

# DTGS DIGITAL TANK GAUGING SYSTEM



## Tank Gauging for Ships

DTGS is an integrated package of instrumentation from PSM providing a comprehensive, scalable and simple to install, 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

## 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 pre-configured 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 or updated 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.
- Marine Type Approved and certified Intrinsically Safe for installation in Hazardous Areas
- Modbus output of all data available to other ship's systems.





# BENEFITS

For owners, installers and users:

- Simple to install with minimised cabling. 1 to 100 transmitters connected to a single display which provides all power requirements.
- Less hardware – Only one Safety Barrier for each network branch
- Ease of support - transmitters are interchangeable and replacements can be set up via the display.
- Data logging of both historical tank levels and alarm events. With output to USB in standard readable format (CSV).
- Multiple display units can interconnect to share data.
- Secure – all data is continually backed up to internal secondary memory.
- Multi-level password protection ensures only authorised changes.
- Inbuilt utilities allow users to test or make changes to setup of connected transmitters and network configuration.
- Plug in cards provide relay outputs for remote annunciators.

**The DTGS is the solution for tank level measurement for small to medium vessels. For more information or to download datasheets please visit [www.psmmarine.com](http://www.psmmarine.com) or email [sales@psmmarine.com](mailto:sales@psmmarine.com)**



# EXAMPLE 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 8 Warships each with 47 tank level measurement 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 RS485 Modbus to the Ships IPMS.

## Mega-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 fourth 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 new build 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 over 50 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 solutions providing a single source total package for the marine market.