

# Microbial safety at your fingertips RCS® High Flow Touch



# Proven – renowned RCS® High Flow technology

Cleanrooms and isolators in the pharmaceutical, medical and food industries are subjected to thorough microbial air monitoring routines to ensure high product quality, to maintain a safe work environment and to meet regulatory requirements such as ISO 14698-1 (Bio-contamination Control).

The new RCS® High Flow Touch has been designed to meet these requirements and, furthermore, to provide maximum ease of handling. Employing the renowned RCS® High Flow technology, the instrument ensures reliable and reproducible results along with comprehensive validation documentation.

New instrument features such as a high resolution color touchscreen, an intuitive software, a new battery concept with advanced control options and a modern, ergonomic design allow for maximum reliability in monitoring ambient air and compressed gas.



## RCS® High Flow Touch – standardized air monitoring with an easy touch

### Reliable

- Proven technology using standardized agar media
- Innovative battery concept with advanced control options
- Compatible with common sterilization and disinfection methods

### Fast

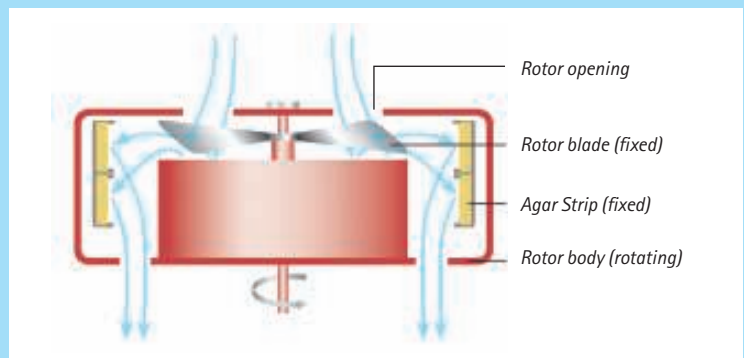
- Short sampling times with a flow rate of 100 L/min
- Convenient programming with an easy touch
- From preparation to start of measurement within a minute



## RCS® technology

For more than 30 years RCS® Microbial Air Samplers have been successfully used by leading pharmaceutical companies worldwide. All RCS® Samplers employ the principle of centrifugal impaction according to Reuter – the pioneer technology for portable, battery-driven microbial air samplers – and provide the following key benefits:

- Low impaction speed
- Low turbulence and controlled air stream
- Even distribution of microorganisms
- No local drying of the agar
- High physical and biological collection efficiencies
- Complete system with standardized agar media
- Easy disinfection, autoclave-able sampling head



*Illustration of the Reuter Centrifugal Impaction Principle*

## Flexible

- Portable, battery-driven and light weight
- Horizontal and vertical installation, measurement at heights of up to 3 meters
- User-defined sampling options like individual volumes, time delay, interval sampling

# Convenient – flexible operation with an easy touch

The RCS® High Flow Touch Microbial Air Sampler is equipped with a high-resolution color touch-screen and intuitive software for maximum ease-of-use. Self-explaining icons quickly guide through the menus.

## New color touchscreen makes operation easy

- Modern design for fast and easy handling
- Commonly used symbols and functions
- Quick change of menus, easy programming

## Intuitive user interface for user-friendly navigation

- Key information and setting changes on a single screen
- Standardized settings and flexible sampling options
- Acoustic signaling
- Management of up to ten rotors
- Language options

## Innovative software solutions easily integrated

- RCS® Management Software: Safety, control and flexibility
- CalibSo Software: Automated calibration with HYCON® Anemometer



# Innovative – operating reliability with innovative battery concept

To operate battery-driven instruments reliably easy recharging mechanisms and visual control options are required. The innovative battery concept of the RCS® High Flow Touch Microbial Air Sampler combines flexible charging options and reliable battery status reporting.

- Integrated high capacity, long-life lithium-ion battery
- Capacity to perform more than 30 x 1000 L measurements with one full charging cycle
- Continuous capacity measurement of the battery
- Easy cable-based recharging, or use of an optional docking station with LED control at any time

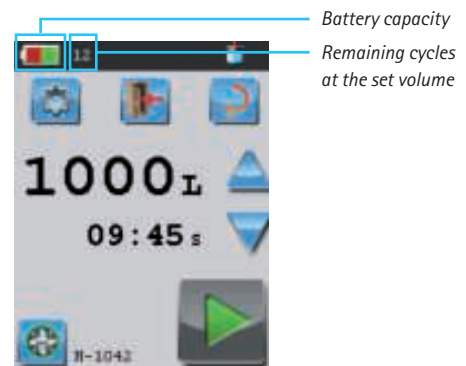


*LED-controlled docking station for easier charging of the integrated battery*

## Instrument status now easily monitored

The RCS® High Flow Touch Software offers two control options for monitoring the battery status.

