

PeDX OIL C3 Portable oil Analyzer

Product advantage

The control of sulfur content in petrochemical products, especially in oil products (such as gasoline, diesel, lubricating oil, etc.) has become the focus of environmental protection. According to the new regulation of China Environmental Protection Bureau, the total sulfur index of vehicle gasoline in petrochemical industry has been reduced from 1000ppm to 500ppm, and the sulfur content limit of current National IV standard has been reduced to 50ppm. Ordinary diesel oil has been reduced from 2000 ppm to 350 ppm now. At the same time, the MSA stipulates that the sulfur content of the fuel used by ships in the emission control area shall not be greater than 0.5% m / M (5000ppm).



Performance advantages

- 1. One key intelligent operation  
The whole analysis process can be completed in a few seconds, and the operation is simple, even for non-technical personnel.
- 2. Easy to customize  
On the basis of testing, it provides a variety of user-defined settings, which can change the test conditions according to the needs of testing, and also change the threshold according to the needs of screening, so as to realize the personalized screening of different materials and different elements.
- 3. Multi form data output  
The analysis data report can be made in PDF format or excel format. When you export data in Excel format, you can also confirm and edit the data in detail in the table. Users can also customize and create professional reports, including company logo, company address, test results, spectrogram and other sample information (such as product description, origin, batch number, etc.).
- 4. Accurate and reliable qualitative and quantitative methods  
The integration of super FP algorithm, correction curve method and other advanced algorithms makes the instrument not only faster, more accurate and more consistent.



Analysis of elements and patterns

PeDX OIL+ Portable Analyzer elemental detection limit

Element	LOD of Sulfur 3 sigma (ppm)
S (Sulfur)	0.9

Application range

PeDX oil C3 analyzer can be used in the analysis of fuel, oil, additives and other fluids in petrochemical, heavy traffic, power plant, aerospace, crude oil exploitation, navigation and other industries

**Sulfur content analysis of marine ship fuel:** monitoring of sulfur content in sulfur oxide emission control area (SecA). Special fuel quality regulation emission control areas exist in Sox emission control areas (SOX ECA or SecA), including ports and coastal lines.

**Petroleum refining industry:** Determination of total sulfur in fuel oil and crude oil, or determination of impurities and trace metals in refining catalyst.

**Refinery:** used in hydrofining unit and blending system.

**Oil pipeline:** used to judge the interface of oil products and the pollutants of oil tanks.

**Wear element analysis:** effective detection of additives containing Al, Si, P, S, Ca and Zn in engine oil, engine oil, fuel oil and system lubricating oil. According to the different element concentration, judge the metal mechanical wear and the necessity of oil change.

**Additive analysis:** analyze the high quality lubricating oil (based on the special formula of organic and metal additives) required by precision equipment under special temperature and load.

**Hydrocarbon analysis:** it can measure certain concentration of hydrocarbons and calcium, sulfur, magnesium, aluminum, phosphorus, silicon, chlorine, etc. in aqueous solution.

Technical parameters and specifications

Instrument size	200 (L) *200 (W) *268 (H)
Sample cabin size	170 (L) *130 (W) *60 (H)
Total weight	4.1kg
X-ray tube of excitation source	50KV max, 200uA max, upper excitation power 4W
Detector	SDD Detector
Operating system	based on i.mx8 Quad quad core cortex-a9 processor
Dedicated analysis level operating system	32GB system memory
Power supply system	intelligent battery with msbus bus, real-time monitoring battery and standby battery can directly check the remaining capacity of battery, which conforms to regulations on transportation of aviation dangerous goods. Single battery can work for about 8 hours
Resolution	< 136ev
Data transmission	Bluetooth, USB
Operating environment temperature	-20 ℃ ~50 ℃
Operating environment humidity	10% - 90% relative humidity, non condensing
Display	5.7 "retractable color touch screen display
Measurement time	user defined
Safety protection	built in ray protection device (automatic cut-off) Safety interlock, only when power is on can the instrument be opened (sealing performance),Radiation indicator

Relevant standards

Test standards of PeDX Oil C3 oil analyzer

- Gbt 17040-2008 determination of sulfur content in petroleum and petroleum products of China
- Gbt 17060-1998 determination of sulfur content in Chinese crude oil
- Gbt 380-1977 determination of sulfur content of petroleum products in China
- Gbt 17411-2015 marine fuel oil
- Sh/t 0253-1992 determination of total sulfur content in light petroleum products
- Sh/t 0631-1996 determination of barium, calcium, phosphorus, sulfur and zinc in lubricating oils and additives
- ISO 8754-2003 determination of sulfur content in international petroleum products
- ISO 20847-2004 determination of sulfur content of international petroleum products and motor vehicle fuels
- ISO 13032-2010 determination of sulfur content in international gasoline fuel
- USAASTM d4294 test method for sulfur in petroleum and petroleum products of the United States
- USAASTM d7220 Standard Test Method for sulfur in petroleum and petrochemical products of the United States
- USAASTM D7039-2007 test method for sulfur in gasoline and diesel oil
- USAASTM d5453-2009 test method for total sulfur content in engine fuels and oils in the United States
- ASTM D6481-1999 Standard Test Method for phosphorus, sulfur, calcium and zinc in lubricating oils of the United States

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