



## On-line water quality analyser

Cu | NH<sub>3</sub> | NO<sub>2</sub> | NO<sub>3</sub> | PO<sub>4</sub> | Ni | Cr | Cl<sub>2</sub> | 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.

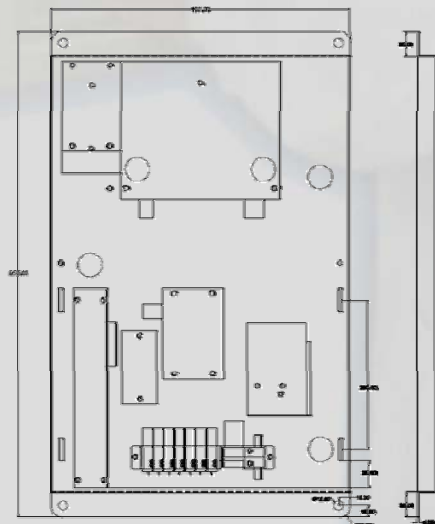
**INSTRAN is an on-line analyser** of high analytical precision, with low energy consumption. Its advanced technology permits a high accuracy in any operation with minimal reagent consumption, reducing the environmental impact.

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	
<b>Mounting options</b>	In wall or rack, for indoor use
	In an insulated cabinet: standard IP66 of fiber or polyester
<b>Dimensions</b>	In rack:: 60x50x15
	In cabinet : 75x50x30
<b>User Interface</b>	Keypad with 4 keys and 4 indication leds
	Configurable menus in several languages
<b>Display</b>	Backlit Monochrome - 8 lines x 20 characters –
	Backlit, graphic and widescreen colour (optional)
<b>Memory</b>	Microprocessor with internal program (firmware) upgradable
	via miniUSB or MicroSD
	Registration of 64 analysis, 16 calibrations, and 32 alarms or errors
<b>Communications</b>	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
<b>Relays</b>	Four relays with three contacts (C, NO and NC), potential free and assignable per program
<b>Calibration</b>	Automatic and scheduled
	Automatic On-demand
	Reagent blanks
	Up to three standards
<b>Washing</b>	Automatic after each trial
	With the sample itself
	Wash solution (op.)
<b>Dispensing System</b>	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
<b>Reactor</b>	Small volume reaction cuvette (12ml to 17ml)
	Drain solenoid valve with a large passage section (3 mm)
<b>Fluis System</b>	Tubing made of inert materials
	Teflon tube in the loop
	Tygon 2375 tube (reagent resistant)
	Solenoid valve union with direct connections and without coupling
<b>Sample Inlet</b>	Fast external loop with built-in filter
	Inlet: 6 mm tube
	Atmospheric drain: Inlet fitting for 10 mm hose
<b>Environmental conditions</b>	Ambient temperature: -20°C to 65°C
	Maximum relative humidity: 95% non-condensing



### MEASURING PRINCIPLE: SELECTIVE ELECTRODE – TISAB III

**ASTM D3868 – 1179EPA – Standard Methods 4500 – AOAC**

- Conditioning of the sample with TISAB III to adjust pH to 5.5 and eliminate interference of polyvalent cations.
- Reading of potential generated at the electrode.
- Addition of known volume of standard.
- Calculation of the concentration of ammonium by the method Known Addition (DKA)

### ADVANTAGES OF THE METHOD

- Standard method, simple.
- Specific, without interferences.
- Method DKA, means self-calibration of each analysis, corrects any drift electrode.

Range: 0 to 10 mg/l. (upper and lower ranges configurable)

Resolution: 0,01 mg/l.

Calibration: Automatic DKA

Consumption of reagents: Reagent TISAB III: 1 ml / sample

Standard DKA: 0,2 ml / sample

Analysis time: Less than 3 minutes

### SAMPLE CONDITIONS

Pressure: 10 / 60 psi

Temperature: 10 to 45 °C

Flow rate: 100 ml/min (minimum)

Volume 12 ml

Fost loop sampling system including filter integrated with purging and cleaning system. (Optional, system for self cleaning of filter).



**instrumentación analítica s.a.**

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