

3S-OIW

Compact online sensor for the determination of hydrocarbons, oil-in-water, BTEX, PAH

APPLICATION FIELDS

- Drinking water
- Industrial wastewater
- Oil-in-water, BTEX/aromatic hydrocarbons monitoring
- Detection of polycyclic aromatic compounds
- 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.

• Low operating costs

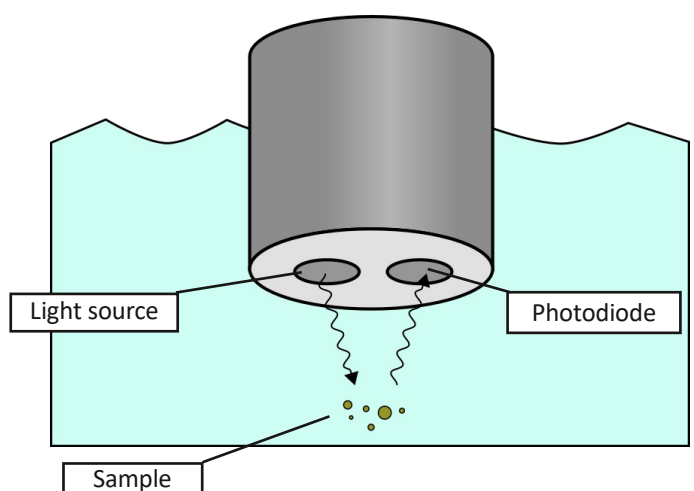
Minimum maintenance necessary: the external probe can be easily cleaned in seconds. No reagents needed.

• Wide measuring range, low detection limit

The determination ranges of the 3S OIW sensor varies from 0 - 30 ppm with a limit of detection of 0.1 ppm (as equivalents of phenol). PAH/PAC can also be detected with a range of 0 - 10 ppm (as equivalents of NDSA).

• Measurement principle

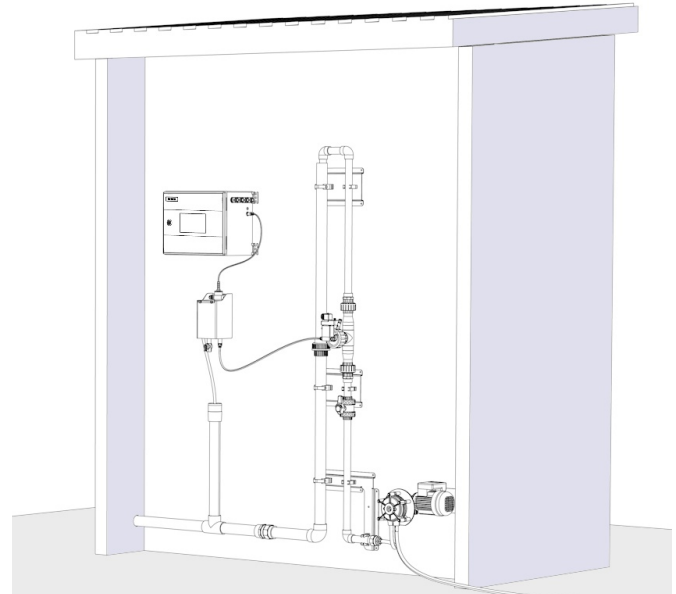
The analyzer is based on the fluorescence photometric determination of the active species dissolved or suspended in water. The external probe is installed in a sample reservoir and measurements are taken on the circulating sample flow.



TECHNICAL SPECIFICATIONS

Measured parameters	Oil-in-water, BTEX, aromatic hydrocarbons, PAH/PAC. Can be correlated to sum parameters as COD, TOC, BOD.
Measuring principle	Fluorescence photometry
Measuring range	0 - 30 ppm as phenol equivalents 0 - 10 ppm as NDSA equivalents
Reproducibility	± 3 % of the full scale
Limit of detection	0.1 ppm (phenol equivalents)
Analysis Frequency	≥ 1 s
Sample	Pressure: pressure-free vessel (depth up to 60 m) Temperature: 5 - 50 °C (41 - 122 °F) Flow Rate: 80 to 500 mL/min Connection: 6 mm (¼-in.) Drain: pressure-free, atmospheric drain
Body material	Stainless steel 316L
Dimensions	Ø 50 mm, L 175.8 mm
Weight	Approx. 1 Kg (2.2 lbs)
Power Supply	Voltage: 5 - 12 VDC Power consumption: max. 0.5 VA
Outputs	ModBUS RTU via RS485
Installation	With optional fast-loop reservoir (not included), pipe-mounted or wall mounted with appropriate brackets
Protection Grade	IP68

