

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.

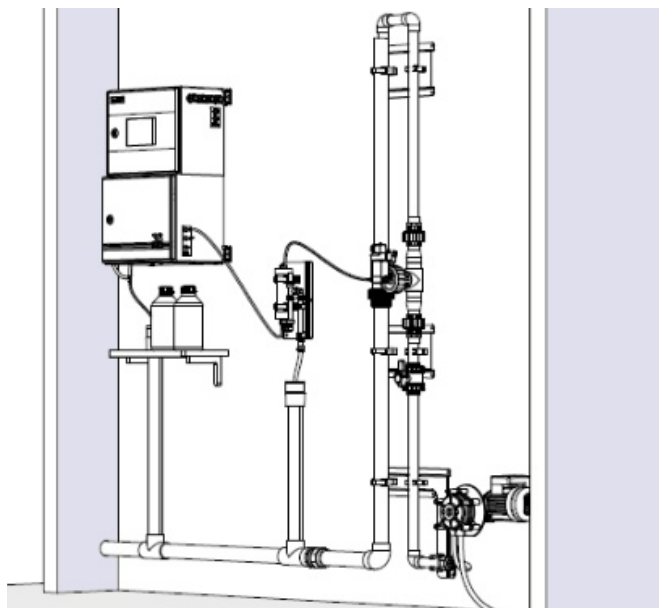
The intensity of the emitted radiation is proportional to the concentration of the molecules we want to measure.

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 |
| 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.

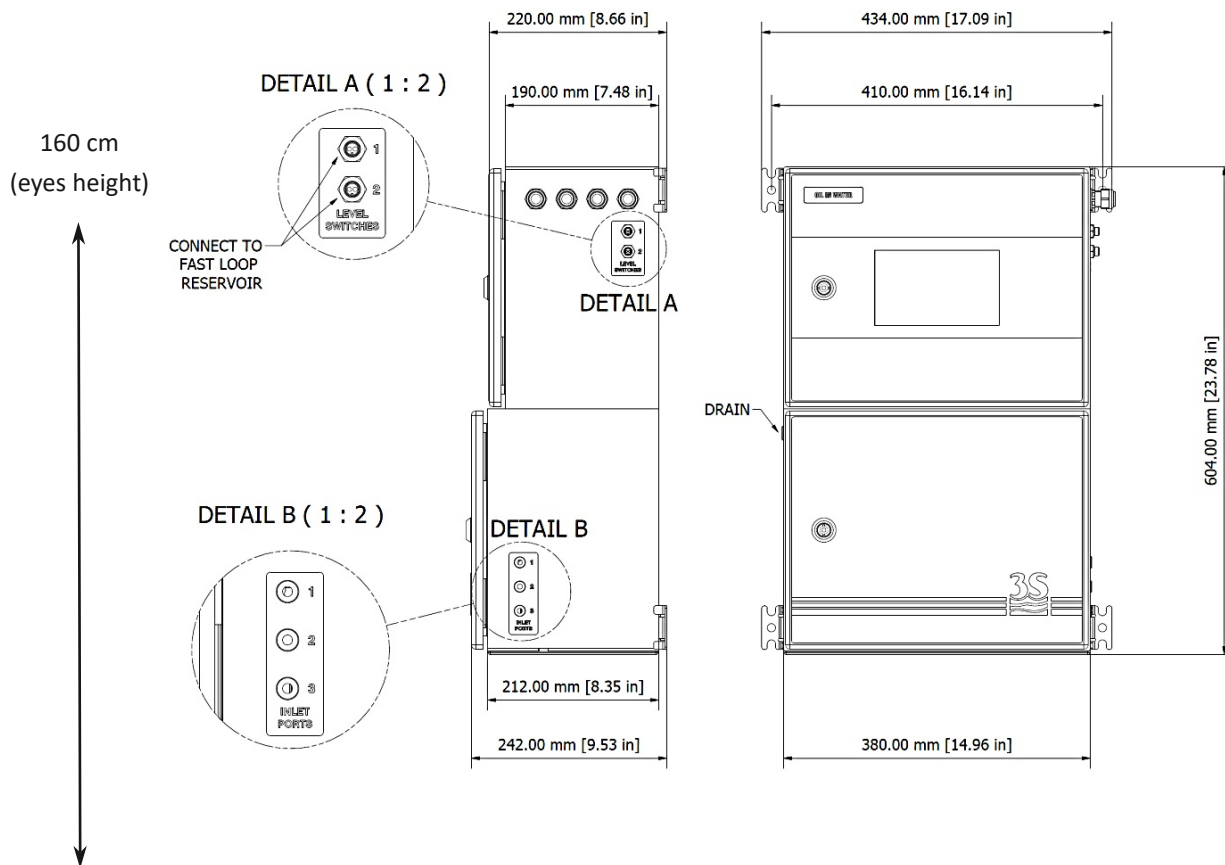
In the picture are included the optional accessories:

