

Smart Cell 15ppm Oil Content Monitor to MEPC 107(49)



Applications

- Bilge Water Discharge
- Regulatory Compliance
- Rig Slop Tank Discharge
- Air Cooler Drains Overboard Discharge
- Oil/Water Separator Discharge

By utilising the “Smart Cell” Detector Array Technology, developed by Rivertrace, the OCM analyses all three oil types (HFO, Diesel and Emulsions) simultaneously without the need for re-calibration.

A manual cell cleaning device is included as standard to easily enable routine maintenance. Optical cell fouling is recognised as a leading cause of monitor malfunction or incorrect reading. By simple operation of the manual cleaning device, the “Smart Cell” remains in optimum operating condition.

Replacement calibrated measuring cells can be purchased for easy change over on board the vessel and calibration verification kits enable the crew to demonstrate the monitor is within factory calibration to PSC Surveyors.

The Smart Cell Bilge Alarm is readily available as a 5ppm version if required. It can also be tailor made for Hazardous Environments (Zone 1 & 2) as an Exd system with Auto Clean, all enclosed in an explosion proof cabinet.

We also offer the system in an Anti-Magnetic version, ideal for submarines and minesweepers.

Options

All options can be ordered from new or retrofitted to existing RTE Smart Cell monitors.

Flowswitch: The flowswitch option has been designed to ensure that bilge water is flowing through the measuring cell when in monitoring mode. An error is shown on the display if there is no flow. The flowswitch monitors the flow of water through the cell. This ensures that the flow cannot be shut off accidentally or maliciously. In case of no flow, the Smart Bilge will close the overboard discharge valve.

Autoclean: The autoclean option has been designed to ensure that the measuring cell glass tube is kept free from fouling. Cell fouling is recognised as a leading cause of monitor malfunction. Fitting the Autoclean removes the need for the ship's crew to remember to clean the cell manually.

Verification: The monitor's calibration can be checked using our verification kit. This is an approved method of demonstrating that the unit is still working correctly to Port State Control and Class.



Smart Cell 15ppm Oil Content Monitor to MEPC 107(49)

Specification

Measurement	
Oil types:	HFO, Diesel and Mixture C (IMO defined)
Clean water calibration:	+/- 2ppm of factory set values
Oil range:	0 - 40 ppm
Accuracy oil + solids:	+/- 5ppm up to 30 ppm
Solids discrimination:	100ppm Iron Oxide in 10 ppm Diesel
Response time:	< 5 sec (oil reading)
Alarms	
Oil alarm 1 setpoint:	1 – 15 ppm user adjustable
Oil alarm 2 setpoint:	1 – 15 ppm user adjustable
Oil alarm 1 delay:	0 – 5 seconds user adjustable
Oil alarm 2 delay:	0 – 600 seconds user adjustable
Input / Output	
Analogue output:	Loop powered 4-20mA / 0 - 20mA 24V
Switch inputs:	2 x switch inputs for separator & flow status
Data Storage and Retrieval	
Calibration data storage:	Stored in cell
IMO required data:	Stored in Control enclosure
IMO required data retrieval:	Via LCD display, RS 232 comms link or USB
System and Supply	
Supply voltage:	115 or 230V AC, 50 – 60Hz (24V AC & 12V DC available)
Supply voltage Consumption:	< 50 VA incl. solenoid valve
Supply voltage tolerance:	+/- 15%
Projected life:	> 50,000 hrs
Protection class:	IP 65
Approvals:	MEPC 107(49) – DNV-GL, USCG, CCS, Class NK, Russian Register, Transport Canada.
Weight:	3.2 Kg / 7.05lb

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

