

## MELTING POINT APPARATUS



The Visual Melting Point Apparatus allows the researcher to get an indication of the compound or element's purity.

Melting Point has a micro-controller for temperature control, temperature range, heating rates, cooling time, etc.

One of the analytical techniques applied to the characterization of pure chemicals and pharmaceutical drugs (from raw material, to scale-up, to finished form) is the melting point (MP) determination.

It is used in Analytical QC/QA laboratories, pharmaceutical labs and chemical analysis.

- 1) It is suitable for **white as well as coloured samples** in powdered form.
- 2) Instrument can detect **melting range as well as melting point** of various types of samples.
- 3) **Magnified image** of the sample can be viewed on a video monitor screen via **CCD camera** which helps observe physical changes.
- 4) **GLP compliant printout** with sample name, ID No., date, time etc. for authentication.
- 5) Calibration Mode - Built-in calibration facility for **two-point auto calibration** with USP standards.
- 6) Password protection for calibration mode.
- 7) Compliance with **USP melting range procedure as per Class - I A & EP Method 2.2.60.**
- 8) **Graphical report** of temperature v/s. light units with indications for start of melting & end of melting.
- 9) Can also detect the melting range as well as melting point of **decomposed samples, as well as waxy and polymer samples.**

### SPECIFICATIONS:

- 1) Furnace construction Round Block
- 2) Temperature sensor PT100 (RTD)
- 3) **Temperature Range** Ambient + 5°C to 350 °C
- 4) **Temperature Readability** 0.1°C
- 5) **Temperature Readability** 0.1°C
- 6) Heating Rates 0.2° C/min, 12.0°C/min
- 7) Max. Cooling Time from 25 minutes (approx.) 350°C to ambient (25 °C)
- 8) Heating Rates 0.2° C/min, 12.0°C/min,
- 9) Accuracy of **Detection of melting temperature:**
  - a) Ambient + 5°C to 200°C: ± 0.5°C
  - b) 200°C to 300°C: ± 0.8°C
  - c) Above 300°C: + 1.4°C
- 10) **Sampling:** Sample Size-5 mg ( Approx.)
- 11) **Sample Holder-**
  - a) Glass slide ≤ 1mm ± 0.02 mm thick
  - b) Glass capillary tube with one end sealed (optional accessory)
- 11) Visual Image 10X magnified image displayed on the monitor via **CCD camera.**
- 12) Keyboard Alphanumeric splash water proof polyester soft keys.
- 13) **Display**
  - a) 20 x 2 line back lighted **liquid crystal display** (LCD).
  - b) Portable **B&W monitor** to view magnified image of sample.
  - c) Colour CCD with colour monitor (optional).
- 14) **Data storage** Non-volatile memory
- 15) Program storage **20 methods with parameters**
- 16) **Printer output** Centronix parallel port
- 17) Report format **GLP compliant** - Selection of formats including result report, graphics, calibration report and method parameters.
- 18) Power 230 VAC ±10%, 50Hz
- 19) Modes of detection **AUTO & MANUAL**
- 20) Environmental Operating Conditions
  - a) Operation Indoor
  - b) Temperature Ambient to 45 °C
  - c) Humidity 5 to 90%