

Add-on options

We offer suitable solutions depending on your experiments.

Program fluidic control system

Perfusion, Media Exchange, Drug Delivery and Mixing can be easily programmed and performed without disturbing your sample.

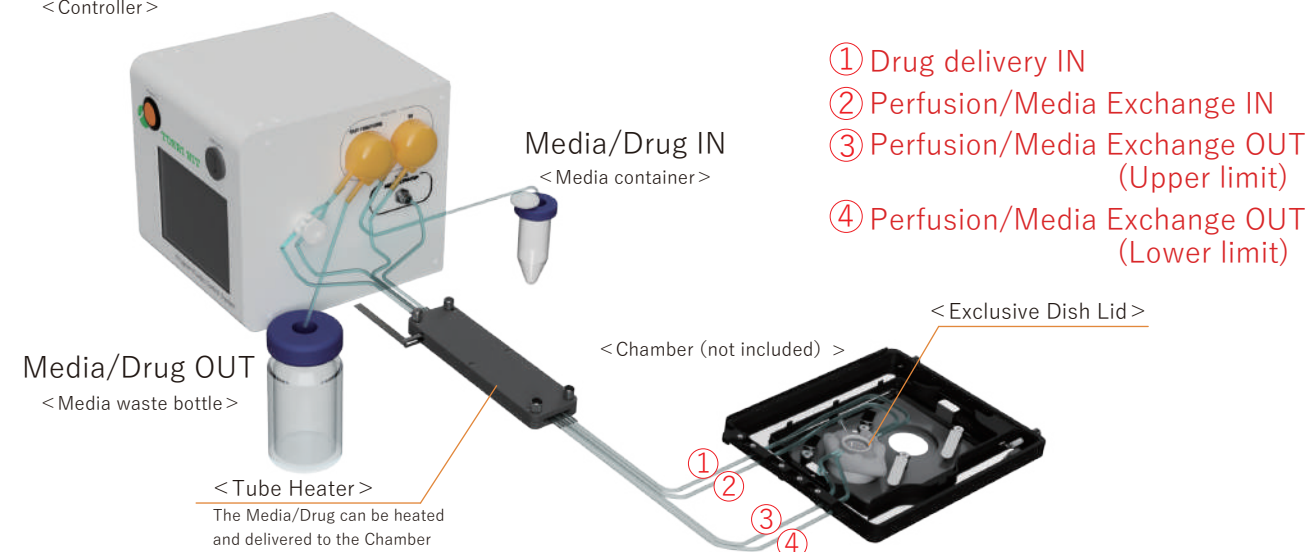
Model PMD-D35

- * For STX/STR/INU Chamber
- * For 35mm dish

【Specifications】

Continuous Perfusion : 40~100 $\mu\text{L}/\text{min}$
Media Exchange volume : 0.6 ml~5.0 ml
Media Exchange Number : Maximum 10 times
Drug Delivery : 20 μL ~
Controller size : W175 $\times$ D175 $\times$ H195 (mm)

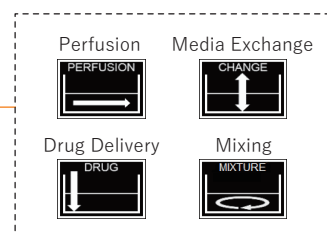
<Controller>



【Components】

- Controller
- Exclusive Dish Lid (PMD-D35FME)
- Tube Heater
- Tubes
- Media containers
- PC software
- * Media waste bottle is not included

- Enables the media and drug to be uniformly mixed after the drug delivery.
- Setting of suction / supply liquid volume at a precise flow rate is possible.
- Regulates the system with TTL IN/OUT.
- High-repeatability experiments are possible by keeping the media level uniform.
- Tube heater is included.
- Supports most 35mm dishes.
- Manages each user's program individually by using USB memory.



