

AMMONIA SENSOR

0-100PPM



PRODUCT APPLICATION MANUAL **GB**

Application

A stable Ammonia sensor for application in pig and poultry houses, to create healthy conditions for humans and animals..

The sensor can be connected to Fancom controls, that have an analog (0-10V) input and display read out available for monitoring Ammonia levels.

(Like F21 ,F38 and Lumina 21 and Lumina 38 controls).

Please check your (existing) controller for this application before offering or ordering.

The investment in the sensor can by paid back by healthier animals and better performance.

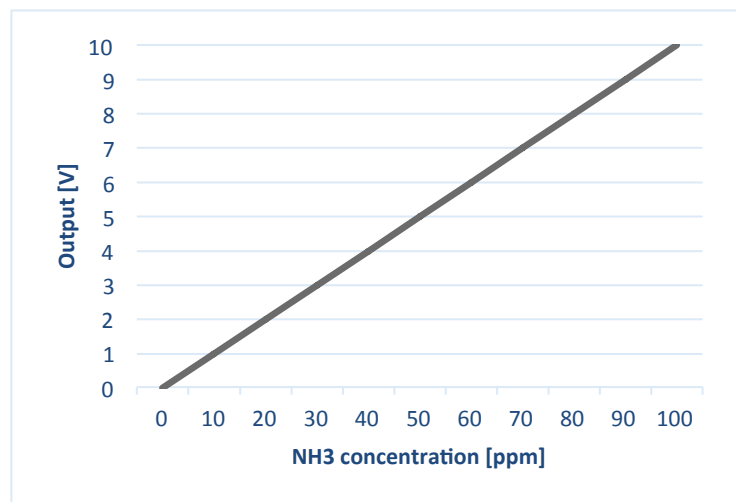


Features

The sensor is capable to influence ventilation to maintain a healthy environment for humans and animals in livestock production houses.

DOL 53 consists of an electro chemical diffusion sensor and signal processing electronics. DOL 53 works like a "nose". DOL 53 only transmits the concentration measured at the sensor. The measuring unit ppm (parts per million) is a volume concentration. DOL 53 is connected to suitable control unit over a 3-wire cable. The measuring signal during normal operation is between 0 V and 10 V

DOL 53 is used for the stationary continuous monitoring of ammonia concentrations in the ambient air under atmospheric conditions.



Options



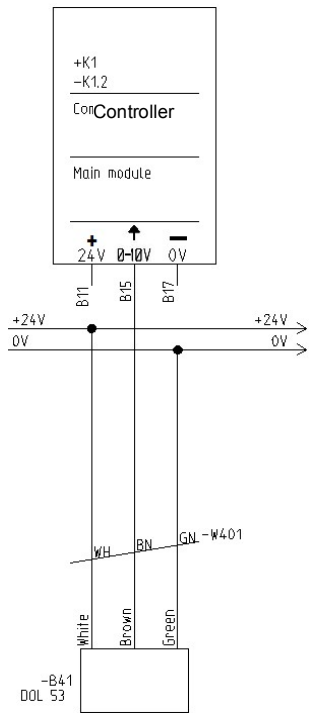
4170012	DOL 53 AMMONIA SENSOR
2270018	DOL 53 REPLACEMENT SENSOR HEAD
2270018	DOL 53 DUST FILTER (5 PCS.)

Wiring

ELECTRIC CONNECTION



The electrical installation must only be carried out by specialist personnel paying attention to the relevant regulations for electrical equipment.



Cable colour
white
green
brown

Assignment
+24 Volt
GND
0 V to 10 V output

Technical specifications

Max. sensor element storage period	See date on the label, sensor element box or shipping carton
Warranty for sensor element and DOL 53	2 years from delivery date
Expected sensor element service life	3 years from commissioning, expiration date see sensor element rating plate
Power supply	Rated voltage 24 V (18 V to 30 V DC); DC < 0.2 V _{ss}
Current consumption	<10 mA
Signal transmission to the control unit	0 V to 10 V corresponds to 0 to 100 ppm
Detection range	0 to 100 ppm NH ₃
Signal transmission resolution	0.5 ppm
Accuracy	1.5 ppm or ±10% of the measured value
Response time T50	≤30 seconds
Long-term drift	< ±10 % of the measured value/year
Cable type	3-wire
Temperature range (operational)	0 °C to +50 °C
Humidity (operational)	15% to 95% RH
Air pressure (operational)	700 hPa to 1300 hPa
Temperature range (storage)	-20 °C to +60 °C
Dimensions H x W	155 mm x 75 mm
DOL 53 housing material	PA
Weight approx.	450 g
Chemical resistance	Typical detergents, disinfectants, alcohol, surfactants, peracetic acid, soap
Protection class	IP 65
Compliance	CE Mark

DIMENSIONAL SKETCH

