

ANALEXrs

Oil Condition Sensor



Remote Sensors - the online link between your machines and ultimate reliability

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Changing oil costs money!



Without a doubt, you're running a high quality maintenance programme.

You feel confident you have it all under control.

Oil changes have been scheduled according to plan.

But, crude oil continues to escalate in price.

Should we really be replacing that oil, or will it last longer?

Tough decision? It should be!

Today's lubricants are better quality than ever before. And sticking to old service schedules is expensive. **Did you know that what you pay for the oil could escalate by a factor of 5 times or more?** Changing oil costs money. Inventory costs, administrative costs, HSE risk-based costs, environmental costs... these all add up.

But extending oil service life isn't guesswork. Whilst lubricants perform better, you know they are still at risk from changing operating and environmental conditions. That's why your oil analysis service includes an oil condition feedback. It helps you detect when your oil may no longer be fit for service, possibly even pinpointing a contaminant or machine fault as the cause.

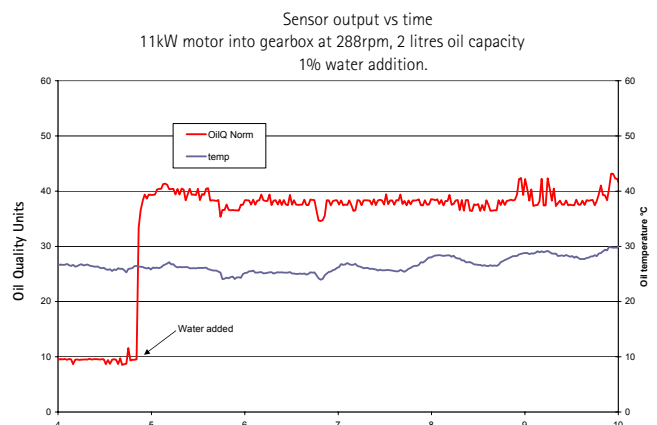
But how frequently are you sampling? What if a problem arises between scheduled samples?

Wouldn't it make sense to be monitoring more frequently?

Well now you can. **The ANALEXrs Oil Condition range of online sensors puts your oil analysis laboratory on your doorstep.**

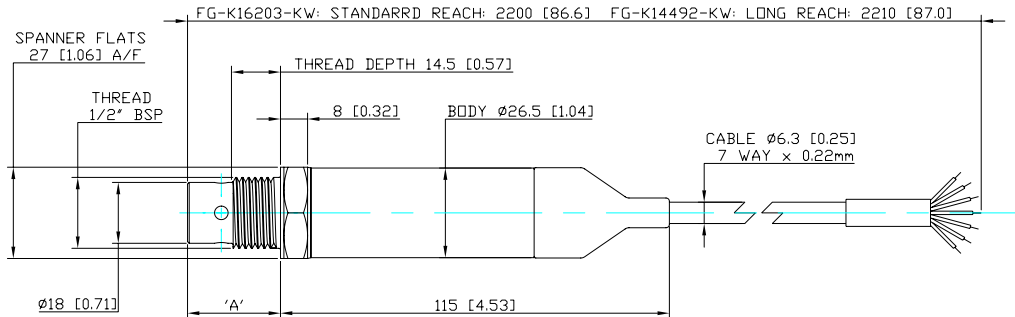
Brought to you by the same company that has been successfully delivering millions of PQ results to engineers the world over from hundreds of laboratories for the last 25 years. And now manufactured by Kittiwake, a company that has been delivering low-cost, robust field instrumentation to the lubricants and fuels market for over 15 years.

The ANALEXrs Oil Condition Sensor goes beyond the normal hand-held field go/no-go units to offer permanent mounting. Providing both a check on water ingress and oxidation levels, now you can monitor real-time. And take immediate action on the first indication of change before any harm is done to the machine or even the oil. **The ANALEXrs Oil Condition Sensor goes beyond the normal protection systems; it monitors the root cause of lubricant and machine failure.**



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Technical Specifications



DIMENSIONS IN MILLIMETRES [INCH]

THREAD VARIATIONS - METRIC M22 x 2.50 PITCH - AVAILABLE BY SPECIAL ORDER
CABLE LENGTH AND SENSOR HEAD REACH VARIATIONS AVAILABLE BY SPECIAL REQUEST

AVAILABLE WITH DIFFERENT LENGTH REACH:
FG-K16203-KW: STANDARD VERSION = DIMENSION 'A' = 27.5 [1.08]
FG-K14492-KW: LONG REACH VERSION = DIMENSION 'A' = 37.5 [1.48]

Detection	Oil Condition (0-100 Oil Quality Units)
Analogue Outputs	4-20mA
Inputs	Calibration push button
Communications	CAN, RS232
Connections	1/2" BSP male thread
Range	0-100 Oil Q Units
Repeatability	4%
Power Supply	15-30VDC
Protection	IP67
Max Fluid Pressure	10 Bar (145) psi
Fluid Compatability	Petroleum and synthetic oils.
Fluid Temperature	30 to 100°C (86 to 212°F)
Ambient Temperature	-25 to 85°C (-13 to 185°F)
Weight	250g (9 oz)
Features	Continuous monitoring Robust construction Calibration to oil type
Options	Variable sensor head reach Cable length by special request Power supply Stand alone display unit Cable termination options by special request

The ANALEXrs oil condition Sensor can be mounted within any lubrication system on any type of machine. The sensor detects changes caused by water and acid levels, using a combination of proven dielectric sensing, combined with smart algorithms to provide a trend. **ANALEXrs puts you in control.** You know exactly when to change the oil based on condition, not on historical schedules.

