

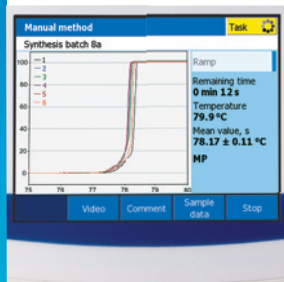
One Click™ Melting Point Determination

Simply to the Point



One Click™ user interface

The large color VGA touch screen with the One Click™ user interface is quick to learn and "easy-to-operate". 12 dedicated shortcut keys can be put on the home screen to start specific routine tasks.



Unmatched measurement principle

Automatic measurement of transmission and visual camera observation guarantee you can trust the melting points and melting ranges you determine. You can observe the intensity curve anytime you like – during the measurement or while you review results.



Increased efficiency

Rapid sample preparation using the innovative sample preparation tool, simultaneous measurement of up to four samples, quick start with One Click™, and short heating and cooling times allow you to perform more analyses in a shorter period of time.

Manual method Task

Urea mixed melting point

				Ramp Remaining time 5 s Temperature 139.9 °C
132.5	132.5	132.5	132.5	MR [°C] Start of melting [°C] End of melting
133.1	133.3	133.2	133.1	

Graphic Comment Sample data Stop

Video recorded

Never miss a melting point! Visual data is not lost in unattended measurements. The high-resolution videos can be conveniently replayed on the instrument anytime you like. This allows you to study interesting details and check unexpected results.



MP50 Melting Point System

The MP 50 is a flexible and powerful instrument for the manual or automatic determination of melting points and melting ranges of all types of samples up to 300 °C.

- Color touch screen with One Click™ user interface
- Simultaneous determination of up to four samples
- Video recording and convenient playback on the instrument
- Conformity with current standards: Ph. Eur., USP, and others
- IQ/OQ available: supports compliance with internal and external guidelines and official regulations
- Printout on the USB-P25 compact paper roll printer for secure and GLP-compliant paper recording

MP50 Functionality Overview

Application	Automatic melting point and melting range determination	•
	Visual camera observation in reflection and transmission measurement	•
One Click™	Home screen with shortcuts	•
	Number of shortcuts	12
Hot Plug & Play	USB-P25 compact paper roll printer / USB barcode reader	•
	USB memory stick for database import and export	•
User identification	Number of users	30
	Manual methods	•
	Number of capillaries	4
Methods and results	Automatic detection of empty sample positions	•
	Data in online screen: analysis comment, live video, status, temperature, remaining time, mean value, standard deviation, operation modus, results	•
	Intensity curve in online screen: intensity in % over temperature	•
	Data in measured value table: capillary number, result (start and end of melting or melting point), status (OK, empty or excluded)	•
	Statistics of up to 4 capillaries incl. mean value, standard deviation, min., max.	•
	Possibility to exclude capillaries from statistics	•
	Stored results (kept at switch-off)	10
	Magnification	6.5 times
Video	Run time in minutes (kept at switch-off)	30
	Replay on instrument (with intensity curve, fast, slow)	•
Calibration & Adjustment	Fully automatic optics adjustment (position and brightness)	•
	One- and two-point calibration, automatic calculation of adjustment parameters	•
Temperature units	°C, °F, K	•
Languages	User interface and printouts in English and German	•
Communication	USB type 1 (printer, memory stick, barcode reader)	3
	European Pharmacopeia (Ph. Eur.) 2.2.60	•
Standards complied with	United States Pharmacopeia (USP) <741>	•
	Japanese Industry Standard (JIS) K 0064	•
	ASTM D1519: "Standard Test method for Rubber Chemicals - Melting Range"	•
	ISO 3146: "Plastics - Determination of melting behaviour of semi-crystalline polymers"	•

MP50 Technical Specifications

Temperatures	Measurement range	ambient...300 °C
	Heating rate	0.1 - 20 °C/min
	Resolution	0.1 °C
	Heating time (50 °C to 300 °C)	2:30 Min.
	Cooling time (300 °C to 50 °C)	4:30 Min.
Environment	Ambient temperature	+10...+35 °C
	Atmospheric humidity	max. 80% at 31 °C
Dimensions	Width x depth x height / weight	180 x 350 x 190 mm / 4 kg
	Capillaries	< 1.8 mm o.d.
Electrical supply	Voltage / power	100 - 240 V, 50 - 60 Hz / 120 W
Control and display	Touch screen	VGA 5.7" color TFT, 640 x 480 pixel
Application*	Accuracy 30 °C to 200 °C / 200 °C to 300 °C	+/- 0.2 °C / +/- 0.5 °C

* depends on the environment and handling



Complete System

The instrument can be enhanced to a complete system by adding several useful accessories. Certified reference standards, the innovative sample preparation tool or the fully equipped MP accessories box simplify reliable calibration and reproducible sample preparation. The optionally available USB-P25 compact printer prints out GLP-compliant protocols on a paper roll. IQ/OQ is also available to help you comply with internal and external standards. On request, a METTLER TOLEDO service engineer will be pleased to assist you with instrument qualification.



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



UK Office

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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.