digital melting point apparatus with max temperature 400°C

Digital melting point apparatus is a high-precision instrument for measuring the melting point of solid substances, which is used for accurate testing of the melting point of samples in research and quality control, and is widely used in chemical, pharmaceutical, food and other industries.

The melting point is the temperature point at which a substance transforms from a solid to a liquid state, and is of vital importance for the purity and properties of chemical substances and their behavior during processing. The digital melting point apparatus can quickly and accurately determine the melting point of samples through the improved optical path and precise temperature control system, providing reliable data support for scientific research and industrial applications.

Features

1. Multi-sample support: The instrument supports simultaneous measurement of three different samples, which is suitable for multi-sample testing and improves experimental efficiency.
2. wide measurement range: the measurement temperature range from room temperature to 400 °C, to meet the melting point of most chemical substances and compounds testing needs.

3. high-precision temperature control: the resolution of temperature setting and display is 0.1°C, which ensures the accuracy of temperature control during the measurement process and helps to obtain more accurate melting point data.
4. fast stage heating rate: the device has a rapid temperature rise function, the temperature can rise 20°C per minute, can reach the rapid stage temperature required for testing in a shorter period of time, reducing the waiting time.
5. light path improvement: optimized light path system to provide a brighter, clearer display, to avoid scattering and blurring, to ensure that the user can clearly observe the melting point changes.
6. Temperature Hold Function: Once the device reaches the temperature set in the rapid phase, the instrument will stabilize at that temperature without overshooting, avoiding wasted time and improving efficiency. Users can set the temperature close to the melting point of the sample to save measurement time.
7. beep prompt: when the device reaches the preset temperature of the rapid stage, the instrument will beep to remind the user to start the next operation, to avoid forgetting the operation steps.
8. automatic recording function: through the “read” button, the device can not only display the melting point readings, but also can be continuously heated to record the melting point of multiple samples at the same time, the user does not need to monitor the operation frequently.
9. flexible calibration: can be calibrated by chemical calibration or external probe to ensure the accuracy of the measurement results.

10. cooling system: built-in fan system to help accelerate the temperature drop process, to avoid damage to the sample caused by too long heating.
11. Dual Display: Equipped with dual display function, it can display the temperature and melting point readings at the same time, which is convenient for users to view and compare the sample results in real time.
12. hand-held reading button: provide hand-held reading button, convenient for users to obtain readings at any time during operation.
13. tilt back foot design: the instrument back foot tilt design, so that the user in the observation of the display has a wider, clearer perspective, enhance the comfort and efficiency of the operation.

Working Principle

The working principle of the digital melting point apparatus is based on the classical technique of determining the melting point of a sample. First, a small amount of sample is loaded into a capillary tube, which is then placed in the sample chamber of the instrument. The device will begin to heat the sample and the temperature gradually increases as the sample approaches its melting point. As the sample begins to melt, the optical circuit system detects the change in sample morphology and accurately records the temperature change. The instrument's temperature holding system ensures that once the set rapid phase temperature has been reached, the temperature remains stable, avoiding overshoot and ensuring accurate results. The rapid phase temperature setting can be adjusted by the user as required to speed up the measurement process.

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Model	**MP10**
Display	LED
Temperature range	ambient to 400°C
Temperature accuracy	±0.5°C
Temperature resolution	0.1°C
Readout and temperature hold	yes
Calibration	yes
Number of samples	3
Fast Stage Rate	fixed 20 °C per minute
Slow Stage Rate	0.2°C to 10°C per minute, adjustable with 0.1
Cool Down Rate	25°C per minute
Internal Temperature Visible	yes

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Model	**MP10**
Handheld Read Button	yes
Data Logging	yes
Power supply	120Vac, 230Vacm 50Hz, 75W
Dimensions	160x220x170mm
Weight	1.8kg