- **Main window with status bar**  
The status bar in the main window contains a battery status icon visualizing the remaining capacity of the battery. Dependent on the selected sampling volume, it also displays the remaining number of measurements.
- **System information window displaying battery capacities**  
The total and actual capacities of the integrated battery are shown on the system's information screen.



Main window with status bar

*Battery capacity*  
*Remaining cycles at the set volume*



System information window displaying battery capacities

*Total battery capacity*  
*Remaining battery capacity*

# Robust – minimal service and maintenance

The RCS® High Flow Touch Microbial Air Sampler is a robust instrument that requires minimal service and maintenance. To ensure its continued and reliable operability the rotor should be calibrated every year.

- Reliable calibration and repair services carried out by Merck and by authorized service partners
- Instrument qualification plans and comprehensive validation documentation support provided upon installation
- Calibration training on how to use the HYCON® Anemometer and the CalibSo Software conducted by our instrument specialists



*RCS® High Flow Touch  
Microbial Air Sampler with  
HYCON® Anemometer*

## Technical specifications

|                       |   |
|-----------------------|---|
| Sampling principle    | Centrifugal impaction (Reuter Centrifugal Sampler, RCS)                           |
| Operation             | Portable device, integrated color touchscreen                                     |
| Electrical supply     | Rechargeable Lithium-ion battery, power supply, (optional) docking station        |
| Air flow rate         | 100 L/min (1000 L in 10 min)  |
| Sample volumes        | 7 pre-set, 3 user-defined (1–2000 L)  |
| Rotor speed           | 8200 rpm  |
| Dimension             | 300 x 130 x 110 mm (H x W x D)  |
| Weight                | 1500 g  |
| Connection            | Serial RS232, USB adapter, standard tripod thread                                 |
| Material              | Housing: Lexan polycarbonate; head: aluminium/stainless steel (autoclave-able)    |
| Validation            | According to ISO 14698 with agar media  |
| Calibration           | Automated calibration (CalibSo Software, HYCON® Anemometer), calibration reminder |
| User-defined settings | Date/time, language, time delay, interval sampling, QA Management                 |

# Ordering information

| RCS® High Flow Touch   | Ord. No.     |
|--|--------------|
| <b>RCS® High Flow Touch Microbial Air Sampler</b><br>Including power supply, serial RS232 cable, USB adapter, RCS® Management Software, rotor, protection cap, carrying case, calibration certificate, quick start guide and user manual | 1.44194.0001 |
| RCS® High Flow Touch Accessories   | Ord. No.     |
| <b>Docking Station</b><br>For recharging the integrated Lithium-ion battery  | 1.44256.0001 |
| <b>RCS® Compressed Gas Adapter Touch</b><br>Autoclave-able adapter for microbial monitoring of compressed gasses; designed for a pressure of 1 bar   | 1.44257.0001 |
| <b>Nozzle Set for RCS® Compressed Gas Adapter</b><br>Set of five nozzles to extend the air inlet pressure from 1 bar to 0.1–7.0 bar  | 1.44235.0001 |
| <b>Sterile Sleeves</b><br>10 pieces; for covering non-autoclave-able housing parts   | 1.44199.0010 |
| <b>Tripod</b><br>For use at heights up to three meters   | 1.44209.0001 |
| <b>Table-top Tripod</b><br>For horizontal operation  | 1.44210.0001 |
| <b>RCS® High Flow Touch Validation Handbook</b><br><b>German version</b>   | 1.44176.0001 |
| <b>English version</b><br>Comprehensive compendium of validation data for RCS® Microbial Air Samplers (RCS® High Flow, RCS® Isolator, RCS® Plus) and Agar Strips; contains RCS® Qualification Handbook for RCS® High Flow Touch          | 1.44189.0001 |
| <b>RCS® High Flow Touch Qualification Handbook</b><br><b>German version</b>  | 1.44178.0001 |
| <b>English version</b><br>Plan for instrument qualification of the RCS® High Flow Touch in controlled areas, contains IQ/OQ/PQ   | 1.44192.0001 |
| <b>CalibSo</b><br>Calibration Software for automated, computer-aided calibration and data storage  | 1.44206.0001 |
| <b>HYCON® Anemometer</b><br>Portable device for measuring the air flow rate during calibration of RCS® Microbial Air Samplers  | 1.44205.0001 |
| <b>Rotor</b><br>Spare part, autoclave-able<br>Each combination of sampler and rotor must be calibrated separately  | 1.44196.0001 |
| <b>Protection Cap</b><br>Spare part (stainless steel), autoclave-able<br>For protection of the rotor during air sampling   | 1.44225.0001 |

