

fluidMiner

Industrial IOT for fluid monitoring & control

EMBEDS SELF-CLEANING & SELF-CALIBRATION

FM-M



FM-O



FM-ATL



**Lubricant Fluid
Monitoring & Control**

Online Oil Analyser

FOR

MANUFACTURERS

MAINTENERS

A product from **monixio**
predictive maintenance & CBM

FM-M takes care of your lubricants and regulates them automatically

Additive 1&2 for fluid regulation

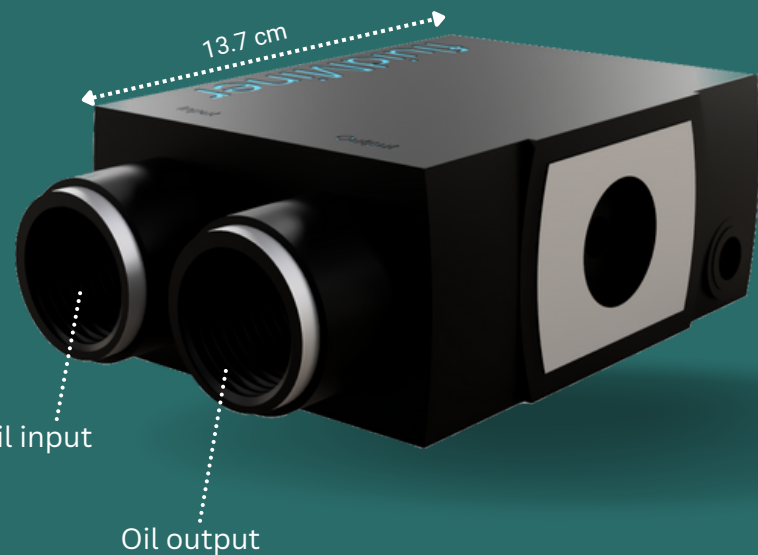


Concentration	0-30 brix Accuracy: 0.05 brix
pH	0-14 Accuracy: ± 0.01
Conductivity	0-10000 $\mu\text{S/cm}$

Control features Regulate the fluid when its characteristic is outside of normal operating conditions

FM-O/FM-ATL monitors continuously your oil KPI

Viscosity	0.5 to 500 centipoise (cP)
Solid Particles count/type	ISO 4406 range
Particules size	0,04 μm to 500 μm
Temperature	5°C – 120°C
Water content	0 to 90 % RH



Real-time insights into lubricant health and performance

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	Oil monitoring	Oil monitoring	Cutting fluid monitoring
System	FM-O	FM-ATL	FM-M
Usage	Online tracking	Analysis terminal	Online monitoring and regulation
Assembly			
Continuous monitoring	✓	✗	✓
Sample analysis	✗	✓	✗
Network connectivity			
5G/LoRaWAN	✓	✓	✓
Monitoring physical properties			
Viscosity	✓	✓	✗
Viscosity index	✓	✓	✗
Monitoring chemical properties			
pH	✗	✗	✓
Concentration	✗	✗	✓
Conductivity	✗	✗	✓
Monitoring wear & contamination			
Metallic particles (count, size & type)	Iron, aluminum, copper, lead, chromium, nickel...	Iron, aluminum, copper, lead, chromium, nickel...	✗
Non-metallic particles	Silica and sodium	Silica and sodium	✗
Water/Humidity	✓	✓	✗

Get real-time data & alerts on lubricant issues

Various types of wear can occur when lubricants are not selected correctly or aren't performing as expected. Improper viscosity selection, additive depletion or impaired performance from other contaminants (such as air and water) can lead to cavitation wear, corrosive wear or oil film failure.

Perform accurate curative maintenance

For example, analyzing the results of the particle counts after testing at different points in a circulating system can be a quick indicator of where the ingress source or wear generation source is located. Even after corrective actions are in place, the ongoing monitoring of particle counts can validate that the solution was successful.

Discover early signs of machine wear

Unlike periodic oil sampling, online oil analysis provides continuous monitoring of your oil's condition. This allows you to catch problems early, before they cause serious damage to your equipment.

Why using fluidMiner ?

Take data-driven decisions

The continuous stream of data from online analysis can be used to identify trends and make data-driven decisions about your lubrication program.

Identify the root cause of problems

By analyzing the results of the oil analysis, technicians can narrow down the possible causes of the equipment failure. For instance, high levels of iron wear debris might indicate bearing wear, while the presence of water could suggest a leaking coolant system.

Labor savings

Eliminates the need for manual sample collection and sending them to a lab. Getting lab results can take up to 1 month.

