

Automated Cold Filter Plugging Point of Distillate Fuels

test method

Determines the highest temperature at which a given volume of diesel, biodiesel or heating fuel fails to pass through a standardized wire mesh filtration device in a specified time when cooled under specified conditions. The Cold Filter Plugging Point (CFPP) of a fuel is suitable for estimating the lowest temperature at which a fuel will give trouble-free flow in certain fuel systems.

automatic cold filter plugging point analyzer with integrated panel PC

- Conforms to ASTM D6371 and related specifications
- Stand alone system with Integrated Touch Screen Panel PC
- Direct Cooling system eliminates the need for solvent cooling baths
- Cooling system provides temperatures as low as -95°C
- Options for automatic calibration of vacuum, flow, temperature, and other parameters
- Results can be sent to a LIMS system

The cold filter plugging point detection system provides automated sample testing with the accuracy and repeatability in accordance with ASTM D6371 and related international test methods. The sample is cooled according to the pre-selected temperature profile. A 20 mBar vacuum is applied to the sample at specific intervals across a 45 micron mesh filter into the aspiration glass cell assembly. If it takes more than 60 seconds for the sample to reach the upper barrier detector or more than 60 seconds to return below the detector upon release, then the test is complete and the cold filter plugging point has been reached.

Integrated Panel PC and Software Package – The KLA Series of analyzers are complete standalone systems featuring an integrated panel PC with an advanced software package. The 12" TFT/LCD touch screen display has a resolution of 1024x768 with a 16.2 M color scheme. All analytical parameters are graphed and displayed in real time as well as recorded in Microsoft® Excel compatible file format. The software monitors the operation and performance of all the analyzer components for proper data measurement, including the solenoid valves, cooling system, pressure sensors, and the Platinum resistance PT100 Class A temperature probe.

Cooling System – For various user applications, the automated cold filter plugging point system comes standard with cooling for temperatures as low as -95°C. The direct cooling system features integrated gas CFC free motors compressors thus eliminating the need for a solvent cooling bath. The direct system is capable of rapid cooling, approaching -80°C bath temperatures in approximately 15 minutes, and utilizes less electricity than standard cooling systems. The rapid cooling feature combined with a consistent cooling profile system provides repeatable results with high test reproducibility.

Vacuum System – The automated cold filter plugging point analyzer includes an internal vacuum generator. The internal vacuum generator provides a smaller footprint for the complete CFPP system and consists of a 350 mBar micro-pump and an electronic pressure/vacuum regulator composed of a proportional valve, pressure/vacuum control sensor, regulator for reference vacuum generation at 20 mBar and a vacuum stabilizer.

Multiple Configuration System – These automated sample cooling and physical property measurement systems can be configured with one, two, three, four and six test positions with one of five possible analytical heads at each position: cloud point, pour point, cloud & pour point, cold filter plugging point and freezing point. Standard and customized multiple configuration systems are readily available.



KLA-4-CTS Automatic CFPP Analyzer with Integrated Touch Screen PC

specifications

Conforms to the specifications of:

ASTM D6371; IP 309, 419; EN 116

Temperature Range: +55 to -95°C

Resolution: 0.06°C Accuracy: ±0.1°C

Repeatability/Reproducibility: as per standard test methods or better

Data Storage: > 60,000 analyses

Electrical Requirements: 115V ± 15% / 60Hz

220V ± 15% / 50 to 60Hz

Dimensions WxDxH,in.(cm)

26 x 23.75x 31.5(66x60x80)

Net Weight: 176.5 lbs (80kg)

Included Accessories

Calibrated Aspiration Pipette complete with Filter Kit for CFPP

Cord Cable without plug Calibrated Test Jar User Manual

Connection Tube for Vacuum System Operating Software Spacer

Safety Features

- Audible alarm and displayed messages (at the end of the analysis and in case of errors and/or malfunctions)
- Pressure controller for 1st and 2nd stage motor compressor
- Thermostat for 2nd stage activation
- Thermo-switch for each cooling / heating jacket
- Motor compressors equipped with internal overload devices

ordering information

catalog no.

KLA-4-CTS

description

Automatic Cold Filter Plugging Point Analyzer with Touch Screen, 115V 60Hz

KLA-4-CTS(220)

Automatic Cold Filter Plugging Point Analyzer with Touch Screen, 220-240V 50/60Hz

accessories

KLA-PT100-CAL

Calibration Decade Box - PT100 Simulator

KLA-DB-KIT

Set of Connectors and Cables