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Inline Particle Monitor – iCountPD

Part #: IPDZ12122230

The Parker iCountPD is a highly compact, permanently mounted laser detection particle size monitor that enables continuous monitoring of contamination levels in hydraulic and fluid circuits.Capable of communicating results in ISO4406 / AS4059 or NAS1638.

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Technical Specifications ▬

Port Type:	M12, 8-pin plug connector	Minimum Fluid Temperature:	5 °C
Brand:	Parker	Operating Humidity:	5 to 100% (RH)
Signal Output:	4 to 20 mA	Sensing Method:	Laser
Division:	Hydraulic & Industrial Process Filtration Division EMEA	Accuracy:	+/- 1 ISO code
Indicator Type:	No Display on unit	Electrical Requirements:	9 to 40 VDC
Industry:	Industrial & Chemical Processing, Industrial Manufacturing Equipment, General Industrial	Communication Interface:	RS232
ATEX Specifications Met:	ATEX Zone II	Signal Output:	4 to 20 mA
Housing Material:	Stainless Steel	Cycle Time:	30 second
For Fluid Type:	Mineral Oil	Specifications Met:	CE Certification
Options:	Moisture Sensor	ATEX Specifications Met:	ATEX Zone II
Product Type:	Condition Monitor	Ingress Protection Rating:	IP69K
Technology:	Filtration, Hydraulics		
Limit Alarm Relay Included:	Yes	Materials of Construction:	Stainless Steel, Housing: Stainless Steel
Product Style:	Particle Detector/Counter	Seal Material:	Fluorocarbon
Operating Pressure:	30 to 6000 psi, 2 to 420 bar	Body Material:	Brass
Flow Rate:	60 L/min	For Fluid Type:	Mineral oils and petroleum based fluids
Port Size:	06L EO 24° cone	Weight:	2.6 kg
Port Type:	24° Cone EO compression	Height:	114 mm
Operating Temperature:	-30 to +60 °C, -22 to +140 °F	Length:	260 mm
Maximum Fluid Temperature:	80 °C	Width:	110 mm

⚠ Safety Warning

Item Information ▬

Hydraulic 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, added downtime, and increased costs.

The iCountPD from Parker is a highly compact, permanently mounted laser detection particle monitor designed for continuous monitoring of contamination and solid particulate levels in hydraulic fluid systems. The device represents the most up to date technology in solid particle contamination analysis and serves as a cost-effective solution to fluid management and condition monitoring in applications ranging from construction machinery, to industrial plant equipment, to test rigs.

The iCountPD is available in three configurations to meet the unique requirements of customers' applications. Options include:

Standard iCountPD – The standard iCount PD is designed for test stand, flushing skids, filter carts and other industrial applications.

iCountPDR – The iCountPDR is designed for mobile equipment or any outside use other than hazardous environment.

iCountPDZ – The iCountPDZ is suited for applications that require a ATEX Zone II safety such as off-shore platforms or any other hazardous environment. For Zone I applications, the standard iCountPD can be used within a NEMA7 enclosure.

All three models feature an LED display, which uses three sets of lights for the indication of ISO 4406 / AS4059 and NAS1638 code figures. Individual code lights will trigger based on the customer settings. A moisture sensor is an option that can be included when specifying the icountPD. The moisture sensor reports on the saturation levels of the fluid passing through the sensing cell. The output is a linear scale, reporting within the range of 5% saturation to 100% saturation

Increased flexibility is provided by an intuitive flow control device that fits on the downstream (outlet) side of the icountPD. The device is fitted with a differential pressure valve that adjusts the system flow to a range inside the icountPD specifications. The flow control device will operate correctly between 10.3 bar (150 psi) and 200 bar (2900 psi) and the return back to an open system of 0 bar.

For portable particle monitor devices, Parker offers the iCount LaserCM and the iCountOS.
For additional information, consult the iCountPD documentation in the "Product Support" tab.
Markets:
•Agriculture
•Construction
•Oil and Gas
•Power Generation
•Marine
•Mining
•Forestry
•Industrial Plant
•Pulp and Paper

Applications:

•Deck and mobile cranes
•Firefighting equipment
•Forwarders
•Hydraulic presses
•Excavators
•Harvesters
•Waste balers
•Reach stackers
•Wheeled loaders
•Drilling equipment
•Industrial power units
•Airplanes
•Refineries
•Test rigs
•Flushing stands
•Wind turbines

Benefits:
•Enables continuous monitoring of contamination levels in hydraulic fluid systems. Dirty fluid can then be replaced and/or cleansed, leading to improved system performance and efficiency
•Independent monitoring of system contamination trends allows service personnel to optimize maintenance schedules and diagnose mechanical problems with equipment and machinery
•Compact, portable design provides ease of installation and use
•Particle monitor is inline and can be utilized while machinery is in operation, ensuring system uptime

Features:
•Warning LED or digital display indicators for Low, Medium and High contamination levels.
•Visual indicators with power and alarm output warnings.
•Moisture %RH indicator (optional).
•Fuel, Hydraulic and phosphate Ester fluid compatible construction.
•Self diagnostic software.
•Full PC/PLC integration technology such as: RS232 and 0-5Volt, 4-20mA, CAN(J1939) (Contact Parker for other options).
•Set up and Data logging support software included
•Online Flow Range via System 20 Inline Sensors (Hydraulic systems only): Size 0 = 6 to 25 L/min - (Optimum Flow = 15 L/min) Size 1 = 24 to 100 l/min - (Optimum Flow = 70 l/min) Size 2 = 170 to 380 L/min - (Optimum Flow = 250 L/min)
•Temperature: Ambient storage temperature -20°C to +40°C (-4°F to +104°F); Environment operating temperature +5°C to +60°C (+41°F to +140°F); Fluid operating temperature +5°C to +80°C (+41°F to +176°F)

CAD Drawings + Files ✛

Related Documents ✛
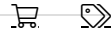
Related Products

Portable Particle Monitor – iCountOS

Portable Particle Monitor – iCount LaserCM

IcountBS Plus - Bottle Sampler

Portable Filtration Cart / Trolley – 10MFP Series

Online Fluid Condition Sensor (FCS)

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