



On-line water quality analyser

Cu | NH₃ | NO₂ | NO₃ | PO₄ | Ni | Cr | Cl₂ | Zn | F | B |
Fe | **Silica** | Sulphide | Phenol | Cyanide



ON-LINE ANALYSER

instran®

ON-LINE ANALYSER

INSTRAN is a platform of on-line analysing equipment, which allows measuring one or more physical or chemical parameters in liquid samples, preferably aqueous.

On this platform you can set different hardware and software options to achieve an analysing system that measures in the best conditions, taking into account:

- The nature of the sample
- The type of measure
- The measuring range
- The cleanings and calibrations required.

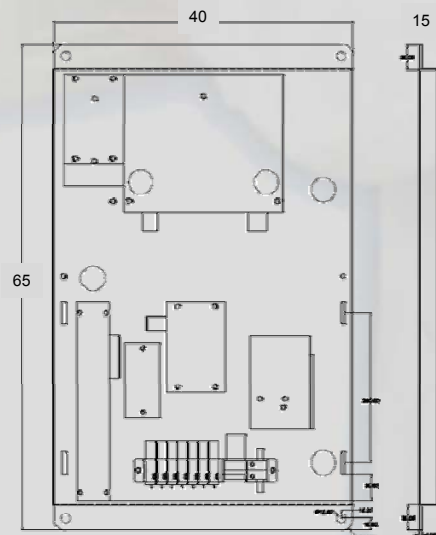
INSTRAN is an on-line analyser of high analytical precision, with low energy consumption. Its advanced technology permits a high accuracy in any operation with minimal reagent consumption, reducing the environmental impact.

The versatility of the instran on-line analyser allows installation without cabinet for indoor use or with insulated enclosure IP65 (or higher if required) for open air applications.

BENEFITS

- **Powerful** in its ability to do different functions.
- **Flexible.** easy to program in its different functions.
- **Reliable.** We've searched for strength and quality in its parts to prevent damage
- It works **with low volume of reagents** for increased autonomy and reduced costs for consumables
- Requires **very little maintenance.**
- **Economic.** We've chosen parts that are easy to manufacture and assemble. Its modular system allows large-scale production what improves the final price. The customer only pays for the options he chooses to include.

DIMENSIONS



FEATURES	
Mounting options	In wall or rack, for indoor use In an insulated cabinet: standard IP66 of fiber or polyester
Dimensions	In rack: 65x40x15 In cabinet : 75x50x30
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 colour (optional)
Memory	Microprocessor with internal program (firmware) upgradable via miniUSB or MicroSD Registration of 64 analysis, 16 calibrations, and 32 alarms or errors
Communications	Two 4-20mA analogical outputs, separately configurable and galvanically isolated One RS485 two-wire bus output Optionally, the RS485 can use MOD-BUS or PROFIBUS protocol Two digital inputs assigned to the detection of lack of sample and reagents Five assignable digital inputs Two assignable digital outputs USB. Loading of programs and data I/O USD Card program and data I/O
Relays	Four relays with three contacts (C, NO and NC), potential free and assignable per program
Calibration	Automatic and scheduled Automatic On-demand Reagent blanks Up to three standards
Washing	Automatic after each trial With the sample itself Wash solution (op.)
Dispensing System	Syringe dispensing system Fast loop sampling system, which allows that the syringe never touches the sample or the reagents Solenoid valves with Kalrez seals give a high reliability Large step diameter (1.5 mm) in the solenoid valve
Reactor	Small volume reaction cuvette (12ml to 17ml) Drain solenoid valve with a large passage section (3 mm)
Fluis System	Tubing made of inert materials Teflon tube in the loop Tygon 2375 tube (reagent resistant) Solenoid valve union with direct connections and without coupling
Sample Inlet	Fast external loop with built-in filter (Optional) Inlet: 6/8mm diameter tube Atmospheric drain: Inlet fitting for 8/10mm diameter hose
Environmental conditions	Ambient temperature: 10°C to 50°C Maximum relative humidity: 95% non-condensing



MEASURING PRINCIPLE: COLORIMETRIC

- β Molybdosilicic acid formation by the reaction of silica with acid-molibdate diammonium.
- Elimination of interference of phosphates by destruction with phosphomolybdic tartaric acid formed in the same reaction with existing phosphates.
- Development molybdenum blue colored complex by reduction of molybdosilicic acid.
- Read absorbance at 810 nm.

ADVANTAGES OF THE METHOD

New Reagent 1 formulation that avoids α -silicomolybdic shape and ensures complete reaction with improved sensitivity at low levels.

Consumption of reagents:	Reagent 1: 0'375 ml / analysis Reagent 2: 0'375 ml / analysis Reagent 3: 1'5 ml / analysis
Analysis time:	Less than 20 minutes (between 18-20 min.)
Measuring range:	0 to 300 ppb SiO ₂ . Wider ranges for sample dilution.
Calibration:	Automatic user-programmed (zero and FS)
Cleaning:	Automatic at the end of the test with the sample itself.
Type of analysis:	Bach scheduled time, or continuously.
Accuracy:	0'001 – 0'1 ppb.



instrumentación analítica s.a.

innovación y tecnología a su servicio

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