POLMON

Measure. Control. Automate.

21 CFR Part11 Compliance

With PiLAB Software.

AUTOMATED MELTING POINT APPARATUS
MP98

MP98 is specifically designed to automatically identify the melting point range of up to three samples simultaneously and operates independently with an intuitive color touch screen, enabling all melting operations and video playback without the need for an external PC or keyboard.

When operated with **PiLAB Software**, the MP98 series supports **21 CFR Part 11 compliance**, providing secure electronic records, role-based user access, comprehensive audit trails, and robust data integrity for regulated pharmaceutical and laboratory environments.

SPECIFICATIONS

Melting Capillaries	3
Temperature Range	Room temperature to 400°C
Ramp Rate	0.1° to 20°C per minute
Measurement Accuracy	± 0.3°C (up to 200.0°C) ± 0.4°C (200.1°C to 300.0°C) ± 0.6°C (300.1°C to 400.0°C)
Temperature Resolution	0.1°C
Reproducibility	0.3°C
Sample Calibration	Fully-guided 4 point calibration
Heat-up Time (ambient to 350°C)	~13 minutes
Cool-down Time (350°C to 50°C)	~17 minutes
21 CFR Part 11 Compliance	Supported only with PiLAB Software (mandatory)
Profiles	12 profiles with add/edit facility
Oven	Solid block
Result Storage	Stored in internal flash memory
Video	Color + playback on instrument
Reports	Includes USP compliant PDF, video and melting graph
Language	Only English
Temperature Sensor	Pt 100 (built-in)
Mounting	Table top
Environmental Range	Operating temperature: 5°C to 40°C Storage temperature: 5°C to 40°C Humidity: < 80%, non-condensing
Power	25W, 230V, 50 Hz
Dimensions (LxWxH) in cm.	27.5x35x20
Weight in kg.	6.5
Capillary	Borosilicate tube with one end sealed OD: 1.45 mm - 1.49 mm ID: 1.2 mm Length: 4" Fill height: 3 mm to 4 mm

DEDICATED FEATURES

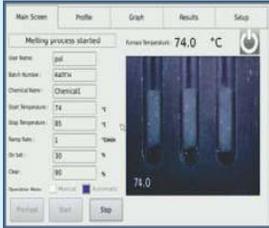| SPECIFICATIONS	MP98-1-X	MP98-2-X	MP98-3-X
Number of Users	10 Users + 1 Administrator	10 Users + 1 Administrator	10 Users + 1Administrator
User Right Management	✔	✔	✔
Automatic Melting Point Determination	✔	✔	✔
Manual Melting Point Determination	✔	✔	✔
Result Storage	300 reports	300 reports	Only last analyzed report
Reports	USP compliant PDF, video and melting graph Downloadable to USB drive and accessible over LAN	USP compliant PDF, video and melting graph Downloadable to USB drive and direct print of PDF file from the instrument with dedicated printer	USP compliant PDF, video and melting graph Downloadable to USB drive and direct print of PDF file from the instrument with dedicated printer
21 CFR Part 11 Compliance	✔**		
Interface	Ethernet	Ethernet +Dedicated printer	Ethernet + Dedicated printer
Report Export	Ethernet/USB	Ethernet/USB	Ethernet/USB
Dimensions (LxWxH) in cm	Instrument: 27.5x35x20	Instrument: 27.5x35x20 Printer: 43.8x55.3x25.6	Instrument: 27.5x35x20 Printer: 43.8x55.3x25.6
Weight in kg.	Instrument: 6.5	Instrument: 6.5 Printer: 4.27	Instrument: 6.5 Printer: 4.27

**NOTE: Order PiLAB Software Separately
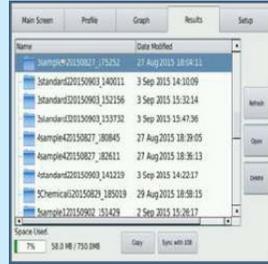
ACCESSORIES

MP98 Sample Gauge   **MP98 Capillaries**

- 7" color touch screen display

- In-built colored camera automatically detect melting point and melting range

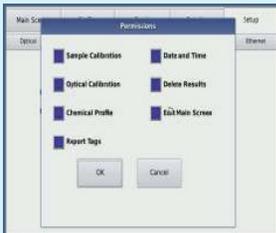- Analysis up to 3 samples simultaneously

