

Instrumentation & Systems

PSM Instrumentation Ltd has many years experience in the design, manufacture, supply and application of instrumentation & systems for all industries.



*Level ~ Pressure ~ density ~ temperature ~ flow
measurement & control systems*

PSM

PSM Instrumentation Limited

Burrell Road Haywards Heath W Sussex RH16 1TW UK

T +44 (0) 1444 410040 F +44 (0) 1444 410121 W www.psm-sensors.co.uk E sales@psm-sensors.co.uk

Instrumentation & Systems

Level

360 series Industrial Analogue Loop powered level transmitters.

The Optima 360 is a 4 to 20 mA loop powered 2 wire hydrostatic liquid level transmitter designed for Industrial duties. With a wide range of process fittings to suit many applications & high corrosion resistance, it is able to perform accurately and reliably in the most demanding and arduous duties.



260 series Marine Approved Analogue level transmitters

A liquid level transmitter designed specifically for the marine industry, the '260 Tankstar' has the sensitivity needed to accurately measure shallow tanks but will sustain a 50 times overload without damage. The all welded sensor is manufactured from high grade alloys specifically selected for their stability & corrosion resistance. A wide choice of fittings and the remotely mounted amplifier maximises installation flexibility and serviceability.

Hygienic 300 series

PSM's range of hygienic level transmitters can be provided to suit a wide variety of industry standard hygienic fittings including 'IDF', 'RJT', TRICLOVER' & 'SMS'. In addition, the Hygienic H319ST (through tank mounting) is profiled to directly replace the obsolete pneumatic sensors on force balance type systems to enable easy replacement with electronic systems. All hygienic sensors are supplied with improved temperature compensation (co-efficient to +/- 0.02% per deg C) as standard to cope with the significant temperature fluctuations during 'Cleaning In Place' processes (CIP).



ICT range MODBUS digital and analogue level and temperature transmitters

High-performance dual-mode liquid level transmitters that offer the highest possible standards in terms of performance, versatility, functionality, and reliability. In Analogue only mode the iCT can be operated as a conventional 4-20 mA, two-wire transmitter. In digital mode up to 127 transmitters can be multi-dropped over a single 2 wire RS 485 network. Connection to the host PC uses a low cost converter from PSM which utilises the latest USB standard.

Acoustic Wave level transmitters

The Ultrameter range are Ultrasonic 2 wire acoustic wave level transmitters suitable for both liquid and solids application. With measurement spans from 5 to 20 metres, a full range of fittings and simple calibration procedures the Ultrameter is the perfect 'non-contact' answer for a wide spectrum of applications.



FMCW Radar level transmitters

The FMCW radar is a high accuracy non-contact digital level transmitter offering enhanced measuring capabilities in demanding applications. Suitable for Aggressive liquids, hydrocarbons, toxic liquids and slurries, Granulated material and most solids. This high frequency radar offers high accuracy, better reflection separation and a narrower beam angle when compared with it's pulse radar alternatives.

TDR Radar Level Transmitters

The 6000 series TDR guided wave radars are ideal for the level and interface measurement of liquids, powders and granules to a range of 35 metres. Unaffected by pressure, temperature, viscosity, vacuum, foam, dust, changes in dielectric constant or coating of the probe, they can measure virtually any product in either direct or TBF mode utilising any one of it's many probe types.



Instrumentation & Systems

Portable water in oil level detectors

The PSM WaterReel water in oil level detector is a portable self-contained device which detects the presence and level of water contamination accumulated in the bottom of fuel oil storage tanks. Using standard AA batteries and being intrinsically safe certified it is an essential device to guard against potentially expensive engine / pump failures due to water ingress.



Level switching

Marine Approved Bilge level switches



A compact but rugged bilge well alarm switch designed for Marine use on vessels of all sizes. The integral manual checking device conforms to class rules without complicating installation. Siting and mounting is simple requiring only a two bolt fixing and the self draining fully shrouded design prevents interference of operation from obstructions or floating debris.

Latching water level indicators

The LST Device provides a simple robust and reliable solution where a clear visual warning is needed of possible hazards caused by flooding. Intended for use in areas which are normally unmanned and only visited infrequently, the float latches so the operator is immediately aware of any possible damage which may have occurred to switchgear or plant even when the flood condition has subsided .



