LUWATECH

Portable Lubricant Quality Tester LWB-2

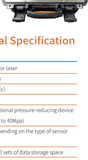
For testing oil contamination levels

产品简介 Product Description

LWB-2 Portable Oil Particle Counter is designed by the principle of photo-resistance method (shading method) for detecting the size and quantity of particles in the oil, with built-in 10.1-inch touch screen, thermal printer, metering pump and other components, it can be widely used in a variety of industries that require oil detection.

选配功能 Optional Features

- 1. Moisture detection function
- 2. Pressure reducing valve
- 3. High viscosity precision metering pump
- 4. 4G remote communication module
- 5. RS485/RS232 interface



技术参数 Technical Specification

Light Source	semiconductor laser
Flow Rate Range	0-150mL/min
Sensitivity	1μm or 4μm (c)
Sample Viscosity	≤250cSt
On-line Detection Pressure	0.1-3Mpa(Optional pressure-reducing device can reach up to 40Mpa)
Particle size range	1-500μm(depending on the type of sensor selected)
Data storage	Provides 1000 sets of data storage space
Limiting Recombination Error	10000 grains/ml
Counting Volume	1-999ml
Counting accuracy	± 0.5 pollution levels
Protection class	IP56
Temperature acquisition T (optional)	1. Acquisition range: 1-100 degrees Celsius; 2. Measurement accuracy: 1 degree Celsius; 3. Response time: 30s
Water activity acquisition aw (optional)	1. Acquisition range: 1-100%RH; 2. Measurement accuracy: 1%RH; 3. Response time: 30s
Absolute water content AH (optional)	1. Acquisition range: 1-350ppm; 2. Measurement accuracy: 1ppm; 3. Response time: 30s
Test interval	1 second - 24 hours
Test sample temperature	0-80℃
Working temperature	-20-60℃
Power supply	AC 220V ± 10%, 50/60Hz or DC12-40V
Weight	6.0kg
Volume	435x343x150mm

主要特点 Main Features

- Adopting the principle of photoresist (shading) method, using high-precision laser sensor, small size, high precision, stable performance.
- Suitable for on-site online testing, real-time monitoring of the contamination of particles in the oil system.
- Built-in data analysis system, can display the real data of each channel particle size and automatically determine the sample grade.
- Rinse and quick rinse modes facilitate the use of the equipment and instrument cleaning and maintenance.
- Built-in ISO4406, NAS1638, SAE4095, GJB420A, GJB420B, GB/T14039, OCT17216 and other particle contamination level standards.
- Built-in calibration function, can be calibrated according to GB/T21540, ISO4402 GB/T18854 and other standards, you can calibrate the instrument yourself.
- Any alarm level can be set to realise pollution or cleanliness detection light alarm.
- You can view, export and print historical data.
- Extra large storage, can choose to store in the internal instrument.
- Chinese and English dual operating system. One-key switching.
- Sturdy structure, suitable for complex working environment.

检测原理 Detection Principle

The particle counters use the principle of the light extinction method as specified in ISO 11171 / 5044O for the detection of contamination in oils and fluids. Light Extinction, also known as extinction or light barrier, can detect particles down to μm or 4μm(c). The LLight Extinction method has the advantages of fast detection speed, strong anti-interference, high precision and good repeatability.

The principle of the masking method is shown in the figure below, the laser light source through the lens to produce a set of parallel beams, parallel beams perpendicular to the cross-sectional area of A through the sample flow chamber, irradiation to the photoelectric receiver, when there is no particles in the liquid stream, the circuit output for the E voltage, when there is a liquid stream of a projected area of a particles through the sample flow chamber, blocking the parallel beams, so that the transmission of light attenuation, then the output of the circuit on a A negative pulse of amplitude E0 is output to the circuit:

E0= -(a/A) × E (V)

If the particle is spherical, or if the particle is described in terms of an equivalent diameter d and E is equal to 10 V, then the particle is a sphere,

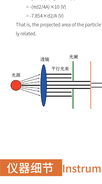
then E0= -(a/A) × E (V)

= (π × d2/(2)/A × 10 (V)

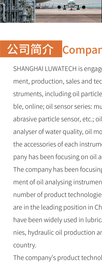
= (πd2/A) × 10 (V)

= 7.854 × d2/A (V)

That is, the projected area of the particle and the pulse voltage amplitude are linearly related.



仪器细节 Instrument Details



公司简介 Company profile

SHANGHAI LUWATECH is engaged in the research and development, production, sales and technical service of oil analysis instruments, including oil particle counter series: desktop, portable, online; oil sensor series: multi-parameter sensor, metal abrasive particle sensor, etc.; oil analyser, online cleanliness analyser of water quality, oil moisture detector, etc., as well as the accessories of each instrument, sampling bottle. The company has been focusing on oil analysis for many years.

The company has been focusing on the research and development of oil analysing instruments for many years, and a number of product technologies and application technologies are in the leading position in China.LUWATECH brand products have been widely used in lubricating oil production companies, hydraulic oil production and use of enterprises across the country.

The company's product technology research and development team, over the years, has accumulated a wealth of oil testing technology and experience, can provide users with strong application of technical support and product development and customisation.LUWATECH will always adhere to the "scientific and technological innovation, user first" business philosophy, and continue to improve and innovate products upgraded, to provide users with high-quality products and services. products and services.

公司资质 Company Qualification

售后服务 After-sales service

Customers and friends are welcome to call us for consultation and request for information or shop to place an order!

Products can accept customisation, OEM, please consult customer service for details.

Shipped within 7 days after the order, courier, express, transport losses since the arrival date within 3 days of the photo can apply for replacement.

Contact: Mr Simon

Integrity, Quality, Focus, Innovation