Microliter centrifuges

MIKRO 2.0 | 2.0 R

Compact, precise, easy to control

The MIKRO 2.0 | 2.0 R combines performance and ease of use in a compact design. The combination of push-turn control and a high-resolution LCD display facilitates quick and easy operation. Thanks to new features such as the quick-change rotor system, the quick-release lid lock and near-field communication (NFC) technology, it speeds up work processes and ensures greater efficiency. With a maximum relative centrifugal force (RCF) of 25,212 and, in their cooled versions, a temperature range of -20 to +40 °C, the MIKRO 2.0 and MIKRO 2.0 R offer maximum performance combined with maximum flexibility.

Highlights

- max. RPM: 16,100 min $^{-1}$
- max. RCF: 25,212
- max. capacity: 24 x 2.0 ml / 12 x 5 ml
- 5 rotors to choose from
- As General Purpose Device or compliant with the In Vitro Diagnostic Regulation (EU) 2017/746
- Easy to use thanks to 3.5 inch LCD display and push-turn control including display of all relevant parameters, program menu, error display
- Tool-free quick-change rotor system
- Bio-tight quick-release rotor lid lock with safety catch to prevent unintentional release of the lid when carrying the rotor
- Automatic rotor detection in standstill conditions
- Cycle count detection in the rotor using NFC technology, independent of the centrifuge
- 99 program memory locations
- 10 individual start and 11 stop levels
- Model 2.0 R adjustable from -20 to +40 °C with intelligent pre-cooling function lasting 6 minutes (at room temperature 22 °C)

Features

- Metal housing and cover
- Sight glass in the lid
- Motorized lid lock
- Lid drop protection
- Emergency release
- Stainless steel basket
- Extended voltage range power supply unit
- Durable synchronous motor
- Unbalance monitoring and shutdown
- "Quick Spin button" for short-duration centrifugation
- Display in °C and °F possible
- Natural refrigerant (R290)
- Display stand-by mode
- User interface available in 26 languages
- Shortest start-up and stopping times thanks to synchronous motor
- Automatic centrifugation start after lid closure or automatic lid opening after centrifugation run complete (adjustable)

Technical data

	MIKRO 2.0 non-refrigerated	**MIKRO 2.0R** refrigerated
voltage *)	100- 240 V 1 ~	100- 240 V 1 ~
frequency	50 – 60 Hz	50 – 60 Hz
consumption	270 VA	420 VA
emission, immunity	EN/IEC 61326-1, Class B	EN/IEC 61326-1, Class B
max. capacity	24 x 2,0 ml / 12 x 5 ml	24 x 2,0 ml / 12 x 5 ml
max. RPM	16.100 min^{-1}	16.100 min^{-1}
max. RCF	25.212	25.212
running time	99 h, 59 min, 59 se, continuous run, short cycle mode (impulse button)	99 h, 59 min, 59 se, continuous run, short cycle mode (impulse button)
dimesions (W x D x H)	240 x 389 x 225 mm	240 x 538 x 250 mm
weight	approx. 18 kg	approx. 30 kg
noise level	≤ 57 dB (A) with rotor 2414	≤ 57 dB (A) with rotor 2414
temperature control, infinitely variable	-	from -20 to +40 °C
Cat. No. – IVDR	**2404**	**2406**
Cat. No. – General Purpose (GP)	**2440**	**2460**

Available rotors

ANGLE ROTORS		angle	max. RPM	max. capacity	Cat. No.	page
	angle rotor, 24-place	45°	16,100 min^{-1}	24 x 2.0 ml	**2414**	3
	angle rotor, 24-place for spin column kits	45°	14,600 min^{-1}	24 x spin columns	**2415**	3
	angle rotor, 20-place for cryo tubes	45°	14,600 min^{-1}	20 x cryo tubes	**2419**	4
	angle rotor, 12-place	45°	14,900 min^{-1}	12 x 5 ml	**2413**	4
	angle rotor, 8-place for PCR strips	45°	15,400 min^{-1}	8 x 8 PCR strips	**1540**	5

Angle rotor, 24-place | 2414

Rotor	
max. RPM I max. RCF	16,100 min^{-1} I 25,212
max. capacity	24 x 2 ml
run up I run down, braked in sec	11 I 11
angle I max. noise level	45° I 57 dB (A)
temperature in °C[1]	+1.2
Cat. No.	**2414**

