



CERTOMAT[®] RM
With patented, adjustable
mass compensation

CERTOMAT® RM

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The CERTOMAT® RM is regarded as the most powerful shaker worldwide for laboratory applications. Its patented, adjustable mass compensation allows shaking of maximum loads at high speed without the risk of uneven running or increased wear.

The CERTOMAT® RM is available with shaking amplitudes of 25 mm or 50 mm. The powerful and robust drive system consisting of brushless motor, triple-eccentric drive and Poly-V-drive belt stands for quiet runs even at high load. Shaking speed and running time are set by means of a key pad and shown on the LCD display.

Shaking speed can be recorded externally through an analogue out. The integrated memory function re-establishes the last set-point after a power failure. The visual alarm alerts the user of a malfunction. The unit is manufactured in accordance with current EC directives and standards.

The CERTOMAT® RM is designed for use of a wide variety of accessories, including clamps for Erlenmeyer and Fernbach flasks with a capacity between 25 ml and 5 L, racks for test tubes and centrifuge tubes and universal mounting systems for odd-shaped vessels. For fixation of light objects such as microtiter plates during shaking, sticky tape can be used as an alternative.

Applications include cultivation of micro-organisms in shaking flasks at room temperature and mixing of liquids or extraction of components during phase separation. For growth of cells in a temperature-controlled environment the CERTOMAT® RM can be operated in combination with the incubation hoods CERTOMAT® H and CERTOMAT® HK.

Benefits

Adjustable mass compensation for high performance with large loads

Safe and easy tray fixation

25 mm or 50 mm orbit

Speed 40–400 rpm

Digital setting and reading of time and speed

Analog out for shaker speed

Memory function

Complete range of CERTOMAT® accessories can be used

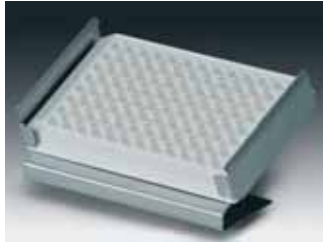
Can be combined with incubation hoods CERTOMAT® H/HK



Accessories



Reference	Description
	Tray type E (420×420 mm) equipped with stainless steel clamps for Erlenmeyer flasks
BBI-885 3533	39 clamps for flasks 100 ml
BBI-885 3568	20 clamps for flasks 250 ml
BBI-885 3584	14 clamps for flasks 500 ml
BBI-885 3606	9 clamps for flasks 1,000 ml
	Tray type E (420×420 mm) equipped with plastic clamps for Erlenmeyer flasks
BBI-885 3688	39 clamps for flasks 100 ml
BBI-885 3666	19 clamps for flasks 250 ml
BBI-885 3677	14 clamps for flasks 500 ml
	Tray type F (800×420 mm) equipped with stainless steel clamps for Erlenmeyer flasks
BBI-885 3738	74 clamps for flasks 100 ml
BBI-885 3762	40 clamps for flasks 250 ml
BBI-885 3789	26 clamps for flasks 500 ml
BBI-885 3800	15 clamps for flasks 1,000 ml
	Universal tray to be completed with clamps, racks or mounting system
BBI-885 3002	Type EU (420×420 mm)
BBI-885 3037	Type FU (800×420 mm)
	Stainless steel clamps for Erlenmeyer and Fernbach flasks (maximum number of clamps for tray type EU/type FU)
BBI-885 4505	for flasks 25 ml (max. 49/98)
BBI-885 4513	for flasks 50 ml (max. 48/96)
BBI-885 4521	for flasks 100 ml (max. 24/48)
BBI-885 4556	for flasks 250 ml (max. 17/39)
BBI-885 4572	for flasks 500 ml (max. 12/26)
BBI-885 4599	for flasks 1,000 ml (max. 8/17)
BBI-885 4610	for flasks 2,000 ml (max. 4/9)
BBI-885 4629	for flasks 3,000 ml (max. 4/8)
BBI-885 4637	for flasks 5,000 ml (max. 2/6)
BBI-885 4564	for Fernbach flasks 450 ml (max. 8/15)
BBI-885 4600	for Fernbach flasks 1,800 ml (max. 1/6)
BBI-885 4640	for Fernbach flasks 2,800 ml (max. 1/6)
	Plastic clamps reinforced with glass fibre (maximum number of clamps for tray type EU/type FU)
BBI-885 4700	for flasks 100 ml (max. 24/48)
BBI-885 4711	for flasks 250 ml (max. 18/39)
BBI-885 4722	for flasks 500 ml (max. 12/26)
BBI-885 4733	for flasks 1,000 ml (max. 8/17)
	Hinged racks for test tubes (4 racks max. on tray EU, 8 racks max. on tray FU)
BBI-885 3134	for 64 tubes Ø 14 mm
BBI-885 3142	for 42 tubes Ø 16 mm
BBI-885 3150	for 36 tubes Ø 18 mm
BBI-885 3169	for 33 tubes Ø 20 mm
BBI-885 3185	for 20 tubes Ø 25 mm
BBI-885 3177	for 16 tubes Ø 30 mm
	Hinged racks for centrifugation tubes (4 racks max. on tray EU, 8 racks max. on tray FU)
BBI-885 3088	for 42 tubes Ø 16 mm
BBI-885 3096	for 36 tubes Ø 18 mm
BBI-885 3193	for 33 tubes Ø 20 mm
BBI-885 3240	for 16 tubes Ø 30 mm



