# On-line water quality analyser

Cu | $NH_3$ | **$NO_2$** | $NO_3$ | $PO_4$ | Ni | Cr | $Cl_2$ | Zn | F | B | Fe | Silica | Hydrazine | Phenol | Cyanide

on-line

instran


# ON-LINE ANALYSER

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**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.

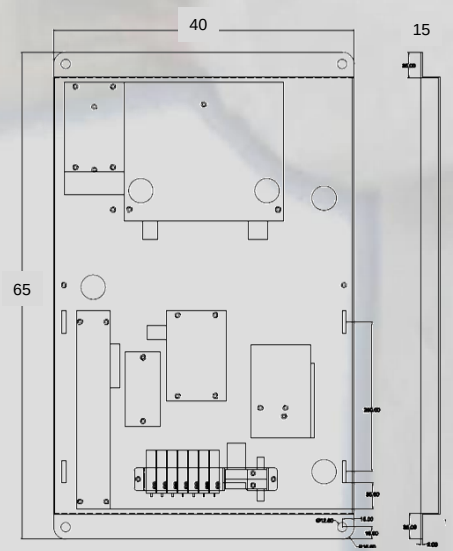
**INSTRAN is an on-line analyser** of high analytical precision, with low energy consumption. Its advanced technology permits a high accuracy in any operation with minimal reagent consumption, reducing the environmental impact.

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: 10ºC to 50ºC |
| | Maximum relative humidity: 95% non-condensing |
| | |

TECHNICAL DATA

# NITRITE

## TEST METHOD

**MEASURING PRINCIPLE: COLORIMETRIC**

- The method is based upon the diazatization reaction of the nitrous acid, formed from the nitrite ions, with the sulfanilamide to form a brightly colored diazo dye.

**ADVANTAGES OF THE METHOD**

The method is specific for the measurement of nitrite ion as the nitrous acid has to be formed to achieve the diazatization reaction. The reaction is extremely sensitive and a fairly high absorbance is obtained for 100 ppb which is often the legal limit of nitrite in drinking water.

## ESPECIFICATIONS

| | | |
|---|---|---|
| Consumption of reagents: | Reagent 1: 0.4 ml / analysis | Stir time: 2 min |
| | Reagent 2: 0.4 ml / analysis | Stir time: 4 min |
| Volume of sample captured | 14 ml | |
| Wavelengths: | 550 nm | |
| Analysis time: | Less than 20 minutes | |
| Measuring range: | 0 to 500 ppb. | |
| Calibration: | 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 ppb | |
| Tolerance: | 2% full scale. | |

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