

schuett count

manual colony counter





schuett count colony counter

Usually, the most time-consuming part in microbial analysis is counting Petri dishes. The schuett count colony counter was designed to facilitate this task considerably and will become essential equipment in your microbiological laboratory.

Easy, rapid and reliable counting of bacterial colonies is no longer trouble when using this device.

The schuett count colony counter is suitable for reliable and efficient counting of

- bacterial colonies growing on nutrient agar in Petri dishes of 60 to 150 mm diameter
- bacterial colonies growing on filter disks/agar or nutrient disks
- phage plaques growing on agar

Transparent medium or filter disks/agar: two special adapters for inserting Petri dishes allow for ideal height positioning of the dishes in order to reach optimum lateral illumination.

The power supply provides an automatic line/mains supply identification 100-240 VAC compensating short voltage breakdowns.

- **three modes of illumination:**
 - from below
 - from the side and
 - from top (optional)
- **Petri dishes or nutrient disks with**
 - Ø 90 mm
 - Ø 60 mm or Ø 150 mm (optional)
- **high transparency of colonies reached by LED-light source, practically no heat transferred to the sample**
- **light intensity, pressure sensitivity for count and acoustical counting signal adjustable**
- **average determination**
- **data transfer via USB to the PC**

The schuett count may be used for a large variety of applications where microbial checks are needed:

- in bacteriology
- in dairy and beverage industry
- in Medical Test Centres
- in Quality Control for water treatment plants
- in food and environmental analytics

The counter is initiated by marking the colonies with an ordinary felt-tip marker pen.

The Petri dish holder is pressure sensitive. Already a gentle touch of the Petri dish with the pen generates a count.

The result is clearly shown on a large 4-digit LED-display (0-9999) with reset feature.

A well-organized and easy to clean keypad allows for nearly **infinite, reproducible adjustment (for each operator) of pressure sensitivity, light intensity and acoustical count signal**. The corresponding level of sensitivity is shown in the digital display.

The count signal acoustically confirms the count of a colony.

Correction of counting mistakes is easily possible by adding or subtracting with the arrow keys. When counting high numbers of colonies, the optional Wolffhügel-disk facilitates the segmenting in the bright or the dark field.

A black contrast disk for working in dark fields is included in the delivery extent.



illumination of colonies

illumination of colonies

State-of-the-art light technology allows for circularly illuminating the colonies from the side resulting in a transparency and differentiation of the colonies never possible before.

There is no stray light or blinding, which is usually a problem when using fluorescent lamps.

In addition, the dimming feature allows for adjusting the light intensity to the needs of the user and accounts for surrounding light inside the lab.

A natural colour reproduction facilitates differentiation between various coloured cultures growing on chromogenic medium and filter/nutrient disks.

The state-of-the-art illumination provides such a contrast that agar plates, with colonies growing on and inside the agar may easily be counted.

As a result, eyestrain is reduced to a minimum allowing for extended periods of uninterrupted work.

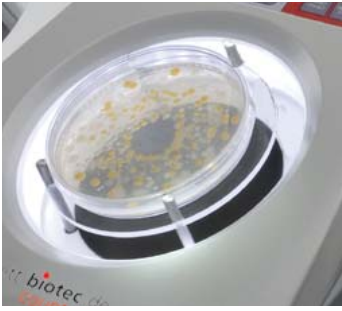
The entire illumination consumes only 3 Watts producing practically no heat.

Choose individually the ideal mode of illumination according to the medium.

Use the bright background for dark colonies or the black contrast disk for light colonies.

Illumination from below

Three modes of illumination



1) Illumination from below

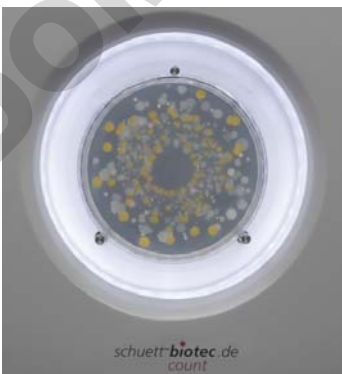
White colonies growing in and on clear agar are illuminated from below in order to avoid reflections.

The glarefree illumination facilitates the counting of the colonies especially at the rim of the Petri dish.

Differentiation between colonies and air bubbles inside the agar is possible without any difficulties.

Furthermore, the light source allows for the correct identification of mucus secreting colonies and observing the decrease of turbidity caused by calcium carbonate inside the agar when working with acid producing micro-organisms.

Example:



Light colonies on clear agar in the dark field.

Illumination from the side



2) Illumination from the side

For colonies growing on filter disks and on non-transparent agar, the illumination from the side has been developed.

