



# Sigma 1-16 Sigma 1-16K



Microcentrifuges

Special edition



SIGMA

15000  
02:00  
19

Start/Stop  
Pre cool  
Prog  
Set

Guaranteed 4 °C At Max. Speed For All Rotors

# RPM since '75

## Reliable, Powerful, Matching



**Centrifuge production was first launched by Martin Christ, Sr in 1948. In 1975 he founded the company Sigma Laborzentrifugen. Sigma gained worldwide recognition with a new maintenance-free drive system for laboratory centrifuges, and the company grew rapidly. Today Sigma is a leading worldwide manufacturer of laboratory centrifuges.**

Our centrifuges are part of the equipment of modern laboratories and stand for reliability, safety, the highest processing quality and innovative operating concepts.

The basis of our corporate culture is flexibility, which has the highest priority. We respond quickly to specific customer wishes to find the perfect solution.

In 2015 we are celebrating our anniversary under the motto "40 years of Sigma centrifuges".

As a central focus and visual highlight, our Sigma 1-16 microcentrifuge and the refrigerated Sigma 1-16K model are available in a special limited edition, with bodies finished in Sigmas secondary corporate color "Maize Yellow".

# Design meets function

## Sigma 1-16 and Sigma 1-16K special limited editions

### Convenient operation, energy efficient and quiet

Attractive design combined with ease of use: the Sigma 1-16 and Sigma 1-16K are virtually effortless—just the touch of a finger closes the motorized lid lock. Along with user convenience, they feature a durable, low-maintenance stainless steel bowl.

A technical highlight of the Sigma 1-16K is ventilation control, which adjusts the ventilation to the required refrigeration level. This makes the centrifuges up to 60 % quieter and reduces energy consumption. At maximum speed the Sigma 1-16K reliably achieves + 4 °C. Both centrifuges are available in IVD-compliant versions.



### Sigma 1-16

- clearly represented display
- big push buttons
- minimal temperature increase during run
- maintenance-free, brushless drive motor
- motorized lid lock, auto lid open
- last run memory
- 2 acceleration and deceleration curves (soft or fast)
- stainless steel bowl
- emergency lid lock release
- window in the lid for external speed control
- overspeed controller
- according to EN 61010-2-020
- RoHS conform
- IVD devices meet the requirements of 98/79/EC for in vitro diagnostic

### Sigma 1-16K

- refrigerated version of Sigma 1-16
- precooling of the rotors during standstill, refrigerant CFC-free (R 134 a)
- guaranteed + 4 °C at max. speed for all rotors



energy saving + silent  
cooling fan controlled by demand





# Reliable package solutions

## Rotor and accessory packages

The special models are available as packages with rotors and adaptors. The maximum capacity of these microcentrifuges is 24x1.5–2 ml, 36x1.5–2 ml or 12x5 ml tubes at an RCF of more than 20,000 g. This makes the Sigma 1-16 the perfect tool for modern research applications in the pharmaceutical industry, life sciences, biotechnology and medicine.

For optimal specimen protection, the refrigerated Sigma 1-16K centrifuge reliably and effectively assures extremely high temperature accuracy and process reliability.

### PP-Rotor (Art. no. 12033)

24x1.5–2.0 ml

max. 15,000 rpm  $\triangleq$  20,627 xg

incl. hermetic plastic lid (Art. no. 17033)

### Adaptors

For reaction vial 0.25/0.4 ml (Art. no. 13000)

For reaction vial 0.5 ml (Art. no. 13002)

For reaction vial 0.2 ml (Art. no. 13021)

### Microtubes

Reaction vial 2.0 ml (Art. no. 15040)

Reaction vial 1.5 ml (Art. no. 15008)

Reaction vial 0.5 ml (Art. no. 15005)

Reaction vial 0.4 ml (Art. no. 15014)

Reaction vial 0.2 ml PCR (Art. no. 15042)



Art. no. 13002 13000 13021 15040 15008 15005 15014 15042

The special edition models are available as packages with rotors and adaptors.

### Sigma 1-16

Microcentrifuge, 220–240 V, 50/60 Hz (Art. no. 1002890)

+ Rotor (Art. no. 12033)

+ Adaptor, 12 sets à 2 items (Art. no. 13002)

Microcentrifuge, 120 V, 60 Hz (Art. no. 1002990)

+ Rotor (Art. no. 12033)

+ Adaptor, 12 sets à 2 items (Art. no. 13002)

### Sigma 1-16K

Refrigerated centrifuge, 220–240 V, 50/60 Hz (Art. no. 1003390)

+ Rotor (Art. no. 12033)

+ Adaptor, 12 sets à 2 items (Art. no. 13002)

Refrigerated centrifuge, 120 V, 60 Hz (Art. no. 1003490)

+ Rotor (Art. no. 12033)

+ Adaptor, 12 sets à 2 items (Art. no. 13002)

# Technical data

Sigma 1-16 and Sigma 16K microcentrifuges meet the highest technical requirements of laboratory standards.

Users can choose from ten different operating programs, which can be configured using an intuitive keypad. Settings can be modified during start-up.

Sigma centrifuges are developed and manufactured at our Osterode plant. Along with high-quality processing, they meet the latest safety, emissions and environmental requirements.

	Sigma 1-16	Sigma 1-16K		
Power consumption [W] 220 – 240 V	170	420	Timer	10 sec up to 99 min 59 sec
120 V	160	460	Time increments [sec]	1
100 V	170	550	Continuous	+
Max. capacity [ml]	36x2.0	36x2.0	Short run	+
Max. speed [rpm]	15.000	15.000	Speed increments [rpm]	100
Min. speed [rpm]	200	200	RCF increments [xg]	10
Interference suppression	EN 61326	EN 61326	Display speed or g-force	+
Height x Width x Depth [mm]	271x310x418	291x310x660	Acceleration/ deceleration curve	Fast, soft
Height with open lid [mm]	527	547	Programs	10
Weight without rotor [kg]	13	32	Fast cool program Rapid temp*	+
Kinetic energy max. [Nm]	5,176	5,176	Display temperature set, actual*	+
Noise level at max. speed (ca.)	59dB (A)	58dB (A)	Temperature increments [°C]*	1
Max. acceleration (Rotor 12033) [sec]	13	15	Microprocessor controlled	+
Min. deceleration (Rotor 12033) [sec]	13	13		
Temperature setting range [°C]*	–	-10 up to +40		
Min. rotor temperature* Rotor 12033 at 15,000 rpm [°C]	–	4		

\* Sigma 1-16K





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