

DTGS DIGITAL TANK GAUGING SYSTEM



Tank Gauging for Small Ships

DTGS is an integrated package of instrumentation from PSM providing a comprehensive, simple to install, and scalable tank gauging solution for vessels of all classes. The central VPM display communicates to all connected APT1000 level transmitters to obtain accurate real-time data and processes this to provide a comprehensive display of the status of all tanks.

Multiple displays can be added, and the status of all tanks can be serially communicated to other onboard systems loading computers or alarm monitoring systems.

A fully integrated system of:

- APT1000 Level Transmitters
- RFM Connection Modules
- VPM 4300 Display Panel

A photograph of a port area with several large blue and orange ships docked at a pier. The ship in the foreground has 'ODYS' written on its side. The sky is blue with some clouds.

KEY FEATURES

Key aspects of the DTGS include:

- High performance with low installed cost.
- Simple installation with minimal cabling - all elements interconnected via a single 4 core network.
- Delivered preconfigured and ready for use - with full flexibility to make any changes/additions in the future.
- Clear and readily understood display of all Tanks and vessel Draught/Trim. Full touchscreen operation.
- Multiple displays may be interconnected via Ethernet with all or user selected tanks shown at all locations
- Complete configurations easily loaded via integral USB port.
- Alarm logs, diagnostic reports, and complete setup data may be offloaded to a USB drive.
- Operating system and Setup data is stored in non-volatile memory with full internal back-up.
- Black out mode allows system to operate just as data acquisition for other onboard systems with a tap to wake function for immediate local display.
- Modbus output of all data available to other ship's systems.



APPLICATIONS

The DTGS system has been installed in a range of vessel classes serving diverse applications from Tugs and OSV's to Superyachts and Navies around the world. Recent installations include:

Naval Corvettes

A series of 5 Warships each with 47 tank level measurements points and 2 networks, one for each of the forward and aft fire zones. Data is shared between the two displays so that all tanks may be viewed at either location and a consolidated status message is sent via RS285 Modbus to the Ships IPMS.

Motor Yachts

A vessel-wide monitoring system for a 73.6 Metre Motor Yacht, with 30 measurement points and displays in 4 locations. Three displays are dedicated to specific tanks but all share with a 4th which gives an overview of all tanks on the Bridge. Again, an overall status report is provided to the yachts central alarm system.

Tugs

Tugs are an ideal application for the DTGS. PSM has delivered systems for multiple newbuild Vessels, typically of 50 to 60 Ton. These systems incorporate a single central display for all tanks, often with dedicated single channel displays for local indication at the tank, and monitor all onboard fuel oil and service tanks, usually between 10 and 20 channels depending on the Tugs design.

References and further details of installed solutions available on request.



PSM Instrumentation – Specialists in Marine Control Instrumentation and Marine Protection Systems

Established for 40 years, PSM Instrumentation, based in the UK, is a specialist in the design, manufacture and supply of marine instrumentation for vessels of all types. PSM is part of the Scanjet Group, a leading global supplier of intelligent tank management (ITAMA), providing a single source total package for the marine market.