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Bacterial Enumeration ProtoCOL2 Automated Colony Counter



A fully automatic colony counter and zone reading system

High resolution camera and LED lighting

Operated by touch screen monitor

Dark screens eliminate ambient light effects

Counts colonies as small as 43 microns

New, intuitive, easy to use software

GLP compliant and supports CFR 21 Part II

ProtoCOL2 is an automated colony counter and zone reading system.

With a high specification CCD camera and a system of LED lighting, it provides perfect illumination for imaging any coloured colony plate.

The high quality of the imaging allows you to clearly distinguish different colours of colony on one plate, making this an excellent choice if you want to identify and count specific microorganisms from a mixed population.

Wrap-around, dark, screen doors are specially designed to eliminate the effects of ambient light, sunlight, fluorescent tubes and therefore improve your imaging results.

ProtoCOL2 has a 17", colour touch-screen monitor. The software automatically compensates for such things as: different coloured media; agar thickness; bubbles and environmental debris.

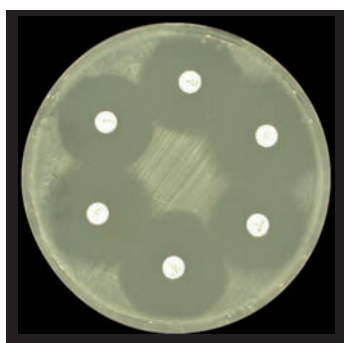
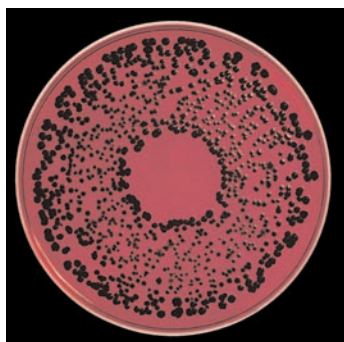
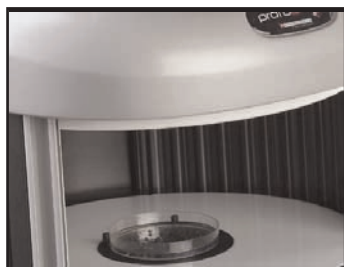
It is Windows XP driven so is very easy to use.

This system can accurately count colonies on spread, pour or spiral plates along with a range of other application options. The screen is detachable so you can, if you prefer, order the optional monitor stand and have the screen on the desk at the side of the unit.



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Two Versions



ProtoCOL2, manufactured by Synbiosis, is available in two versions: **Count**, for a range of colony counting procedures, or **Zone**, for inhibition zone measurement.

ProtoCOL2 Count

The complete system for colony counting applications. ProtoCOL2 Count is ideal for multiple applications including food, water, dairy, beverage, hygiene, clinical microbiology, environmental monitoring, toxicology, sterility testing, pharmaceuticals and fungal contamination.

With this device, assays are treated in batches that are defined before counting or measuring. In designing a batch, you can specify assay type, colour, size and shape classification. When the device is activated, colonies are immediately detected and the count is displayed on screen.

The standard system allows you to count coloured colonies, plaques and perform microbial limit tests.

ProtoCOL2 Zone

This system has been designed specifically for zone measurement.

Antibiotic manufacturers are required to demonstrate that the potency of their finished products meet the required specifications. Manual measurement of inhibition zones is time consuming, often not reproducible and does not meet the majority of published standards for accuracy and repeatability.

ProtoCOL2 Zone is ideal for inhibition zones, antibiotic susceptibility testing and single radial immunodiffusion assays.

Data Downloads and Storage

The unit has six USB ports, firewire, two network ports and a DVD drive to facilitate the downloading of information for further analysis. It does however run SEQUEL server in the background for storage of information on the unit's high capacity hard drive.

ProtoCOL2 can be operated via your LIMS system or as a stand-alone unit.

ProtoCOL UV

If you are looking for a compact yet powerful imaging system to count both UV and white light illuminated colonies, then ProtoCOL UV is ideal.

