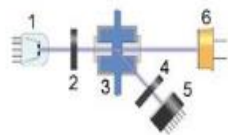


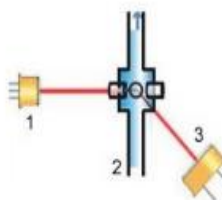
UV ABSORBANCE SPECTROSCOPY

- 1 : xenon lamps,
- 2 : flow cell,
- 3 : beam splitter,
- 4 : peak filter,
- 5 : peak detector,
- 6 : reference filter,
- 7 : reference detector



UV FLUORESCENCE PRINCIPLE

- 1 : xenon lamps,
- 2 : excitation filter,
- 3 : flow cell,
- 4 : emission filter,
- 5 : photomultiplier,
- 6 : reference photo detector



LASER DIODE TURBIDITY PRINCIPAL (NEPHELOMETRIC)

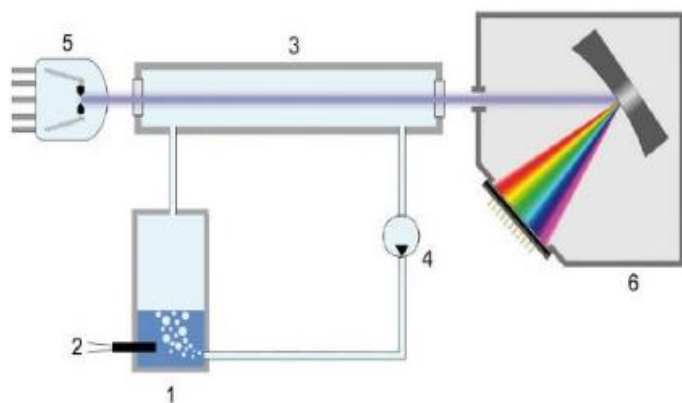
- 1 : Laser diode (650 nm or 850 nm),
- 2 : flow cell,
- 3 : Photo detector



PATENTED FLOW CELL

- 1 : Allows very high level of suspended solid without clogging for all the optical measurements making it suitable for industrial & municipal waste water application. [More...](#)

AMMONIA AND HYDROGEN SULPHIDE: A UNIQUE METHOD



- 1: stripping pot, 2 : temperature probe, 3 : gas flow cell, 4 : gas pump,
- 5 : xenon flash lamp, 6 : spectrograph

The ammonia and hydrogen sulphide measurement are based on the UV absorption of the ammonia gas or hydrogen sulphide gas after a stripping phase. Consequently, the turbidity or colour of the sample has absolutely no influence and measurements can even be carried on activated sludge. The ammonia gas has a typical periodic absorption spectrum that is analysed using a fast Fourier transform (FFT) that brings an exceptional selectivity. No interference has ever been reported after years of operation on many different applications. A small quantity of NaOH solution is added to the sample for ammonia, or hydrochloric acid for hydrogen sulphide.

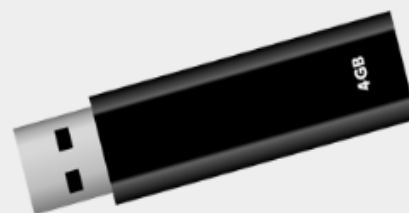
USER-FRIENDLY INTERFACE



Note: Click on image to view it large.

The colour touch screen and intuitive interface available in 8 different languages (Chinese, English, French, German, Italian, Portuguese, Spanish, Turkish) makes very easy to test and configure the analyser. Many test functions allows to test and troubleshoot each element of the analysers (light signal, pumps, solenoid valves, etc...) to setup quickly a maintenance diagnostic.