# Validated – complete system with standardized agar media

The RCS® High Flow Touch Microbial Air Sampler is used with standardized agar media. These are manufactured under strictly controlled aseptic conditions. Thus, the RCS® High Flow Touch Microbial Air Sampler provides a complete system, which has been extensively validated according to ISO 14698-1.

1



*Open HYCON® agar strip wrapper*

2



*Insert HYCON® agar strip into rotor*

3



*Place rotor on instrument*

4



*Close the protection cap – system ready to start*

## Unique features of HYCON® agar strips for RCS® instruments

- Total count and specialized agar media
- Additionally available: Gamma-irradiated products in double packaging for higher cleanroom classes
- Individually packaged agar strips to ensure sterility
- Rigorous quality control during production, including visual inspection of each agar strip
- Performance, packaging and storage extensively validated
- Storage at room temperature, ability to resist repeated gassing cycles
- Incubation and evaluation within re-sealed packaging



| Agar Strips – Total Count  | Package Size | Ord. No.     |
|--|--------------|--------------|
| TC<br>Tryptic Soy Agar for determination of the total count, store at 2–25°C   | 50 strips    | 1.44253.0050 |
| TSM<br>Modified Tryptic Soy Agar with neutralizers against disinfectants and growth supplements; for identification of the total count of fastidious and sublethally damaged microorganisms, store at 2–25°C | 50 strips    | 1.44240.0050 |
| TC-γ<br>Gamma-irradiated Tryptic Soy Agar, double-wrapped; for determination of total count in aseptic environments, store at 2–25°C   | 40 strips    | 1.44226.0040 |
| TCI-γ<br>Gamma-irradiated Tryptic Soy Agar with neutralizers, double-wrapped; for determination of total count in aseptic environments and in peroxide-containing air, store at 2–25°C                       | 40 strips    | 1.44228.0040 |
| PEN-γ<br>Gamma-irradiated Tryptic Soy Agar with Penase; for determination of total count in penicillin-containing air in aseptic environments, store at 2–25°C   | 40 strips    | 1.44109.0040 |
| LAC-γ<br>Gamma-irradiated Tryptic Soy Agar with broadspectrum cephalosporinase; for determination of total count in aseptic environments containing antibiotics, store at 2–25°C                             | 40 strips    | 1.44108.0040 |
| Agar Strips – Selective Agar Media   | Package Size | Ord. No.     |
| SDX<br>Sabouraud Dextrose Agar with modified Pharmacopoeia formulation; for determination of yeasts and molds, store at 2–25°C   | 50 strips    | 1.44243.0050 |
| SDX-γ<br>Sabouraud Dextrose Agar with modified Pharmacopoeia formulation; for determination of yeasts and molds in aseptic environments, store at 2–25°C   | 40 strips    | 1.44244.0040 |
| DG-18<br>Dichloran Glycerine Agar; for determination of yeasts and molds, store at 2–25°C  | 25 strips    | 1.44245.0025 |
| YM<br>Rose Bengal Agar with streptomycin; for determination of yeasts and molds, store at 2–25°C   | 50 strips    | 1.44242.0050 |
| C<br>MacConkey Agar; for determination of coliform bacteria, store at 2–15°C   | 25 strips    | 1.44099.0025 |
| S<br>Mannitol Salt Agar; for determination of staphylococci, store at 2–15°C   | 25 strips    | 1.44102.0025 |
| Agar Strips Accessories  | Package Size | Ord. No.     |
| Blank Strip Kit<br>Empty strips for manual production of culture media for special applications  | 50 strips    | 1.44107.0050 |
| Cover Slides<br>Cover slides for agar strips to prevent desiccation during incubation  | 100 slides   | 1.44111.0100 |
| Incubation Rack for Agar Strips<br>Stainless steel, for HYCON® agar strips   | 1            | 1.44249.0001 |

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## For more information:

[www.merckmillipore.com/biomonitoring](http://www.merckmillipore.com/biomonitoring)

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