

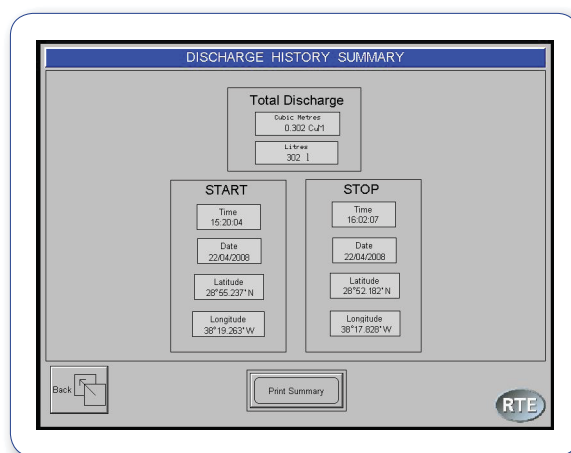
Smartsafe ORB Bilge Overboard Security System



SmartSafe ORB - Bilge Overboard Security System

Applications

- Bilge Water Discharge Security
- Electronic Record Book
- Oil/Water Separator Discharge



Summary Discharge Log

The Smartsafe ORB (oil record book) Bilge Overboard Security System was developed in response to our customers' worldwide requests and requirements. This system records the oily water discharge process of any Oil Water Separator (IMO - MEPC 60.33 or 107.49) thus avoiding the common mistakes of manual entries and log variations in the oil record book. This is often seen as an easy target for Port State Control and other Marine Enforcing Agencies.

In its simplest form the Smartsafe ORB will utilise the ships GPS and records the process of the bilge water discharge. The base unit documents the vessel's time/date/latitude and longitude of the start and stop of the discharge process. The event summary is displayed on the control screen for easy viewing and is used to annotate the oil record book.

The system has the ability to record data from up to 3 Oily Water Separators (OWS). This data can be downloaded to a PC, printed or emailed using the built-in email application.

The Smartsafe ORB has sufficient memory to store three years of typical discharge records.

Optional Components:

- GPS + Interface Unit
- Printer
- Flow Meter
- Secondary Diverter Valve
- Separator Interface Unit



Smartsafe ORB Bilge Overboard Security System

Specification

Supply voltage:	100 – 240V ac
Supply variation:	±10% of Nom. Voltage
Supply frequency:	50/60 Hz
Consumption:	30 VA Max
Control display:	LCD with touch screen interface

Specifications and system descriptions accurate at time of printing. These are subject to change.

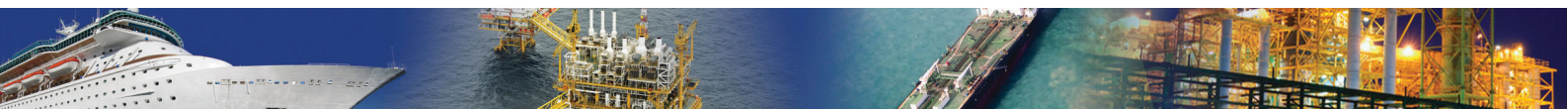
This system may be installed in line with any new and existing IMO MEPC 60(33) and 107(49) approved monitors.



