



Herolab

Manufacturer of Life Science Instruments since 1979

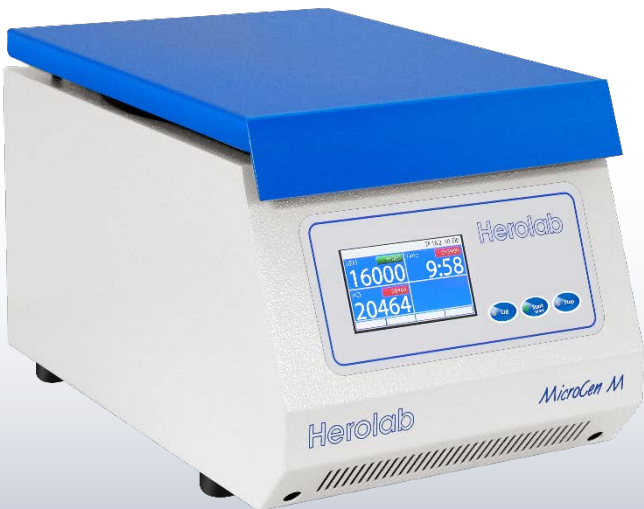
...quiet

...whisper quiet
< 50 dbA

22.000 rpm



MicroGen[®] MR



MicroGen[®] M

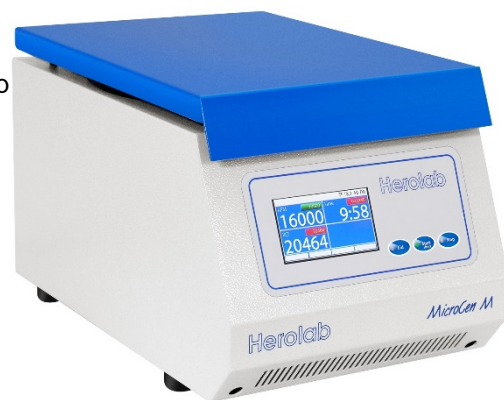


Microliter Centrifuges
with and without refrigeration
Touchscreen Display

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



Cat. No. 21 14 700



Swing-out Rotor

Cat. - No.	Type	Max. Capacity		Max. Speed	Max. g-Force	Max. Speed	Max. g-Force
21 14 700	TS 24.2 ^H	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

MicroGen® M MicroGen® MR

Angle Rotors (^Hwith hermetic sealing lid)

Cat.-No.	Type	Max. Capacity	Angle		Max. Speed	Max. g-Force	Max. Speed	Max. g-Force
21 14 200	TF 12.8 ^H	12 PCR strips of 8 x 0.2 ml	45°	Reaction Vials	12,000 rpm	15,777 x g	14,000 rpm	21,475 x g
21 14 170	TF 12.2 ^H	12 x 1.5/2.2 ml	45°	Reaction Vials	16,000 rpm	20,035 x g	22,000 rpm	37,878 x g
21 14 180	TF 18.2 ^H	18 x 1.5/2.2 ml	45°	Reaction Vials	16,000 rpm	20,464 x g	20,000 rpm	31,975 x g
21 14 151	TF 24.2 ^H Biosafe	24 x 1.5/2.2 ml	45°	Reaction Vials	14,000 rpm	17,859 x g	17,000 rpm	26,333 x g
21 14 105	TF 30.2 ^H Biosafe	30 x 1.5/2.2 ml	45°	Reaction Vials	12,000 rpm	15,133 x g	15,000 rpm	23,646 x g
21 14 175	TF 12.5 ^H Biosafe**	Biosafe 12 x 5 ml	40°	Reaction Vials	14,000 rpm	18,406 x g	16,000 rpm	24,041 x g
21 14 251	TF 12.10 ^H	12 x 10 ml	35°		14,000 rpm	18,188 x g	16,000 rpm	23,755 x g

