



## Centrisart® G-16C

Refrigerated All Purpose Centrifuge

### Advantages

- Optimum 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
- Volume | Capacity: 4 × 400 ml | 1,600 ml



### Product Description

The benchtop centrifuge Centrisart® G-16 C was especially developed for high throughput applications that require large capacity. The choice of five fixed-angle and two swing-out rotors with different adapters facilitates the centrifugation of virtually all vessel types between 0.2 ml to 400 ml.

The high capacity is perfectly suited for cell harvesting in the field of cell culture or fermentation or for high-throughput applications in molecular biology or protein purification. In addition to providing high flexibility of different rotors and accessories the benchtop centrifuge features maximum speed up to 15,300 rpm and is well-suited for many lab applications.

With its powerful cooling compressor combined with a laminated capacitor the refrigerated centrifuge G-16C ensures fast and reliable cooling of samples at all times. To prevent warming of temperature-sensitive samples the integrated “Rapid Temp” function enables pre-cooling of the rotors and the rotor chamber to desired target temperatures. During centrifugation runs the cooling system of the refrigerated centrifuge G-16C guarantees that precious samples are reliably cooled to 4°C even at maximum speed. As a result valuable samples remain reliably cooled in the whole process. Further protection of the samples is provided by the choice between 10 acceleration and braking curves each that prevent churning up of sensitive sample materials.

Benchtop centrifuge Centrisart® G-16C stands out due to a notable number of safety features. Biosafe lids for swing-out rotors and hermetically sealing lids for fixed-angle rotors are aerosol-tight and effectively prevent the spread of hazardous aerosols. The rotor chamber made of stainless steel and the rotors exhibit high resistance to various chemical substances and can easily be cleaned and decontaminated. In addition, the integrated rotor- and imbalance detection securely preclude exceeding of the permitted maximum rotor speed and acceleration of asymmetrically loaded to a critical speed. The splash-proof user interface can be operated with gloves and allows the setting of all important operation parameters using a single control knob.

## 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 × 400 ml
Max. gravitational field	21,460 g
Min. speed rpm	100
Temperature range	-10 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
Display	LCD, 113 × 36 mm, backlit keys
Coolant	R134A (CFC-free)
Filling amount	385 g
Pressure	23 bar
CO <sub>2</sub> -equivalent	0.551 t
Control panel	Easy, Intuitive 1-button operation
Motor	Maintenance-free, brushless drive motor
Lid-lock release	Electromechanical 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)	630 × 600 × 355 mm
Height with open lid	785 mm
Weight	78 kg
Noise level at max. speed	<57 dB
Power consumption	1,010 W

## Order Information

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

### Accessories

Order Number	Description
YCSR-A5B	Fixed angle rotor for 6 × 50 ml round bottom culture tubes (Ø 28.8 × 107 mm), incl. hermetically sealing aluminium lid
YCSR-A6B	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 Ø 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-A7B	Fixed angle rotor for 4 × 80   85 ml round bottom culture tubes (Ø 38 × 112 mm), incl. hermetically sealing aluminium lid
YCSR-A8B	Fixed angle rotor for 6 × 85 ml round bottom culture tubes (Ø 38 × 112 mm), incl. hermetically sealing aluminium lid
YCSR-A0B	Fixed angle rotor for 6 × 50 ml conical culture tubes, incl. hermetically sealing aluminium lid
YCSR-S6B	Complete set – Swing-out rotor, 2 place, for microtiter plates, including 2 buckets YCSA-S6B for microtiter plates and lids YCSM-B1C. Max. plate height 55 mm; max. load per bucket 290 g
YCSR-S2B	Swing-out rotor, 4 place, for buckets YCSB-B8B
YCSB-B8B	Round bucket for adapters YCSA-C2B – YCSA-C8B, sealable with lid YCSM-B8B (max. tube length 110 mm), 1 set = 2 pcs.
YCSA-C2B	Adapter for YCSB-B8B for 10 conical reaction tubes 5.0 ml, 1 set = 2 pcs.
YCSA-C3B	Adapter for YCSB-B8B for 5 conical culture tubes 15 ml, lid max. Ø 23 mm, 1 set = 2 pcs.
YCSA-C4B	Adapter for YCSB-B8B for 3 conical culture tubes 50 ml, 1 set = 2 pcs.
YCSA-C5B	Adapter for YCSB-B8B for 1 flat bottom bottle 250 ml, max. Ø 61.5 × 90 – 125 mm, 1 set = 2 pcs.
YCSA-C6B	Adapter for YCSB-B8B for 20 conical reaction tubes 1.5   2.0 ml, max. Ø 11 mm, 1 set = 2 pcs.
YCSA-C7B	Adapter for YCSB-B8B for 9 conical culture tubes 15 ml, lid max. Ø 23 mm, 1 set = 2 pcs. (not usable with cap YCSM-B8B)
YCSA-C8B	Adapter for YCSB-B8B for 4 conical culture tubes 50 ml, 1 set = 2 pcs. (not usable with cap YCSM-B8B)
YCSM-B8B	Round polysulfone sealing cap for round bucket YCSB-B8B, biosafe, clear, 1 set = 2 pcs.
YCST-G16C	Table for centrifuge made of sheet-steel, varnished, with 2 doors and space for accessories, movable on lockable castors w 650, d 647, h 497 mm
YCST-G16	Table for centrifuge made of sheet-steel, varnished, with 2 doors and space for accessories, movable on lockable castors w 490, d 684, h 515 mm

## Technical Data Rotors

Order Number	Rmax [mm]	Rmin [mm]	rpm	RCF
YCSR-S2B	172	75	4,500	3,894
YCSR-S6B	133	44	4,200	2,623
YCSR-A5B	84	21	11,000	11,363
YCSR-A6B	82	50	15,300	21,460
YCSR-A7B	91	14	10,000	10,174
YCSR-A8B	98	28	8,000	7,012
YCSR-A0B	93	31	9,500	9,384

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Sartorius Lab Instruments  
GmbH & Co. KG  
Otto-Brenner-Strasse 20  
37079 Goettingen, Germany  
Phone +49.551.308.0  
www.sartorius.com

USA Toll-free +1.800.635.2906  
UK +44.1372.737159  
France +33.1.70.62.50.00  
Italy +39.0362.5557.11  
Spain +34.913.586.095  
Russian Federation +7.812.327.53.27  
Japan +81.3.6478.5200



www.sartorius.com