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[www.psmmarine.com](http://www.psmmarine.com)

## Reduce Costs, Optimise Operations and Ensure Compliance

Instrumentation that allows vessels to operate efficiently, reliably and comply with safety and environmental regulations.



**TankWatch**

Level measurement and supervision systems for ballast, cargo, service and bunker fuel oil tanks

**BulkSafe**

Water ingress detection and alarm systems to protect bulk carriers in accordance with SOLAS regulations

## PSM Instrumentation

Established for over thirty years and based in the UK, PSM instrumentation is a specialist in the design, manufacture and supply of control instrumentation and protection systems for the marine transportation industry.



We offer a total package of advanced software systems and application solutions for designers, ship builders and end-users, to ensure your vessels operate efficiently and reliably and are compliant with legal, safety and environmental regulations.

Working with engineers and designers, owners and fleet operators, maintenance and repairs companies, and understanding their requirements, has enabled us to develop products and systems dedicated to meeting your specific applications.

### Experience that Counts

With our unparalleled engineering and design expertise, we are able to recommend and supply the optimum solutions for any application and particular vessel.

Where required, PSM products carry type approval from all the main marine societies to demonstrate that they are fit for purpose and suitable for the required environment and performance criteria. They also meet many country specific approval standards.

They are ATEX approved for use in hazardous areas. We run an approved quality system to BS EN ISO 9001:2008 to give you further confidence in your purchase from PSM.

We have a comprehensive library of technical documentation relating to our range of marine instrumentation products and services that is available for you to download from our website [www.psmmarine.com](http://www.psmmarine.com).

## Engineering Solutions & Project Management

Utilising over 30 years experience in the marine industry, a core competence of PSM is our ability to offer a complete engineered technical solution to a customer's complex application needs. Our project office is equipped to work directly from engineering design drawings and specification requirements to offer you a complete turnkey solution based on PSM products and third-party components as required.



Other aspects of project management we undertake include finance and letter of credit management, custom documentation preparation, factory inspection and testing as well as specific packaging requirements for global shipment.

### Commissioning and Installation

We offer all levels of support for PSM products and systems, from ad hoc guidance through to full installation, commissioning and ongoing maintenance contracts. With a fully dedicated service, customer support and repair division and highly trained staff, we are committed to providing the best possible service to all our customers.

### Calibration and Repair

We also provide a complete marine instrumentation calibration, repair and spare parts service for all current and discontinued PSM products.

Our Marine Instrument Replacement initiative enables instrument returns and repairs to be handled quickly and efficiently by offering customers a speedy service for all standard instrument repairs and warranty returns.

If you who wish to return an instrument for any reason, simply contact our sales department who, in most cases, can immediately arrange for the supply of a suitable exchange unit.

# TankWatch Marine Tank Liquid Level Measurement and Supervision Systems

PSM's intelligent marine tank level monitoring and supervision systems are powerful, versatile and simple to apply. We have designed and constructed our extensive range of level and pressure transmitters, switches, display and control units specifically for marine tank gauging applications. These instruments carry international type approvals for use in ballast, fuel, draught and all service tanks. In addition, many carry NATO stock numbers and are tested to fulfill the requirements of military surface ships.



## TankWatch range

### ICT 1000 - Digital Hydrostatic Level Transmitter

A smart liquid level transmitter with both analogue and digital Modbus outputs. Capable of being programmed for measurement range, functionality and diagnostics via an RS485 modem and a software configuration tool. Ancillary RFM field termination modules provide a simple and low cost solution for the wiring of Modbus networks.

### KD FLG - Flat Glass Level Gauge

Use a transparent glass with a reflective layer behind. They are used when the liquid is opaque and are suitable for low pressure and temperature applications such as fuel oil or lubricating oil.

### HCG series

A self powered hydrostatic contents gauge requiring no external power that gives a continuous readout of the contents within a tank without the aid of batteries or hand pumps.

### KD Series - Mechanical Float Level Switches

Whether horizontally or vertically mounted, our marine float level switches provide high-level and low-level detection of liquids with one or two switch points in all types of vessels.

### BLS 9200 - Bilge Level Switch

Designed and constructed to suit the harsh environment of ships bilges, the BLS9200 provides reliable indication of bilge well levels. An integral test mechanism provides an immediate functional test.

### TankWatch Software and Display Modules

TankWatch is a simple to operate graphic display software package running on a panel mount HMI system. It provides the user with a clear picture of the current status of all inputs for a complete tank gauging solution. It is simple to use, flexible in operation, with multiple options for inputs and outputs. Additional modules are also available to interface with valve control systems to allow a complete loading / unloading system to be implemented.

# BulkSafe Cargo hold water ingress detecting system

BulkSafe is an essential cargo hold water ingress alarm system designed specifically to meet SOLAS regulations. BulkSafe draws upon our comprehensive expertise and experience in supplying monitoring and alarm systems for shipboard liquid levels to provide a robust, reliable, simple to install and operate solution for this mandatory and critical application on all bulk carriers.



**BulkSafe - Water Ingress Alarm System (WIAS)** - A permanent ship's hold water level detection system for bulk carriers. It is fully type approved in accordance with SOLAS XII Regulation 12, IACS UR S24, IMO DE 46/18/1 and IMO DE 46/18/2 performance standard for water level detectors & IACS UI SC180.

BulkSafe is also suitable for water level detection in single hold cargo ships in accordance with SOLAS Chapter II-1 Part B Regulation 23-3.

BulkSafe complies fully with the stringent IMO performance standards for water ingress alarm systems having undergone extensive testing in the presence of all of the major classification societies. The system is offered with full type approvals from Det Norske Veritas (DNV), Bureau Veritas (BV), American Bureau of Shipping (ABS), Germanischer Lloyd (GL), Lloyds Register (LR) and China Classification Society (CCS),

## BulkSafe Key Features

- Water ingress alarm for cargo holds insensitive to product type or build-up.
- Simple to install and operate
- Only one sensor required in each hold
- Constant self-checking of detection sensors and 'live zero' alarm signal confirms system operational health.
- Simple menu driven / push button operation with full functional checks available at any time from the central monitor and alarm panel.
- Correct sensor operation can be tested from outside the hold without the need for external additional services, connectors or tools with the hold empty or full of cargo.



## OEM Products and Capabilities

Our specialist knowledge and capabilities have allowed PSM to successfully partner with many other global marine companies to develop bespoke OEM sensors and products to solve their application problems. This business solution allows these partner companies to bring systems to the market faster and at a lower cost with reduced risk.



Typically these joint projects cover product enhancements and derivatives for specific applications based upon PSM core technology and designs. PSM is committed to ensuring the commercial privacy of any agreement and protection of the relevant joint intellectual property rights ensuing.

Just a call away on +44 (0) 1444 410 040, we are always happy to provide you with technical support and impartial advice on product selection and regulations before, during and beyond installation.

### We are members of key industry organisations including:

- Society of Maritime Industries
- British Marine Equipment Association Members Council
- British Standards Institute

### Our products are approved by the major industry accreditation bodies including:

- Lloyds Register
- American Bureau of Shipping
- Bureau Veritas
- Det Norske Veritas
- Germanischer Lloyd
- China Classification Society
- Korean Register

### Our prestigious client base includes:

- BAE Systems (UK)
- P & O (UK)
- MoD / Royal Navy (UK)
- Transocean (USA)
- Nordic Tankers (Denmark)
- Navantia (Spain)
- Australian Navy
- Norwegian Navy
- Converteam (France)
- Bharati shipyard (India)
- Dalian Shipyard (China)
- Uljanic shipyard (Croatia)
- Edison Chouest (USA)



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