Extended [life-cycle]

OilWear

[SMART SOLUTION BY ATTEN2]

SHAPE SERIES

Technology based on artificial vision and AI algorithms that provide fast, real-time information about machine status, allowing decisions and actions to be taken at an early stage of failure, generating considerable savings.

- Particle counting according to ISO standard > 4 microns
- Classifies particles in 6 ranges
  (>4, >6, >14, >21, >32, >70)
- Oil degradation
  (OilWear C120 & S120)
- Shape analysis
  (OilWear S100 & S120)
- Discrimination and counting of air bubbles
- Fluid image storage

Atten2's OilWear® S120 is an online sensor that detects particles and bubbles larger than 4 microns in the machine fluid and classifies them into 6 size ranges. Designed to work installed in-line, it provides real-time information about the machine's condition through the contamination of its fluids.

OilWear® S120 is the best ally for predictive maintenance strategy based on oil cleanliness. The measurement of an abnormal amount of particles allows the early detection of machine failures and thus the initiation of corrective actions.

OilWear® S120 has a robust, modular design and is easy to integrate into any data acquisition system or CMS of the oil condition monitoring asset.

Integration and communication

The multiple options for visualization and interpretation of the data allow substantial improvements in the maintenance of the assets favoring better decision making

Types of fluids

- Hydraulic fluids and lubricants
- Fuels
- Mineral and synthetic oils
- Coolants
- Cutting fluids
- Aqueous solutions
- Glycols
- Cleaning fluids
- Water

[BENEFITS]

- Classification and counting of particles larger than 4 microns in 6 ranges
- Provides early information on machine condition, up to 7 times earlier than other technologies
- Provides fast and reliable information on fluid contamination
- Extends fluid life and reduces machine downtime
- Recognizes and classifies particles larger than 20 microns by wear type helping to identify root cause
- Integrates OilHealth technology that provides information on oil degradation and contamination
- Simple installation
- Full integration with SCADA/PC/PLC via digital communications for easy interpretation
- Self-calibrating and self-diagnosing technology

[SPECIFICATIONS]

Counting Output	Particle classification according to: ISO 4406:1999 // NAS 1638 Total particles (P/ml) Air Bubble Detection & Discrimination & Counting (b/ml) shape recognition (p/ml)- Fatige, sliding, Cutting & Others Oil Degradation (%)
Calibration Standar	ISO 11171
Precision	+/- 2 IS0
Additional Variables	Device temperature measurement
Power Supply	24 VDC
Current Consumption	<150 mA
Digital Output	RS485 (Modbus: RTU) Ethernet RJ45 (Modbus: TCP/IP, FTP
Operating Pressure	Up to 100 bar
Electronic Operating temperature	From -30° C up to 70°C
Fluid Operating temperature	Uo to-85° C
Viscosity range	Up to 1280 cst
Flow rate	Up to 0,5 l/min / Optimal 0,2 l/min
Sensor size/weight	88.5 x 60 x 62 // 320 gr
Hydraulic connections	1/8 BSPF (x2)
Materials	Aluminium, BK7 and FKM (othe materials on request)
Internal Datalog	Last 10.000 tests and 100 last images
Protection glasss	IP65
Certifications	CE, UL

Also available for explosive atmosphere environments
CE Ex II 3G Ex ec op is IIB T4 Gc

[DIMENSIONS]

69.9
62.0

88.5
60.0
31.6   25.7

M12, FEMALE 5 PIN CONNECTOR
MODBUS RTU AND POWER

M12 FEMALE 4 PIN CONNECTOR
MODBUS TCP