- Up to 300 reports can be stored in the internal flash memory

- PC is not required to monitor the sample melting range

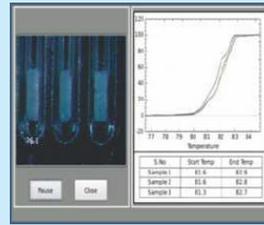- Report include PDF, melting Video and melting point graph

- One shot selection to start experiments using one of the 12 programmable profiles
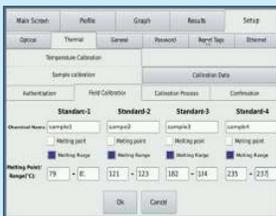

- Melting point reports are saved in PDF format with user editable report tags

- User rights management

- Video replay function allows the review of melting points of the samples

- Video analysis also allows identifying color changes and decomposition temperatures

- Fully guided for-point Sample calibration

- Onscreen keyboard allows quick entry of parameters

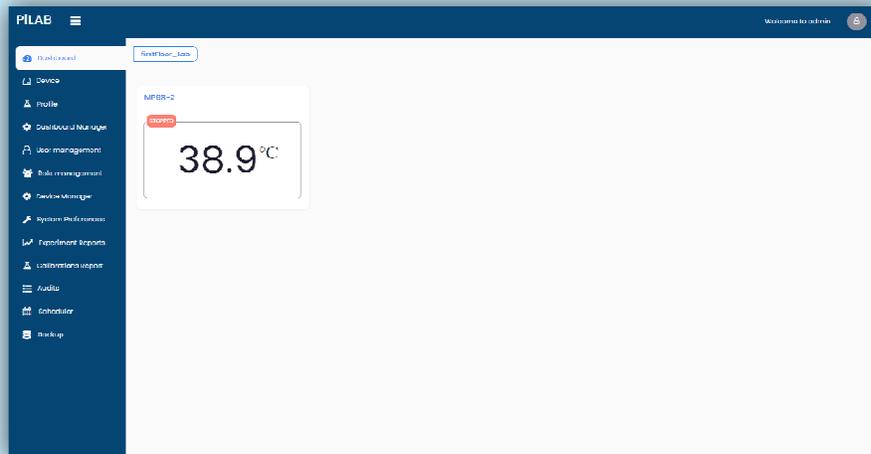| MODEL NUMBER	VARIANTS
**MP98	MP98-1-X
MP98	MP98-2-X
MP98	MP98-3-X

21 CFR Part 11 compliance is available only when PiLAB Software is ordered along with MP98-1-X. Standalone operation and other variants are not 21 CFR Part 11 compliance.

NOTE: For regulated environments requiring 21 CFR Part 11 compliance , MP98-1-X + PiLAB Software must be ordered together. This combination is mandatory to enable compliance-related features
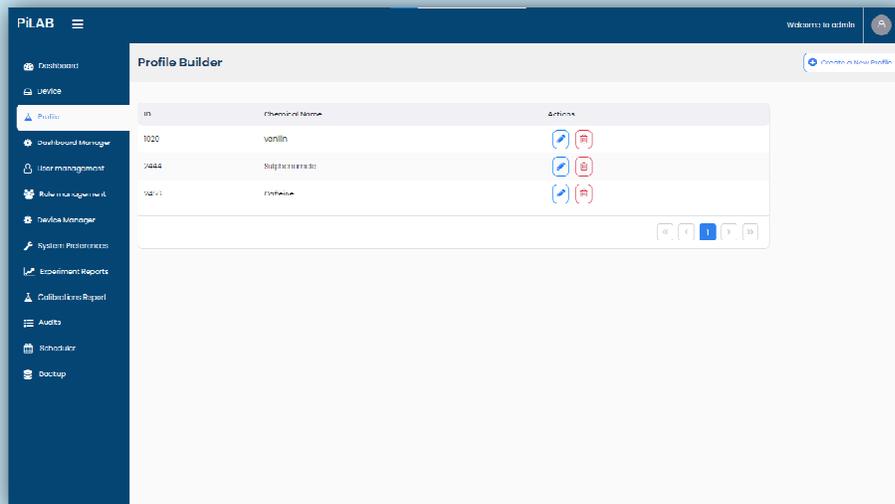
FEATURES OF PiLAB

