## How to dispense qour valuable liquids fast and accurately







## Dispensing machine:

- Fast and accurate.
- Live cell dispensing.
- Stirring system to avoid particles sedimentation.
- Sterilisable by bleach and steam.
- Heated circuit : allows the use of gel as carrier liquid.
- Fully waterproof cabinet, allows external sterilisation by alcohol.



This unique machine is developed to fill a gap in the market of dispensing machines.

By addition of numerous of non standard controls we reach a higher level of accuracy (temperature, air pressure....)
The print on the fl y method and high frequency valves allows us to fi ll a 1536 well plate in only 60 sec with 8 different liquids. By using stainless steel, Tefl on an silicone nearly every reactive is allowed.

We have 3 sterilisation levels:

• Liquid tank by bleach 8°

- The whole print head is dismountable without any tool in less than 1 minute to be placed in a steam sterilisator at 135°C during 30 min
- The waterproof cabined is designed to be rinsed with pure alcohol: inside contamination is avoided.

Your fingers are important therefore the security system locks immediately the machine in case of danger.

A single match stops the machine without breaking

Friendly user interface: just put the mass you want in each well in an Excel sheet, the machine measures the liquid characteristics and calculates the parameters to deliver the right liquid quantity. This way, viscosity, density and surface tension of used liquid don't influence the delivered mass

Dimensions (foot-print) mm	530(L) x 590(W) x 530(H) Designed to fit in a standard laminar flow cabinet
Power supply	230 V AC +5% -15% 50Hz 110 V AC is an option
Communication	Keyboard, PC and screen out of the laminar flow cabinet
	PC / machine communication by Ethernet
DISPENSING RANGE - ACCURACY	
Range	0,2 nl to 400 $\mu$ l (= 1/2.000.000)
Accuracy	Standard deviation (CV) <5% mass on the full range
LIQUIDS	
Allowed	Bleach 8°; PBS, ethanol 100% and compatible with stainless steel 316, Teflon, silicone
Suspensions	Yes (max size: 50µm)
VALVE	
Frequency	1.000 Hz
DROPLETS	
Minimum Spot diameter on polycarbonate plate	0,2mm
LIQUID TANK ON TOP OF VALVE	
<b>LIQUID TANK ON TOP OF VALVE</b> Design	Out of one stainless steel block to avoid gaskets and so possible leakage or external contamination
Design Volume	or external contamination from 1µl to 1litter
Volume  Level detection	or external contamination from 1µl to 1litter  Optical, generates an emergency signal to avoid aerosols generation
Volume  Level detection  Minimum volume requested	or external contamination from 1µl to 1litter  Optical, generates an emergency signal to avoid aerosols generation 1µl
Volume  Level detection  Minimum volume requested  Real dead volume	or external contamination from 1µl to 1litter  Optical, generates an emergency signal to avoid aerosols generation 1µl 0,5µl
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Volume  Level detection  Minimum volume requested  Real dead volume  Heating  PLATES  Types	or external contamination from 1µl to 1litter  Optical, generates an emergency signal to avoid aerosols generation 1µl 0,5µl Water jacket (20°C to 40°C temperature)  Well plates 96 / 384 / 1536 / 3456 any supplier according to SBS specifications
Design  Volume  Level detection  Minimum volume requested  Real dead volume  Heating  PLATES  Types  Glass plates / PS plates	or external contamination from 1µl to 1litter  Optical, generates an emergency signal to avoid aerosols generation 1µl 0,5µl Water jacket (20°C to 40°C temperature)
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Design  Volume  Level detection  Minimum volume requested  Real dead volume  Heating  PLATES  Types  Glass plates / PS plates  Positioning accuracy	or external contamination from 1µl to 1litter  Optical, generates an emergency signal to avoid aerosols generation 1µl 0,5µl Water jacket (20°C to 40°C temperature)  Well plates 96 / 384 / 1536 / 3456 any supplier according to SBS specifications Yes. Standard well plate foot print Format 6144 or more available 0.1mm  Via Excel file or via keyboard on machine
Design  Volume  Level detection  Minimum volume requested  Real dead volume  Heating  PLATES  Types  Glass plates / PS plates  Positioning accuracy  SOFTWARE  Input data  EXCEL worksheet	or external contamination from 1µl to 1litter  Optical, generates an emergency signal to avoid aerosols generation 1µl 0,5µl Water jacket (20°C to 40°C temperature)  Well plates 96 / 384 / 1536 / 3456 any supplier according to SBS specifications Yes. Standard well plate foot print Format 6144 or more available 0.1mm
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