OilWear® is a range of online sensors for monitoring particles in fluids. They are based on a patented technology of digital image and video processing, which achieves outstanding and reliable results at low cost.

atten2
advanced monitoring technologies

OilWear® SHAPE SERIES

atten2's OilWear® S100 is an online sensor that quantifies particles larger than 4µ present in fluids, classifies them by size according to ISO, NAS or SAE standards, and determines their origin.

The determination of origin is achieved by classifying the particles larger than **20µ** according to their ***size and shape,*** to determine the root cause: fatigue, sliding or cutting. This feature, which makes **OilWear® S100** unique, is achieved by using the embedded expert system where the knowledge and expertise of **IK4-TEKNIKER** laboratory analysts has been dedicated.

Even with its high performance **OilWear® S100** is a **competitive** sensor in terms of cost, designed to be permanently installed on a single or on multiple machines, providing **real-time** information on fluid contamination.

OilWear® S100 provides key information to carry out a **predictive maintenance** strategy. Early stages of machine failures can be easily identified by the measurement of abnormal amount of particles.

OilWear® S100 has a fully **modular** design, and its measure module, which is the main responsible for the counting and classification of the particles, can be easily integrated into the oil **Condition Monitoring System**, simply ensuring minimum flow conditions in the oil that is monitored.

OilWear® S 100

APPLICATIONS

- Component wash fluids
- Cutting fluids
- Aqueous solutions
- Coolants
- Water glycols
- Mineral and synthetic oils
- Hydraulic and lubricating fluids
- Fuels

BENEFITS

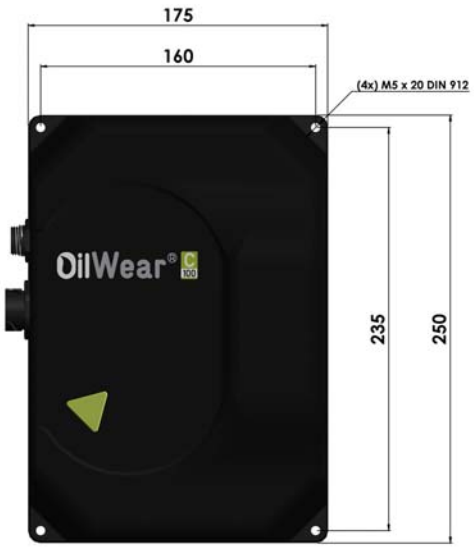
- Plug & Play, the sensor offers a standard output with single plug.
- Output: ISO 4406, NAS 1638, SAE AS4059, etc.
- Classification of particles of over 20 µm depending on their root cause: fatigue, sliding, cutting.
- Early information on the state of the machine is provided.
- It prolongs the life of the fluids and cuts machine downtime.
- It provides rapid, reliable information on the contamination of the fluids.
- Full integration with SCADA/PC/PLC by means of analogue and digital communications.
- Self-diagnosis, self-calibration and self-compensation.
- Possibility of stipulating warning levels.
- Possibility of stipulating the size ranges of the particles to be counted.
- Possibility of integrating with OilHealth®, whereby a single sensor provides information on oil degradation and contamination.

SPECIFICATIONS

OilWear® S 100

MEASURED VARIABLES	Particle classification according to: *ISO 4406:1999 // SAE 4059 ISO4406:1987 // NAS 1638* Particle Classification according to SHAPE and SIZE · Fatigue wear · Sliding wear · Cutting wear
CALIBRATION	ISO 11171
PRECISION	±1 ISO code
ADDITIONAL VARIABLES	Sensor Temperature Air Bubble detection
MOUNTING POSITION	Vertical
SUPPLY VOLTAGE	24 V
POWER CONSUMPTION	<1A
ANALOG OUTPUT	0-10 V (4–20 mA) [Upon Request]
DIGITAL OUTPUT	RS485 (ModBUS: RTU) Ethernet RJ45 (ModBUS: TCP/IP, FTP, Telnet)
ALARMS	3 configurable alarms (level) [Upon Request]
OPERATING PRESSURE	Maximum 20 bar
OPERATING TEMPERATURE	From 0ºC to 70 ºC
VISCOSITY RANGE	To 460 cSt
FLOW RATE	Self-regulated
SENSOR SIZE/WEIGHT	250 x 175 x 115mm / 3.000 gr
HYDRAULIC CONNECTIONS	1/8" BSP (x2)
MATERIALS	Stainless steel
MEMORY	Last 500 samples (measurement and sample image)
PROTECTION CLASS	IP65
CERTIFICATIONS	CE, GL pending

DIMENSIONS



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