# AHHOI IR + MANIFOLD

Various components of the engine system require different applications of the oil systems. The AHHOI – Infrared Water-in-Oil Sensor, which is specifically designed for continuous estimation of the water concentration in oil, can be equipped with the manifold technology to monitor simultaneously up to four different oil systems. Each system is checked for the presence of water in all three states: saturated, emulsified and free.

Installation Examples

Main Engine
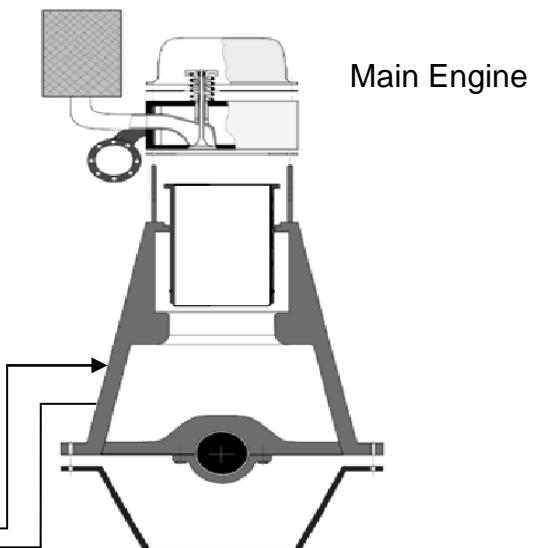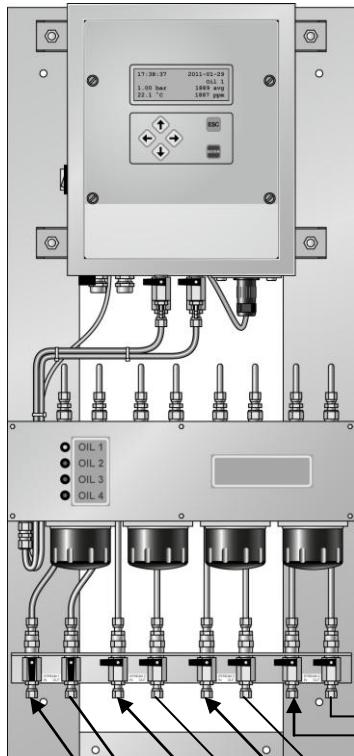
Possible monitor application
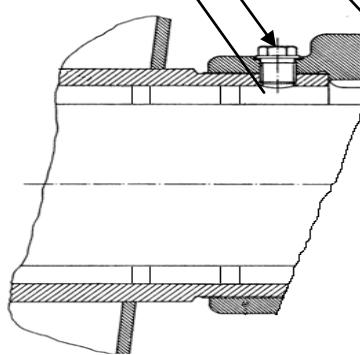
Hydr. system / Pitchpropeller

Stern Tube Sealing

Technical Features:

- Measuring range: 0 - 10000 ppm / 0 – 1.0 vol. % water
- Operating voltage: 100 - 240 V AC / 50-60 Hz, 24 VDC is available on request
- Oil system pressure: 1-10 bar
- Operating pressure: 0.8 – 1.5 bar
- Measuring temperature: 0 - 59 °C

Benefits:

- Continuous measurement of water-in-oil content
- Detection of water in all three states
- Low maintenance expenditure
- Easy to install, retrofit or reinstall
- Plug & Play

By means of the bypass method and employing the manifold add-on components, the sensor can be easily connected to different oil systems (e.g. main engine, hydraulic systems, and stern tube seals) where the pressure ranges from 1 to 10 bars. The AHHOI requires a pressure free outlet (atmospheric drain), and the integrated valve helps to maintain the automatic adjustment of the operating pressure level to 1 bar.

Once the manifold system is installed, the sensor measures the content of water in molecular form up to 10000 ppm / 1.0 vol. % on an ongoing basis.

The measuring cell of the sensor system is protected by the in-built oil filter and regularly cleaned with the help of a flushing liquid.

The system is housed in a A3 sized IP 54 steel box, requires 100 - 240 V and is equipped with both serial and analogue outlets (0 - 20 / 4 - 20 mA).

The corresponding software for data recording in the framework of trend analysis is provided by Martechnic®.