



General applications: Centrifuges universal

## Series DIGICEN 21

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# DIGICEN 21

LCD



Pre9101 RT 137  
RPM: 1370  
Time: 00:00

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IVD CE

Centrifuges universal: Series Digicen 21

**Max. capacity:** 4 x 100 ml.

**Max. speed:** 26.480 xg / 16.500 RPM

**Max. volume:** 480 ml.

Universal by design. With a wide range of rotors for microplates, cryotubes, microtubes, tubes from 100 ml., with options as versatile as con 28 x 15 ml. tubes in a swing out rotor and 32 x 15 ml. conical tubes in an angle fixed rotor, and rotors for high speed 85 ml., 80 ml., 50 ml., 30 ml. and 10 ml. tubes. The accessories and components are designed to facilitate cleaning and quick rotor exchange. This equipment can process highly diverse samples, offering the most exhaustive control of the process in its range. Programming by stages allows the user to control each of them, ensuring traceability and repeatability of the process at all times.

The safety devices incorporated, for the sample as well as the user, impede the cycle from beginning if the operation is not carried out in the right way and according to the values entered.

## Features

### LCD screen:

- Shows RPM and RCF, time and acceleration/deceleration (PCBS).
- Speed programming in 10 RPM/ 10 xg steps.
- Timer countdown/up from "0" or at "set RPM/ RCF" for reproducible tests.
- Timer from 5 sec. to 99 min. programmable in 5 sec. steps and hold position.
- PCBS: Progressive controlled acceleration and braking system up to 175 selectable ramps that prevents sample homogenization after separation.
- 16 programmable memories.
- Several acoustic and visual messages warning the user the device situation.

## Easy to use

- Microprocessor controlled.
- Induction motor maintenance free (brushless).
- Rotors list on memory.
- Noise level: below 60 dB.
- Start, stop, open lid and short spin with adjustable speed buttons.
- Option of free/locked adjustment of RPM/ RCF along the run.
- Automatic open lid, programable.
- Low height for easy access.
- Last values remain in memory.
- Automatic rotor recognition. Over-speed protection.

## Safety

- Lid provided with security systems:
  - Automatic lid lock system, motorized with double lock.
  - Emergency lid-lock release.
  - Locking and protection against opening along the run.
  - Lid dropping protection.
  - Port in the lid for calibration and operation checking.
- Unbalance detection and switch off.
- Protection safety ring between the centrifugation chamber and the housing.
- Chamber of centrifugation in stainless steel (easy cleaning).
- Rotors can be removed with the lid closed. Hermetic lids.
- Rotors and adapters autoclavable, easy to install by the user.
- Forced ventilation to reduce temperature increasing.
- Automatic disconnection for energy saving up to 8 h., with deactivation option.

**EU Directives:** 2011/65/EU, 2012/19/EU, 2014/30/EU, 2014/35/EU, 98/79/EC.

**Standards:** EN 61010-1, EN 61010-2-101, EN 61010-2-020, EN 61326-2-6, EN 61326-1.

## Versions

	Dimensions (mm)(w x d x h)			Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)
CE 110	410	520	320	36	220-230	50-60	440
CE 116	410	520	320	36	110-120	50-60	420

Centrifuges universal: Series Digicen 21

# DIGICEN 21R

LCD  



IVD CE

**Max. capacity:** 4 x 100 ml.

**Max. speed:** 26.480 xg / 16.500 RPM

**Max. volume:** 480 ml.

Versatility fused with effectiveness. The centrifuge Digicen 21 R has a wide range of angle fixed rotors, both for low revolutions, with capacity up to 32 tubes of 15 ml./15 ml. conical, and for microtubes, cryotubes and high speed tubes. For the swing out versions, it has rotors for 4 tubes of 100 ml. and up to 28 positions for 15 ml. tubes. The wide range of reducers that accompany each of these rotors give the great versatility that defines the universal centrifuges. Its powerful refrigeration system enables it to maintain the minimum temperature of the chamber below 4°C regardless of the type of rotor and the speed selected.

This particularity, joined to the control of the process of each of the stages and the parameters that control them, gives the user confidence in traceability during the centrifugation cycle.

## Features

### LCD screen:

- Shows RPM and RCF, time, temperature and acceleration/deceleration (PCBS).
- Speed programming in 10 RPM/ 10 xg steps.
- Timer countdown/up from "0" or at "set RPM/ RCF" for reproducible tests.
- Timer from 5 sec. to 99 min. programmable in 5 sec. steps and hold position.
- PCBS: Progressive controlled acceleration and braking system up to 175 selectable ramps that prevents sample homogenization after separation.
- 16 programmable memories.
- Several acoustic and visual messages warning the user the device situation.

