

# B.W.A.M. S. 646

## BILGE WATER ALARM MONITOR

Infra-red measurement of oil content with automatic compensation

- Fully in accordance with Resolution A 393 (X).
- Compact design.
- Approved by major administrations.



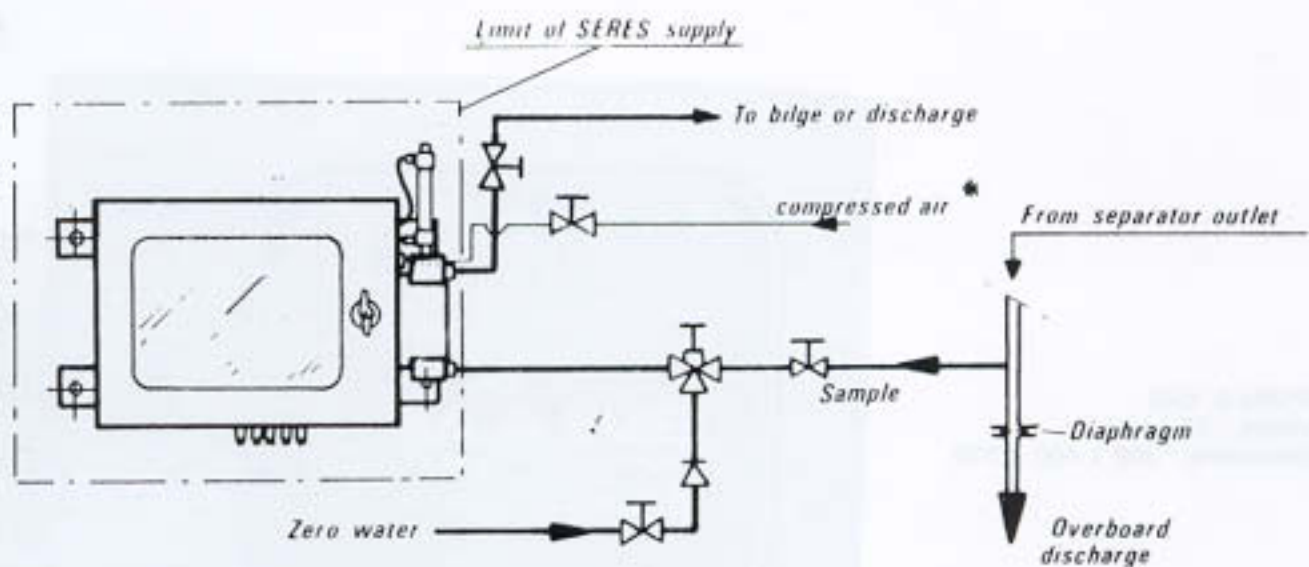
BWAM S. 646  
Weight : 12 kg  
Dimensions : 300 x 400 x 230

- Simple installation.
- 0 - 120 ppm range.
- Digital PPM display.
- Quick calibration checking device.
- Set point alarm at 15 or 100 ppm.
- Alarm if measuring vessel too dirty.
- Audible and visual alarm.
- Automatic or manually actuated wiper for cleaning of measuring vessel.

# B.W.A.M Bilge Water Alarm Monitor

## S 646

### FLOW DIAGRAM



\* Equipment with automatic cleaning only

### PRINCIPLE

An infra-red transmitter (laser diode) gives out a monochromatic beam which crosses the measuring vessel in which the water to analyse flows.

A compensation cell, placed in front of this beam, compensates for the loss of light due to hydrocarbons, suspended matter or the colour of the water.

A measuring cell, placed at an angle  $\gamma$  with regard to the beam of light, measures the reflexion of the photons due to the presence of spheres of oil in the beam. The quantity of photons is proportional to the quantity of oil in the sample. This value of the angle  $\gamma$  corresponds to the characteristic value of the reflexion of light on the particles of hydrocarbons.

By experimenting, it has been seen that the suspended matter reflect few photons in the angle  $\delta$  covered by the cell; so their influence on the measurement of hydrocarbons is greatly limited.

