

# HIAC PODS

## Portable Oil Diagnostic System

### Features

- Efficient and intuitive to use
- Immediate laboratory-quality on-site results
- Reports SAE and ISO cleanliness classifications, 4/6/14  $\mu\text{m}(c)$
- Harmonizes NAS 1638 to new MTD calibration
- Full ISO 11171 calibration options
- Standard bottle and online modes; multiple language support

### Applications

- Allows for proactive maintenance
- Monitor system operations
- Extend system reliability
- Certify manufacturing "roll off"
- Identify maintenance cycles
- Schedule repair periods
- Track online system cleanliness

### Laboratory Precision without the Lab

The HIAC PODS monitors the dirtiest of fluids due to its concentration limit of 30,000 particles/mL. Superior optics and design provide eight channels for particle counting, as well as measurement of viscosity and temperature to assess fluid conditions. Versatile in operation, the PODS offers compatibility with standard hydraulic fluids, oils and phosphate esters. A rugged carrying case ensures durability and the convenience of portability. The HIAC PODS contains a buffer for 500 records. The PODSControl analysis software provides real-time data download and visualization, as well as data analysis, formatting and reporting.

The HIAC PODS features a wide array of reporting formats, including ISO 4406, NAS 1638 and SAE AS 4059. The HIAC PODS can report to both the new MTD  $\mu\text{m}(c)$  sizes (4/6/14) or to the previous ACFTD  $\mu\text{m}$  sizes (2/5/15). Unlike other portable particle counters on the market, the PODS unit fully supports the ISO 11171 standard. Whether calibrated to the new ISO 11171 standard or the optional ISO 4402 standard, the HIAC PODS meets industry demands.



*Intelligent and robust, the HIAC Portable Oil Diagnostic System (PODS) measures, stores and reports oil condition parameters essential for reliable hydraulic systems operation. The HIAC PODS analyzes fluids and lubricants in online or bottle sampling modes to determine the machine's operating condition immediately.*

*This instant analysis is as accurate and precise as traditional laboratory analysis that normally takes weeks. Thus, providing a real-time assessment of the oil under operating conditions.*

## Specifications

<b>Number of Channels</b>	8
<b>Size Channels</b>	ISO-MTD (standard) 4, 4.6, 6, 9.8, 14, 21.2, 38, 68 $\mu\text{m}$ ACFTD (optional) ~1, 2, 5, 10, 15, 25, 50, 100 $\mu\text{m}$
<b>Flow Rate</b>	50 mL/min standard (consult factory for optional offerings down to 15 mL/min)
<b>Light Source</b>	Laser diode
<b>Calibration</b>	ISO MTD (based on ISO 11171) Full ISO 11171 or ISO 4402 optional
<b>Counting Efficiency</b>	Meets JIS B9925:1997
<b>Concentration Limit</b>	20,000 particles/mL at 5% coincidence loss (per ISO 11171) 30,000 particles/mL at 10% coincidence
<b>Sample Volume</b>	3 runs (averaged) of 5, 10 or 20 mL (programmable)
<b>Fluid Temp Range</b>	0 to 90°C at 25°C ambient (32 to 194°F at 77°F ambient)
<b>Measured Fluid Temperature</b>	0 to 100°C, $\pm 0.5^\circ\text{C}$ (32 to 212°F, $\pm 0.9^\circ\text{F}$ )
<b>Viscosity Range</b>	10 to 424 cSt
<b>Measurement</b>	10 to 424 cSt $\pm 20\%$ at value
<b>Wetted Materials</b>	Aluminum, stainless steel, sapphire, PTFE and Aflas®
<b>Cleanliness Classification</b>	ISO 4406-1991, ISO 4406.2-1999, NAS 1638, MIL-STD-1246C, NAVAIR 01-1A-1, SAE AS 4059
<b>Data Storage</b>	500 Sample Records
<b>Dimensions</b>	17.8 D x 33.0 W x 35.6 H cm (7 x 12.5 x 14 inches)
<b>Weight</b>	9.5 kg (21 lbs)
<b>Input/Output</b>	Serial Communication RS-232
<b>Bottle Operation</b>	Purge Volume 15 to 30 mL programmable Cartridge CO <sub>2</sub> , replaceable, rechargeable Operating Capacity 60 samples per cartridge (120 mL sample bottle) Shop Air 60 to 110 psi (4.1 to 7.6 bar) clean, dry
<b>Online Operation</b>	Fluid Pressure 40 to 6000 psi (2.75 to 413.7 bar) Purge Volume 15 to 999 mL programmable
<b>Power</b>	DC Input +24 VDC, 2A AC/Battery Adapter Universal 100 to 240 VAC, 50 to 60 Hz, 60 W Rechargeable Battery Nickel-Metal Hydride Operating Time 100 samples or 4 hours continuous Recharge Time 2.5 hours
<b>Environment</b>	Ambient Temperature 0 to 50°C (32 to 122°F); 20 to 85% relative humidity, non-condensing Storage -40 to 70°C (-40 to 158°F), up to 98% relative humidity, non-condensing
<b>Accessories Included</b>	Carrying Case, High Pressure Hose Adapter, CO <sub>2</sub> Bottles, Hand Pump, Sample Bottles, PODSControl Software
<b>Optional Accessories</b>	Ultrasonic Bath Additional Sample Bottles Additional CO <sub>2</sub> Bottles

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