

## Sigma 4-5L



Benchtop centrifuge



# A top performer for high throughput



**Sigma is a leading international manufacturer of laboratory centrifuges for diverse sectors, including biotechnology, pharmaceutical, medical, and environment analysis. Laboratories, institutes and companies everywhere in the world have been relying on premium Sigma quality – Made in Germany – for more than 40 years. The company stands for innovative products and the development of durable, energy-efficient and especially user-friendly devices.**

Sigma develops centrifuges oriented to the needs of users. Amongst them are top-class standard centrifuges, such as the Sigma 4-5L – a high-performance laboratory centrifuge designed for throughput and capacity. The high torque of the Sigma 4-5L enables especially

short acceleration times and makes laboratory processes efficient and resource-efficient. Also available as an IVD version, this centrifuge is ideal for the medical/clinical domain, in particular for centrifugation of blood specimen tubes.

The Sigma 4-5L is especially sturdy and durable. And that's not all – the centrifuge is very quiet for its speed. As an ambient device, the Sigma 4-5L also features excellent ventilation, which means low heating even with long operating times. Optimised for swing-out rotors, this model is powerful, sturdy, easy to operate, quiet and compact. It accelerates quickly and has everything a centrifuge needs. All this at a very attractive price.

# Impressive performance

## Maximum throughput and easy handling

Small on the outside, big on the inside: in the laboratory the compact, high-throughput Sigma 4-5L scores high with its small footprint. It offers a maximum capacity of 4 x 750 ml in a minimum of space.

The device is very quiet in operation, and at the end of centrifugation the two motorised lid locks are automatically unlocked and the lid is opened by gas springs to a maximum angle of about 85°. This makes cycle completion clearly visible to users, even at a distance. Optimised for swing-out rotors, the Sigma 4-5L features quick, time-saving acceleration and deceleration.

Operation is remarkably easy, with just three buttons and one large knob for all functions on the Spincontrol L controller.

The corrosion-resistant stainless steel bowl is easy to clean. The unique ventilation system of the Sigma 4-5L minimises rotor heating. After running for an hour at the maximum speed of 4,700 rpm, the specimen temperature is 11 °C above room temperature.

## Sigma 4-5L

- High-performance benchtop centrifuge optimised for swing-out rotors, with a maximum speed of 4,700 rpm
- Short acceleration time
- Easy handling with three buttons and one knob
- Compact, space-saving device
- Easy automatic lid opening
- Excellent ventilation, low temperature rise
- Low noise level: 67 dB (A)
- Easily cleaned stainless steel bowl
- Also available as an IVD version compliant with Directive 98/79/EC for in-vitro diagnostic medical devices
- Zero-maintenance motor
- Sturdy components for routine operation
- Manufactured in compliance with EN 61010-2-020







# Rotors and accessories

## Comprehensive options for the laboratory

The Sigma 4-5L is optimised for a four-place swing-out rotor. The maximum capacity of the laboratory centrifuge is 3,000 ml (4 x 750 ml), the maximum RCF is 4,643 x g, and the maximum speed is 4,700 rpm.

The Sigma 4-5L is generally suitable for the separation of constituents of different density in mixtures with a maximum density of 1.2 g/cm<sup>3</sup>. The centrifuge is designed for the medical/clinical sector and is particularly recommended for working with blood collection

tubes. As an IVD labelled laboratory centrifuge, the Sigma 4-5L is intended to be used with human body specimens, including blood and tissue samples, in the context of in vitro diagnostic applications (IVD Directive 98/79/EC).

The accessory Biosafe cover for oval buckets prevents environmental contamination from biological samples. Its effectiveness is confirmed by the accompanying certificate. The cover can be locked quickly and easily with a toggle latch, even with gloved hands.







# The name is safety

## Brilliantly simple, brilliantly versatile

Well conceived, uncluttered and extensive options are hallmarks of the Spincontrol L controller. It is the epitome of a good standard controller and offers everything a centrifuge needs. Based on a patented Sigma concept, the Spincontrol L has a simple design with just three buttons (Start, Stop and Open Lid) along with the proven multifunction turn/push knob. Despite this simplicity, it has a wealth of features.

One of the special features is the run-time counter, which starts running when the setpoint speed is reached. This switchable function is very much appreciated by users. The cycle counter is also unique. It keeps track of the number of rotor runs. When the limit defined in the controller settings is reached, the user sees a corresponding message. This warning system is truly unprecedented. It is based on a real measured value to reliably prevent damage to the rotor or the centrifuge itself. This way the Spincontrol L controller offers a high degree of safety – a must have.

Display	Backlit LCE
Constant display of setpoints and actual values	+
Timer (s; h:min)	10 – 99:59
Timer tracks time after setpoint speed is reached; switchable	+, +
Time increment [s]	1
Intermittent operation	+
Continuous operation	+
Speed increment [rpm]	100
Speed/RCF display	+
RCF increment [x g]	10
Programs	50
Acceleration curves	10
Braking curves	10
Free run-out	+
Audible signal, switchable	+, +
Visual standstill indication	+
Centrifuge cycle count	+
Visual standstill indication	+
Rotor end-of-life warning	+
Automatic lid unlocking at end of run, switchable	+, +
Lockable controller	+
Microprocessor control	+







# Premium quality

## Made in Germany

The Sigma 4-5L centrifuge meets the highest technical requirements and laboratory standards. Developed and produced at our Osterode site in Germany, it is a high-quality, high-performance, durable and energy-efficient product made in Germany. It is made from high-quality materials with high-quality workmanship. The Sigma 4-5L complies with current standards for safety, emissions and environmental protection.

As a vendor with a large international customer base, we maintain a stock of original spare parts and wear parts for ten years or more. With Sigma, you also benefit from a full spectrum of worldwide customer service, including commissioning, training, maintenance, calibration, overhaul and repair.

## Specifications

Power consumption [W]	1,010
Maximum capacity [ml]	4 x 750
Maximum speed [rpm]	4,700
Minimum speed [rpm]	100
RFI suppression	EN 61326
Height x width x depth [mm]	390 x 496 x 634
Height with open lid [mm]	880
Weight without rotor [kg]	77
Maximum kinetic energy [Nm]	23,086
Noise level at maximum speed (approximate) [dB (A)]	67
Max. acceleration [s]	12
Max. braking time [s]	12

### Sigma 4-5L centrifuge

220–240 V, 50/60 Hz (Part No. 10405)  
120 V, 60 Hz (Part No. 10404)

### Sigma 4-15L centrifuge, IVD version

220–240 V, 50/60 Hz (Part No. 10407)  
220 V, 50/60 Hz (Part No. 10408)  
120 V, 60 Hz (Part No. 10406)

### Device qualification

Sigma Laborzentrifugen GmbH offers various forms of device qualification. For more information, see Products > Qualification on our website: [www.sigma-zentrifugen.de](http://www.sigma-zentrifugen.de)







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