

Melting point apparatus, B-540 and B-545

61



The Büchi B-540 and B-545 are very compact units for the precise determination of melting points, melting ranges and boiling points.

Up to three melting point or two boiling point samples can be determined at the same time. The more advanced B-545 also permits automatic determination of melting points, even with coloured samples, thus eliminating the need for observation by the operator. Boiling point determinations may be made with both instruments.

The capillary tube in which the determination is carried out is easily observed through a large magnifying lens lit by a halogen lamp. Data is displayed on the front of the instrument via a green, backlit LCD panel.

Determinations may be carried out in the range ambient to 400°C. An integral fan rapidly cools the apparatus ready for the next determination. Start and Finish temperatures together with a choice of nine different heating ramp rates, including the 3°C/min rate required by the American Pharmacopoeia, may be programmed into the unit and stored in memory if required. The instruments' memories can each store up to 10 different methods. Data from both instruments, together with profiles of the melting process, may be output to a printer. Data may now also be exported directly into a Microsoft® Excel® spreadsheet (v5.0 or v7.0 only) on a PC via the optional software listed in the accessories section.

Instruments are supplied with a pack each of melting point capillaries, boiling point tubes and boiling point capillaries. The B-545 is also supplied with a sample block. Certificates of calibration are also available, please enquire.

Comply with Pharmacopoeia methodologies: Ph. Eur.ii, Helv. V11, DAB 10.

Technical Specification - Specific

	MFB-420-010H	MFB-420-030B
Model No	B-540	B-545
Modes of operation	Visual (melting point) Visual (boiling point)	Automatic and visual (melting point) Visual (boiling point)

Technical Specification - General

No. of samples	3 simultaneously (melting point) 2 simultaneously (boiling point)
Temperature range, °C	Ambient to 400
Resolution, °C	0.1
Temperature accuracy, °C	±0.3 (up to 100°C) ±0.5 (up to 250°C) ±0.8 (up to 400°C)
Ramp rate	0.1, 0.2, 0.5, 1.2, 3, 5, 10, 20 (°C/min, selectable)
Heating time, min	7 (approx., 50°C to 350°C)
Cooling time, 350 to 50, °C	10min
Dimensions [w x d x h], mm	170 x 210 x 340
Mass, kg	5.4
Electrical supply	230V, 50/60Hz

Catalogue No	Description
MFB-420-010H	Melting point apparatus, B-540
MFB-420-030B	Automatic melting point apparatus, B-545

IQ/OQ options

Catalogue No	Description
MFB-999-050N	Additional IQ/OQ package for B-545

Accessories

Catalogue No	Description	Pack qty
MFB-420-510K	PC keyboard for data entry	1
MFB-420-520H	Sample block, 12 place, to hold capillary tubes	1
MFB-420-530E	Software to permit data transfer to a PC, requires either MFB-420-540B or MFB-420-550V, and MFB-420-560S	1
MFB-420-540B	EPROM upgrade for MFB-420-010H to allow export of data to a PC	1
MFB-420-560S	Interface cable for PC	1
MFB-414-060V	Melting point capillaries	100
MFB-414-070S	Boiling point capillaries	100
MFB-420-600J	Set of Calibration Standards comprising 1g vanilla, 1g phenacetin, 1g caffeine, with certificate of analysis	1

