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Portable Particle Monitor – iCountOS

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Part # IOS1210US



The iCountOS is a highly rugged portable particle size monitor that can be used for measuring contamination levels in fuels and/or hydraulic fluids. Capable of operation online (direct connection to system) or offline (sampling from tank or reservoir).

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Technical Specifications

| | | | |
|------------------------------|---|------------------------------|--------------------------|
| Operating Pressure: | 35 to 5000 psi, 2.5 to 350 bar | Flow Rate: | 60 ml/min |
| Industry: | Off-Road Machinery, Industrial Manufacturing Equipment, Power Generation & Renewable Energy | Operating Pressure: | 5 to 100% (RH) |
| Minimum Ambient Temperature: | -40 °C, -40 °F | Sensing Method: | Laser |
| Maximum Ambient Temperature: | 80 °C, 176 °F | Accuracy: | +/- 1 ISO code |
| Technology: | Filtration, Hydraulics | Electrical Requirements: | 12V Rechargeable Battery |
| Minimum Fluid Temperature: | 5 °C, 41 °F | Communication Interface: | RJ45 LAN Cable |
| Maximum Fluid Temperature: | 80 °C, 176 °F | Signal Output: | RS232 |
| Fluid Type: | Oil | Cycle Time: | 30 second |
| Brand: | Parker | Specifications Met: | IP68 |
| Connection Style: | Offline | Seal Material: | Fluorocarbon |
| Division: | Hydraulic & Industrial Process Filtration Division EMEA | Body Material: | Brass |
| Communication Interface: | RJ45 LAN Cable | For Fluid Type: | Oil |
| Electrical Connection: | US | Weight: | 5.5 kg |
| Product Style: | Particle Detector/Counter | Height: | 195 mm |
| Product Type: | Condition Monitor | Width: | 299 mm |
| | | Inlet Connection Size: | 6 mm |
| | | Maximum Kinematic Viscosity: | 300 cSt |
| | | Outlet Connection Size: | 4 mm |
| | | Calibration Type: | MTD |

[Safety Warning](#)

Item Information

High fluid cleanliness plays a critical role in the performance and reliability of industrial equipment. Fluids with high levels of contamination and particulate matter can damage system components, such as pumps, actuators, or servo valves, leading to shorter maintenance intervals, increased downtime, and increased costs.

Home

The iCountOS from Parker is an innovative solution to the challenge of measuring the quality of hydraulic oils and hydrocarbon fuels in many different applications; from renewable energy, marine and offshore, to manufacturing, mobile, agriculture, military and aerospace. The device is compact, lightweight (5.5 kg) and robust (IP67), and features a user-friendly design that makes field analysis of fluids quick, simple, and easy.

Support

The iCountOS is highly adaptable and allows service personnel to sample directly from a hydraulic reservoir, barrel, vehicle fuel tank (i.e., offline operation). It is also capable of being connected to a fluid circuit, taking samples directly from high-pressure line with the addition of a pressure-indicating adaptor. The entire system is completely self-contained, with laser detection particle monitor, battery, pump, and memory with web page generator for data download onto any PC or laptop.

Services

The iCountOS particle monitor uses advanced technology, which delivers precise results and real-time detection of dissolved water and particulates down to 4 microns. At the heart of the system is a sophisticated laser detector, using a light obscuration flow cell, providing continuous measurement of fluid flow passing through a sample tube. Measurements are taken every second as standard, although measurement intervals can be defined by the user, with results being reported immediately and updated in real-time. Data is displayed on a built-in OLED digital display and can also be stored for subsequent upload via the embedded iCount's web page interface connecting through an RJ45 cable. With its robust carrying case, sealed to IP67, and proven laser and diagnostics technologies, the IOS is the perfect tool for maintenance and plant engineers to use with all fixed and mobile plant and machinery.

Parker also offers the iCount LaserCM, which is a portable particle monitor with additional features, including ISO/NAS standard cleanliness reporting, data entry and graphing, built-in memory storage, and an integral printer. For inline continuous particle detection, the iCountPD is available.

For additional information, consult the iCountOS documentation in the "Product Support" tab.

Markets:

- Agriculture
- Construction
- Oil and Gas
- Power Generation
- Marine
- Mining
- Forestry
- Industrial Plant
- Aviation

Applications:

- Deck and mobile cranes
- Firefighting equipment
- Forwarders
- Hydraulic presses
- Marine steering units
- Power packs
- Waste management, dump and fork lift trucks
- Excavators
- Harvesters
- Waste balers
- Reach stackers
- Wheeled loaders
- Drilling equipment
- Industrial power units
- Airplanes
- Wind turbines



Benefits:

- Provides field service personnel with the capability to quickly and easily measure the contamination level of hydraulic fluid or oil in industrial equipment. Dirty fluid can then be replaced and/or cleansed, leading to improved system performance and efficiency.
- Compact, portable design provides ease of use in the field, as well as in the laboratory
- Particle monitor can be utilized while machinery is in operation, ensuring system uptime
- Developed to offer a wealth of features, combined with simplicity and ease of use, at a cost that is far lower than competing systems, and which fits within most maintenance budgets.
- Designed in accordance with the latest global standards including: CE marking, EC Declaration of Conformity, Machinery Directive, EMC EN61000-6-3:2001, EMC EN61000-6-2:2001, and EMC EN61010-1:2001

Features:

- Proven laser detection technology
- Class leading onboard memory provides storage capacity for up to 250,000 sets of test results
- Tough storm case - Robust waterproof IP54 (when open) case and fully sealed impact resistant brushed stainless steel front panel
- Lightweight - combined unit weighs under 12.1 lbs (5.5kg)
- Real time detection of dissolved water and particulates down to 4 microns
- Long life, remote operation - regulated 12 Vdc power supply, with an M12, 4 pin connector, plus a rechargeable NiMH detector battery unit for use onsite or in remote locations.
- Fluid and pressure control - automatically adjusts flow rates, to an optimum level of 60ml/min
- Maximum online operating pressure of 2.5 bar (36 psi). Optional inlet reduction valve is available for high-pressure applications.
- Specifications: International codes range: Up to ISO 22 (+/- ISO code) NAS 0-12
- IP54 rating (unit open), IP67 rating (unit closed)

CAD Drawings + Files



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