COMMUNICATION



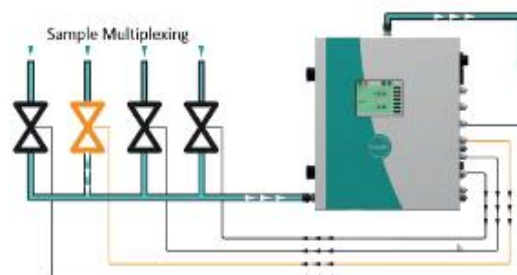
The RS232 port supports the MODBUS protocol to transmit each Standard channel value to a SCADA system. Additional parameters are available like status code, error code, calibration values and pumps run time. Basic 4-20 mA output modules can be plugged on the main board for each Standard channel, in the limit of 12 modules. A USB port enables to download on any USB key the last 5000 recorded measurements as well as a diagnostic file containing the configuration and useful information for remote troubleshooting. The recorded measurements file can be imported to Excel for graphs or other treatments. The software of the analyser can be upgraded by connecting a USB key. A USB port enables to download on any USB key the last 5000 recorded measurements as well as a diagnostic file containing the configuration and useful information for remote troubleshooting. The recorded measurements file can be imported to Excel for graphs or other treatments. The software of the analyser can be upgraded by connecting a USB key.

MULTIPLEXING SYSTEM

When different streams need to be analysed, for example inlet and outlet of a plant, an optional multiplexing system delivers relay contacts to control external electric-valves or external pumps.

Up to 6 different streams can be selected

The measuring channels can be either duplicated (each one having its own 4-20mA output or MODBUS register), or measured sequentially to fit with the maximum of 16 measuring channels (a MODBUS register tells which stream is currently being measured).

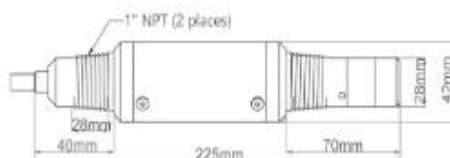


ROBUST INDUSTRIAL PROBES

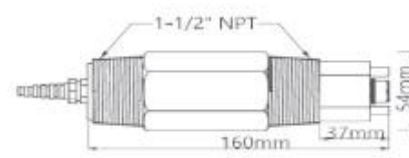
All the probes are specially designed for harsh environments with high level of suspended solid.



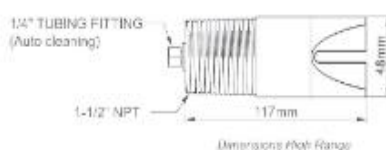
ORP/pH Probe



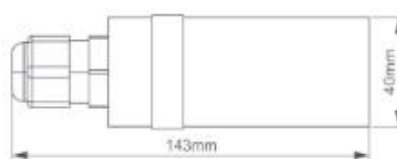
Dissolved Oxygen Probe



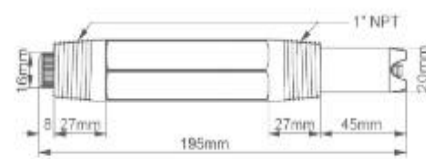
pH Differential Probe



Total Suspended Solid Probe



Turbidity Probe

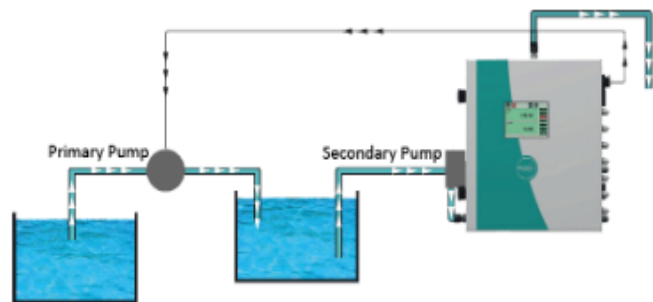


Conductivity Probe

SAMPLING SYSTEM

The UV400 can adapt to many different kind of sampling depending of the application : surface water, drinking water, process water or wastewater.

If the water is already pressurized, the sample can be admitted directly inside the analyser with a maximal pressure of 4 bars. Otherwise an optional built-in peristaltic pump, synchronised with the measurement to extend the tubing life time, allows to take the sample directly from a tank located up to 6 meters below the analyser. For demanding applications with long distances, another peristaltic pump in a separate enclosure is proposed as an option. For some applications on river water or wastewater where two sampling pumps are necessary, the UV400 delivers a relay contact to synchronise the primary pump. The delay and running time of each pump can be adjusted easily in the parameters menu of the analyser. In case filters are used in the sampling system, the UV400 is also able to provide a relay contact to clean the filter synchronised with the measurements.



UV400 DIMENSIONAL DRAWING

