Instran® Ammonia

Online Water Quality Analyzer

The Instran® ammonia online water quality analyzer provides accurate, real-time, and reliable analysis of free ammonia (NH_3) levels with a range between 0-500 ppm. The fully automated analyzer delivers rapid results in 12 minutes.

Instran Applications

The Instran ammonia analyzer is designed for sustainable and accurate control, enhancing process management, plant automation, and system optimization for municipal and industrial applications. For applications using chloramines, a total ammonia analyzer is available.

The benefits of using the Instran ammonia analyzer include:

- Provide an accurate process variable for control of ammonia injection for monochloramine applications.
- Provide an accurate process variable for control of ammonia levels in the aeration basin for nitrification/ denitrification of wastewater.
- Obtain baseline operational data on influent and effluent levels.
- Monitor critical process steps to aid in process control and optimization.

Instran Features

- Automated online operation
- Eliminates operator variability
- Measurement time 12 minutes
- Automatically calibrated with onboard standard
- Robust and stable design, regardless of sample matrix conditions
- Low maintenance requirements
- Supports one or two sample streams
- Manual grab sample
- Flexible online scheduling
- Easy-to-use front panel HMI
- 4-20 mA outputs and MODBUS-RTU

Instran® Specifications

PERFORMANCE

Method of Detection	Ion Selective Electrode (ISE) and Standard Known Addition
Range	Configurable for ranges such as 0-200 ppb or 0-500 ppm
Resolution	1% of calibration standard
Analysis Time	12 minutes
Sample Streams Supported	Standard configuration: 1 or 2 streams
Sample Requirements	Temperature: 10-30 °C Pressure: 10-60 psi Flow rate: 100 mL/min
Sample Scheme	Syringe dispensing system; fast loop sampling system, which allows that the syringe never touches the sample or reagents.
Reagents	Provided separately by AMS representatives

SYSTEM

User Interface	Keypad with 4 keys and 4 indication LEDs. Configurable menus in several languages
Display	Backlit Monochrome – 8 lines x 20 characters, backlit graphic and widescreen, color optional
Relays	Four relays with three contacts (C, NO, NC), potential free and assignable per program
Calibration	Automatic and scheduled, automatic on-demand
Reactor	Small volume reaction cuvette (17 mL). Drain solenoid valve with large passage section (3 mm)
Memory	Microprocessor with internal program (firmware) upgradable via Micro SD
Communications	Two 4-20 mA analog outputs, separately configurable, and galvanically isolated. One MODBUS-RTU for output and control.
Fluidics System	Tubing made of inert materials. Teflon tube in the loop. Tygon 2375 tube (reagent resistant)
Sample Inlet	Fast external loop with built-in filter. Inlet: 3/8" tube. Atmospheric drain. Inlet fitting for 3/8" hose
Environmental Conditions	Ambient temperature: 5-30 °C
Dimensions – Instrument Board Only	H 25.5", W 16", D 5" [H 65 cm, W 41 cm, D 13 cm]
Dimensions - Cabinet	H 31", W 21" [26" w/Fast Loop], D 11" [H 79 cm, W 53 cm (66 cm w/fast loop), D 28 cm]

OPTIONS

Configuration	Online or manual (grab sample) mode
Weatherproof Enclosure	NEMA 4X system enclosure
Sample Preparation	Filter system

*Note - specifications are subject to change without notification.

AMS is the US distributor for Instrumentación Analítica, S.A. (INSTRU)

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