

3S-UVFL Fluorescence Analyzer

Compact online analyzer for the determination of oil-in-water, aromatic hydrocarbons and PAH

APPLICATIONS

- Drinking water
- Industrial waste water
- Oil-in-water monitoring
- BTEX/aromatic hydrocarbons monitoring
- Fuel industry
- Oil refinement/transportation
- Pollution monitoring of surface waters

ADVANTAGES / FEATURES

• **Compact design, sturdy build**

Great responsiveness in a small volume thanks to the Fast Loop sample reservoir included in the analyzer.

The stainless steel enclosure makes the analyzer resistant to corrosion even in the most harsh industrial conditions.

• **Automatic calibration / validation / zeroing**

Validation and calibration of zero and span are standard features which significantly reduce downtime and operator intervention ensuring the most accurate results are obtained. The frequency of these operation is freely settable.

• **Automatic chemical cleaning**

To ensure good performance with difficult samples.

• **Wide measuring range, low detection limit**

The 3S-UVFL has good performance in the range 0 - 30 ppm. The range can be further extended with the dilution option.

• **Large color touchscreen**

The analyzer is equipped with a graphic touchscreen interface showing measured values and status information. Easy access to menus and functions. Integrated datalogger with USB download.



• **Factory tested, ready for installation and operation**

Just connect the power, sample, and cleaning reagent lines and the analyzer is fully operational.

• **Measuring principle**

The analyzer is based on the fluorescence photometric determination of the active species dissolved or suspended in water.

The sample is irradiated with a specific wavelength in the UV region. The chemical species in the sample absorb energy from the radiation and release it partially as heat and partially as a new radiation in the visible field.

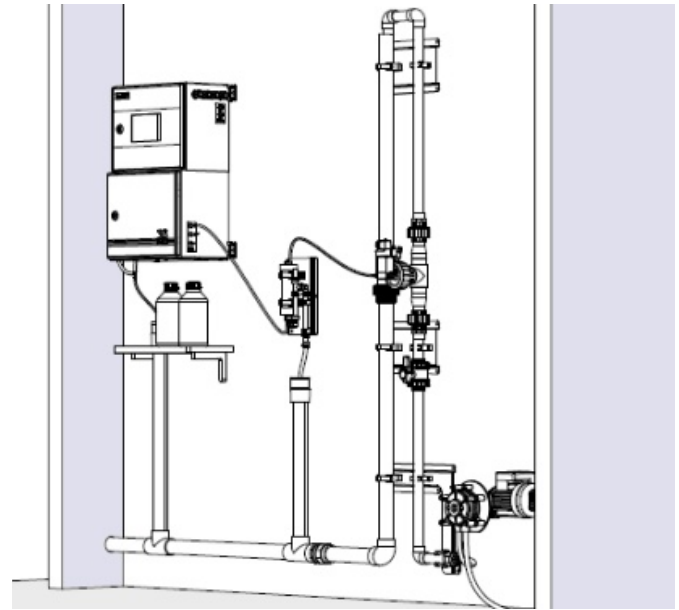
The intensity of the emitted radiation is proportional to the concentration of the molecules we want to measure.

The instrument is particularly indicated for the determination of aromatic hydrocarbons in aqueous samples.

