

MicroGen M

## **Microliter Centrifuges**

with and without refrigeration Touchscreen Display

# MicroCen<sup>®</sup> M+MR Easy to use

Catalog No.	Description		Voltage	Phases	Hz
21 14 005	MicroCen M with Touchscreen D.		230 V	1	50/60 Hz
21 14 015	MicroCen MR with Touchscreen D.	refrigerated	230 V	1	50/60 Hz
21 14 006	MicroCen M with Touchscreen D.		110 V	1	60 Hz
21 14 016	MicroCen MR with Touchscreen D.	refrigerated	110 V	1	60 Hz

#### Now with Touchscreen Display with new functions (see page 4)

- microprocessor controlled
- especially for microliter tubes
- maximum capacity: 30 x 2.2 ml or 12x10 ml AOR tubes with screw cap
- ✤ 6 angle rotors, 1 swing-out rotor, 1 microhematocrit rotor
- speed: 300 16,000 rpm / 22,000 rpm, in steps of 100 rpm
- ✤ g-force (RCF): 20,464 x g / 37,878 x g, in steps equivalent to 100 rpm
- Audible signal at end of run and with failure message
- timer: up to 60 min, in 1 min increments, on request up to 999 min.
- HOLD for longer runs / PULSE for short runs
- 9 acceleration and deceleration ramps
- maintenance free, brushless induction drive
- stainless steel chamber with additional inner guard ring
- overspeed detection, imbalance detection and cut-off
- motorized lid lock, automatic lid opening, emergency lid lock release
- LCD display for both current and preset values of speed/g-force, time and temperature (temperature only at refrigerated model MicroCen MR)



#### Swing-out Rotor

Cat No.	Туре	Max. Capacity		Max. Speed	Max. g-Force	Max. Speed	Max. g-Force
21 14 700	TS 24.2 <sup>H</sup>	24 x 2.2 ml	incl. windshield with hermetic sealing lid and 6 carriers for 4 tubes 2.2 ml	12,500 rpm	12,927 x g	14,000 rpm	16,215 x g

#### Angle Rotors ("with hermetic sealing lid)

## MicroCen<sup>®</sup>M MicroCen<sup>®</sup>MR

18,188 x g

16,000 rpm

23,755 x g

MicroCen<sup>®</sup> MR

ferioldia

Herolab

MicroCen M

Cat.-No. Max. g-Force Туре Max. Capacity Angle Max. Speed Max. g-Force Max. Speed 12 PCR strips Reaction 21 14 200 TF 12.8<sup>H</sup> 45° 12,000 rpm 15,777 x g 14,000 rpm 21,475 x g of 8 x 0.2 ml Vials TF 12.2 <sup>H</sup> Reaction 21 14 175 12 x 1.5/2.2 ml 45° 16,000 rpm 20,035 x g 22,000 rpm 37,878 x g Biosafe Vials Reaction 21 14 180 TF 18.2<sup>H</sup> 18 x 1.5/2.2 ml 45° 16,000 rpm 20,464 x g 20,000 rpm 31,975 x g Vials TF 24.2 <sup>H</sup> Reaction 21 14 155 24 x 1.5/2.2 ml 45° 14,000 rpm 17,859 x g 17,000 rpm 26,333 x g Biosafe Vials TF 30.2<sup>H</sup> Reaction 21 14 105 30 x 1.5/2.2 ml 45° 12,000 rpm 15,133 x g 15,000 rpm 23,646 x g Vials Biosafe TF 12.5 <sup>H</sup> Reaction 21 14 125 Biosafe 12 x 5 ml 40° 14,000 rpm 18,406 x g 16,000 rpm 24,041 x g Biosafe \*\* Vials

14,000 rpm



TF 12.10<sup>H</sup>

21 14 251

12 x 10 ml

35°

### Accessories for Rotor TF 12.10

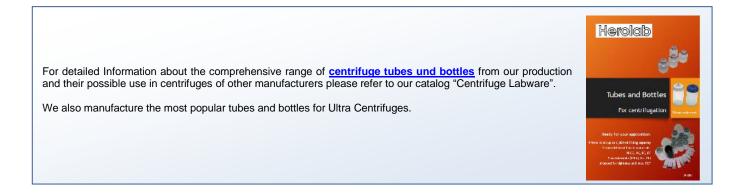
Tubes	10 ml AOR
Tubes Ø x Length (mm)	16 x 80
Material of Tubes + Herolab Cat. No.	PC: <b>25 24 01</b> PPCO: <b>25 24 11</b> PE: <b>25 24 41</b> PF: <b>25 24 51</b>
Necessary Adapter	
Herolab Cat. No.	
Tubes per Adapter / Rotor	- / 12