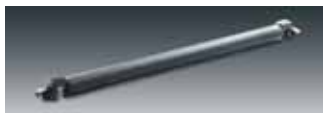
Reference	Description
BBI-885 0321	Holders for microtiter plates, stainless steel for 1 standard 96-well plate or deepwell plate standard plates: max. 12 holders on EU tray, 21 holders on FU tray deepwell plates: max. 9 holders on EU tray, 18 holders on FU tray



BBI-886 4497	Sticky tape for universal trays Standard, Width 30 mm, roll of 50 m
BBI-886 0416	Premium, Width 30 mm, roll of 10 m, for repeated use



BBI-886 4470	Anti-skid layer (not shown) 380 x 450 mm, for individual cut
BBI-885 4238	Universal mounting system Basic element type B-2 for tray EU
BBI-885 4246	Basic element B-3 for tray FU
BBI-885 4254	Clamping rod, type U for mounting systems B-2 and B-3



BBI-886 1005	Shaking flasks DURAN, Erlenmeyer type, 3 baffles at 120°, straight rim Erlenmeyer flasks 300 ml, pack of 10
BBI-886 1013	Erlenmeyer flasks 500 ml, pack of 10
BBI-886 1021	Erlenmeyer flasks 1,000 ml, pack of 10
BBI-886 1022	Erlenmeyer flasks 2,000 ml, pack of 10



BBI-886 1064	Shaking flasks, DURAN, Erlenmeyer type, 3 baffles at 120°, straight rim, connector GL 14 Erlenmeyer flasks 300 ml, pack of 10
BBI-886 1072	Erlenmeyer flasks 500 ml, pack of 10
BBI-886 1080	Erlenmeyer flasks 1,000 ml, pack of 10



BBI-886 1099	Caps for Erlenmeyer flasks, straight rim Cap Aluminium, pack of 10
BBI-886 1102	Cap Stainless steel, pack of 10



BBI-886 0998	Shaking flasks, DURAN, Erlenmeyer type, 3 baffles at 120°, narrow neck for plug Erlenmeyer flasks 500 ml, pack of 10
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Ordering Information and Technical Specifications

Ordering Information

CERTOMAT® RM version with 25 mm orbit:		
230 V/50 Hz	BBI-886 2320	CERTOMAT® RM/25 mm
115 V/60 Hz	BBI-886 2338	
CERTOMAT® RM version with 50 mm orbit:		
230 V/50 Hz	BBI-886 2427	CERTOMAT® RM/50 mm
115 V/60 Hz	BBI-886 2435	

Technical specifications

Mechanical data	Dimensions	W × H × D = 511 × 160 × 545 mm
	Weight (without tray)	46 kg
	Housing	Steel construction
	Drive mechanism	Brushless motor, triple eccentric drive, with adjustable mass compensation
	Trays, type/size	Type E/EU (420 × 420 mm) Type F/FU (800 × 420 mm)
	Tray fixation	Simple snap mechanism
	Max. load Protection	>20kg, mass compensation adjustable according to load IP21
Electrical data	Connection	Class I cold socket, separate cable approx. 3 m
	Protection class	I
	Line voltage	230 V / 50 Hz or 115 V / 60 Hz
	Amperage	0,8 A at 230 V, 1,6 A at 115 V
	Fuses	2 x T1 A at 230 V, 2 x T2 A at 115 V
	Interference	According to DIN EN 55022 and DIN EN 61000
Operating data	Mode of shaking	Orbital, Ø 25 mm or 50 mm, according to version
	Shaking speed	40 to 400 U/min
	Accuracy	max. ±1% of final value
	Setting / display	Alphanumeric key pad, LCD
	Timing	0:01 to 98:59 hours; continuous action at 99:00 hours
	Memory function	Restart after power failure
	Alarms	visual
	Ambient temperatures Humidity	+10°C to +60 °C Avoid extreme humidity
Data output	Analogue	For speed, 9- pin SUB-D socket, 0 to 10 V or 0 to 20 mA resp. 4 to 20 mA (modification by technical service)

All instruments are delivered without tray and other accessories.

For growing cells or mixing liquids a tray is needed together with additional accessories to hold shaking flasks, separation funnels or tubes.

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