

# Particle Pal Plus

## Portable oil and fuel cleanliness monitoring just got better

Our all new *Particle Pal Plus* utilises state of the art digital imaging particle counting technology to give reliable ISO counts that are not affected by air bubbles or phantom particles/oil additives. Combine with water, density + viscosity sensors to better understand your oil/diesel.

A self contained system, complete with integral pump and controlled flow rate.



## ENGINEERED ON AN AWARD WINNING REPUTATION

### **Particle Pal Plus** is available in multiple configurations

#### **OILS**



PARTICULATE **AND WATER** AS %RH







**DENSITY** 



**FUELS** 



PARTICULATE PARTICULATE **AND WATER** 



### Particle Pal Plus HAS A WIDE RANGE OF ADVANCES OVER LASER COUNTER TECHNOLOGY



#### **Touchscreen LCD** display showing all sensors connected

The FS9V4 model has a touchscreen to display data from sensors including particulate, water (as %RH or ppm), density and viscosity depending on the model chosen. It can display ISO codes as a single reading e.g. 18/16/15, or the full range of ISO codes, particulate and bubbles counts up to 70µm. Alarm levels can also be set so ISO codes are coloured green or red indicating if cleanliness targets have been

Wide particle range

Bubble recognition

**PARTICLES** BUBBLES

DIGITAL IMAGE PROCESSOR

Shape analysis



#### Improved fluid flow, pump feature set

We have adopted high pressure internal gear pumps throughout the range. Basic pumps can handle oils up to 320cSt, while the advanced stepper motor pump can handle oils up to

A common input can accept pressurised live feeds up to 350 bar via a high pressure adaptor.



#### Digital imaging particle counter

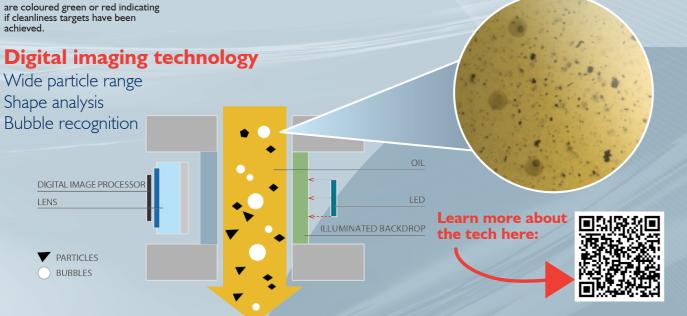
Precise digital imaging particle and air bubble readings up to a size of  $70\mu m$ . Air bubble counts are eliminated from ISO codes.

Digital imaging is not affected by phantom particles/ additives which aser counters see as contamination



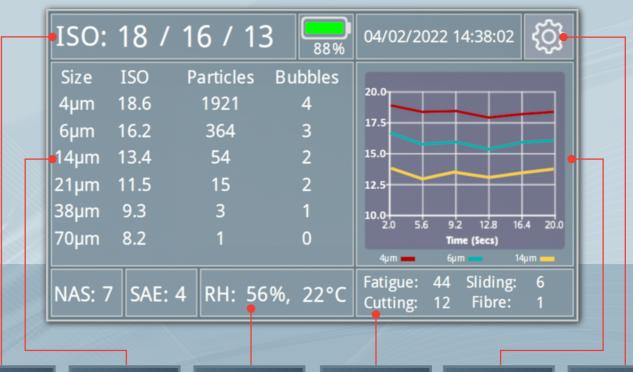
#### Battery life

Complete with a rechargeable battery, giving up to 10 hours of continual use, fluid dependent, making the FS9V4 perfect for





## **Example report & features**



between green, white and red to indicate the

size category details the ISO code, number of particles per mil and the bubbles

sight into the overall

Particles are analysed and sorted into fatigue wear, cutting wear, sliding wear and fibre ation to give

Oil cleanliness is trended over time to show how its condition

ontrol of the pump

# **Particle Pal Plus** is a modular design choose the options best suited to your application.

	SPECIFICATION TABLE						
	FS9V4	FS9V4-RH	FS9V4-PPM	FS9V4-PPM- DEN	FS9V4-HV	FS9V4-RH-HV	FS9V4-RH-V- D-HV
FLUID COMPATIBILITY							
Mineral oils	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	1
Organic oils	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	/	<b>/</b>	<b>/</b>
Synthetic oils	1	<b>✓</b>	<b>/</b>	/	/	<b>/</b>	/
High viscosity oils (gear oil)					/	/	<b>/</b>
Diesel fuel	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>
Skydrol	Please contact Filtertechnik for this product						
DISPLAYED INFORMATION							
ISO 4406, SAE AS4059 & NAS 1638	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>/</b>	<b>✓</b>	<b>✓</b>	/
Trending graph (ISO 4406)	<b>/</b>	<b>✓</b>	<b>/</b>	<b>/</b>	<b>✓</b>	<b>/</b>	<b>/</b>
Relative humidity* (%RH)		<b>/</b>				<b>✓</b>	<b>/</b>
Part per million (PPM)			<b>/</b>	/			
Density				<b>/</b>			<b>/</b>
Viscosity							<b>/</b>
Root cause analysis	<b>/</b>	<b>✓</b>	<b>/</b>	<b>/</b>	<b>✓</b>	<b>✓</b>	<b>/</b>
Temperature		<b>✓</b>	<b>/</b>	<b>/</b>		<b>✓</b>	<b>/</b>
MODES OF OPERATION							
Bottle sampling	<b>/</b>	<b>✓</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>✓</b>
Tank sampling	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>
High pressure live system connection (up to 350 bar)	Please contact Filtertechnik for this product						
MEMORY							
Internal data logging for 500 lines of data (16.6 hours of testing)	<b>✓</b>	<b>✓</b>	4	<b>✓</b>	<b>/</b>	<b>✓</b>	1
TRENDING/ SOFTWARE							
PC software for extracting data for csv files and automatic report generationCreate reports	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>/</b>	1	<b>/</b>	1

We also offer the Particle Pal Life & Particle Pal Pro versions which give extended particulate, water & oil life analysis.





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