Transparent colonies are mostly 3-dimensional.

Accurate colour reproduction of the colonies in the bright and dark field is reached, so that an incredible ease of work is reached for all agar media where a colour differentiation of various colony colours is requested.

The direct lateral illumination in conjunction with the white light spectrum of the LEDs lights up, colonies that may hardly be seen in the reflecting light of fluorescent lamps.

Example:



Various coloured colonies on filter disk with adapter for Petri dishes with \varnothing 50-60 mm.

Illumination from top



3) Illumination from top (optional)

For colonies with a very low contrast to the background and colonies growing on dark agar, we optionally offer a LED-top light lamp for connection to the standard schuett count manual colony counter.

The top light lamp is equipped with a flexible gooseneck and illuminates the complete Petri dish. It is especially suggested for counting very small colonies.

Example:



White colonies on green filter disk with top illumination.

Average determination

Average determination

For serial tests, the schuett count may show the average by push of a button.

Up to 99 values with a total of max. 32,500 colonies may be evaluated.

USB-data transfer

USB-data transfer

schuett count provides a USB-interface, which may transfer the counting result directly to an Excel-chart or field of the analysis report.

Ergonomically shaped

Ergonomically optimized

The inclination of the instrument's working surface is optimized for the operator, so that the Petri dish is positioned as horizontally as possible without forcing the user to bend over the instrument.

The convenient width of the schuett count allows for positioning both hands onto the instrument without blocking additional working space.

These construction features support easy and comfortable work.

Due to the compact construction, the schuett count only requires little space.

The housing is easy to clean.



Magnifying glass (gooseneck)



With 3-fold magnification, and connector for schuett count, for individual adjustment of the perspective, movable and inclinable. Additional magnifying glass (Ø 1.3 cm) with 10-fold magnification, integrated into the gooseneck, only for inspection of single colonies.

LED-top light lamp (gooseneck)



With connector for schuett count, for individual adjustment of the lighting angle, movable and inclinable, for optimum additional illumination of the colonies.

Adapter for Petri dishes with Ø 50-60 mm



For central positioning of Petri dishes up to Ø 60 mm.

Adapter for Petri dishes with Ø 140-150 mm



For central positioning of Petri dishes up to Ø 150 mm.

Wolffhügel-disk, Spiral-Plater-disk and contrast disk



Felt-tip marker pen and counting needle



Each ordinary felt-tip marker pen may be used for counting.

The marking of the colonies avoids omission and double-counts.

The stainless steel counting needle allows for counting the colonies directly in the agar.

For counting more than 20 Petri dishes per day and counting results of 50 to 300 colonies per Petri dish, we suggest:

schuett colonyQuant - automated colony counter.

For details information, please request our separate data-sheet schuett colonyQuant.

Technical data

Dimensions (w x h x d):	280 x 130 x 250 mm
Height with gooseneck magnifying glass/top light lamp	approx. 300 mm
Magnification (optional):	3x or 6-8x
LED-Display:	4-digit (0-9999)
Size of Petri dish (Ø)	50-60, 90-100 or 140-150 mm (optional)
Reset/down counts/correction of counting mistakes:	yes
Pressure sensitivity:	yes (adjustable)
Light intensity:	LED-lighting technology (dimnable)
Count signal (buzzer):	yes (adjustable)
Weight:	1.5 kg
Protection class:	III
IP:	30
Wall power supply:	100-240 V / 50-60 Hz
Power input:	5 V DC, 2100 mA; 7,5 W

Ordering information

	Cat.-No.
schuett count colony counter, 100-240 V, incl. felt-tip marker pen, adapter for Petri dishes with Ø 90 mm and contrast-disk (black)	3.081 502

Accessories

Magnifying glass, 3x for 3-fold magnification of the complete Petri dish, incl. magnifying glass (Ø 1.3 cm) with 10-fold magnification, only for inspection of single colonies, incl. gooseneck support, individually adjustable, Ø 100 mm	3.081 602
Magnifying glass, 6-8x for 6-8-fold magnification of the complete Petri dish incl. gooseneck support individually adjustable, Ø 60 mm	3.081 612
LED-top light lamp for optimum illumination of cultures, incl. gooseneck support	3.081 702
Adapter for Petri dishes with Ø 50-60 mm for central positioning	3.081 802
Adapter for Petri dishes with Ø 140-150 mm for central positioning	3.081 812
Spiral-Plater-disk, black/white for counting with Spiral-Plater-method	3.081 902
Wolffhügel-disk, black/white for sectoral counting of Petri dish	3.081 912
Counting needle for counting by tap of the colony	3.081 922
Felt-tip marker pen (water-resistant)	3.081 932
USB connection cable for PC	3.081 992

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