

Instran[®] Nitrate

Online Water Quality Analyzer

The Instran[®] nitrate online water quality analyzer provides accurate, real-time, and reliable analysis of nitrate (NO_3^-) levels with sensitivity between 0-50 ppm. The fully automated analyzer delivers rapid results in 12 minutes. This ion-selective method avoids the complications of the colorimetric method, which requires nitrate to be reduced to nitrite.

Instran Applications

The Instran analyzer is designed for sustainable and accurate control, enhancing process management, plant automation, and system optimization for municipal and industrial applications.

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

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|--------------------------|---|
| Method of Detection | Ion Selective Electrode (ISE), Standard Known Addition |
| Range | 0-50 ppm, configurable for other ranges |
| Resolution | 0.005 mg/L |
| 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

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|------------------------------------|--|
| 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

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|------------------------|-------------------------------------|
| 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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