

## **YJS-150 Portable Particle Counter**

### **Introduction:**

YJS-150 portable particle counter is used to measure the solid particle pollution degree of oil, organic liquid and polymer solution, which can be applied in aviation, aerospace, electric power, oil and other industries.



### **Applications:**

It can be used for oil pollution degree detection , includes hydraulic oil, aviation kerosene, lubricant oil, transformer oil( insulation oil ), steam turbine oil, gear oil, engine oil, and water-based hydraulic oil,etc.

### **Product features:**

- Adopting light blockage method theory:

When particles of liquid trough a narrow detection area, the light which is perpendicular to the direction of liquid flow. The light has been blocked by the particles, so the output signal from sensor has been changed, this signal changing is in proportion to particles' sectional area.

- This particle counter can be used to detect oil in laboratory or on-site, and also can be installed on the systems of various hydraulic drive, lubricant, oil filter press, washing machine, test bench, etc, to achieve on line detection for system oil cleanness. The interface component is optional based on actual demand. It's convenient to connect with system detection point and then achieve the on-line detection.

### **Technology advantage:**

- On-line detection advantage

Oil filter press, washing machine, steam turbine, transformer, electric power drive system, lubricant system, test bench, etc. Any unattended site or running machinery, which need to be monitored continuously and updated data timely. The integrated structure, the output of RS232 and analogy signal, satisfy the requirement of DCS and site instruments.

With on-line, real-time, continuous sampling, alert notification, you can analyze hydraulic systems condition in real-time, diagnosis the pollution degree and get the wear trend. It adapts LCD display and thin film operation key. The detection results display in ISO4406 or NAS1638 standards. It is economical and practical with low cost, small, lightweight and easy to install. It can be used in any harsh environment with the performance of anti-disturb, anti-high temperature and solid outer shell.

- Off-line detection advantage

Solved the defect that laboratory desktop instruments cannot mobile detection. It provides perfect detection solution and convenience, no matter mobile detection or laboratory detection. Solved the difficulty of continuous tracking monitoring during production, no matter real-time detection or filter tracking monitoring.

The perfect combination with off-line sampling chamber, you can detect various type oil with different viscosity. Optimized detection solution and evaluation can satisfy the standard detection evaluation and custom designed detection. The newest application software platform with evaluation standard and the chief detection method from domestic and overseas, achieve the seamless docking of international detection standard.

- Adopts light blockage method theory, it includes the performance of quick detection, strong anti-disturb, high precision, repeatability. Its high precision sensor provides high resolution power and accuracy.
- Accurate calculate sampling system provides constant sampling velocity and accurate controlled sampling volume.
- Color LCD display controlled by Integrated Industrial Control computer and touch screen operation. Build-in printer, can print detection report directly.
- Build-in particles pollution degree standards  
GB/T14039, ISO4406, NAS1638, GJB420A, GJB420B, SAE749D, GOCT17216, AS4059D, etc. The standards can be customized.
- 1000 piece particles size channel is convenient for particles pollution degree analysis.  
To reduce the conversion error, stores ACFTD calibration curve, ISOMTD calibration curve, ROST calibration curve. These calibration curves are optional and guaranteeing the precision of instruments.
- Data transmission: RS232 or RS485, can be connected with computer to transfer, store and manipulate detection data.
- Compact structure, small and lightweight, portable, solid and durable.

**Specification:**

Light source	Semiconducting laser narrow light detector ( more accurate, steady and rapid )
Particle size range	1μm~400μm( the same with PAMAS Volumetric type sensor HCB-LD-50/50 )
Sensitive	1-100μm (ISO-4402), 4-70μm(GB/T18854 , ISO-11171)
Maximum particle pollution degree	24000 particles/ml when 25ml/m
Resolution:	10%
Off-line viscosity detection	≤160cSt, positive/negative press installation maximum viscosity detection up to 350cSt
On-line/off-line detection maximum press	41Mpa
Detection channel	8 Channels  According to ISO 11171 standard, classify by ISO 4406 or SAE 4059; Size range: 4um (C) 70um (C) ; 8 channels: 4, 6, 10, 14, 21, 25, 38, 70um According to ISO 4402 standards, classify by NAS1638 or GOST 17216; Size range: 2um–100um; 8 channels: 2, 5, 10, 15, 20, 25, 50, 100um
Sampling volume	10ml, sampling volume accuracy: >3%
Detection velocity	5-80mL/min
Washing velocity	5-80mL/min

**TAL INSTRUMENTS 83 RUE JULES AUFFRET 93500 PANTIN FRANCE**

**Email:** [info@talinstruments.fr](mailto:info@talinstruments.fr)      [www.talinstruments.fr](http://www.talinstruments.fr)      **Tel: +33 157423712**

Washing volume	set among 0ml~90ml ( minimum unit 1ml)
On-line detection interval	set among 0-11 hours ( minimum unit 1S)
Power	Storage battery
Dimension	350*300*250mm
Net weight	5kg
Detection temperature range	0°C~100°C
Work environment temperature	-40°C~100°C
Storage temperature	-40°C~120°C