

Melting Point

MANUAL MEL-TEMP®

Electrothermal



**THE LOWEST COST MELTING POINT APPARATUS
FOUND ANYWHERE!**

- — Low cost unit
- — Temperature range to 500°C



PRODUCT SPECIFICATIONS

- Aluminum casting conducts and radiates heat uniformly to capillaries and thermometer.
- Heating chamber consists of aluminum heating block which avoids the hazards and mess associated with oil baths.
- Sample observation is enhanced by an integrated light and precision 6X lens.
- Three thermometer options are available: mercury thermometer, student digital thermometer, or a precision digital thermometer.

OPERATION

- Mel-Temp provides precise melting points up to 500°C.
- Simple manual controls adjust the heating rates.
- Accepts up to three samples simultaneously using glass capillaries.
- Simple to operate: bring oven to a stable temperature, insert capillary tubes, adjust heating rates and record melt temperature when sample(s) melt.

PRODUCT SPECIFICATIONS

Temperature Range	Ambient to 500°C
Heating Rate Control	Continuously adjustable with built-in variable transformer
Temperature Resolution	0.1°C with low mass thermocouple and precision digital thermometer
Reproducibility	1°C
Melting Point Capillaries	1.5-1.75 mm outside diameter
Thermometer Well	6.75 mm inside diameter, 76mm deep
Heat-up time (Full Power)	25°C-400°C in 5 minutes 400°C-500°C in 4 minutes
Cool-down time (unassisted)	500°C-400°C in 2 minutes 400°C-300°C in 2 minutes 300°C-200°C in 5 minutes
Power Requirements	200 watts, 100-120 VAC or 200 watts, 210-250 VAC

ORDERING INFORMATION

Model #	Volts	Overall Dimensions			Shipping Weight Lb. (kg)	US List Price
		W	H	D		
1001	120	4.3 (11)	8.7 (22)	5.5 (14)	5 (2.3)	\$650.00
1002	230	4.3 (11)	8.7 (22)	5.5 (14)	5 (2.3)	\$650.00
1101D	120	4.3 (11)	8.7 (22)	5.5 (14)	5 (2.3)	\$1109.00
1102D	230	4.3 (11)	8.7 (22)	5.5 (14)	5 (2.3)	\$1109.00
1201D	120	4.3 (11)	8.7 (22)	5.5 (14)	5 (2.3)	\$735.00
1202D	230	4.3 (11)	8.7 (22)	5.5 (14)	5 (2.3)	\$735.00

Melting Point

DIGITAL MEL-TEMP® 3.0

Electrothermal



COMPACT AND LOW COST!

- — Compact size saves bench space
- — Audible-visual alarm indicates when oven temperature is stable
- — Selectable ramp rates
- — High speed fan cools unit quickly

PRODUCT SPECIFICATIONS

- Used for recording beginning and ending points of each of three samples.
- Designed for determinations of melting points using glass capillary tubes.
- Space saving design; occupies only 4.5" x 6.5" (11 x 16 cm) of bench space.
- Easy to follow instructions are printed directly on the front of the unit.
- Sample observation is enhanced by an integrated light and precision 6X lens.
- Safety eye piece reduce protects your eyes from contact with the capillary tubes.
- Digital microprocessor with 0.1°C resolution provides fast warm up, accurate temperature control and eliminates the need for a mercury thermometer.
- Dual digital LED's display actual and set temperature simultaneously.
- The temperature display is easily calibrated without tools, using a melting point standard.
- Temperature data can be temporarily stored and recalled on the LED display.
- Heating chamber consists of aluminum heating block which avoids the hazards and mess associated with oil baths.
- Conforms to U.S. Pharmacopeia requirements.

