

# New product launch



**Filtertechnik**  
Filtration, Purification &  
Separation Solutions

## Particle counting just got more affordable

For oils & fuels

**Save money, prevent expensive downtime AND see your oil or fuels contamination levels in real time!**



Perfect for proactive maintenance and on-line monitoring, the PC9001 is a continuous particle counter with instant LED readout, computer interface and trending software. It is simple to use, low cost and can be used as an alarm to notify you of any changes in contamination levels. It is also ideal for plotting ISO cleanliness trends. Accuracy is +/- half an ISO code, the PC9001 utilises the exact same laser particle counting technology found in more expensive laboratory particle counting equipment.

The PC9001 can be used to trigger alarms or start cleanup filtration units to start operating.

### Early warning sign for:

- Rise in contamination
- Water ingress
- Component wear
- Oil oxidation
- Filter and seal failure
- Cavitation

### Benefits

- Low cost and compact
- Highly accurate
- Ideal for fluid cleanliness trending
- Alarm indication with relay for controlling systems
- Real time analysis of fluid cleanliness - ISO, SAE & NAS class readout
- Easy to install
- 500 bar pressure
- Windows 7 compliant, software included

### Specifications

#### Specifications

Dimensions (L x W x H)

Enclosure

Fitting connections

Power requirements

Storage temperature

Operating temperature

Altitude limit

Overvoltage category

Pollution degree

Protection class

Light source

Particle size/channel

Storage/operating humidity

Fluid compatibility

Fluid viscosity

Reports

Wetted materials

Performance verification

Reproducibility

Weight

Serial interface

Communication protocol

Flow rate for PC9001-31, PC9001-61

Flow rate for PC9001-21, PC9001-51

Sample pressure

Sample temperature

Sample pressure

#### Details

8.9 x 10.7 x 8.9 cm (3.5 x 4.2 3.5 in.)

IP 66

SAE -4; SAE -8

9 to 33 VDC, 150 mA

-40 to 85°C (-40 to 185°F)

-10 to 60°C (-14 to 140°F)

2000 m (6562 ft)

I

4

III

Laser diode, Class I

4, 6, 14 and 21  $\mu\text{m}$  (ISO MTD)

97% relative humidity, non-condensing

Hydraulic and lubrication oils. mineral, synthetic (phosphate ester compatible)

2 to 424 cSt<sup>1</sup>

ISO 4406, NAS and SAE cleanliness code

Brass, aluminium (anodized), steel, stainless steel, sapphire, Aflas®

Optional validation certificate available (ISO MTD at 2.8 mg/L concentration)

$\pm 0.5$  ISO code (minimum concentration ISO MTD 2.8 mg/L, maximum ISO code is 29)

746 grams (2lb)

RS232 and RS485, 9600 Baud, 8 data bits, no parity, 1 stop bit

MODBUS RTU

50 to 500 L/min (0.01 to 0.1 gal/min)

3.8 to 45.4 L/min (1 to 12 gal/min)

PC9001-71, PC9001-81: 12 to 100 psi

0 to 60°C (32 to 140°F)

20 to 7250 psi

## Portable oil and fuel analyser



### Overview:

Whether on-site or in the laboratory, the FS9001 will provide instant cleanliness readings to allow you to fully understand the condition of your oils and fuels.

The FS9001 is a self contained system, complete with integral pump and governed flow rate. Samples from oil and fuel tanks or sample bottles can be analysed quickly and accurately, thereby minimising the frequency of laboratory analysis.

Powerful trending software will allow for data to be displayed in graphical format for real-time trend analysis. The most cost effective fuel cleanliness monitor on the market.

### Oil Testing & Fuel Monitoring:

In Hydraulic and Lubrication systems, real time cleanliness data can prevent serious system failure and component damage. By trending oil cleanliness in real time, the necessary protection can be put in place to protect sensitive components. Samples can be taken directly from the reservoir of fluid power systems, or from a oil sample taken from the system. The FS9001 will allow you to quantify the level of solid contamination in your fuel and will alert you to the presence of high moisture levels and diesel bug.

### Technical Specifications

**Case:** HPX® high performance resin construction with press & pull latches and durable soft-grip handles.

**Dimensions (closed):** 360mm(W) x 290mm(D) x 170mm(H)

**Weight:** 5.5kg

**Run Time:** Up to 6hrs dependent upon fluid viscosity

**Charge Time:** 5hrs

**Principle of Measurement:** Laser-based sensor uses light blocking (extinction) technology for particle detection; particles passing through an optical flow cell, block an amount of laser light proportional to the size of the particle. The "shadows" are registered by an optical receiver and the information processed and displayed on a bright red LED.

**Modes of Operation:** Tank sampling  
Bottle sampling (minimum sample 100ml)

**Displayed Information:** Fluid cleanliness to ISO4406 (4u, 6u, 14u, 21u)  
Fluid Temperature  
User programmable cleanliness level alarm

**Information Update Time:** 1min 30sec

**Software:** PC based software for trending, logging and analysis. Log to .txt files for easy transfer to Excel

**PC Connection:** USB (B type connection)

**Viscosity range:** 1 – 150 cst

**Fluid compatibility:** Diesel & mineral oils

**Fluid temperature:** -10...60°C (oils)  
-10...50°C (diesel)

**Environmental:** Lid closed: IP67 (un-certificated)  
Lid open: IP54 (un-certificated)

**Ambient Temperature:** -40...85°C

**Maximum Humidity:** 97% relative humidity, non condensing

**Supplied with:** 1m suction tube fitted with 80 MESH strainer (8mm OD)  
1m discharge tube (6mm OD)  
Battery charger (UK 3 pin plug)  
PC software  
USB data transfer cable  
Manual

**Certification:** PC9001 factory calibration certificate  
CE declaration

**Verification frequency:** 12 months recommended

**PC requirements:** Windows XP, Vista, Windows 7

To download further information please visit [www.filtertechnik.co.uk](http://www.filtertechnik.co.uk)

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