

# PSM introduces replacement mechanical float level switches

**PSM Instrumentation's range of mechanical marine float level switches are among the most widely used, level products in marine tank level measurement and pump control, the company claimed.**

Its KD series also now includes replacement solutions for Mobrey products that fail in service, providing a practical alternative when original products may be difficult to obtain, due to obsolescence, or cost issues.

PSM has sold its hazardous use approved and marine certificated KD series of mechanical float level switches to newbuilding and repair yards worldwide.

Mechanical float level switches, which can be horizontally or vertically mounted, provide high-level, or low-level detection of liquids in all types of vessels and often form an important control, or safety function.

Typical fluids measured include fuel oil, lubricants, sea water and bilge waste. These fluids provide a challenge because of the compatibility issue with the with float switch construction materials used, such as metals, plastics and rubbers. There may also be a flammable gas, or liquid present near the installation requiring a device certified as safe for use in hazardous areas.

With limited space on board a vessel, meaning the installation is not always easily accessible for routine testing or maintenance, any switches installed must be capable of operating for many years without fault. Consequently, the demands placed on these products are onerous and only those designed and constructed specifically for marine use will prove to be reliable and safe over the long term.

With a rugged construction suitable for extreme marine environments, PSM's KD series of switches are capable of meeting all these demands and, in addition, are approved and certificated for marine applications by many of the leading type approval organisations, as well as hazardous area installation according to the ATEX EExd approval, the company said.

PSM also said that older technologies for level measurement, such as bubbler systems, are increasingly proving unreliable and costly in time and money to maintain.

The company claimed that its tank gauging instruments and systems have been designed and constructed to meet all tank gauging requirements and are the ideal replacement for obsolete technologies.

From a single switch to complete systems, PSM's type approved and quality certified range of transmitters, gauges and switches are compatible with fuel oil, lubricants, hydraulic fluid and bilge, or ballast water.

For example, PSM said that it had drawn on 30 years' of global marine application experience, to develop the ict 1000, a smart dual mode Modbus and analogue liquid level transmitter that offers the highest possible standards in terms of performance, versatility, functionality and reliability.

The transmitter's advanced capacitive measurement cell is manufactured in robust and durable ceramic, and the design of the sensor means the diaphragm is fully supported and protected against overload and shock pressure conditions.

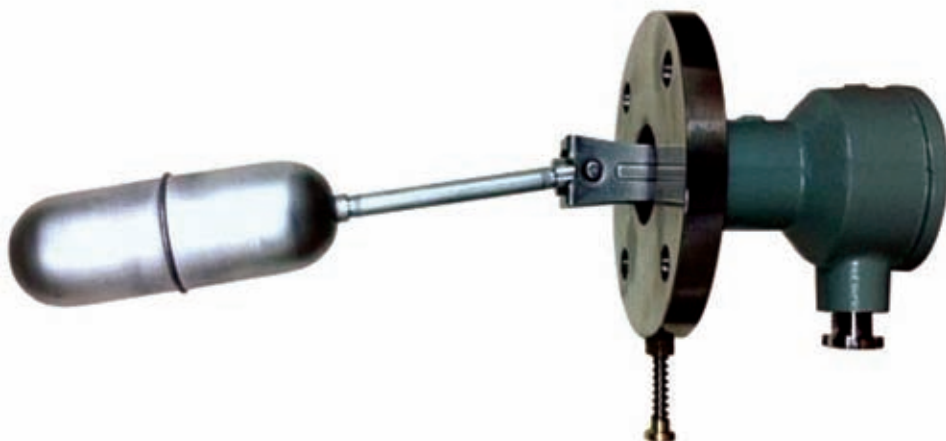
Manufactured from 316 stainless steel and employing an engineered Kalrez seal assembly to provide a fully submersible (IP68)

construction, the ict 1000 is capable of withstanding the toughest operating conditions for many years, PSM claimed.

Advanced features are not confined to mechanical design. The ict 1000 has a powerful on-board micro-controller to precisely monitor the pressure related output of the capacitive cell. Ambient temperature is also monitored to provide a fully compensated measurement output.

The transmitter is certified according to ATEX regulations for installation in a hazardous area and approved by many major classification societies as suitable for use in marine applications.

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The mechanical float level switch series can be mounted either vertically, or horizontally.