TECHNICAL SPECIFICATIONS

Measured parameter	Oil-in-water, BTEX, aromatic hydrocarbons, PAH/PAC
Measuring principle	Fluorescence photometry
Range	PAH 0 - 1 ppm equivalent NDSA PAH 0 - 5 ppm equivalent NDSA PAH 0 - 10 ppm equivalent NDSA OIW 0 - 5 ppm equivalent phenol OIW 0 - 10 ppm equivalent phenol OIW 0 - 30 ppm equivalent phenol
Reproducibility	± 3 % of full scale
Limit of detection	0.1 ppm
Sampling Mode	Batch, with freely settable frequency.
Analysis Duration	2 minutes, including conditioning before analysis cycle and rinsing after measuring.
Cell material	Optically pure quartz
Sample	Pressure: atmospheric Temperature: 5 - 50 °C (41 - 122 °F) Flow: 80 - 500 mL/min Connection: 6 mm (¼-in.)
Drain	Pressure-free, atmospheric drain Connection: 12 mm (½-in.)
N° of streams	Up to 2, with integrated switching valve
Dimensions (H x L x D)	300 x 380 x 210 mm (11.8 x 14.8 x 8.3 in)
Weight	Approx. 10 Kg (22 lbs)
Power Supply	Voltage: 100 - 240 VAC 50/60 Hz standard or 24 VDC (optional) Consumption: max. 80 VA
Outputs	2 x 4-20 mA outputs for measured data Modbus RTU RS485
Alarms	2 SPDT programmable potential free relays
Input Digitale	Remote start/stop, start extra cycle, skip idle time, emergency stop
Operating Temperature	5 - 45 °C (41 - 113 °F)
Humidity	10 - 90% RH (indoor use only)
Installation	Wall mount (standard), bench top support or panel mount (options).
Protection Grade	IP54

INSTALLATION EXAMPLE



The analyzer is easily installed in a minimum amount of wall space.

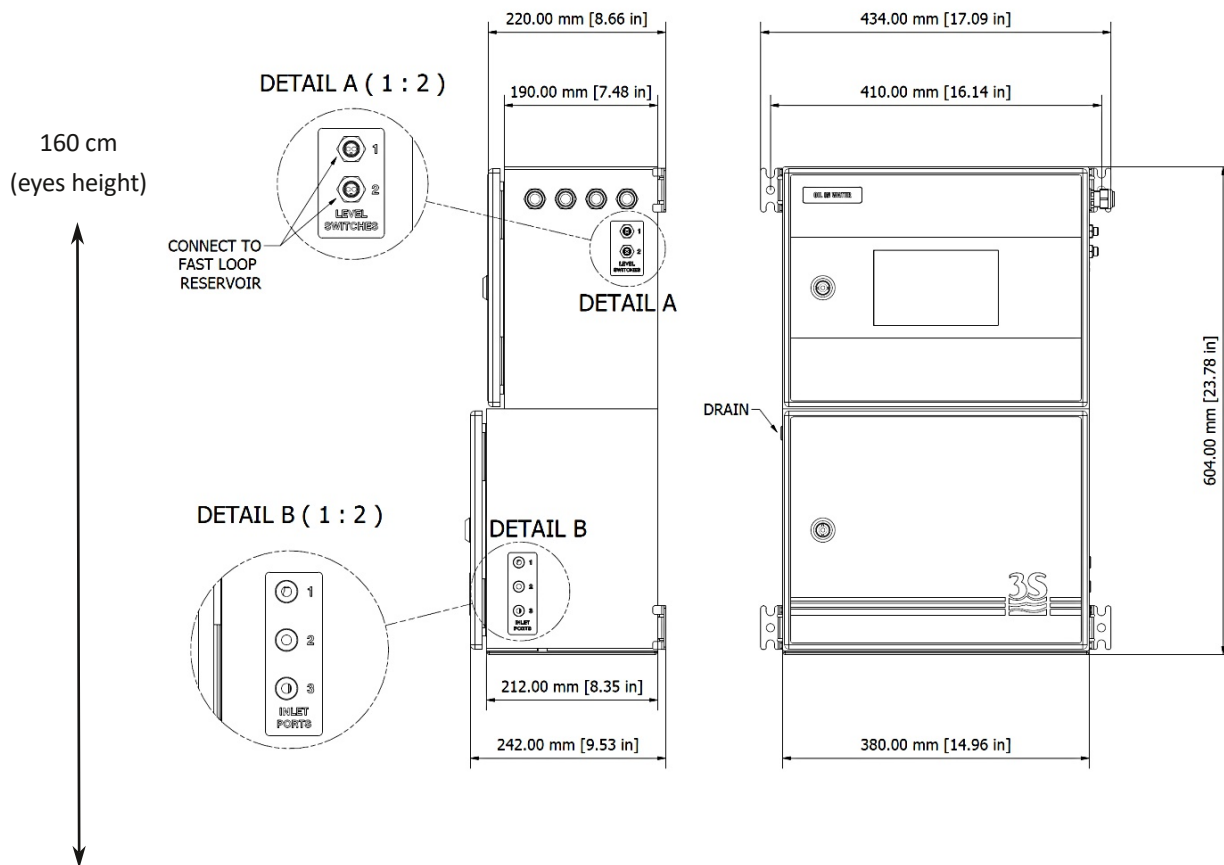
In the picture are included the optional accessories:

