposure times and it can cause **respiratory, digestive, eye and skin diseases**, delay animal growth and increase mortality, significantly affecting farms' productivity.

What levels of ammonia are harmful?

How can a detector help?

Ammonia levels are expressed in parts per million (ppm) and in pig farms must not exceed 20 ppm (as established by Council Directive 2007/43/EC) and even a lower quantity can have negative effects. If the level is higher, both animals and farm employees can be affected.

It must be measured several times a day, as the concentration of ammonia varies throughout the day, also at different points of the installation.

The level of ammonia inside the fattening units must be kept consistently between 10 and 15 ppm as a maximum. This control is especially important during the faster growth stages of fowl. These levels can only be detected using electronic devices, as humans are only capable of smelling ammonia at levels of 25-30ppm when the effects are even more harmful.

Thanks to the **EXTENDED EXPOSURE DURTOX NH₃** we can periodically control ammonia levels and establish preventive measures like regulating ventilation and controlling heating, which allows ambient ammonia to be reduced, key to farm optimisation, increasing productivity, turnover, and profit.

> 10 ppm	Lesions on the surface of the lungs
> 20 ppm	Increased likelihood of respiratory pathologies (humans can detect the smell)
> 50 ppm	Delayed growth of 5%
> 100 ppm	Respiratory and eye problems + delayed growth of 15%

BETTER AIR
QUALITY

LOWER INCIDENCE OF
RESPIRATORY AND GUT
PROBLEMS

IMPROVED
PRODUCTION
YIELDS



EXTENDED EXPOSURE DURTOX NH₃ (0-100ppm) is available in 4-20mA format with a cylindrical plastic envelope. With a low maintenance cost and easy to install, it is compatible with the DURGAS control panel via a conversion interface (4-20mA to RS485) which allows the installation distance to be increased up to 1000m.

12bit microprocessor

NH₃ electrochemical sensor for extended exposure

Resolution 0.5ppm

Useful life up to 5 years

Automatic thermal compensation

Hardware test

Digital filter

Exact automatic zero adjustment

More information and the technical data sheet at www.duranelectronica.com