### Accessories for Rotors TF 12.2, TF 18.2, TF 24.2, TF 30.2 and TS 24.2:

Tubes	2.0-2.2 ml	1.5 ml	0.5-0.7 ml	0.25-0.4 ml	0.2 ml
Tubes Ø x Length (mm)	11/13 x 40 mm	11/13 x 40 mm	8/10 x 28-31 mm	Ø 6 mm	PCR <sup>®</sup> Tubes
Material + Herolab Cat. No.	Tubes not available from Herolab	Tubes not availabl from Herolab			
Necessary Adapters			Ī	Ĩ	Ţ
Herolab Cat. No.			25 50 06	25 50 05	25 50 07
Tubes per Adapter	-	-	1	1	1

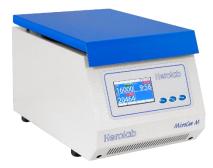




### \* MicroCen Series / Control Panel

	NEW
Specifications	Touchscreen Control Panel
Display	TFT monitor
User Interface	Touchscreen
Languages	German, English
Program Memory	50
Timer	h, m, 99:59
Real Run Time (RRT) display, Timer starts if set rotor speed is attained	✓ (selectable)
"HOLD" provision for longer runs	✓
"SHORT" for short runs	✓
RCF in x g	✓ (in steps of 10 x g)
Speed in rpm	(in steps of 100 rpm)
RPM and RCF displayed	Both permanently shown
Rotor type, max. speed, Acceleration and Deceleration Rates	Permanently shown
Acceleration and Deceleration Rates, individually selectable	9 Ramps in steps of 15 sec. from 0 to 120 sec. in the range of $0 - 1.000$ rpm
Dynamic electric brake system	✓
Fast Brake function with max. deceleration	$\checkmark$
Temperature control range for instruments with refrigeration	-20°C to +40°C in steps of 1°C-, Tmin at max. speed: <4°C
Cooling at standstill	$\checkmark$
Fast cooling program	$\checkmark$
Sample Protection	$\checkmark$
Overheating Protecting	Yes, with MicroCen MR
Automatic speed reduction if liquid density is set higher than 1.2 g/cm <sup>3</sup>	$\checkmark$
Audible signal at end of run or failure message	✓ (selectable)
Lid opening after the run	Selectable
Password protection	✓ (selectable)







Specification	MicroCen <sup>®</sup> M	MicroCen <sup>®</sup> MP
Catalog No. (230V, 50/60 Hz, 1 Phase)	21 14 005	21 14 015
Maximum Capacity	30 x 2.2 ml	30 x 2.2 ml
Maximum Speed	16,000 rpm	22,000 rpm
Max. g-Force/RCF (depending on rotor)	20,464 x g	37,878 x g
Minimum Speed	300 rpm	300 rpm
Rotor Detection	APRI <sup>™</sup> System = Au	tomatic positive rotor identific
Program Memory	50 programs	
Display	TFT-Monitor	
User Interface	Touchscreen Panel	
Preset Time	Touchscreen: h, m, 9	9:59
Preset Speed	From 300 rpm to max	k. speed / HOLD (continuous
Preset g-Force/RCF	Direct setting with To	uchscreen Panel
Drive System	Direct self-centering	drive system with brushless ir
Speed Accuracy	± 2 rpm at 1,000 rpm	/ ± 20 rpm at max. speed
Acceleration Time (depending on rotor)	30 sec. – 1.5 min.	
Deceleration Time (depending on rotor)	40 sec. – 2.5 min.	
Acceleration/Deceleration Rates	9 Ramps in steps of	15 sec. from 0 to 120 sec. in t
Braking System	Dynamic electric brak	ke system – Acoustic Signal a
Temperature Set Range	n.a.	-20°C to +40°C in steps of 1°C
Cooling at Standstill	n.a.	YES
Temperature Control Accuracy	n.a.	±1°C on calibrated rotor
Temperature Control System	n.a.	Bypass System
Overtemperature Protection	n.a.	YES
Refrigeration System	n.a.	CFC-free refrigerant
Safety Features	Stainless steel cham	
Dimensions (W x D x H): in cm (in inches)	33.4 x 49.0 x 31.0 (13.1 x 19.3 x 12.2)	
Shipping Dimensions in cm (in inches)	80.0 x 60.0 x 80.0 (31.5 x 23.6 x 31.5)	
Net Weight	32.0 kg (70.5 lbs.)	49.5 kg (109.1 lbs.)
Gross Weight	46.0 kg (101.4 lbs.)	) 64.0 kg (140.1 lbs.)

## High-Speed Centrifuges with Flexible Axis!

All prices without VAT, ex works. - Herolab reserves the right to change technical specifications and prices without prior notice.

All products built by Herolab carry the CE sign. Herolab has its own quality management system according to ISO 9001.

Herolab reserves the right to change technical specifications without prior notice.



WEEE-Reg. No. DE66734561

Herolab

Herolab GmbH Laborgeräte Ludwig-Wagner-Str. 12 69168 Wiesloch GERMANY Tel.: +49 (0) 6222 - 5802-0 Fax: +49 (0) 6222 - 5802-34 E-Mail: info@herolab.de Internet: www.herolab.de

2024-01