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Data Sheet
August 13, 2026

STANFORD RESEARCH SYSTEMS

Stanford Research MPA100 Optimelt Automated Melting Point System

Stanford Research Systems MPA100 OptiMelt Automated Melting Point System The SRS OptiMelt MPA100 automatically determines melting points and melting ranges of chemical substances. Microprocessor PID ramping, a built-in digital camera, and digital image processing report onset and clear points. Up to three capillaries are analyzed simultaneously. A 5.8 inch back-lit touchscreen, USB computer control, MeltView software, and RS-232 printer output support Pharmacopeia and GLP workflows. Temperature accuracy is +/-0.3 C to 100 C, +/-0.5 C to 250 C, and +/-0.8 C to 400 C. The SRS OptiMelt MPA100 automatically determines melting points and melting ranges of chemical substances. Microprocessor PID ramping, a built-in digital camera, and digital image processing report onset and clear points. Up to three capillaries are analyzed simultaneously. A 5.8 inch back-lit touchscreen, USB computer control, MeltView software, and RS-232 printer output support Pharmacopeia and GLP workflows. Temperature accuracy is +/-0.3 C to 100 C, +/-0.5 C to 250 C, and +/-0.8 C to 400 C. Organic and pharmaceutical melting-point identification; melting-range purity screening; Pharmacopeia protocol melts; teaching labs; USB-logged digital movies of each melt.

MODEL **Stanford Research Systems MPA100**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **MPA100**	LISTING **https://aumictechlabs.com/products/mpa100-2/**

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NAICS 423690 · 811210 · 541380

This unit

The Stanford Research Systems MPA100 OptimeIt is an automated melting point analyzer for precise determination of melting temperatures and ranges in synthetic and analytical chemistry laboratories. Using the capillary method - compatible with all major pharmacopeial procedures - it analyzes up to three samples simultaneously with microprocessor-controlled temperature ramping, integrated digital image processing for automated melt detection, and a touchscreen interface. The system operates unattended, with results automatically recorded and displayed for review.It also functions as a general-purpose digital thermometer and timer.Technical Specifications Temperature range: ambient to 400 °C (start: 10 °C above ambient to 396 °C; stop: start temperature + 4 °C to 400 °C) Temperature resolution: 0.1 °C Ramp rate: 0.1 °C to 20 °C per minute, adjustable in 0.1 °C increments Temperature accuracy: ±0.3 °C (up to 100 °C), ±0.5 °C (up to 250 °C), ±0.8 °C (up to 400 °C) Reproducibility: 0.2 °C Heat-up time: ~10 minutes (50 °C to 350 °C) Cool-down time: ~10 minutes (350 °C to 50 °C) Temperature sensor: precision platinum resistance thermometer (Pt RTD) Oven control: closed-loop PID Heating block: aluminum, optimized for fast heating and linear ramping Sample capacity: three simultaneous analysesKey Features Built-in high-resolution digital camera with real-time sample imaging Digital image processing for automated melt detection - superior to optical absorption or reflection methods Wide observation window with illuminated magnification lens for continuous visual monitoring Event tagging: up to six individual temperatures per sample via front-panel buttons Memory: 24 storable analysis methods; eight complete melting point reports USB port for computer control and data transfer MeltView software included Automatic Summary Report generation and storageTypical Applications Precise melting point determination for pharmaceutical QA/QC, chemical purity assessment, synthetic compound characterization, and regulatory compliance testing requiring pharmacopeial-grade capillary methodology.

Features & description

From manufacturer datasheet

Features

• Completely automated onset and clear-point determination • Ramp 0.1 C to 20 C per minute in 0.1 C increments (unlike MPA120 1-2-5 sequence) • Digital movie of each melt; 5.8 inch touchscreen • USB high-level command set plus MeltView Windows software • External 100 ohm Pt RTD input (alpha = 0.00385 ohm/ohm/C) • Closed-loop PID oven; heat-up and cool-down about 10 minutes (50 C to 350 C and reverse)

MPA100 Characteristics / Specifications

PARAMETER	VALUE
Model	MPA100
Manufacturer	Stanford Research Systems
Instrument Type	Automated Melting Point Apparatus
Product Name	OptiMelt
Alias	MPA100; OptiMelt MPA100
Temperature Display	melting point and melting point range
Start Temperature Range	(ambient + 10 C) to 396 C; 0 C minimum set point (catalog); manual also lists -20 C minimum
Stop Temperature Range	(start temperature + 4 C) to 400 C
Temperature Resolution	0.1 C
Ramp Rate	0.1 C to 20 C per minute in 0.1 C increments
Heat Up Time	about 10 minutes (50 C to 350 C)
Cool Down Time	about 10 minutes (350 C to 50 C)
Temperature Accuracy to 100 C	+/-0.3 C
Temperature Accuracy to 250 C	+/-0.5 C
Temperature Accuracy to 400 C	+/-0.8 C
Reproducibility	0.2 C
Temperature Sensor	platinum RTD (built-in)
Oven Control	closed-loop PID
Display	back-lit touchscreen LCD, 5.8 inch
Printer Interface	RS-232; Epson-compatible dot-matrix printers
Computer Interface	USB; all functions queryable via high-level command set
MeltView Software	Windows compatible (USB)
Capillary Outside Diameter	1.4 mm to 1.8 mm
Capillary Length	100 mm
Capillary Capacity	up to 3 tubes simultaneously

PARAMETER	VALUE
Fill Height	2 mm to 3 mm
External RTD Input	100 ohm Pt RTD, alpha = 0.00385 ohm/ohm/C
Line Power	90 to 264 VAC, 47 to 63 Hz, 125 W
Operating Temperature	0 C to 40 C, non-condensing
Weight	9 lbs
Dimensions	7.5 in x 10 in x 8.5 in (WHD catalog); manual also lists 7.5 in x 8.5 in x 10 in WxHxL
Standard Capillary Pack	100 count included

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to 40 C, non-condensing
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Standard Capillary Pack	100 count included

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

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Temperature Accuracy to 400 C	+/-0.8 C
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Optional Capillaries: O100MPC 300 count
Optional Standards Kit: O100MPS (vanillin 83.0 C, phenacetin 135.9 C, caffeine 237.0 C)

Notes
Specs from SRS MPA100 catalog, product page, and MPA100 manual. Confirm capillary OD (catalog 1.4 to 1.8 mm). MPA120 EZ-Melt shares accuracy but uses stepped ramp rates and a 4-digit LED instead of the touchscreen/USB feature set.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: **sales@aumictech.com** · +1 (484) 841-9341

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