

## DTGS Integrated Marine Tank Gauging System

A purpose designed modular, expandable, and simple to install solution



### Key features

- Complete Tank & Draught monitoring package with centralised processing & display and output to other systems
- Screen layout is defined for each application for maximum clarity with specific arrangements for tank level and Draught
- Multiple repeater display options
- Low cost of installation
- Multi-drop interconnection means simple cabling
- Real-time display with option for data logging
- Small space efficient design for both panel and wall mounting
- All system elements designed to work together:
  - VPM 4300 display panel
  - RFM connection modules
  - APT1000 level transmitters

Part of the **TankWatch** product group

**DTGS A Flexible and Scalable Solution for Shipboard Tank Gauging**

The VPM Display is at the heart of the PSM flexible monitoring solution. It combines all functions of data acquisition, data processing, local display, and remote reporting. Input data is collected from PSM APT1000 level transmitters via an RS485 multi-drop connection, using industry standard Modbus protocol. This RS485 network is built up using PSM's RFM termination modules to realise a system with minimal cabling. Just one 4 core cable carries both power and communication signals across the entire network. For Intrinsically Safe installations purpose designed Safety Barriers from PSM allow the entire network and all transmitters to be protected with just one Barrier component. Where the input is of a conventional signal type, e.g. 4-20mA for tank level or pressure, PT100 for temperature, or volt-free contacts for status or alarm conditions, these are connected via distributed acquisition modules that may also be connected to the VPM via the RS485 port.

Presentation is designed for clarity of information and is tailored for each installation with specific input / tank names, units of measure, status etc. Data is arranged in "groups" immediately accessible via dedicated on-screen buttons. Vessel draught, trim, & heel have a dedicated display layout

The system may be supplied fully configured with all data loaded for its intended application, however, all configuration is user editable via the touchscreen. Password protection with multiple access levels ensures that only authorised personnel can make changes. The complete system configuration can also be uploaded via temporarily connected USB memory device, and full support tools are provided for generating the configuration file on a PC before uploading.

Up to 6 VPM's may be interconnected via a dedicated Ethernet connection. Each can share information so that data collected by one VPM is available for display by the others.

For local alarm annunciation VPM features four configurable relay outputs to connect to external visual and audible devices.

The VPM can also output a complete Modbus Map of all parameters which is available for other monitoring systems to read.

**Example system architecture**

