

## 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 corrective 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.

The DM4500 is a standalone sensor supporting a variety of plumbing connections; JIC, SAE ORB, BSPP, and Compression fitting adapters are available. The DM4500 is also backward compatible with the TechAlert 10 (TA10) Debris Monitor.

## BENEFITS

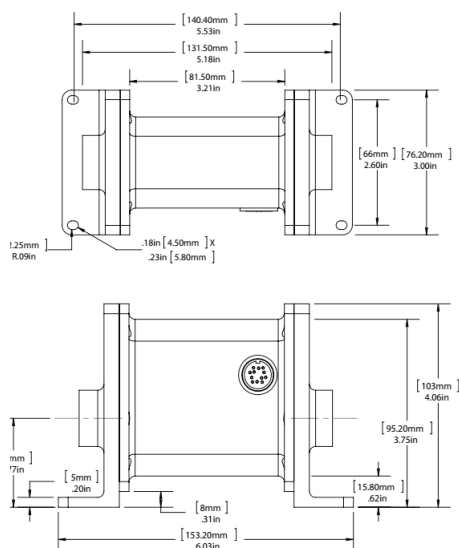
- Optimize machinery oil sample timing & maintenance intervals
- Improve asset health state awareness
- Advanced warning enables improved asset maintenance & logistics planning
- Reduce cost of unscheduled downtime

## 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

## TECHNICAL SPECIFICATIONS

<b>Detection Sensitivity (Debris)</b>	40 µm Ferrous & 150 µm Non-Ferrous Metallic Particles
<b>Communications</b>	RS485/RS232 Modbus RTU, Pulse Output
<b>Oil Connection</b>	SAE ORB Female
<b>Ambient Temperature</b>	-40 to 185 °F (-40 to 85 °C)
<b>Fluid Temperature</b>	-40 to 185 °F (-40 to 85 °C)
<b>Volumetric Flow Rate</b>	0.25 to 10 gpm (0.95 to 38 lpm)
<b>Sensor Bore Diameter</b>	0.472 inches (12 mm)
<b>Ingress Protection</b>	IP65
<b>Power Supply</b>	10-30 VDC, 300 mA
<b>Weight</b>	1.5 pounds (0.68 kg)
<b>Working Pressure</b>	150 psi (10.3Bar) Max



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