



OSIL instruments and systems

—
ROW oil spill detection
& monitoring



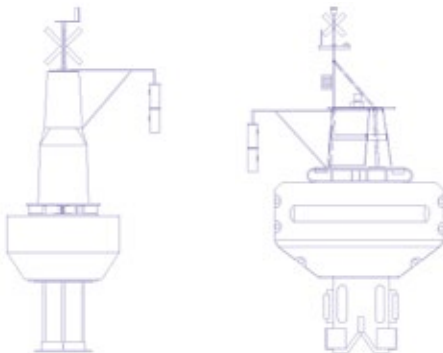
The detection of petroleum products, including crude oil, diesel/fuel oil, motor oil, lube oil, gasoline, food oils etc. near the water surface is widely required in industrial and environmental applications.



The Remote Optical Watcher (ROW) is the ideal sensor for the detection of oil films and, when installed in a permanent location or when mounted to one of OSIL's range of data buoy platforms, provides a continuous autonomous monitoring package capable of detecting sheens of oil less than 1 micron thick. The downwards looking sensor can be installed up to 10m above the water level, and a pulsed UV LED beam is used to excite any oil molecules present in the studied area, causing them to fluoresce.



Due to the system's very low power consumption it is possible to use directly connected to AC or via a solar panel/battery set-up. The unit can be left continuously unattended and requires almost no maintenance. The system automatically filters out ambient conditions (e.g. sunlight), providing highly reliable data and detection under all light, weather and water surface conditions.



In the event of a spill, the Remote Oil Watcher provides an instant warning, enabling users to activate countermeasures, which can be automated, e.g. shutting off pumps or valves and notify personnel via a variety of interfaces and wireless options. The Remote Oil Watcher is designed and manufactured for deployment in rugged settings. The non-contact installation above water allows for installation on one of OSIL's buoy platforms, and eliminates problems such as bio-fouling. Remote Oil Watcher sensors can be used as stand-alone monitors or within a network of strategically mounted sensors interconnected by the Remote Oil Watcher software.

ROW SPECIFICATIONS

Model	Oil version A2: relay output RS-485	
Sensitivity	> 1 micrometers oil sheen	
Range	0.3m to 10m above lower water level (sensor installed above high water level)	
Operating Temp	-25°C to +60°C	
Enclosure	IP68, pressurised (1.5atm, N2) Hermetically Sealed, weather proof, powder painted Anodised aluminium	
Dimensions	659 (h) x 83 (w) x 80 (d) mm	
Weight	1.7 kg	
Power Options	12v DC (+/-2v) as standard other options: 110/220v AC 60/50Hz AC/DC adapter, solar power options	
Power Usage	< 2w (DC)	
UV Light Source	Pulsed UV LED, coaxial, near parallel	
LED Life	Min 5 years at highest sampling frequency	
Output	Relay contacts	Standard
	RS-485	Standard
	4-20mA	Optional
	RS-232	Optional
	Ethernet/LAN	Optional
	Wireless	Optional
	Audio alarm	Optional
Wireless options	<ul style="list-style-type: none">• Radio link• Wi-Fi• GSM• Custom solution	
User interface	ROW configurator for ROW adjustment: <ul style="list-style-type: none">• Sampling rate, accumulation, baseline and Thresholds setting.• ROW manager for ROW network (optional)• Visualisation, monitoring of sensor status,• Data logging of ROW network	
Certifications	<ul style="list-style-type: none">• CE, IP68, UL• ATEX in processing• US EPA in processing	
Warranty	2 year factory warranty as standard, supported world wide	

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