- **Web-Based Software** – No client installation required. Access PiLAB securely from any PC using a Chrome browser.
- **21 CFR Part 11 Ready** – Supports electronic records, audit trails, and electronic signatures for   regulated   labs.
- **Real-Time Monitoring** – Live temperature, communication, and experiment status monitoring.
- **Multi-Instrument Control** – Manage multiple MP98 instruments from a single PiLAB system.
- **Live Color Video Streaming** – Clear visual identification of melting points during experiments.
- **Automatic Report Storage** – Experiment data and reports stored securely in both MP98 and PiLAB.
- **Flexible Method Profiles** – Create and modify unlimited analysis profiles for daily lab use.
- **Advanced Data Access** – View and download experiment data, graphs, and videos anytime.
- **Smart Experiment Filters** – Search by date range, batch number, and report authentication   status.
- **Role-Based Access Control** – Unlimited users with roles such as Administrator, Supervisor,   Operator, and custom roles.
- **Electronic Signatures** – Secure report approval with dual authentication.
- **Complete Audit Trails** – Automatic logging of all system activities with user, date, and time.
- **Audit Trail Export** – Easily download audit reports for inspections and compliance audits.
- **Calibration Records Management** – Maintain MP98 calibration details and reports within PiLAB.
- **Automatic & Manual Backups** – Reliable data protection with easy recovery options.
- **Backup Restore Functionality** – Quick system restoration when required.
- **Auto Logout on Idle** – Enhanced system security through automatic session timeout.
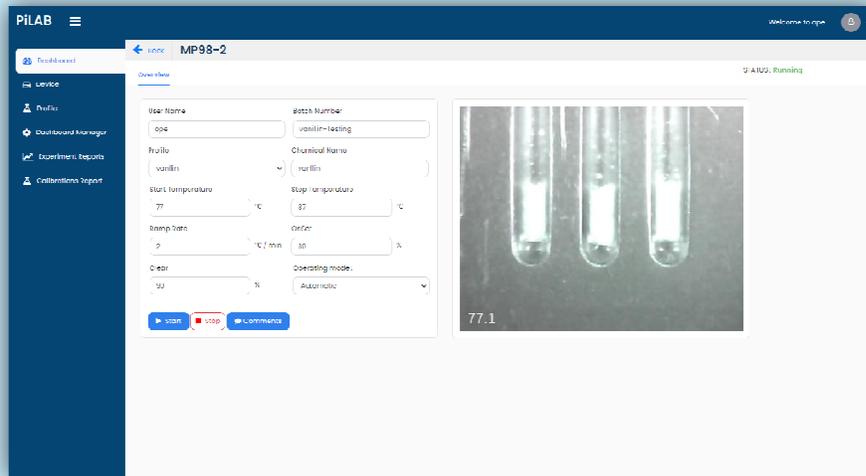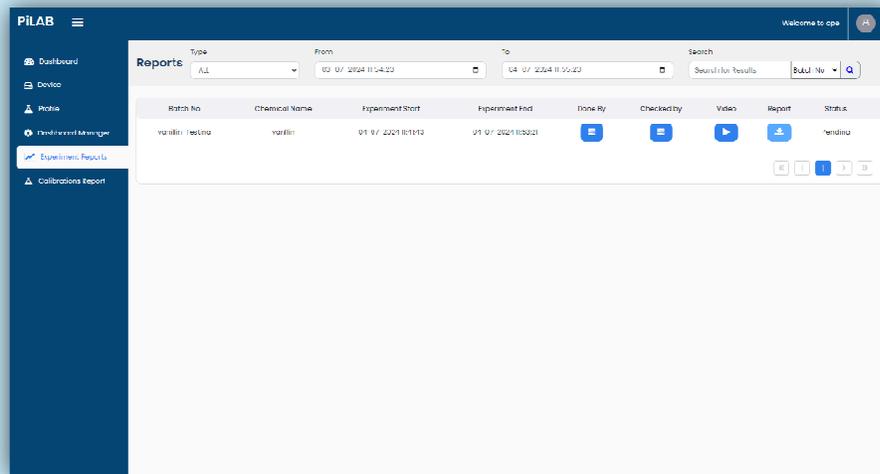
FEATURES OF PiLAB

- Dashboard with Real-Time Monitoring of live Temperature, Communication Status.