Lid bioseal [5]	
Cat. No.	**INCLUSIVE**

	microliter tubes						Pediatric
Vessels							8)
capacity in ml	0.2	0.4	0.5	0.8	1.5	2.0	0.5
Ø x L in mm	6x18	6 x 45	8 x 30	8x45	11x38	11x38	10,7x46
max. RCF[2]	25,212	25,212	25,212	25,212	25,212	25,212	25,212
radius in mm	87	87	87	87	87	87	87
Adapter							
boring Ø x L in mm	6 x 40	6 x 40	8 x 40	8 x 40	10.2 x 19.3	11.2x42.6	11.2 x 39
vessels per rotor	24	24	24	24	24	24	12
Cat. No.	**2024**	**2024**	**2023**	**2023**	**2031[7]**	**-**	**0788**

Angle rotor, 24-place | 2415

Rotor	
max. RPM I max. RCF	14,600 min^{-1} I 20,733
max. capacity	24 x 2 ml
run up I run down, braked in sec	9 I 10
angle I max. noise level	45° I 57 dB (A)
temperature in °C[1]	-2.6
Cat. No.	**2415**

Lid bioseal [5]	
Cat. No.	**INCLUSIVE**

	microliter tubes						micro spin columns		Pediatric
Vessels							8)		8)
capacity in ml	0.2	0.4	0.5	0.8	1.5	2.0	0.6	0.8	0.5
Ø x L in mm	6x18	6 x 45	8 x 30	8x45	11x38	11x38	11x50	11x38	10.7x46
max. RCF[2]	20,733	20,733	20,733	20,733	20,733	20,733	20,733	20,733	19,303
radius in mm	85	85	85	85	85	85	85	85	81
Adapter									
boring Ø x L in mm	6 x 40	6 x 40	8 x 40	8 x 40	10.2 x 19.3	11.2x42.6	-	-	11.2 x 39
vessels per rotor	24	24	24	24	24	24	12	24	12
Cat. No.	**2024**	**2024**	**2023**	**2023**	**2031[7]**	**-**	**-**	**-**	**0788**

1) For cooled versions: Lowest temperature achievable with precooling and max. speed.
2) Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers.
5) Tested by the TÜV in conformity with DIN EN 61010, section 2 - 020.
7) For centrifugation at high speeds, we recommend to use conical, phenol-resistant adapters. Cat. No. 2031.
8) Only every second place can be occupied.

Angle rotor, 20-place | 2419

Rotor	
max. RPM I max. RCF	14,600 min^{-1} I 20,018
max. capacity	20 x 1.8 ml
run up I run down, braked in sec	9 I 10
angle I max. noise level	45° I 57 dB (A)
temperature in °C[1]	-3.4
Cat. No.	**2419**

Lid bioseal [5]	
Cat. No.	**INCLUSIVE**

Vessels	cryo tubes	
		
capacity in ml	1.0	1.8
Ø x L in mm	12.5x41	12.5x48
max. RCF [2]	20,018	20,018
radius in mm	84	84

Adapter		
boring Ø x L in mm	-	-
vessels per rotor	20	20
Cat. No.	**-**	**-**

Angle rotor, 8-place | 1540

Rotor	
max. RPM I max. RCF	15,400 min^{-1} I 20,151
max. capacity	8 x 8 PCR strips
run up I run down, braked in sec	9 I 10
angle I max. noise level	45° I 57 dB (A)
temperature in °C[1]	-2.1
Cat. No.	**1540**

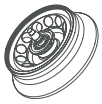
Lid bioseal [5]	
Cat. No.	**INCLUSIVE**

Vessels	PCR tubes/strips	
		
capacity in ml	0,2	0,2
Ø x L in mm	6.2x20	6.2x20x8
max. RCF [2] [14] top row	18,295	20,151
max. RCF [2] [14] bottom row	16,439	18,560
radius in mm [14] top row	69	76
radius in mm [14] bottom row	62	70

Adapter		
boring Ø x L in mm	-	-
vessels per rotor	64	8 x 8
Cat. No.	**-**	**-**

1) For cooled versions: Lowest temperature achievable with precooling and max. speed.
2) Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers.
5) Tested by the TÜV in conformity with DIN EN 61010, section 2 - 020.
14) Radius min. horizontal distance from the rotor axis to the bore tip, radius max. inclined distance from the rotor axis to the outer bore tip.