48 Hour or Sooner
Express Shipping
Guaranteed!*



*see inside front cover for details

PRODUCT SPECIFICATIONS



Temperature Range	Ambient to 400°C.
Temperature Accuracy	±0.5° from 20-200°C. ±1°C from 200-400°C with factory calibration. (User may calibrate to 0.1°C accuracy at a specific temperature using a melting point standard.)
Temperature Resolution	0.1°C.
Ramping Rate	Selectable from 0.1°C/min. -10.0°C/ min. in 0.1°C/min. increments
Reproducibility	0.2°C
Heat-Up Time	20° to 250°C in 5 minutes
Cool-Down time (with built-in cooling fan)	400° to 100°C in 3 minutes
Melting Point Capillaries	1.5-1.85 mm outside diameter x 100 mm long
Power Requirements	100 watts, 100-120 VAC or 100 watts, 210-250 VAC

ORDERING INFORMATION

Model #	Volts	Overall Dimension Inches (cm)			Shipping Weight Lb. (kg)	US List Price
		W	H	D		
1401	120	4.3 (11)	12.6 (32)	6.3 (16)	11(5)	\$2675.00
1402	230	4.3 (11)	12.6 (32)	6.3 (16)	11(5)	\$2675.00

OPERATION

- Programmable ramp rates from 0.1 to 10°C/min in 0.1°C increments.
- An audio-visual alarm indicates when oven temperature is stable. User may then insert charged capillaries and press the ramp key to begin testing at the predetermined heating rate.
- A distinct "beep" confirms that the temperature has been stored and allows uninterrupted sample observation.
- Stored temperatures may be recalled and recorded.
- High-speed fan quickly cools the unit back to the selected start temperature.

Melting Point

DIGITAL 9000 SERIES

Electrothermal

Model IA9300



BEST SELLING, TOP-OF-THE-LINE!

- — Adjustable 8 x viewing magnifier arm folds away
- — Stored temperature data available
- — Large LCD display eliminates subjective interpretation
- — Optional accessories



PRODUCT SPECIFICATIONS

- Adjustable extension arm facilitates comfortable viewing and helps reduce operator fatigue.
- The viewing head can be rotated for easier viewing and folds flat for easy and compact storage.
- Object lens can be adjusted to sharpen the focus on the sample.
- Safety eye piece reduces glare and protects your eyes from contact to the hot zone.
- Sample observation is enhanced by an integral light and an 8 x wide angle viewing magnifier which enables all three samples to be viewed.
- Digital microprocessor with 0.1°C resolution provides fast warm up, accurate temperature control and operates without the need for a mercury thermometer.
- Three audible beeps indicate when oven temperature has stabilized and it is time to place the sample in the oven.
- Simple push-button controls are conveniently located so you can easily record temperatures without looking away from the sample.
- Heating chamber consists of aluminum heating block which avoids the hazards and mess associated with oil baths.
- Models 9100, 9200 & 9300 are designed for determinations of melting points using glass capillary tubes. Model 9400 utilizes glass slides.
- Models 9100, 9200 & 9300 have a temperature range of ambient to 400°C. Model 9400 has a temperature range of 0 - 100°C.
- Optional CCTV camera allows live image to be viewed on large monitor. (Models 9200, 9300 only.)
- RS232 output connector allows interface with the PR2000B printer or computer. (Models 9200, 9300 & 9400 only.)
- Units can be calibrated in the field or can be sent back to the manufacturer for calibration.

MODEL IA9100

- Records four discrete temperatures by simply pushing the "go-to" button.
- Unit comes with one fixed temperature ramp rate (1°C/min.).
- Fast Ramp Rate of 10°C/min. feature can be used if the melt temperature is unknown. This fast ramp feature can help to find an approximate measurement of melt temperature.
- Temperature data can be temporarily stored and recalled on the LCD display.

MODEL IA9200

- Records up to four discrete temperatures by simply pushing the "go-to" button.
- Five fixed temperature ramp rates (0.2, 0.5, 1.0, 2.0 and 3.0°C/min.).
- Programmable ramp rates from 0.2 to 10.0°C/min. in 0.1°C increments.
- Can store up to 1000 batches of data, which can be later recalled and viewed on the LCD display or can be printed.
- Dates and time can be recorded or printed using the real time clock function.
- Optional accessories: CCTV and printer.
- RS232 output connector allows interface with a printer or computer.

