Advanced Instruments Co.,Ltd.





Model: CCS-I

Cold Cranking Simulator

The instrument is used to measure the apparent viscosity of engine oil at low temperature (- 35 $^{\circ}$ C \sim - 5 $^{\circ}$ C).

Method summary: Drive a rotor closely matched with the stator by a DC motor, and fill the gap between the rotor and the stator with samples. The temperature is controlled by the temperature control system, and the motor speed is corrected with standard oil to make it a function of viscosity. Determine the sample viscosity by measuring the rotation speed.

The rotor and stator system of the instrument uses a thermoelectric temperature control system. Compared with the previous model, the temperature control is improved, the preheating time is reduced, and the measurement accuracy is improved. The compact structure is easy to install and use.

I.Main features

- Automatic detect rotation speed, control current, and reduce error;
- Refrigerated by semi-conductor;
- Adopt imported motor,accuracy is high;
- ► LCD displays all working status;
- ► It can connect printer to print out result;
- Result can be calculated automatically after calibrating with standard oil;
- Micro-computer controlling, Windows operation system, complete English interface;
- Upgraded rotor, low rotor torque test status, high repeatability;
- Automatically generate calibration curve, directly display measured result of viscosity;
- ▶ All test procedures are controlled automatically, when test is over, it can stop and raise temperature automatically.
- The instrument recommends refrigeration temperature automatically
- Rotary encoder detects rotation speed;
- Measuring range:1500~15000CP;
- It can edit 10 types standard oil results;
- This apparent viscosty apparatus is equipped with low temperature cooling device.

II.Technical specifications

| 1 | Reference standard | GB/T6538, ASTM D2602,ASTM D5293 |
|---|-------------------------|------------------------------------|
| 2 | Refrigeration method | Semi-conductor |
| 3 | Circulation method | multifunctional plastic steel pump |
| 4 | Temp.controlling method | Digital PID temperature controller |
| 5 | Detection method | Automatic test |
| 6 | Data processing | Automatic store and print |
| 7 | Temp.controlling range | Ambient∼-35˚ℂ |
| 8 | Power supply | AC220 V 50Hz |

III.Package List

| No. | Name | Quantity | Unit |
|-----|-------------------------|----------|------|
| 1 | Host | 1 | Set |
| 2 | Circulating water bath | 1 | Set |
| 3 | Data communication cabl | 1 | Root |
| 4 | Injection syringe | 5 | PC |
| 5 | Waste liquid collector | 1 | PC |
| 6 | Software CD | 1 | PC |
| 7 | Injection plug | 2 | PC |

| 8 | Fuse | 4 | PC |
|----|--------------------------|---|--------|
| 9 | Standard oil (50ML) | 9 | Bottle |
| 10 | Software USB key | 1 | PC |
| 11 | Cooling circulation pipe | 2 | Root |