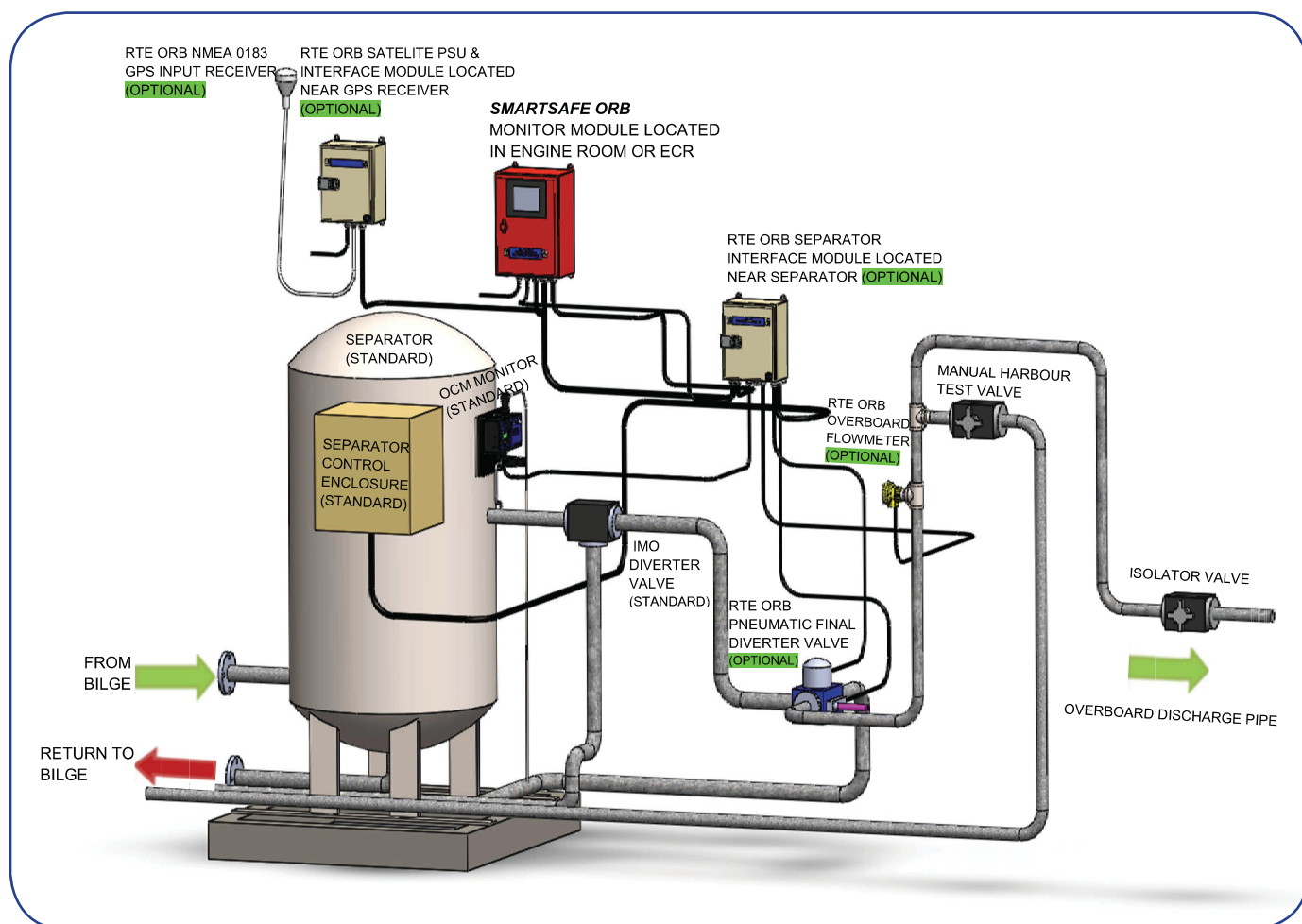
OCD CM - MEPC 60 (33)



Smart Cell – MEPC 107 (49)



Smartsafe ORB Bilge Overboard Security System



Smartsafe ORB Bilge Overboard Security System

Optional Components

GPS & Interface Module:

Where the ships GPS is not able to be used, in cases where there are no spare outputs for example, Rivertrace can provide a standalone NMEA 0183 GPS and Interface module that connects directly into the Smartsafe ORB.



Flow meter & Security Cage:

Adding a tamper proof electronic flow meter to the Smartsafe ORB enables the exact amount of water discharged to be measured which gives the following advantages;

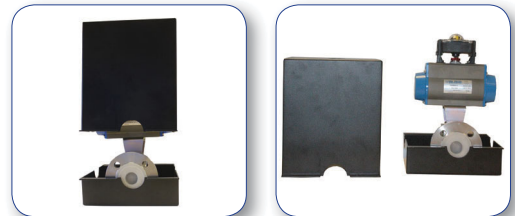
Volume of actual Oil discharged overboard can be calculated and recorded utilising the PPM reading from the OCM.



Secondary Diverter Valve & Tamper Proof Security Cage:

To increase the overall security of the system to prevent accidental or malicious discharge or separator bypass, a secondary diverter valve with position feedback can be installed after the standard IMO diverter valve.

This secondary valve is controlled solely by the Smartsafe ORB and will immediately be closed should a malfunction or malicious act be detected.



Separator Interface Module:

In cases where the Smartsafe ORB is installed in the Engine Control Room and the signals from the OCM or Separator are not compatible, a separator interface module is required. This converts any signals from any OCM and any Oily Water Separator into a compatible signal for the Smartsafe ORB. This also enables the Smartsafe ORB to be retrofitted to any vessel irrespective of the type of equipment fitted.



Printer:

By adding a printer to the system the summary discharge log can then be printed at the end of each discharge and attached to the manual Oil Record Book, avoiding potentially costly manual entry errors.

