



PSM INSTRUMENTATION LTD

WaterReel

PSM Series 1500 Portable Water in Oil detector

User Manual

Issue C date: 8/10/2007

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Introduction

The PSM Series 1500 is a hand-held portable device, which provides a warning of the presence of emulsion / water contamination at the bottom of fuel oil storage tanks. In use the visual (LED) and audible annunciators provide an immediate indication of the presence of an emulsion with an increased intensity signal where water is detected.

The device is self contained and battery operated and is approved for use in Hazardous area. The limitations of use in hazardous areas will depend upon the type of battery fitted as detailed under specifications.

Safety Note: For use in Hazardous areas it is essential that only the batteries specified are employed

Normal operation

The front panel has a power on button (PWR). Pressing this will energise the unit for a period of approximately 5 minutes. The powered state is indicated by the WATER LED pulsing at approximately 2 Hz, and the integral sounder "chirping" at the same frequency. To restart the device at any time press PWR

The water sensor is attached to cable on a spool and is lowered via this cable from the top of the storage tank, normally via the tank-sounding pipe, and into the oil. Upon contact with emulsion or oil the frequency of the LED and Audible pulses will increase to become a continuous output when the sensor is fully immersed in water.

The sensor has a self -draining chamber and so the intensity of warning will reduce as it is withdrawn from the water. Lowering the sensor on the cable until it is felt to reach the tank base and then noting how far it has to be withdrawn before the annunciation resets to normal rate will provide an approximate indication of the depth of water contamination.

The cable is wound back onto the spool using the integral fold out handle, as it is retracted oil residue should be wiped from the cable using a soft cloth taking care not to damage the sheathing.

The front panel also has a TEST button. When the unit is powered, pressing this simulates the effect of submersing the sensor in water effectively testing the integrity of the sensor and cable before a measurement is made.

A further LO BATTERY LED on the front panel indicates battery health. When the battery voltage is sufficient this will remain off but as the batteries start to discharge this LO BATTERY LED will start to flash when the unit is powered. The frequency of this flashing will increase until illumination is continuous, at this stage the batteries must be replaced. A further indication that batteries are becoming exhausted is a reduction in output volume of the integral sounder.

Figure 1