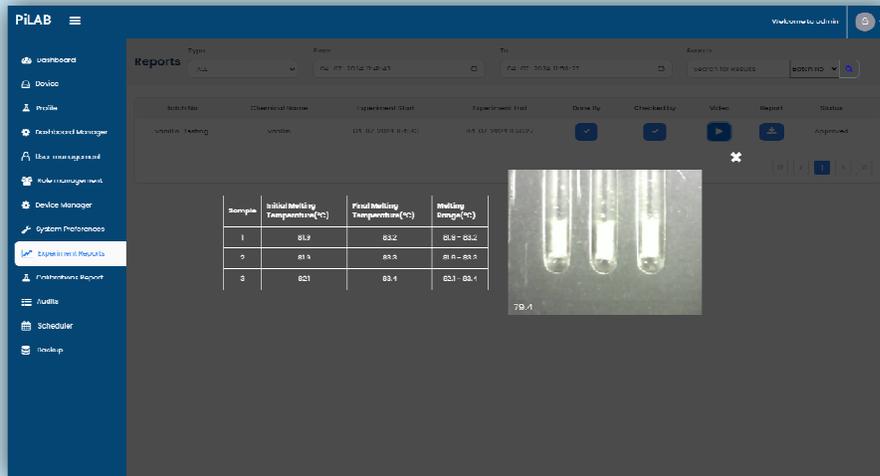- Flexible Method Profiles to Create and modify unlimited Analysis profiles for daily lab use.

- Live Color Video Streaming for Clear visual identification of melting Points during experiments
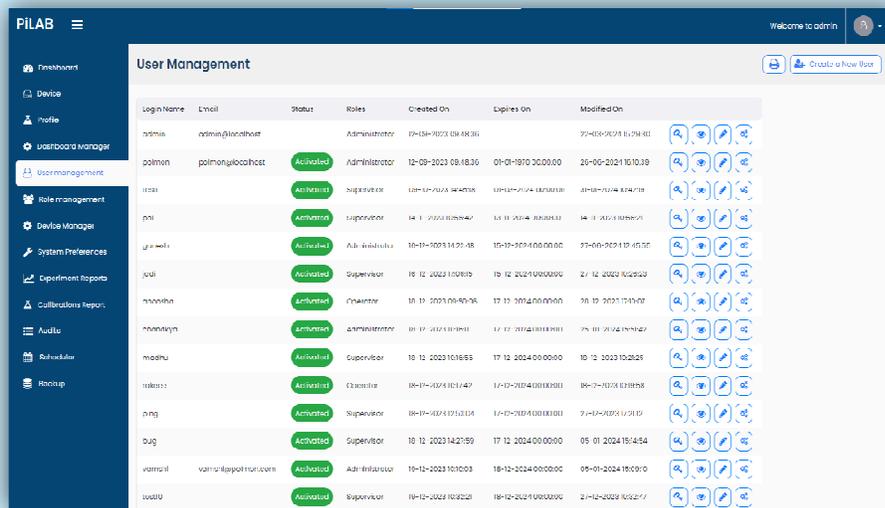

