



Centrisart® D-16C

Refrigerated All Purpose Benchtop Centrifuge

Advantages

- Optimum Rotors combination – Rotors for Sartorius VivaSpin® filtration units
- Sample protection – “Rapid temp” pre-cooling and reliable sample cooling to 4°C at max. speed
- Smart Control – Setting all run parameters using just one control knob
- Safe – Optional activation of input or program lock
- Volume | Capacity: 4 × 100 ml | 400 ml



Product Description

The benchtop centrifuge D-16C with refrigeration is designed for an average sample capacity and with a maximum speed of 15,300 rpm is well-suited for various molecular biology applications. Swing-out and fixed-angle rotors facilitate centrifugation of volumes between 0.2 ml and 100 ml as well as microplates, PCR-, cell culture-, or diverse types of deep-well plates.

The selection of rotors is particularly adapted to the comprehensive portfolio of specialized Sartorius ultrafiltration units. To prevent dispersion of sensitive samples at the beginning or end of a run, all rotors allow for acceleration or deceleration curves to be adjusted in 10 steps.

The D-16C micro-centrifuge is very easy to use and all relevant parameters can conveniently be set by the use of a single one control knob. For additional safety, an input- and program-lock can be activated to prevent the unauthorized use or manipulation of stored programs. The centrifuge is operated via the splash-proof keypad featuring an integrated LCD display, which is mounted in an ergonomically user friendly angle. With its large storage capacity for 50 programs the micro-centrifuge D-16C provides generous space to permanently save various user specific methods.

Through automatic rotor detection and cycle counting the micro-centrifuge D-16C ensures maximum safety by securely preventing that permitted cycle numbers and speed of the rotors are exceeded. Additionally, reliable cooling of precious samples to 4°C is warranted even at maximum speed. Furthermore, the integrated “Rapid Temp” function facilitates that the rotor and the rotor chamber are pre-cooled to a preset target temperature prior to sample loading. As a result valuable samples remain reliably cooled in the whole process. Optionally the programmed time is counted only after reaching the set speed, so that the different acceleration and deceleration times of the rotors are no longer relevant. Thus, one and the same program can be applied using different rotors while still guaranteeing reproducible results.

Special Features

- Setting run parameters through just one control knob
- Splash-proof keypad with clear display
- Backlit keys with tactile feedback
- Operation with gloves possible
- Automatic conversion of speed and RCF
- Speed 100–15,300 rpm, adjustable in steps of 100 rpm
- Max. (gravitational field) (RCF) 21,460 g, adjustable in increments of $10 \times g$
- Time 10 sec. – 99 min., adjustable in steps of 1 sec., short run, continuous run
- Optional runtime counting after reaching the set speed
- Automatic rotor and imbalance detection
- Cycle counter
- Optional soft start or soft stop adjustable in 10 steps
- Memory for 50 programs
- Optional activation of input or program lock
- Reliable sample cooling to 4°C even at max. rpm
- “Rapid temp” precooling
- Maintenance-free motor
- Motorized lid lock, easy lid opening by pneumatic spring support
- Emergency lid lock release with no need to open the casing to access
- High chemical resistance
- Pleasantly quiet operation

Technical Specifications

Max. speed rpm	15,300
Max. capacity	4 × 100 ml
Max. gravitational field	21,460 g
Min. speed rpm	100, low speeds also possible
Temperature range	- 10°C to + 40°C
Temperature increments	Adjustable in increments of 1°C
Quick cooling	Quick cool program, guaranteed 4°C at max. speed; rotor cooling even possible during downtimes
Coolant	R134A (CFC-free)
Filling amount	225 g
Pressure	23 bar
CO ₂ -equivalent	0.365 t
Display	LCD, 113 × 36 mm, backlit keys
Control panel	Easy, intuitive 1-button operation
Motor	Maintenance-free, brushless drive motor
Lid-lock release	Motorized locked lid, automatic lid-lock release
Lid	Inspection window for independent speed measurement, easy-to-open lid port
Rotor	Rotor detection for fixed angle rotors, swinging rotors
Rotor chamber	Stainless-steel
Imbalance safety mechanism	Automated imbalance control
Timer	10 sec. – 99 min. 59 sec., short run continuous run
Programs	50
Acceleration curves	10
Deceleration curves	10
Rotor safety	Automatic detection, cycle counting of the rotors
Dimensions (W × D × H)	550 × 570 × 310 mm
Height with open lid	705 mm
Weight of Rotor	60 kg
Noise level at max. speed	<65 dB
Power consumption	720 W

