Real-time damage detection - anytime, anywhere.
MetalSCAN MS3000 oil debris sensor monitors metal particles generated from rotating equipment due to bearing and gear damage. Assess how much time you have to schedule maintenance before equipment failure occurs.

Application
MS3000 is designed to be easily installed in-line in the equipment lubrication system to detect the presence of metallic particles.

The sensor generates an electrical pulse signal for each metal particle above its minimum size threshold. The signal is designed to interface to a host, either a MetalSCAN series 3000 Communications Assembly (wireless GPRS or Ethernet), or directly to a monitoring or control system. The host increments a counter with each particle detected which is then compared to machinery condition indicators. The condition indicators are based upon simple criteria which establish whether the machine is healthy or not, and if not, how much damage there is, and how much longer the machine can be operated before equipment failure. All performed local to the host with no need for expensive expert analysis and consultations.

FEATURES
- 100% Detection of Fe and NFe metal particles
- Easy to install
- Easy to interpret
- Rugged, solid-state with no moving parts
- Full function continuous built-in test (BIT)
- Proven reliability in harsh machinery environments
- Low cost

BENEFITS
- Earliest reliable detection of component damage
- Monitor damage progression and estimate remaining life
- Avoid unplanned outages
- Avoid equipment secondary damage
ON-LINE OIL DEBRIS MONITOR

**MS3202 SENSOR**

**PERFORMANCE**

Sensor Bore ................................................. 8mm
Minimum Detectable Particle (sphere) ................................ 125μm Fe / 450μm NFe
Minimum Detectable Particle (ESD)* .......................... 70μm Fe / 270μm NFe
Flow Rate ........................................... 0.5 L/min - 12L/min
Maximum Particle Detection Rate ................................ configurable up to 100 particles/sec

* The Equivalent Spherical Diameter (ESD) of an irregular-shaped object is the diameter of a sphere of equivalent volume.

**OUTPUTS**

**Particle Pulse:**
- Shape ........................................ square wave pulse
- Width ........................................ 5 ± 2 ms
- Amplitude ...................................... Power Supply Voltage +0/-2 VDC
- Load Impedance Required ...................... ≥1kΩ

**Built-in Test:**
- Shape ........................................... HI or LO logic
- Fault State ...................................... 0.0 VDC
- Power Supply Voltage +0/-2 VDC
- Load Impedance Required ...................... ≥1kΩ

**INPUT**

Power Supply ........................................... 18 to 30 VDC @ 4.8W (max)
(200 mA @ 24 VDC)

**ENVIRONMENT**

- Oil Pressure ........................................... Maximum 20 bar (300 psi)
- Oil Temperature ...................................... 40°C to 85°C
- Ambient Temperature ............................. -40°C to 70°C
- Vibration ............................................. 15 mm/s @ 0 to 300 Hz
- Fluids Compatibility .............................. Hydraulic & lubrication oils; synthetic & mineral based; solvents & cleaning agents.

**COMPLIANCE**

- Conforms to ASTM D7917
- IP66

**ACCESSORIES**

1. Integral Electrical Connector
   (order: Cable 3008x)
2. MetalSCAN Series 3000 GPRS Communications Assembly
   (order: Alarm 3006x)
3. MetalSCAN Series 3000 Ethernet/Email Communications Assembly
   (order: Alarm 3009x)
4. Application adapter kits
   (contact Gastops with specific requirements)
5. Cable kits
   (contact Gastops with specific requirements)

**ORDER NOW**

MetalSCAN 3202 Sensor Module
Order: Sensor-3202
North America: 1 800 363 8658
Worldwide: +1 613 744 3530
sales@gastops.com

**LONG LIVE EQUIPMENT**

Head Office
1011 Polytek Street
Ottawa ON K1J 9J3
Canada

Halifax Office
65 John Savage Avenue, Unit 5
Dartmouth NS B3B 2C9
Canada

St. John’s Office
146a Glencoe Drive
Mount Pearl NL A1N 4S9
Canada

Worldwide
+1 613 744 3530
North America
1 800 363 8658
sales@gastops.com

**Trade Mark**

head-office-

Halifax-Office-

St-John’s-Office-

North-America-

Worldwide-

gastops.com

C005541_306