

TRIDENT™ DM4500

Wear Debris Monitor

Real-time monitoring leads to improved asset health management



PRODUCT OVERVIEW

Poseidon Systems' Trident™ DM4500 Wear Debris Monitor is a real-time, in-line fluid sensing technology for the detection of metallic wear debris and particulates in a lubrication system. By continuously monitoring wear debris generation, the device alerts users to faults in their earliest stages, allowing for lower cost correction actions than conventional schedule based maintenance.

The DM4500 Wear Debris Monitor will detect, categorize (ferrous vs. non-ferrous), and size metals within a machinery lubrication system. The monitor will detect and measure particles with an estimated spherical diameter of 40 micron ferrous and 150 micron non-ferrous and larger. A wide range of output formats are available including particle type/size, approximate mass, and particle counts in user configurable bins.

DM4500 is a standalone sensor with customizable hose fittings. Ordering with BSPP fittings provides a direct replacement for existing TA10s. JIC, SAE Boss, and Compression fittings are available as off the shelf options. The DM4500 is also backward compatible with the popular TechAlert™ 10 (TA10) Debris Monitor.

BENEFITS

- Optimize machinery oil sample timing & maintenance intervals
- Improve asset health state awareness
- Advanced warning enables improved asset maintenance & logistics planning
- Reduce cost of unscheduled downtime

KEY FEATURES

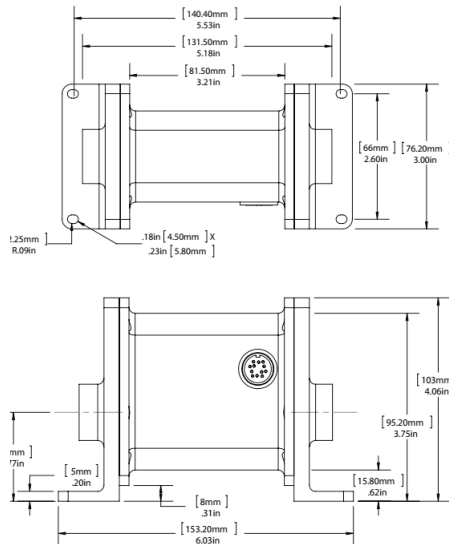
- 40 micron ferrous & 150 micron non-ferrous debris detection ability
- Industry standard communication interface
- Mounting footprint matched to TA10 for drop-in replacement
- Particle size/mass estimates
- Volumetric flow rate estimates
- Total particle count estimation



POSEIDON SYSTEMS

TECHNICAL SPECIFICATIONS

Detection Sensitivity (Debris)	40 µm Ferrous & 150 µm Non-Ferrous Metallic Particles
Communications	RS48/RS232 Modbus RTU, Pulse Output
Oil Connection	3/4" -16 SAE Female, -8 JIC Male, -8 BSPP Male, or 1/2" Compression
Ambient Temperature	-40 to 185 °F (-40 to 85 °C)
Fluid Temperature	-40 to 185 °F (-40 to 85 °C)
Volumetric Flow Rate	0.25 to 10 GPM (0.95 to 38 LPM)
Sensor Bore Diameter	0.472 inches (12 mm)
Ingress Protection	IP65
Power Supply	10-30 VDC, 300 mA
Weight	1.5 pounds (0.68 kg)



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