With its digital and analogue outputs, it can be easily integrated into your existing Condition Monitoring and operating control systems. Whether it's to check on the health of the lubricant, or an alert of changing contaminant ingress, the ANALEXrs Oil Condition Sensor provides instant information, complementing your existing laboratory oil analysis programme, and helping you make informed maintenance planning decisions.

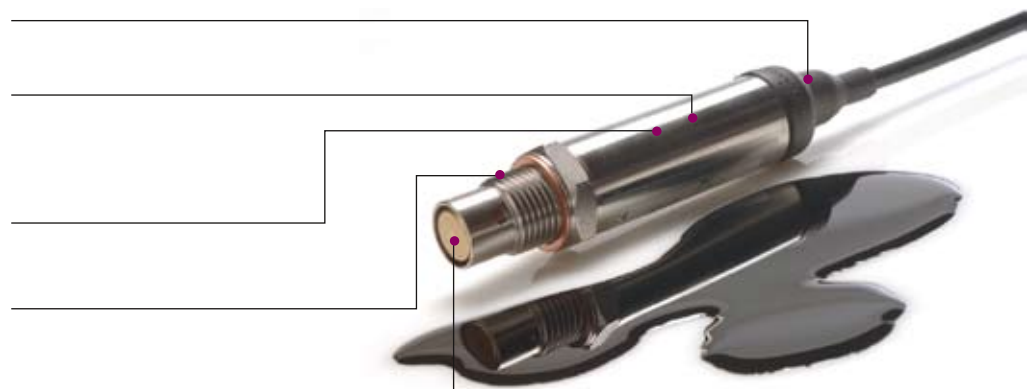
High integrity sealing using standard automotive techniques

Internal processing power offers wide interface options

Stainless steel housing - Rugged and long life performance

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

Gold oil sensing contact - Long life and sensitivity



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Technical Specifications and Applications

Typical applications:

The sensor will prove most valuable when used with machines that are either:

- A high capital cost
- Production critical
- Safety critical
- Costly to repair
- Have long lead times on spares.
- Remote locations



ANALEXrs equipment can be fitted on any machine with a circulating lubrication system, and where either ferrous or non-ferrous wear debris is a predominant measure of the wear rate. Alternatively, use the ANALEXrs range on a filter cartridge to assess condition of splash lubricated machines.

Examples include equipment such as:

- Engines
- Gearboxes & Transmissions
- Bearings
- Pumps
- Compressors
- Turbines

Industries such as:

- Power Generation (Steam, Nuclear, Wind turbine)
- Steel
- Pulp & Paper
- Petro-chemical/refineries
- Transportation
- Military

Specifications	Total Ferrous Debris Sensor	Oil Condition Sensor	Particle Content Sensor	Moisture Sensor
Product Code	FG-K16120-KW	FG-K14492-KW/FG-K16203-KW	FG-K16121-KW	FG-K16291-KW
Detection	Total Ferrous Wear Debris 0-2000ppm	Oil Condition 0-100 Oil Quality Units	Ferrous Particles > 100µm and Metallic Non-Ferrous Debris Particles > 200µm	0-100% Saturation
Analogue Output	4-20mA	4-20mA	4-20mA	4-20mA % saturation, Temperature of Oil, RH Alarm
Digital Output	CAN, RS232, RS485, radio link	RS232, CAN	CAN, RS232, RS485, radio link	CAN, RS232 at 9600baud
Power	18-36 VDC	15-30 VDC, 1 watt max	18-36 VDC	12-30Vdc <1w
Maximum Fluid Pressure	10 bar (145psi)	10 bar (145psi)	10bar (145psi)	10bar (145psi)
Fluid Temperature	-20 to 65°C (-4 to 149°F)**	30 to 100°C (86 to 212°F)	-20 to 65°C (-4 to 149°F)**	-40 to 100°C (-40 to 212°F)
Protection	IP65	IP67	IP65	IP67
Sensor Weight	2.2kg (4.85lb)	250g (9oz)	1.4 kg (3.1lb)	300g (10.6oz)

**Kittiwake operates a continuous development program and thus certain specifications may be subject to change.
nb: Visit the Kittiwake website to view the latest case study data, detailed specifications and technical information.

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