

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

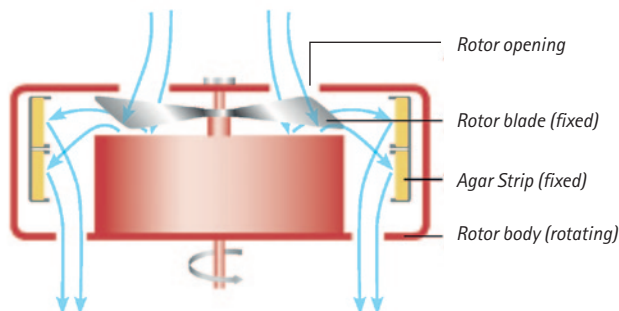


Illustration of the Reuter Centrifugal Impaction Principle

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.

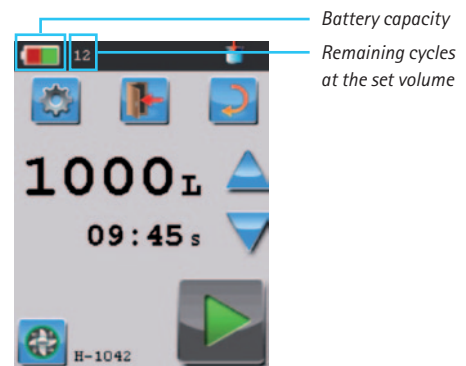
- Integrated high capacity, long-life lithium-ion battery
- Capacity to perform more than 30 x 1000 L measurements with one full charging cycle
- Continuous capacity measurement of the battery
- Easy cable-based recharging, or use of an optional docking station with LED control at any time



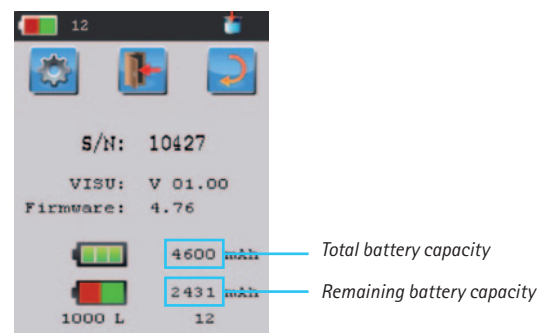
Instrument status now easily monitored

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



System information window displaying battery capacities

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 KGaA, Darmstadt, Germany 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

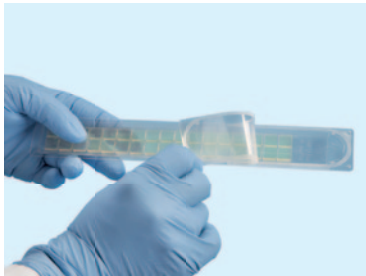
Ordering information

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

Validated – complete system with standardized agar media

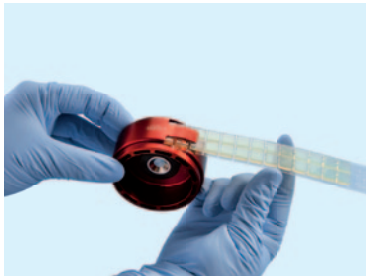
The RCS® High Flow Touch Microbial Air Sampler is used with standardized agar media. These are manufactured under strictly controlled aseptic conditions. Thus, the RCS® High Flow Touch Microbial Air Sampler provides a complete system, which has been extensively validated according to ISO 14698-1.

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 Tryptic Soy Agar for determination of the total count, store at 2-25 °C	50 strips	1.44253.0050
TSM 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 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 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 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 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 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 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 Dichloran Glycerine Agar; for determination of yeasts and molds, store at 2-25 °C	25 strips	1.44245.0025
YM Rose Bengal Agar with streptomycin; for determination of yeasts and molds, store at 2-25 °C	50 strips	1.44242.0050
C MacConkey Agar; for determination of coliform bacteria, store at 2-15 °C	25 strips	1.44099.0025
S 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 Empty strips for manual production of culture media for special applications	50 strips	1.44107.0050
Cover Slides Cover slides for agar strips to prevent desiccation during incubation	100 slides	1.44111.0100
Incubation Rack for Agar Strips Stainless steel, for HYCON® agar strips	1	1.44249.0001

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For more information:

www.emdmillipore.com/biomonitoring