- 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

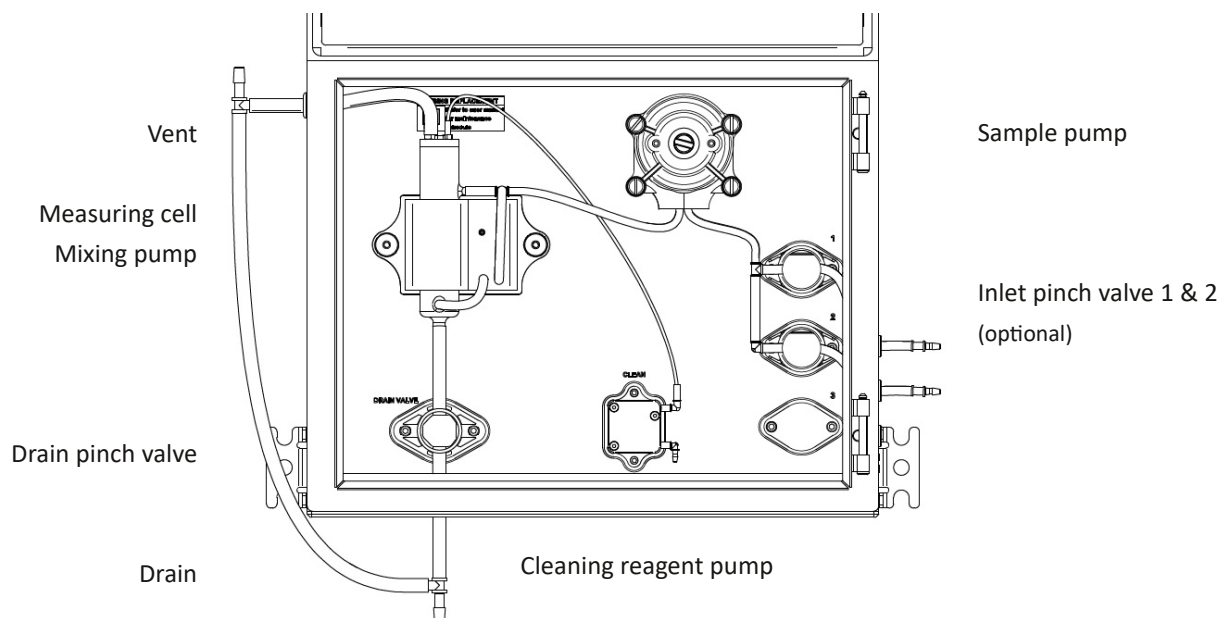
Other accessories, including external dilutors to increase the analyzer range and different kind of sample reservoirs are also available. See our website for more info.



TECHNICAL DRAWINGS



HYDRAULIC COMPARTMENT VIEW



PRODUCT CODES

| | |
|------------|-------------------------|
| UVFLPLUS-0 | UVFL+ ONE INLET PORT |
| UVFLPLUS-2 | UVFL+ TWO INLET PORTS |
| UVFLPLUS-3 | UVFL+ THREE INLET PORTS |