



Moisture Sensor

- ✔ Ensure your oil is always below the saturation point
- ✔ Measure Relative Humidity of an oil
- ✔ Easily integrated into existing condition monitoring programmes

The Moisture sensor goes beyond normal water screening tests to tell you exactly how dry your oil is. It is known that the more severe the moisture ingress problem, the greater the potential risk. Ensure that your oil is always below the saturation point before free and emulsified water starts to form, so immediate action can be taken on the first indication of change.

It is well known that free and emulsified water can cause problems. Water can increase the oxidation rate of your lubricant by more than ten times. This is why your oil analysis service includes a water-screening test. Bearings could lose 75% of their potential service life due to water before the oil even begins to look cloudy. Even in its dissolved state, water is at work attacking base stock, additive package and the machine. Additionally, water can carry organisms with the potential to disable your critical hydraulic systems.



Providing % Relative Humidity (RH) and temperature values that you can monitor in real-time, The Kittiwake Moisture sensor can be mounted within any lubrication system on any type of machine. The Kittiwake Moisture Sensor need not be fully immersed in the fluid to be effective and are also of use in the headspace of a piece of machinery. Using a combination of proven thin film capacitance sensors, combined with smart algorithms to provide both a temperature and % RH value, the sensor measures the oils percentage Relative Humidity resulting from the dissolved water within a lubricant.

Whether it's to check on the health of the machine, or an alert of changing moisture ingress rates, the Kittiwake Moisture Sensor provides instant information, complementing your existing laboratory oil analysis programme and helping the user make informed maintenance planning decisions.

Technical Specification		Ordering Information	
Accuracy Saturation:	± 2%	Product Code	Description
Accuracy Temperature:	± 1°C	FG-K16947-KW	Standard reach - Analogue output
Alarm Defaults:	Saturation: on at 65% (open), off at 60% (closed)	FG-K16950-KW	Long reach - Analogue output
Analogue Outputs:	4 - 20 mA for % saturation, 4 - 20 mA for temperature of oil, open collector for alarm	FG-K16946-KW	Digital - standard reach Standard output
Calibration:	ISO / IEC 17025, NIST & NPL traceable	FG-K16949-KW	Digital - long reach Digital output
Connection Method:	By multicore screened cable	FG-K16948-KW	Evaluation pack standard reach, dual outputs, includes case, power supply and display
Digital Outputs:	CAN, RS232	FG-K16951-KW	Evaluation pack long reach, dual outputs, includes case, power supply and display
Fluid Compatibility:	Petroleum and synthetic oils		
Material:	304 stainless steel		
Max Oil Pressure:	10 bar (145 psi)		
Oil Temperature Range:	-40 to 100°C (-40 - 212°F)		
Power Supply:	12 - 30 Vdc < 1w		
Sealing on Enclosure:	IP67		
Weight:	0.3 kg		

All sensors come complete with software for data downloading and trending. Contact Kittiwake for information about the wide range of installation accessories and alternative options that are available to suit your specific application.

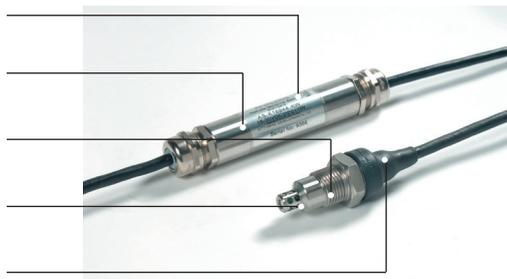
Stainless steel housing - rugged and long life performance

Smart sensor with internal processing power offers wide range of interface options

Widely used 1/2" BSP thread - quick and easy installation to a wide range of machinery

High pressure resistant glass to metal hermetic seal

High integrity sealing, using standard automotive techniques



Typical Applications

- ✓ Steel Mills
- ✓ Wind Turbines
- ✓ Mining



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