With state of the art imaging technology, ProtoCOL UV allows you to instantly capture, print and save images such as:

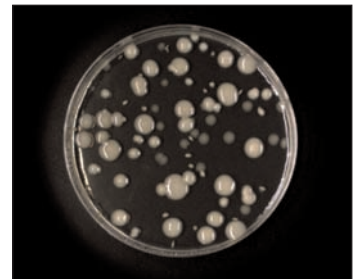
- dark, light and multi coloured colonies
- fluorescent colonies
- colonies expressing Green Fluorescent Protein (GFP)
- zones of inhibition (including antibiotic susceptibility zones)
- viral plaques

ProtoCOL UV uses a high resolution camera inside a darkroom with built-in UV and white light. The darkroom is designed to fit many different plate types allowing you to count colonies on small or large bioassay plates. The auto-locking door protects you from accidental UV exposure. A filter drawer allows you to add new filters to visualise different types of fluorescence.

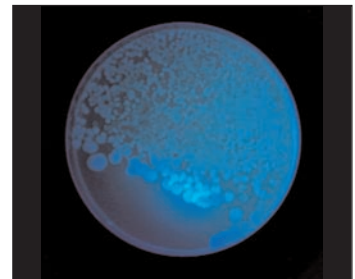
The data generated by ProtoCOL UV is GLP compliant and can be used to produce professional reports, which are accepted by accreditation services such as UKAS.

Automating your colony counting and zone measuring can save hours of your time and improve the accuracy of results. Because ProtoCOL UV images by white or UV illumination and can accommodate different sized plates, it is a cost effective, multi-application tool for your laboratory.

Being simple to connect to a PC, ProtoCOL UV is ideal for rapid and secure data transfer.



ProtoCOL UV white light



ProtoCOL UV pseudomonas

ProtoCOL2 Accessories

ProcScan extends the capability of ProtoCOL2 to easily accommodate plates of up to 300mm x 300mm and scan the images directly into ProtoCOL2. Large format plates such as SRD with large grid arrays can easily be scanned and imaged with ProcScan, with the images analysed using the standard ProtoCOL2 software.

ProcMacro: For plates between 100mm diameter and 150mm diameter, ProcMacro is used in conjunction with ProtoCOL2 to capture images.

ProcMacro uses a high resolution external colour camera. The assembly uses both transmitted light and overhead illumination so that any type of plate can be viewed and an image captured using optimum lighting conditions. Camera exposure and image capture is controlled by ProtoCOL2 software and once images are captured, the software can then perform the analysis/count.



ProcScan



ProcMacro

Options and Accessories

| | |
|---------------|---|
| So2202 | Counting Software Module for spiral plates (includes validation plate) Counts spiral colony plates by counting colonies in the outer sector of the upper half of the spiral and the lower sector of the spiral. If this count is less than the minimum count rule value, ProtoCOL2 will automatically count the whole plate. |
| So2203 | OPKA (Opsonophagocytic-killing assay) Software Module <i>Streptococcus pneumoniae</i> is a major cause of pneumonia in young children and the elderly. The OPKA is a useful test for measuring antibody function and is a good surrogate assay for immune protection. |
| So2204 | Ames Software Module Ames is a reverse mutation assay used to test whether samples are mutagenic and are therefore more likely to be carcinogenic. A genetically altered bacterium is put onto the plate along with the test sample. If the bacterium grows it means that the sample has reverse mutated the bacterium and is therefore likely to be mutagenic. |
| So2205 | Multi-sector Plates Software Module Multi-sector plates are often used for environmental monitoring, ie air sampling. The plate is placed into an air sampler so that only one sector of the plate is exposed at a time as air is drawn through the air sampler. Each sector is then counted in turn. |
| So2206 | SBA (Serum Bactericidal Assay) Software Module Used to measure immunity to <i>Neisseria meningitides</i> . |
| So2208 | Zone module for use on ProtoCOL2 Count (including validation) |
| So2209 | Count module for use on ProtoCOL2 Zone (includes 3 validation plates) |
| So2216 | ProcScan |
| So2215 | ProcMacro |

Specification

| | |
|---------------------|------------------------------------|
| Order Codes: | |
| So2200 | ProtoCOL2 Automated Colony Counter |
| So2201 | ProtoCOL2 Automated Zone Sizer |
| So2175 | ProtoCOL UV System |

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