Vibrating Probe level switches



The rugged TF & MTF series are versatile vibrating probe, liquid level switches with no moving parts to wear and no maintenance required. Short fork technology has the advantage that it enables use in small vessels or pipes, it is also proven to be very effective in aerated liquids and slurries and is also not affected by product build up.

Marine approved float level switches

Vertical and horizontal mounting float level switches provide point level detection of liquids in all types of vessels. The stainless steel float contains a magnet. As the float rises / falls past the switch point this magnet activates a reed switch contained within the float stem. External test handles allow manual checking of float /alarm operation irrespective of the liquid level.



Pressure

Pressure Transmitters



The Series 570 and 575 are two wire, 4 to 20mA pressure transmitters offering superb chemical and corrosion resistance. Gauge or absolute pressure is detected using a four active arm strain gauge bridge sensor, fused to a high purity ceramic diaphragm. Available in 3 classes of accuracy and thermal compensation , with standard ranges from 100 mbar to 600 bar.

Cargo overpressure monitoring systems

A cost effective and simple system for cargo tankers. SOLAS regulation 59.1 effective July 1998 requires that a secondary means of allowing full flow of vapour, air, or inert gas is provided in the event that the primary arrangement fails. The regulation allows that pressure sensors may be fitted to each tank and their outputs routed to a monitoring system in the Cargo control room which will provide an alarm in the event of over / under pressure condition.



Instrumentation & Systems

Density

Drilling Mud / Fluid density transmitters

The PSM Denstar 290 Series transmitter measures mud density as a function of differential pressure. The 'one piece construction' unit has two pressure sensitive diaphragms, each of which are located at a known elevation and separation in the tank. Under normal operation both diaphragms will be submerged, and since the distance between them is fixed, any variation in the pressure differential between them is a function of the liquid density.



Flow

Averaging Pitot Flow Sensors

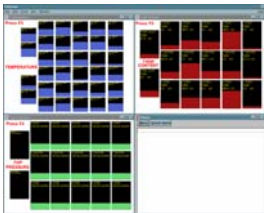


Torflow is an averaging multi-port pitot tube which produces a differential pressure output proportional to the square of the flow. It may be coupled with a differential pressure transmitter to give an electrical signal output, or simply piped to a differential pressure gauge or manometer to give a direct reading of the flow rate. It's narrow profile means that the Torflow produces minimal pressure drop compared to alternative types of devices.

Process monitoring control & display

2000 Series intelligent systems

Intelligent single & multiple channel tank content monitors & Data Acquisition units. From a single tank installation, through a small tank farm, to a complete plant or ship wide network, the flexibility and connectivity offered by all units ensures that tailoring the optimum system for your particular application is straightforward & simple.



Tankview

PC Based Tank Contents Display and Control Software Systems for both digital and analogue networks. Simple to operate graphic display software package capable of running on multiple platform PC environments and providing the user with a clear picture in both graphic and numeric format, in either level or volume, of the current quantity of contents within any type of storage vessels.

Analogue loop powered dial indicators

The 650 series is a robust and reliable, 4 to 20mA loop powered continuous reading indicator suitable for Marine and Industrial use. The case is manufactured in stainless steel, available in 4 or 6" wall or flush panel mounting and individually calibrated and scaled according to specific tank dimensions or as requested.



Systems

PSM has many years of successful experience in designing and producing complete networks and systems often meeting arduous regulatory requirements such as:

- Marine approved water ingress alarm systems
 - Oily water discharge monitoring
 - Bilge water monitoring
- Cargo overpressure monitoring systems

PSM

advice & enquiries

Telephone: +44 (0) 1444 410040

Fax: +44 (0) 1444 410121

Email: sales@psm-sensors.co.uk

Web: <http://www.psm-sensors.co.uk>

In addition, installation and commissioning services coupled with a quality management system certified to BS EN ISO 9001:2000 means PSM can provide the complete package and piece of mind.

PSM Instrumentation Limited

Burrell Road Haywards Heath W Sussex RH16 1TW UK