

SOFTWARE

# GUARD LEVEL® FMS



**CONSUMPTION ANALYSIS** WITH GPS COORDINATES FOR ALL INSTRUMENTED BUNKER TANKS.

CONTINUOUS INVENTORY CONTROL OF ALL INSTRUMENTED BUNKER TANKS.

ENGINE FUEL CONSUMPTION (REQUIRES OPTIONAL CORIOLIS FLOW METER).

**DATA STORAGE** IN NON-VOLATILE MEMORY.

FUEL DISCHARGE REPORT AFTER TUG TO BARGE FUELING TRANSFER.

**REMOTE MONITORING** USING CLOUD BASED FLEET REPORTING SOFTWARE (FRS).

SHORE VERSUS VESSEL DISCREPANCY REPORT AFTER EACH BUNKER OPERATION.

Bergan Marine Systems' GUARD LEVEL® Fuel Management System (FMS) is a cabinet-mounted, cloud-connected fuel gauging and monitoring solution designed for marine fuel tanks. The system integrates level sensors, local display, and remote data access to provide accurate fuel measurement and operational visibility. This intuitive tank gauging system has extended hardware and software capabilities.

The FMS main cabinet and associated CARGORADAR® or GUARD LEVEL® Digital Float Gauge (DFG) combined GPS interface provides for highly accurate daily fuel usage reports. By characterizing the bunker tanks and having these strapped to +/- 0.15% accuracies, highly accurate tank volumes are calculated. The FMS software generates detailed daily reports and trip data information stored in non-volatile memory. When data communication like a Satcom or 4G system is specified, the daily report can be transmitted directly to your data center or uploaded to our Bergan-provided secure Fleet Reporting Software (cloud service). With the Fleet Reporting Software cloud service, you have dependable access to the data whenever you need it.



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# TECHNICAL SPECIFICATIONS

## SYSTEM CONFIGURATION

- **System Type:** Cabinet-mounted Fuel Management System
- **Architecture:** Local main panel with integrated display and cloud-based monitoring
- **Power Supply:** 120 VAC
- **Sensor Type:** 2-wire fuel level sensors (VEGA-based)
- **Connectivity:** Bergan Connect cloud services (subscription included)

## MAIN CONTROL PANEL

- **Enclosure:** Industrial cabinet enclosure.
- **Display:** Integrated local display for real-time level indication.
- **Functions:**
  - Fuel level monitoring.
  - Data aggregation from multiple tank sensors.
  - Secure data transmission.
- **Cloud Capability:** Remote monitoring, data access, and reporting via Bergan Connect.

## FUEL LEVEL SENSORS

- **Model:** HPT-1
- **Measurement Range:** 0-15 PSI
- **Process Connection:** 1 in ANSI flange.
- **Technology:** VEGA radar-based measurement.
- **Materials:** 316L stainless steel.
- **Cable:** Integrated sensor cable.
- **Application:** One sensor per fuel tank.

## MECHANICAL / YARD REQUIREMENTS

- 1 in bulkhead penetration per sensor.
- 1 in isolation valve per sensor (to be provided by shipyard).

## INSTALLATION

- **Scope:** Installation services estimated.
- **Billing:** Actual labor hours billed per approved rate sheet.

## SERVICES INCLUDED

- **Bergan Connect Subscription:** 1-Year subscription included with the system.

## ENVIRONMENTAL & MARINE SUITABILITY

- Designed for marine fuel tank environments.
- Suitable for shipboard installation with industrial-grade components.

## COMPLIANCE

- ANSI process connections.
- Marine-grade materials suitable for fuel service.

## TYPICAL APPLICATIONS

- Commercial marine vessels.
- Fuel monitoring and inventory management.
- Remote fleet fuel visibility.

*Manufactured by Bergan Marine Systems.*

