



# PREVENTIVE MAINTENANCE MAXIMUM EFFICIENCY

Artificial vision and AI-based technology that provides fast, real-time information about machine condition, enabling early failure-stage decision-making and generating significant savings.



- Particle counting according to ISO 4406
- Classifies particles into 6 ranges (>4, >6, >14, >21, >38, >70)
- Air bubble discrimination and counting
- OLED display with relevant data
- Ideal for pressures up to 150 bar\*

The FMS-OW1000 is an online sensor that detects particles and bubbles larger than 4 microns in machine fluid and classifies them into 6 size ranges. Designed for inline operation, it provides real-time information about machine condition through fluid contamination monitoring.

It is the ideal solution for predictive maintenance strategies based on oil cleanliness. Detecting abnormal particle levels enables early failure detection and the implementation of corrective actions before major damage occurs.

It features a robust, modular, and easy-to-integrate design compatible with any data acquisition system or asset CMS. In addition, data is displayed directly on the screen.

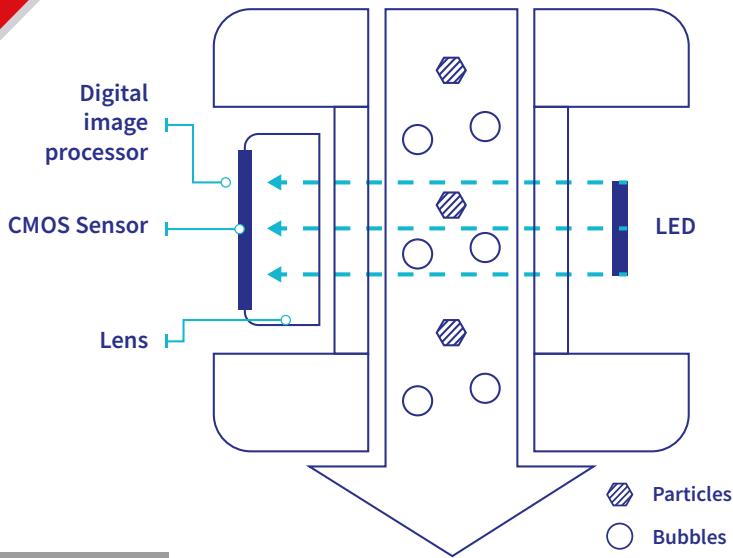
## INTEGRATION AND COMMUNICATION

The multiple data visualization and interpretation options enable substantial improvements in asset maintenance, supporting better decision-making.

## FLUID TYPES

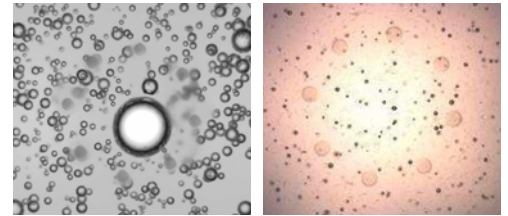
- Hydraulic and lubrication fluids
- Fuels
- Mineral and synthetic oils
- Coolants
- Cutting fluids
- Water-based solutions
- Glycols
- Cleaning fluids
- Water

\*Pressure kit up to 350 bar.

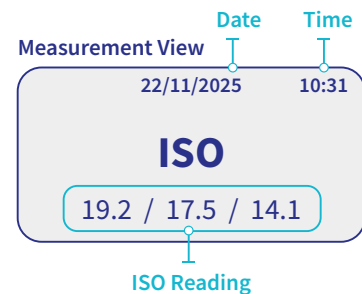


## Air and/or water bubble discrimination

The only sensor in the world with discrimination capability.



### ON-SCREEN DATA



View

	Particles	Bubbles
Size	Part	Bur
4um	2963	0
6um	962	0
14um	85	0

### BENEFITS

- Classification and counting of particles larger than 4 microns in 6 ranges.
- Provides early information about machine condition.
- Delivers fast and reliable information on fluid contamination.
- Extends fluid life and reduces machine downtime.
- Easy installation.
- On-screen data visualization.
- Full SCADA/PC/PLC integration through digital communications for simplified interpretation.

### SPECIFICATIONS

Measurement Variables	Particle classification: ISO 4406:1999 // NAS 1638 Total particles (p/ml) Shape recognition (p/ml) – fatigue, sliding, cutting Air bubble detection, discrimination, and counting (b/ml)
Accuracy	+/- 1 ISO
Additional Variables	Equipment temperature measurement
Power Supply	24 VDC
Power Consumption	<150 mA
Digital Output	RS485 (Modbus: RTU) Ethernet RJ45 (Modbus: TCP/IP, FTP)
Operating Pressure	Maximum 150 bar
Electronic Operating Temperature	From -30° C to 70° C
Fluid Operating Temperature	Max. 85° C
Viscosity Range	Up to 1280 cSt
Flow Rate	Max. 0,5 l / min / Optimal 0,2 l / min
Size / Weight	88,5 x 60 x 62 // 320 gr
Display	20 x 41mm, autoscroll
Hydraulic Connection	1/8 BSPF (x2)
Materials	Aluminum, BK7 and FKM (other materials available on request)
Memory	Last 1,000 tests and last 100 images (values and images)
Protection	IP65
Certifications	CE, UL

