Video Melting Point Apparatus - Automatic Melting Point Tester - RT-400°C - 4 Capillaries

Model **MSMTP-685SWISS, MSMTP-682SWISS** | Brand **Master Science**









The Master Science Video Melting Point Apparatus determines the melting point of organic crystalline substances automatically or visually, with a 720p HD camera recording each melt for playback. It is widely used for drugs, flavours, dyes and other fine chemicals where melting range is a key identity and purity test.

KEY HIGHLIGHTS

- Evidence for every result
- Four samples at once
- Works with dark samples
- Precise ramp control

AT A GLANCE

Ambient to 400 °C (685); ambient to 360 °C (682) TEMPERATURE RANGE	**±0.3 °C up to 200 °C; ±0.5 °C above 200 °C** ACCURACY

Request a Quotation
Contact us for pricing, configuration options and delivery details.

support@themsci.com
www.themsci.com

Scan to view online

Overview

Four capillaries are heated together under PID and PWM control, and adjustable illumination and detection sensitivity allow reliable results even with dark-coloured samples.

Key Benefits

Evidence for every result
the HD camera records each melt, so results can be reviewed and verified later.

Four samples at once
the Master Science Video Melting Point Apparatus heats four capillaries in one run.

Works with dark samples
adjustable light intensity and sensitivity improve detection.

Regulated-lab ready
user management, electronic signatures and optional audit trail.

Precise ramp control
PID and PWM control give linear heating from 0.1 to 20 °C/min.

Optical testing labs often pair it with the Master Science automatic refractometer.

Technical Specifications

GENERAL

General	Specifications of the two Master Science Video Melting Point Apparatus models:
Brand	Master Science
Model Number	MSMTP-685SWISS, MSMTP-682SWISS
SKU	MSMTP-685SWISS, MSMTP-682SWISS
Models	MSMTP-685SWISS, MSMTP-682SWISS
Temperature Range	**Ambient to 400 °C (685); ambient to 360 °C (682)**
Measurement Mode	Automatic or visual with HD video capture and playback
Stored Methods	200 (685); 150 (682)
Users	200 (685); 150 (682)
Audit Trail	Optional; electronic signature included
Resolution	0.01 °C
Heating Rate	0.1 to 20 °C/min
Accuracy	**±0.3 °C up to 200 °C; ±0.5 °C above 200 °C**
Repeatability	0.3 °C (at 1.0 °C/min)
Heating Rate Error	±10 %
Capillaries	4 per run
Operating System	Android
Power Supply	100 to 240 V, 50/60 Hz, 150 W

DIMENSIONS & WEIGHT

Capillary Size	OD 1.4 mm, ID 1.0 mm, length 90 mm
Sample Height	3 mm
Package Size	495 × 493 × 350 mm
Gross Weight	5 kg

DISPLAY & DATA

Storage	128 GB (685); 64 GB (682)
Display	10.1-inch capacitive touchscreen
Curve Storage	40,000 groups (685); 20,000 groups (682)
Interfaces	RS232, 3 × USB, RJ-45, Wi-Fi
Data integrity audits	audit trail and signatures are supported.

COMMON LABORATORY PROBLEMS AND HOW THIS INSTRUMENT HELPS

Common Laboratory Problems and How This Instrument Helps	How the Master Science Video Melting Point Apparatus helps with melting point testing:
Subjective visual endpoints	automatic detection with video proof removes doubt.
Low throughput	four capillaries are tested together.
Dark samples hard to see	adjustable lighting improves contrast.
Results stored on paper	digital storage and network output keep records.

Applications

The Master Science Video Melting Point Apparatus is used for: Pharmaceutical identity and purity testing Flavour and fragrance compounds Dyes and pigments Fine and organic chemicals University and research labs

Detection

- 720p HD camera
- Automatic and visual modes
- Video playback of each melt

Heating

- PID and PWM temperature control
- 0.1 to 20 °C/min linear heating
- Four capillary positions

Data

- 10.1-inch Android touchscreen
- Large storage for methods and curves
- USB, RS232, Ethernet and Wi-Fi

Optional Accessories

- Audit trail software