



AMMONIUM MEASUREMENT

AmNiSys



Transmitter with user interface and sensor wet end assembly

Features:

- Automatic air cleaning
- Auto-compensation for interfering ions
- Single or multiple parameters including NH₄, NO₃, pH, T, K, Cl-
- Graphic display from up to 4 sensors
- 4 off analogue outputs, 5 configurable relays, RS232, profibus option
- Fully refurbishable low cost sensors,

Benefits:

- Low capital cost
- No reagents required
- Simple routine maintenance
- Reduced aeration costs
- Increased confidence in process performance

Applications:

- Optimal SBR control for nitrification/denitrification
- Complete mix and plug flow aeration control
- Return liquor control for ammonia load balancing
- Effluent quality surveillance

AmNiSys is a low cost, in-situ combination **Ammonia and Nitrate** measuring system for use in waste water applications. Its unique formulation membrane has much improved specificity and automatic compensation for residual interferences are made with integral ISE sensors. It is simple to deploy and is an ideal solution for "in-process" monitoring and control of wastewater plants, with a proven track record from an installed base of over 300 units.



Short and long Shaft formats.



Installation on plug flow aeration unit for DO set point control



System Specification

Operational Principle:	Ammonium, Nitrate selective Electrode, compensated for Potassium, Chloride, pH and temperature
Range:	0.1 - 1000 mg/l NH ₄ -N 0.1 - 1900 mg/l NO ₃ pH 2-12 Temp - 0-40°C
Resolution:	dependant on parameter
Repeatability:	dependant on parameter
Accuracy:	+/- 5% of full scale
Response time:	95% < 1min
Calibration Method:	Manual, single pt offset or 2 point calibration in sample matrix

Transmitter/Controller Specification

Mechanical Construction:	Dimensions (hwxwd)	255x215x120 mm
	Weight:	2.5 kg (approx)
	Materials:	Polystyrol
	Ambient conditions:	0-50 °C
	Weather Protection:	IP 65
Outputs:	Display:	Numeric/graphic LCD
	Current loop:	4 off 0/4 – 20 mA into 500 ohms
	Relay outputs:	5 off user config relays (6A @250V)
	Data interface:	RS 232 C (PC/laptop) RS485 for NAS760
Inputs:	Wet end assemblies:	up to 2 under normal circumstances
	Parameters:	Up to 4 normally, max of 3 in one assembly
Power requirements:	Supply voltage:	100-240 VAC
	Load:	15VA max (excluding compressor)

Sensor assembly Specification

Mechanical Construction:	Dimensions (hwxwd)	armature dia: 75mm x 125mm length
	Weight:	4.5kg approx.
	Materials:	Armature - polyethylene
	Connections:	¼" push fit air line, RS485 signal line
	Overall sensor dimension:	
	Short:	125mm deep and 610mm long
	Long:	125mm deep and 1350mm long
	Electrodes:	Type: Ion selective measuring electrode + ref.
	Dimensions:	12mm dia x 120mm long (ref and measurand)
	Materials:	Measurand: POM, Ref: Quartz glass
	Reference:	Ag/AgCl
	Electrolyte:	KCl
	Junction:	Double chamber electrode with bridge

Ordering Information

- Please supply the following to our sales staff:
1. How many measuring points are to be served , i.e. no of wet end assemblies
 2. What parameters are required from each assembly (upto 3, normally from NH₄, NO₃, K, Cl⁻, pH,)
 3. Do you want an air clean compressor or will you provide your own air?
 4. Will the transmitter(s) be wall mount or rail mount? Do you require a support framework? How far will it be from the sensor?
 5. Please send drawing and/or photo of required installation point with dimensions showing water level, ground level, rail level etc. Different lengths of support pole and sliding cradles with rail guides for deep access locations are available. If rail mounting required please indicate rail diameters.
 6. Please indicate outputs required, with ranges, and alarm levels to be set.
 7. An optional profibus module may be provided if required – please indicate.
 8. State operating voltage
 9. Indicate if you require installation/commissioning and / or maintenance contract

Supplied by: Envitech Ltd. Unit S7, Capital Business Park, Parkway, Cardiff CF3 2PU.
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Note To End Users : These specifications are subject to change at any time without notice. Envitech Ltd takes no responsibility for the use of these figures.

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