## Easy to use

- Microprocessor controlled.
- Induction motor maintenance free (brushless).
- Rotors list on memory.
- Noise level: below 60 dB.
- Start, stop, open lid and short spin with adjustable speed buttons.
- Option of free/locked adjustment of RPM/ RCF along the run.
- Low height for easy access.
- Last values remain in memory.
- Automatic rotor recognition. Over-speed protection.

## Safety

- Lid provided with security systems:
  - Automatic lid lock system, motorized with double lock.
  - Emergency lid-lock release.
  - Locking and protection against opening along the run.
  - Lid dropping protection.
  - Port in the lid for calibration and operation checking.
- Unbalance detection and switch off.
- Protection safety ring between the centrifugation chamber and the housing.
- Chamber of centrifugation in stainless steel (easy cleaning).
- Rotors can be removed with the lid closed. Hermetic lids.
- Rotors and adapters autoclavable, easy to install by the user.
- Automatic disconnection for energy saving up to 8 h.

## Refrigeration

- Remains the refrigeration after centrifugation process.
- Precooling program with rotor spinning and temperature selectable.
- Guarantee 4°C at maximum RPM.
- Temperature range from -20°C (-4°F) to 40°C (104°F) in 1°C steps.
- Temperature sensor inside the chamber.
- Gas R 449A HFO (CFC free).

**EU Directives:** 2011/65/EU, 2012/19/EU, 2014/30/EU, 2014/35/EU, 98/79/EC.

**Regulation n°:** (EC) 1005/2009, (EU) 517/2014.

**Standards:** EN 61010-1, EN 61010-2-101, EN 61010-2-020, EN 61326-2-6, EN 61326-1.

## Versions

	Dimensions (mm)(w x d x h)			Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)	Z max advisable (Hz)
CE 113	590	620	320	65	220-230	50	700	<  0.446
CE 119	590	620	320	65	110-120	60	800	<  0.446



## Accessories

### Centrifuges series Digicen 21

	MICROTUBES														
	RT 267		RT 143		RT 138		RT 150		RT 183		RT 151		RT 253		
<b>ROTOR</b>	SWING OUT		SWING OUT		SWING OUT		SWING OUT		ANGLE FIXED 45°		ANGLE FIXED 45°		ANGLE FIXED 45°		
Max. capacity	28 x 15 ml.		4 x 50 ml.		4 x 100 ml.		6/4/2 microtiter		32 x 0,2 ml.		24 x 1,5-2 ml.		12 x 5 ml		
RPM Max.	5.000		5.300		5.000		4.000		16.500		16.500		16.500		
Radius (mm)	147		145		147		122 (3)		55 (3)		82		87		
RCF Max. (xg)	4.108		4.554		4.109		2.182		16.741		24.959		26.480		
Min. temp. at max. speed (°C)	-6		-7		-7		-9		-6		-4		-2		
SAMPLE VOLUME	Dim (mm) approx.	ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS	
		Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.
100 ml.	ø48 x 100	-	-	-	-	4	RE 446	-	-	-	-	-	-	-	-
85 ml. (hs) / 80 ml. (hs)	ø38 x 112	-	-	-	-	4	RE 380	-	-	-	-	-	-	-	-
80 ml.	ø44 x 100	-	-	-	-	4	RE 338	-	-	-	-	-	-	-	-
50 ml. (hs)	ø29 x 108	-	-	4	RE 342	4	RE 341	-	-	-	-	-	-	-	-
50 ml.	ø34 x 100	-	-	4	RE 445	4	RE 335	-	-	-	-	-	-	-	-
50 ml. conical	ø29 x 117	-	-	4	RE 342	4	RE 341	-	-	-	-	-	-	-	-
30 ml. / 30 ml. (hs)	ø25 x 98	-	-	4	RE 333	4	RE 332	-	-	-	-	-	-	-	-
25 ml. conical	ø29 x 83	-	-	4	RE 596	4	RE 597	-	-	-	-	-	-	-	-
15 ml.	ø16 x 100	28	-	4	RE 329	16	RE 316	-	-	-	-	-	-	-	-
15 ml. conical	ø17 x 122	4	-	4	RE 329	4/8	RE 339/579	-	-	-	-	-	-	-	-
10 ml. (hs)	ø16 x 80	28	-	4	RE 329	16	RE 316	-	-	-	-	-	-	-	-
10 ml.	ø13 x 100	28	RE 516	12	RE 313	20	RE 320	-	-	-	-	-	-	-	-
10 ml. blood sample	ø16 x 107	28	-	4	RE 329	16	RE 316	-	-	-	-	-	-	-	-
7/10 ml. blood sample	ø13 x 107	28	RE 516	4	RE 337	20	RE 320	-	-	-	-	-	-	-	-
5 ml.	ø13 x 75	28	RE 512	12	RE 313	20	RE 320	-	-	-	-	-	-	-	-
5 ml. conical / screw cup	ø17 x 60/ 68	-	-	-	-	-	-	-	-	-	-	-	-	12/6	-
5 ml. blood sample	ø13 x 82	28	RE 512	4	RE 337	20	RE 320	-	-	-	-	-	-	-	-
Microtubes 1,5-2 ml.	ø11 x 42	28	RE 578	12	RE 463	20	RE 408	72	RE 401	-	-	24	-	12	RE 506
Microtubes 0,5-0,6 ml.	ø8 x 30	28	RE 582	12	RE 531	20	RE 519	72	RE 580	-	-	24	RE 305	12	RE 507
Microtubes 0,2-0,4 ml.	ø6 x 45	28	RE 583	12	RE 532	20	RE 473	72	RE 581	32 x 0,2	-	24	RE 304	12	RE 508
Microtiter plates	128x86x15/21/45	-	-	-	-	-	-	6/4/2	-	-	-	-	-	-	-
Cell culture	128x86x22	-	-	-	-	-	-	4	-	-	-	-	-	-	-