Melting Point

DIGITAL 9000 SERIES

Electrothermal

• MODEL IA9300

- Used for recording beginning and ending points (melting point ranges) of each of three samples.
- Features pre-programmed ramp rates of 1°C per minute.
- Programmable ramp rates from 0.2 to 10.0°C/min. in 0.1°C increments.
- Batch memory can store up to 500 sets of data, which can be later recalled on the LCD display or can be printed.
- Each set of data contains the beginning and ending points for each of the three samples.
- Dates and time can be recorded or printed using the real time clock function.
- LED indicator light identifies which of the three capillary tubes is being viewed on recorded.
- Optional accessories: CCTV and printer.
- RS232 output connector allows interface with a printer or computer.
- Conforms to U.S. Pharmacopeia requirements.

MODEL IA9400

- Used to test waxes, fats, grease oils, etc.
- Samples for test are located on a glass slide and placed in slide chamber.
- Temperature range of 0 to 100°C.
- Capable of holding a slide at temperatures down to 0°C.
- Features preprogrammed ramp rate of 1°C/min.
- Programmable ramp rates available from 0.2°C per minute to 10°C per minute.
- Temperature data can be temporarily stored and recalled later on the LCD display.
- Dates and time can be recorded or printed using real time clock function.
- RS232 output connector allows interface with the PR2000B or computer.
- Optional accessories: Printer.

ORDERING INFORMATION

Model #	Volt	W	Overall Dimension Inches (cm)			Shipping Weight Lb. (kg)	US List Price
			H	D			
IA9100	230	8 (20)	3.3 (8)	14 (35.5)	5.5 (2.5)	\$2179.00	
IA9100X1	115	8 (20)	3.3 (8)	14 (35.5)	5.5 (2.5)	\$2179.00	
IA9200	230	8 (20)	3.3 (8)	14 (35.5)	5.5 (2.5)	\$3162.00	
IA9200X1	115	8 (20)	3.3 (8)	14 (35.5)	5.5 (2.5)	\$3162.00	
IA9300	230	8 (20)	3.3 (8)	14 (35.5)	5.5 (2.5)	\$3380.00	
IA9300X1	115	8 (20)	3.3 (8)	14 (35.5)	5.5 (2.5)	\$3380.00	
IA9400	230	8 (20)	3.3 (8)	14 (35.5)	5.5 (2.5)	\$3817.00	
IA9400X1	115	8 (20)	3.3 (8)	14 (35.5)	5.5 (2.5)	\$3817.00	

Model IA9400



Melting Point

ACCESSORIES

Electrothermal



- — CCTV, camera allows live image to be viewed
- — Printer, can print data with date codes

PRODUCT SPECIFICATIONS

CCTV

- A compact camera produces the quality image that will provide better information and more accurate results.
- Teaching aid using one melting point rather than several small systems.
- Connects to a video system for data file storage for QC and QA Departments.
- Small compact CCTV camera with mounting kit.
- Interfaces to a PC to enable the live capture of the screen, which can be incorporated into reports or recorded or played back.
- Displays the image and data including: temperature, time, date. (IA9200 and IA9300 only.)
- Magnifies of the image on a TV monitor to approximately 50 x.
- Shows actual color image of the melt.

Printer

- Interfaces with IA9200, IA9300 and IA9400.
- Allows print out of data with date codes included.
- Plastic case.
- Power saving feature allows unit to shut off after 1-5 minutes as selected by the user.

ORDERING INFORMATION

CCTV

Model #	Part #	Magnification Dependent on Screen Size	Power Watts	US List Price
CCTV9100 (PAL)	AZ9151	Up to 50 X	5	\$3145.00
CCTV9200 (PAL)	AZ9152	Up to 50 X	5	\$3145.00
CCTV9300 (PAL)	AZ9153	Up to 50 X	5	\$3145.00
CCTV9100 (NTSC)	AZ9141	Up to 50 X	5	\$3145.00
CCTV9200 (NTSC)	AZ9142	Up to 50 X	5	\$3145.00
CCTV9300 (NTSC)	AZ9143	Up to 50 X	5	\$3145.00

PC interface requirement. See above.

Printer

Model	Watts	Shipping Weight Lb. (kg)	US List Price
PR2000B	5	11 (5)	\$601.00