INSTALLATION EXAMPLE



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

In the picture are included the optional accessories:

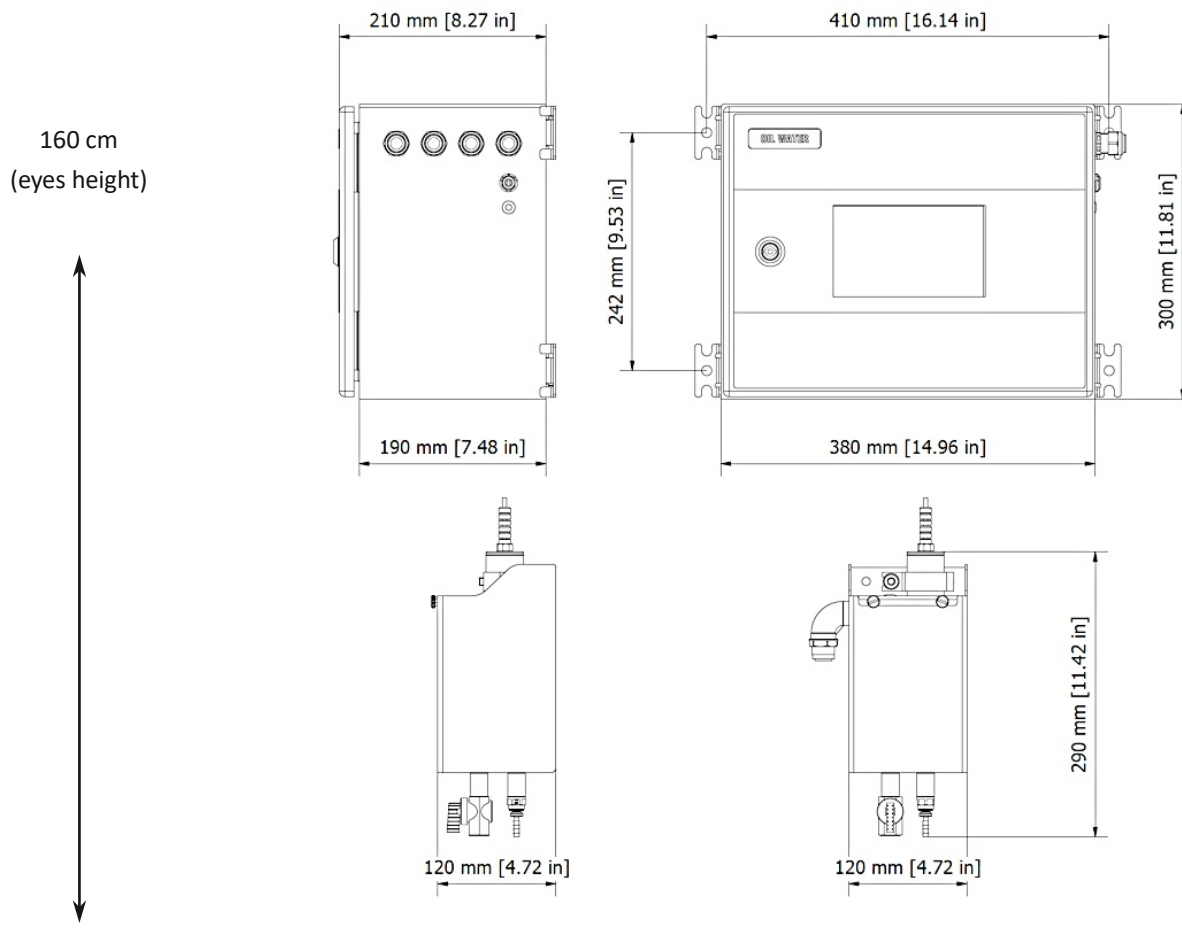
- a) A46SF10020 - Filtration unit 100 micron 230 VAC (other mesh size and input voltages available)
- b) A46SPP0000 - Sampling Pump

FAST LOOP RESERVOIR WITH PROBE



The probe is installed in the provided Fast Loop sample reservoir, protected from external light and easily accessible for cleaning and maintenance (to be purchased separately, product code A46U10020)

TECHNICAL DRAWINGS (complete setup)



PRODUCT CODES

3S-PC1000	Probe controller with color touch screen
3S-OIW	Fluorescence sensor refined oil / PAH / BTEX
A46U10020	Stainless steel continuous flow D.50 sensor holder