MicroGen® M MicroGen® MR



Cat.-No. 21 14 175 or
Cat.-No. 21 14 251



Cat. No. 21 14 170



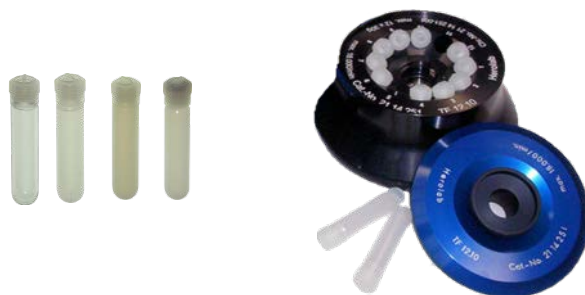
Cat. No. 21 14 100

Cat. No. 21 14 151




Cat. No. 21 14 180

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: 25 24 01 PPCO: 25 24 11 PE: 25 24 41 PF: 25 24 51
Necessary Adapter	---
Herolab Cat. No.	---
Tubes per Adapter / Rotor	- / 12



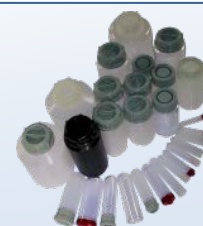
Accessories for Rotors TF 12.2, TF 18.2, TF 24.2, TF 30.2 and TS 24.2:

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® Tubes
Material + Herolab Cat. No.	Tubes not available from Herolab	conical with lid PP: 25 20 50	Tubes not available from Herolab	Tubes not available from Herolab	Tubes not available from Herolab
Necessary Adapters	---	---			
Herolab Cat. No.	---	---	25 50 06	25 50 05	25 50 07
Tubes per Adapter	-	-	1	1	1



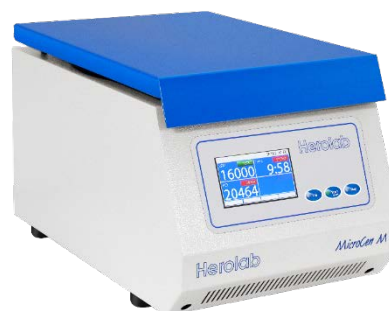
For detailed Information about the comprehensive range of **centrifuge tubes und bottles** from our production and their possible use in centrifuges of other manufacturers please refer to our catalog "Centrifuge Labware".

We also manufacture the most popular tubes and bottles for Ultra Centrifuges.

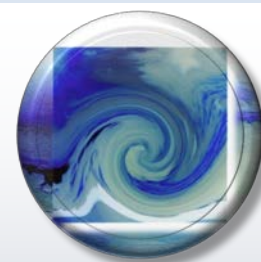


❖ MicroCen Series / Control Panel

Specifications	NEW 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	✓
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	✓
Fast cooling program	✓
Sample Protection	✓
Overheating Protecting	Yes, with MicroCen MR
Automatic speed reduction if liquid density is set higher than 1.2 g/cm ³	✓
Audible signal at end of run or failure message	✓ (selectable)
Lid opening after the run	Selectable
Password protection	✓ (selectable)



Specification	<i>MicroGen® M</i>	<i>MicroGen® MR</i>
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™ System = Automatic positive rotor identification for Herolab rotors	
Program Memory	50 programs	
Display	TFT-Monitor	
User Interface	Touchscreen Panel	
Preset Time	Touchscreen: h, m, 99:59	
Preset Speed	From 300 rpm to max. speed / HOLD (continuous) + SHORT (short runs)	
Preset g-Force/RCF	Direct setting with Touchscreen Panel	
Drive System	Direct self-centering drive system with brushless induction motor	
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 the range of 0 – 1.000 rpm	
Braking System	Dynamic electric brake system – Acoustic Signal at the end of run	
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	Overspeed detection and cut-off Imbalance detection and cut-off Four-point lid fixing Automatic motor driven lid lock with emergency lid lock release Stainless steel chamber with additional inner guard ring Overheating Protection for MicroGen MR	
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)	33.4 x 74.0 x 31.0 (13.1 x 29.1 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)	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!

Herolab

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.



WEEE-Reg. No.
DE66734561

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2023-05

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