Angle rotor, 12-place | 2413



Rotor	
max. RPM I max. RCF	14,900 min^{-1} I 21,098
max. capacity	12 x 5 ml
run up I run down, braked in sec	12 I 13
angle I max. noise level	45° I 57 dB (A)
temperature in °C[1]	-1.0
Cat. No.	**2413**

Lid bioseal [5]	
Cat. No.	**INCLUSIVE**

Vessels	microliter-tubes
capacity in ml	5
Ø x L in mm	17 x 59
max. RCF[2]	21,098
radius in mm	85

Adapter	
boring Ø x L in mm	-
vessels per rotor	12
Cat. No.	**-**

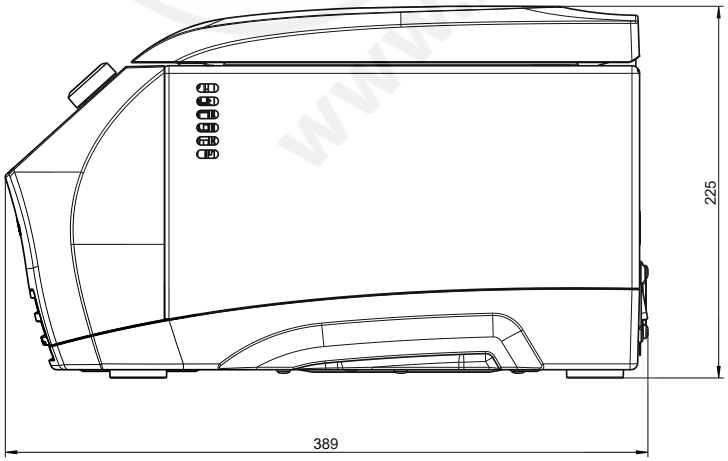
1) For cooled versions: Lowest temperature achievable with precooling and max. speed.
2) Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers.
5) Tested by the TÜV in cor ormity wit ı DIN EN 61010, section 2 - 020.

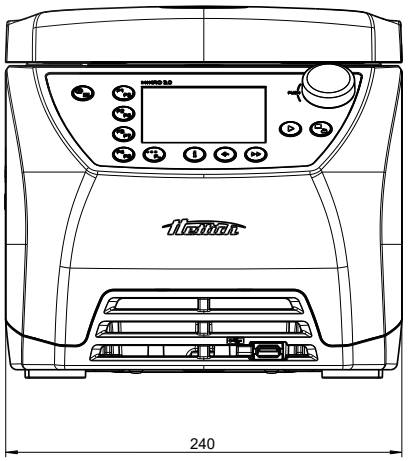
Certifications / Registrations

Product certification: Product registration: Company certifications:

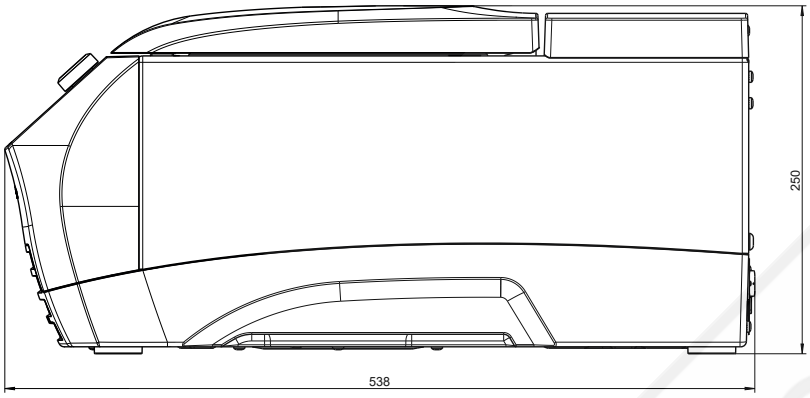
CE TÜV SÜD C US | IVDR CONFORM according to regulation (EU) 2017/746 | GENERAL PURPOSE | TÜV SÜD ISO 9001 | TÜV SÜD ISO 14001 | Certified Quality System ISO 13485 mdc

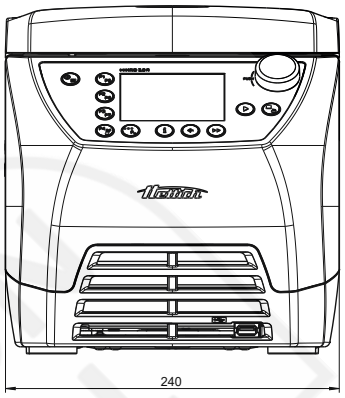
Dimensions – MIKRO 2.0





Dimensions – MIKRO 2.0 R





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