

# Melting Point

## Digital Melting Point Apparatus IA9000 Series

### Electrothermal

The IA9000 series operate from a low voltage source for safety and convenience. The viewing arm is adjustable in length and angle to ensure that the samples are easily seen and also to prevent operator fatigue. When not in use the viewing head folds flat for easy storage. A x8 magnifier with wide viewing angle and high intensity illumination allows good visibility of the three sample capillaries. The oven used to heat the samples is microprocessor controlled to provide the fastest warm up and the most accurate temperature control. Capillary tubes up to 2mm diameter can be used and the tube guide is removable for cleaning and insertion of the cold finger.

- ◆ Maximum temperature 400°C
- ◆ Adjustable viewing head
- ◆ Low voltage operation
- ◆ 40mm x8 magnification viewing lens with adjustable focus
- ◆ Membrane keypad
- ◆ Melt temperature storage
- ◆ Fast warm-up
- ◆ White LED-illuminated sample chamber
- ◆ Date/time facility (IA9200/9300 only)
- ◆ Optional printer
- ◆ RS232-C and USB ports (IA9200/9300 only)

#### Model IA9100

Meets the requirement for basic sample testing. Up/down keys are used to set ramp start temperature, then a standard ramp of 1°C per minute is used to heat the sample. If the melt temperature is not known, a 10°C per minute search ramp can be used to give coarse measurement of melt temperature. When watching the samples for the melt to occur a temperature storage button is pressed to record up to four discrete temperatures in the memory. These temperatures can be recalled later on the LCD display.

#### Model IA9200

The IA9200 additionally has five different standard temperature ramps or it can be programmed by the operator to use any temperature increase rate from 0.2°C to 10°C per minute in 0.1°C steps. An output connector allows interface with the PR2000S printer accessory or other peripheral devices. A USB output is also provided for use with accessory flash drives. A real-time clock enables the printing of date and time. A batch memory allows the storage of up to 1000 sets of results and conditions.

#### Model IA9300

Provides similar features to the IA9200 but allows in addition, two discrete melt temperatures to be recorded for each capillary tube. This feature enables, for example, the clear recording of a "start of melt" and "full meniscus" temperature for each of the three samples under test. A tube select key toggles between the sample tubes and LED indicators on a head up display behind the viewing lens show which tube is selected. The batch memory allows storage of up to 500 sets of results and conditions.

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MG050/MG055

# Melting Point

## Electrothermal Digital Melting Point Apparatus IA9000 Series continued

<b>Model</b>	IA9100/9200/9300		
<b>Range</b>	Ambient to 400°C		
<b>Resolution</b>	0.1°C		
<b>Accuracy at</b>	20°C	±0.5°C/±1 digit	
	350°C	±1°C/±1 digit	
<b>Display</b>	12mm high 4 digit liquid crystal — all models		
<b>Capillary tubes</b>	Capacity 3 up to 2mm diameter		
<b>Memory</b>	<i>Model IA9100:</i>	4 temperatures	
	<i>Model IA9200:</i>	4 temperatures. Up to 1000 batch	
	<i>Model IA9300:</i>	6 temperatures. Up to 500 batch	
<b>Outputs</b>	RS232-C and Printer sockets, USB to accessory flash drive on models IA9200/9300		
<b>Power, input</b>	230V 50/60Hz single phase — all models		
<b>output</b>	15V - all models		
<b>Overall</b>	<i>width x depth</i>	<i>mm</i>	200 x 355 — all models
	<i>height extended</i>	<i>mm</i>	450 — all models
	<i>closed</i>	<i>mm</i>	80 — all models
<b>Weight</b>	<i>kg</i>	2.5 — all models	

### Melting Point Apparatus IA9100

As described. Maximum temperature 400°C. With 4 position membrane keypad, memory and 1°C/10°C fixed, selectable ramp rates. Supplied with power supply for 230V 50/60Hz single phase input and storage capacity for 100 capillary tubes.

**MG050-10** IA9100

### Melting Point Apparatus IA9200

As described. Maximum temperature 400°C. With 16 position membrane keypad, temperature and batch memory, programmed, adjustable 0.2 to 10°C/min ramp rate facility, USB flash drive output, printer socket and RS232 interface. Supplied with power supply for 230V 50/60Hz single phase input and storage capacity for 100 capillary tubes.

**MG055-10** IA9200

### Melting Point Apparatus IA9300

As described. Maximum temperature 400°C. With 13 position membrane keypad, adjustable 0.2 to 10°C/min ramp rate facility, temperature and batch memory, USB flash drive output, printer socket and RS232 interface. Includes facility to record 2 melt temperatures for each capillary tube. Supplied with power supply for 230V 50/60Hz single phase input and storage capacity for 100 capillary tubes.

**MG055-35** IA9300

### Spares and Accessories

Bulb 12V, AZ9005. Spare for all models.

**MG059-05** Bulb, AZ9005

Cold finger for rapid cooling of heating block. Requires a source of cold water.

**MG059-08** Cold finger AZ9001

**MG059-15** Dust cover AZ9002

Printer for MG055-10, MG055-35 only. Provides print-out of test results date, time, sample batch number, start temperature, ramp rate and temperature of melts.

**MG060-10** Printer PR2000S

Pack of 2 paper rolls and 1 ribbon. For printer MG060-10.

**MG060-17** Rolls/ribbon, AT4044

**MG060-25** Calibration kit AZ9253

Melting point capillary tubes, neutral glass, 100mm long with nominal bore as indicated. (1mm bore tubes are 1.2 to 1.4mm o.d., 0.9 to 1.1mm i.d., 2mm bore tubes are 1.8 to 2.0mm o.d., 1.4 to 1.6mm i.d.) Supplied in packs of 1000.

*Bore,  
mm*

#### Sealed both ends

**MG140-10** 1

**MG145-10** 2

#### Sealed one end

**MG140-20** 1

**MG145-20** 2

#### Open both ends

**MG140-30** 1

**MG145-30** 2



**MG050/MG055**