Micro perfusion system

It enables micro-scale perfusion culture on a microscope, continuously supplying fresh medium to maintain optimal oxygen and nutrient conditions.

Model MVV-MKSE-SR03 (0.03~40 $\mu\text{L}/\text{min}$)

MVV-MKSE-MR5 (5~1000 $\mu\text{L}/\text{min}$)



<Pump Unit>

Compact design that can be placed directly on the microscope stage.



<Controller>

The IN and OUT gas flow rates can be controlled independently.

【Components】

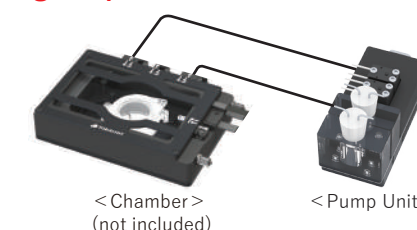
- Pump Unit (IN/OUT)
- Controller
- Tube set
- * All fluid-contact components are autoclavable.

【Specifications】

Flow rate : MVV-MKSE-SR03 0.03~40 $\mu\text{L}/\text{min}$
MVV-MKSE-MR5 5~1000 $\mu\text{L}/\text{min}$
Pump dimensions : W45 $\times$ D110 $\times$ H50 (mm)
Controller dimensions : W175 $\times$ D175 $\times$ H195 (mm)
Silicon tube : OD 3.0 (mm), ID 1.0 (mm)
* The flow direction can be changed.

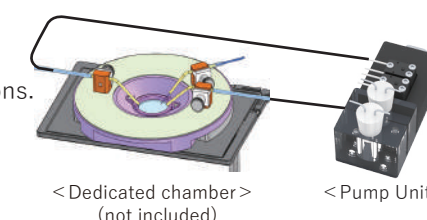
<Ex 1 : Combined use with the Stage Top Incubator>

It allows time-lapse imaging during micro-perfusion culture performed directly on the microscope stage.



<Ex 2 : Perfusion experiments on an upright microscope>

The optional dedicated chamber allows flexible tubing placement, ideal for electrophysiology applications.



【Application】

Constant flow control Perfusion culturing Tissue-engineering 3D culturing
Organoid Biomimesis MPS Micro-flow Time-lapse imaging Electrophysiology

Perfusion/Media exchange system

Perfusion/Media exchange without removing the dish lid can be performed. Prevents media evaporation and contamination during long-term imaging.

Model KSX-Type1 KS-Type1

- * For STX/STR Chamber
- * For INU Chamber

【Components】

- Controller
- Media Exchange Lid (LX-D35FME / D35-200FME)
- Diamond Insert (KS-DIA)
- Glass bottle with air filter (KS-BOTTLE)
- Tubes
- * Media waste bottle is not included

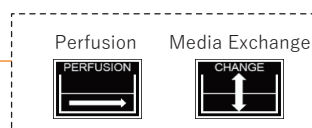
【Specifications】

Pump flow rate : 0~2.9 ml/min
(by using the attached tube)
Pump dimensions : W121 $\times$ D175 $\times$ H117 (mm)
Silicon tube : OD 3.0 (mm), ID 1.0 (mm) (Consumable item)



【Application】

- Medium Exchange for long-term time-lapse imaging
- For perfusion during calcium measurement or washing



One-push drug delivery system

Rapid and vibration-free drug delivery is possible. Prevents media evaporation and contamination during long-term imaging.

Model KSX-Type2 KS-Type2

- * For STX/STR Chamber
- * For INU Chamber

【Components】

- Controller
- Media Exchange Lid (LX-D35FME / D35-200FME)
- Cord with a drug administration start button
- Tubes

【Specifications】

Dosage : 20~100 μL
(Contact us if different dosage is needed)
Controller dimensions : W100 $\times$ D165 $\times$ H116 (mm)
Silicon tube : OD 3.0 (mm), ID 1.0 (mm)
(Tube for the dish is a consumable item)