- Automatic Report Storage of Experiment data and reports stored securely in both MP98 and PiLAB.
- Smart Experiment Filters for Search by date range, batch number, and report authentication status.
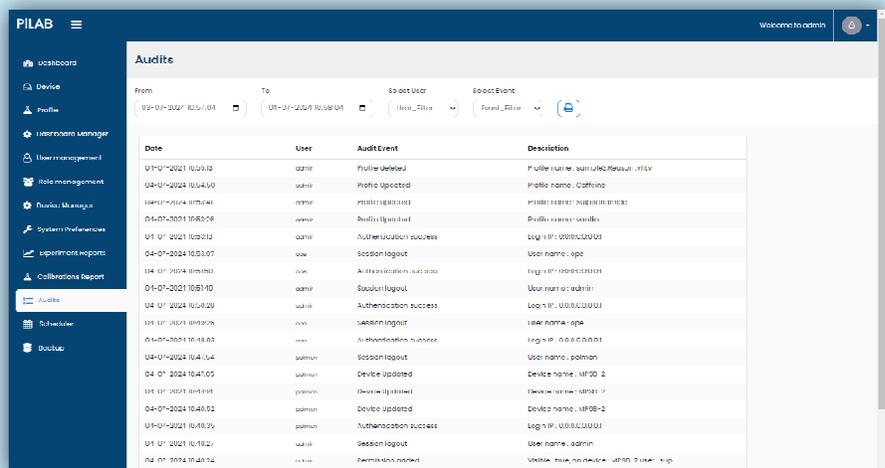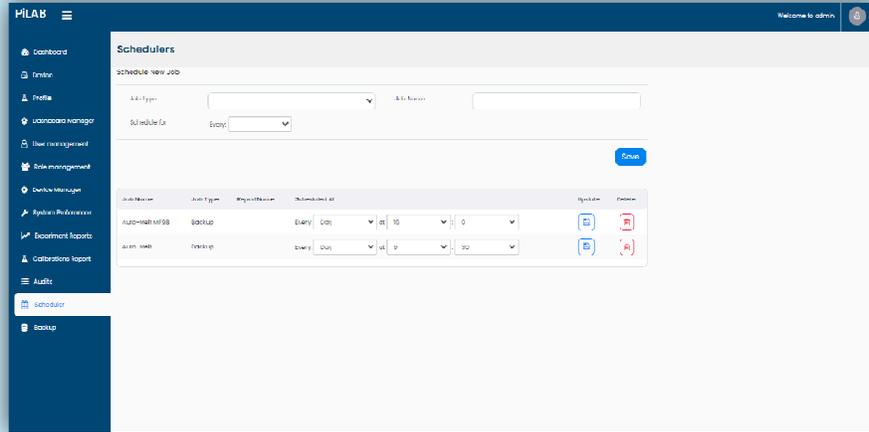

- View and download experiment data, graphs.

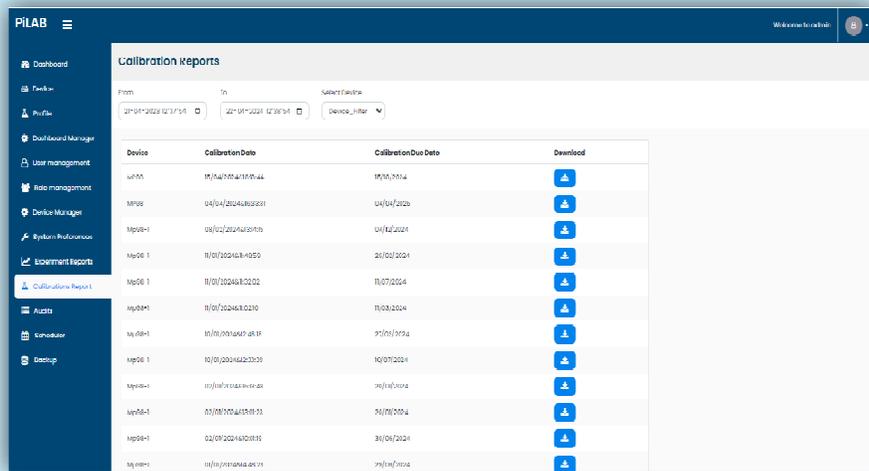• View and download experiment data and videos anytime.

• User Management with Unlimited users supporting roles such as Administrator, Supervisor, Operator and   custom roles.

• Complete Audit Trails with Automatic logging of all system activities with user, date and time.

- Security, Backup & Reliability
- Automatic & Manual Backups with Reliable data protection and easy recovery options.
- Backup Restore Functionality for Quick system restoration when required.

- Maintain MP98 calibration details and reports within PiLAB

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