Order Information

Order Number	Description
D16C-1EU	Centrisart® D-16C refrigerated centrifuge, 220 – 240V, 50 60 Hz
D16C-1US	Centrisart® D-16C refrigerated centrifuge, 120V, 60 Hz
D16C-1JP	Centrisart® D-16C refrigerated centrifuge, 100V, 50 60 Hz

Accessories

Order Number	Description
YCSR-A9B	Fixed angle rotor for 6 × 50 ml conical culture tubes, incl. hermetically sealing aluminium lid
YCSA-5	Adapter for 1 conical culture tube 15 ml for rotor YCSR-A9B, 1 set = 2 pcs.
YCSR-A4B	Fixed angle rotor for 24 × 1.5 2.0 ml conical reaction tubes, incl. hermetically sealing aluminium lid
YCSA-1	Adapter for 0.25 0.4 ml reaction tubes for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YCSA-2	Adapter for 0.5 0.75 ml reaction tubes \varnothing 7.9/10 × 28/31 mm for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YCSA-4	Adapter for 0.2 ml PCR reaction tubes for rotors YCSR-A2B, YCSR-A4B and YCSR-A6B, 1 set = 2 pcs.
YCSR-S5B	Complete set – Swing-out rotor, 2 place, for microtiter plates, including 2 buckets YCSA-S5B for microtiter plates. Max. plate height 56 mm; max. load per bucket 335 g
YCSR-S1B	Swing-out rotor, 4 place, for bucket YCSB-B9B
YCSB-B9B	Round bucket for adapters YCSA-R0B – YCSA-RDB, sealable with lid YCSM-B9B, 1 set = 2 pcs.
YCSA-R9B	Adapter for YCSB-B9B for 1 conical culture tube 50 ml, 1 set = 2 pcs.
YCSA-R0B	Adapter for YCSB-B9B for 2 conical culture tubes 15 ml, lid max. \varnothing 23 mm, 1 set = 2 pcs.
YCSA-RAB	Adapter for YCSB-B9B for 4 conical reaction tubes 1.5 2.0 ml, max. \varnothing 11 mm, 1 set = 2 pcs.
YCSA-RCB	Adapter for YCSB-B9B for 3 conical reaction tubes 5.0 ml, 1 set = 2 pcs.
YCSA-RBB	Adapter for YCSB-B9B for 1 flat bottom culture tube 30 ml, \varnothing 25/31 × 65 – 95 mm, 1 set = 2 pcs.
YCSA-RDB	Rubber cushion for YCSB-B9B for 100 ml glas tube, 1 set = 2 pcs.
YCSM-B9B	Round polysulfone sealing cap for round bucket YCSB-B9B, clear, 1 set = 2 pcs.
YCST-D16C	Table for centrifuge made of sheet-steel, varnished, with 2 doors and space for accessories, movable on lockable castors, dimensions: w 600, d 550, h 497 mm

Technical Data Rotors

Order Number	Rmax [mm]	Rmin [mm]	rpm	RCF
YCSR-S5B	121	46	3,000	1,218
YCSR-S1B	142	38	5,000	3,969
YCSR-A4B	82	49	15,300	21,460
YCSR-A9B	95	30	12,000	15,294

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