

# **OIL-ON-WATER DETECTION AND MONITORING SYSTEMS** For reliable detection, monitoring, alerting & control of hydrocarbon leaks and spills

Leakwise is a global leader in oil-on-water detection systems, with over 6,000 systems installed in 50 countries. The Leakwise product line is based on a field-proven, Electromagnetic Energy Absorption Technology for reliable early detection and monitoring of hydrocarbon spills. Growing environmental concerns about our water resources make Leakwise systems critical for detecting and mitigating the risk of water and ground pollution events by all industries that use fuels or any other type of oil.



#### THE PROBLEM

Oil leaks and spills are every plant operator's nightmare. They can cause environmental damage, expensive cleanup, government fines, costly downtime, and financial risks in the Millions. The severe implications are both economic and ecological.

Facilities must meet country-specific regulations and requirements, develop countermeasure plans, and provide early warnings of operational process failures that can spill oil.

Leak detection systems that are reliable 24/7 are a must. Leakwise systems detect, monitor, measure, alert, and control hydrocarbon spills.

#### HOW LEAKWISE SYSTEMS WORK

A Leakwise system consists of a sensor and a controller. The sensor is a floating device that sits flat on the water surface. It uses a patented Electromagnetic Energy Absorption Technology. The energy is introduced to the upper layer of the water. Since water absorbs more electromagnetic energy than hydrocarbons, changes in the absorption rate of the water indicate the presence or buildup of a hydrocarbon layer.

The sensor continuously sends the measured signal to the processor, determining if there is a presence of hydrocarbon and its thickness. The processor then activates the chosen alerts and controls according to easily adjustable sensitivity settings.

All Leakwise sensors can distinguish between water, hydrocarbon, and no-liquid condition.

Some Leakwise sensors can detect oil spills in applications where the containment area may be dry. Oil/Water emulsions will also be detected.

Leakwise oil thickness sensors are optimized for linear measurement of thick oil layers on water, up to 200 mm oil thickness.

Leakwise controllers display system status on the front panel and interface to user's control center via relay contacts, 4-20mA, Modbus, and wireless messaging.



## ADVANTAGES OF LEAKWISE SYSTEMS

- Continuous online monitoring with self-diagnostics
- Certified for operation in hazardous areas. The sensors are Intrinsically Safe
- Proven long-term reliability even if the sensor is coated with dirt or oil, variations in water salinity, temperature, liquid level, or liquid turbulence
- Low maintenance no parts to replace, almost maintenance-free, no cleaning is required after a spill
- Versatility can be easily installed in sumps, retaining tanks, or other containments
- Detection of thin layers of oil, starting from 0.3 mm in all conditions, with adjustable sensitivity
- Immediate detection (fully complies with 30 seconds requirement of FM Class 7745 standard)
- Ability to operate even without water
- Thickness measurement not only sheen detection
- Oil layer trend is indicated during spill buildup or cleanup
- Alarms and controls visual and audible alarms, messages, and controls that activate skimmers, discharge pumps, valves, or other containment measures



### **LEAKWISE – A PROVEN SOLUTION**

The high performance and reliability of Leakwise systems have resulted in widespread use in the following industries and applications:

- Oil & petrochemical
- Power generation & distribution
- Transportation
- Manufacturing
- Water supply

For many years, Leakwise systems have provided our customers all over the globe with continuous, reliable service. Leakwise is the obvious choice for compliance with regulations. Although complying with regulatory requirements can be expensive, costly fines, the cost of environmental cleanup, repairs, downtime, and negative publicity can be much greater. With Leakwise, the user has control over potentially costly oil spills with a versatile, reliable system, easy to install, easy to use, and requires very low maintenance.

Leakwise has a worldwide presence by a global network of highly trained, professional distributors.

The Leakwise line of products holds a wide range of certifications for safety, reliability, and quality.





