

Oil Mist Detection on Vessels



The Applications

Oil mist detection is used for the surveillance of mainly unmanned engine and hydraulic rooms on tankers, LNG-carriers, etc.

In the machine room the fuel pipelines and injection ports are monitored to detect possible leakages. Leaking fuel vapour produces a fine and highly explosive aerosol which can be rapidly and reliably detected by using scattered light.

The second monitoring place is the lubrication of the crank shaft. Insufficient lubrication or reduction in lubricating will cause overheating; the resulting oil mist again can be detected rapidly.

In the hydraulic room the generators and pipelines, which are under high pressure, are monitored for any leakages to detect any possible emission which can be highly explosive.

The Benefit

Safety:

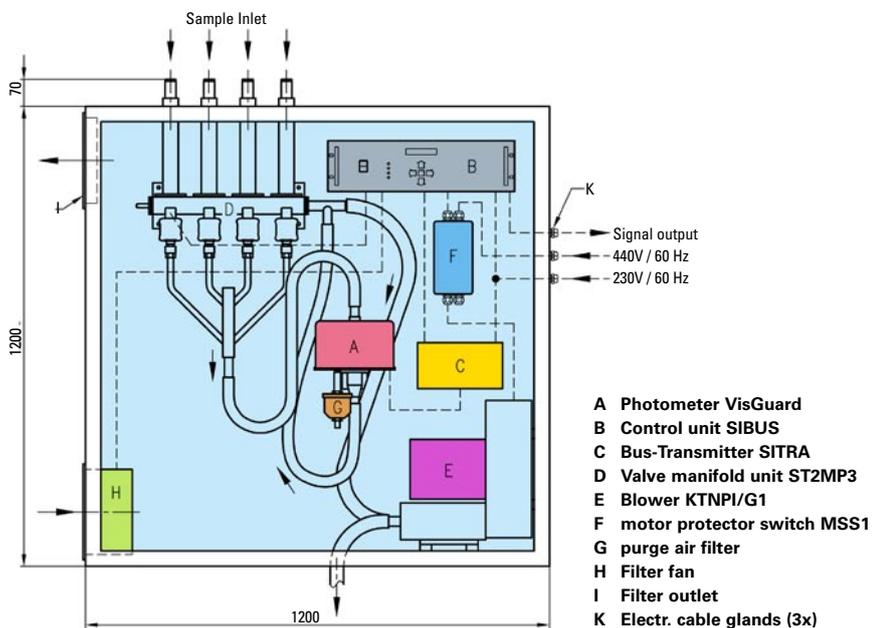
- Continuous monitoring of the unmanned areas for the formation of possible explosive oil mist
- Early warning allows to initiate safety relevant actions in time
- The VisGuard used for detection complies with the code of practice from the IMO organization

Economic:

- Compact design, cabinet mounted for ease of installation with all necessary components for the extractive measurement of up to 40 monitoring points in the machine room.
- Economical in-situ single point measurement in the hydraulic room.

References:

- Various installations (VisGuard, CTN, KTN) on LNG-vessels operated by Shell, integrated by the ship yards from Mitsubishi Heavy Industry, Japan and Samsung Heavy Industry, Korea



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The Products

For multiple measuring points in the machine room

- VisGuard Extractive with blower, SIBUS with valve switching unit
- Cabinet with shock absorbers and wiring terminal (option)

For single measuring points in the hydraulic room

- VisGuard In-situ with SIREL SMD

The Measurement / Standard configuration

Single measuring point

- 112388 VisGuard In-situ
- 116268 SIREL SMD
- 112677 Checking rod VisGuard

Multiple measuring points (typical example, a final configuration will be selected after receiving the specific requirement information)

- 112381 VisGuard Extractive
- 112677 Checking rod VisGuard
- 111985 SIBUS Multichannel control unit with 4-valves unit drive
- 110668 SIM5DEIN, digital input (4) for SIBUS
- 110320 SIMRELS, output relay p.c.b. (4) for SIBUS
- 111731 SITRA Bus-transmitter and p.s.u.
- 900006 Calculation of the line diameters based on the line lengths
- Suction fan (to be selected)
- 111899 Power relay MSS1
- 900252 Valve manifold unit for 4 channels
- Adapter for Valve manifold (to be selected)
- 900013 Pressure monitor with pressure nozzle ZCTN-41/42A (4 pcs.)
- 900072 Flow resistor MP10C4
- Cabinet and other accessories (option)

Main advantages

- Price advantage compared to competitive systems for single measuring points or for more than 12 points of measurement
- The installation of a single extractive unit on a central location allows much better access for maintenance and calibration checks compared to systems using single sensors on each measuring point.
- Easy check and adjustment of the calibration on the site
- Almost maintenance-free: no contamination of cell windows and therefore no cleaning as it is necessary for systems using single sensors

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