(1) This rotor includes hermetic lids.

(2) Allows different configurations depending of the microplates height.

(3) Medium radius.

(4) Available adapters for cryotubes.

(5) Please check tubes features.

(6) Fitting these tubes the rotor can not be closed with the lid.

		HIGH SPEED													
		RT 110		RT 108		RT 266		RT 121		RT 152		RT 153		RT 154	
ROTOR		ANGLE FIXED 35 °		ANGLE FIXED 35 °		ANGLE FIXED 35 °		ANGLE FIXED 45 °		ANGLE FIXED 30 °		ANGLE FIXED 30 °		ANGLE FIXED 28 °	
Max. capacity		24 x 5 ml.		24 x 15 ml.		32 x 15 ml.		6 x 50 ml.		12 x 10ml. Hermet		8 x 30 ml. Hermet		6 x 50 ml. Hermet	
RPM Max.		6.500		5.000		4.200		6.000		15.000		13.500		9.000	
Radius (mm)		113		132/114		149/130		132		78		92		101	
RCF Max. (xg)		5.338		3.689/3.186		2.938/2.563		5.313		19.621		18.746		9.146	
Min. temp. at max. speed (°C)		-4		-6		-5		-4		-5		-1		-4	
SAMPLE VOLUME	Dim (mm) approx.	ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS	
		Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.
100 ml.	ø48 x 100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85 ml. (hs) / 80 ml. (hs)	ø38 x 112	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80 ml.	ø44 x 100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50 ml. (hs)	ø29 x 108	-	-	-	-	-	-	6	RE 365	-	-	-	-	6	RE 536
50 ml.	ø34 x 100	-	-	-	-	-	-	6	RE 447	-	-	-	-	-	-
50 ml. conical	ø29 x 117	-	-	-	-	-	-	6	RE 365	-	-	-	-	6	RE 536
30 ml. / 30 ml. (hs)	ø25 x 98	-	-	-	-	-	-	6	RE 387	-	-	8	-	6	RE 392
25 ml. conical	ø29 x 83	-	-	-	-	-	-	6	RE 598	-	-	-	-	6	RE 617
15 ml.	ø16 x 100	-	-	24	-	32	-	6	RE 361	-	-	8	RE 406	6	RE 394
15 ml. conical	ø17 x 122	-	-	12	-	32	-	6	RE 361	-	-	-	-	6	RE 394 (6)
10 ml. (hs)	ø16 x 80	-	-	24	RE 384	32	RE 529	6	RE 361	12	-	8	RE 391	6	RE 395
10 ml.	ø13 x 100	-	-	24	RE 385	32	RE 518	18	RE 360	-	-	8	RE 407	6	RE 396
10 ml. blood sample	ø16 x 107	-	-	24	-	32	-	6	RE 361	-	-	-	-	6	RE 394
7/10 ml. blood sample	ø13 x 107	-	-	24	RE 385	32	RE 518	6	RE 364	-	-	-	-	6	RE 396
5 ml.	ø13 x 75	24	-	24	RE 306	32	RE 517	18	RE 360	12	RE 389	8	RE 390	6	RE 397
5 ml. conical / screw cup	ø17 x 60/68	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5 ml. blood sample	ø13 x 82	24	-	24	RE 306	32	RE 517	6	RE 364	12	RE 389	8	RE 390	6	RE 397
Microtubes 1,5-2 ml.	ø11 x 42	-	-	24	RE 601	32	RE 602	18	RE 464	-	-	-	-	18	RE 433
Microtubes 0,5-0,6 ml.	ø8 x 30	-	-	24	RE 603	32	RE 604	18	RE 533	-	-	-	-	18	RE 575
Microtubes 0,2-0,4 ml.	ø6 x 45	-	-	24	RE 605	32	RE 606	18	RE 534	-	-	-	-	18	RE 576
Microtiter plates	128x86x15/21/45	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cell culture	128x86x22	-	-	-	-	-	-	-	-	-	-	-	-	-	-

RT 128: Available rotor for capillaries (includes microhaematocrit reader card).



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