- a) A46ERLS000 - Fast Loop external reservoir with level switch
- b) A46SF10020 - Filtration unit 100 micron 230 VAC (other mesh size and input voltages available)
- c) A46SPP0000 - Sampling Pump

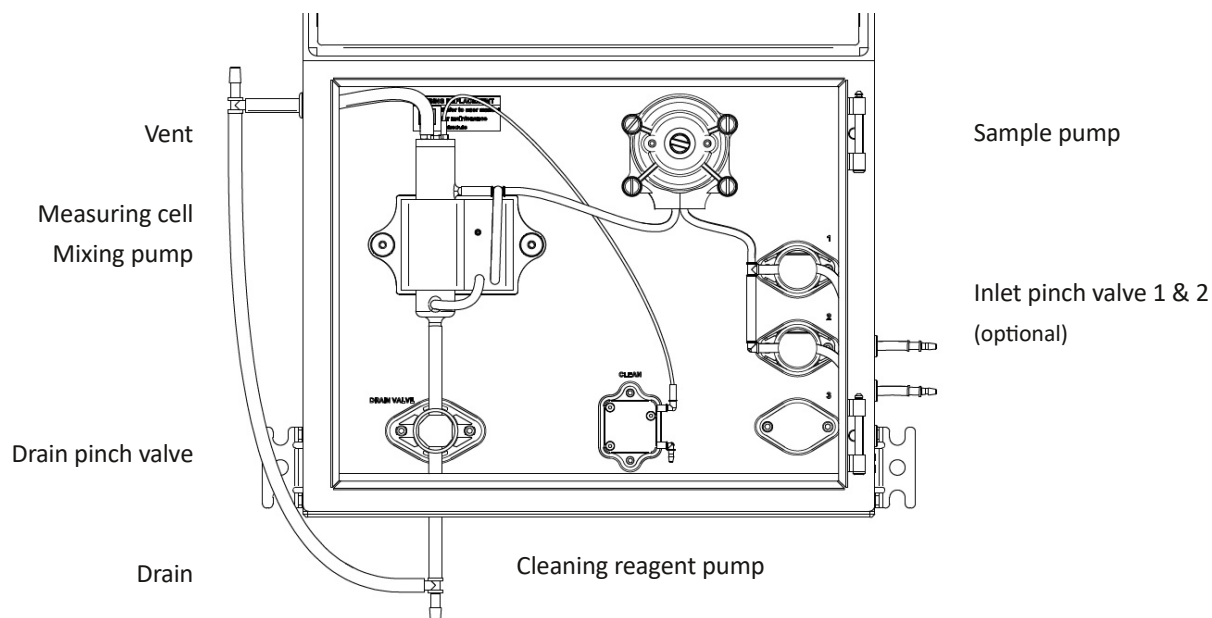
Other accessories, including external dilutors to increase the analyzer range and different kind of sample reservoirs are also available. See our website for more info.



TECHNICAL DRAWINGS



HYDRAULIC COMPARTMENT VIEW



PRODUCT CODES

- UVFL-0 UVFL ONE INLET PORT
- UVFL-2 UVFL TWO INLET PORTS
- UVFL-3 UVFL THREE INLET PORTS