

- **Multi Wire Myograph with four chambers allows the study of four vessels or tissue rings simultaneously**
- **Ideal for work requiring a higher throughput such as repetitive concentration-response curves**
- **Jaw and pin supports facilitate the use of a mix of small or large ring segments from 30  $\mu\text{m}$  (on jaw support) or to 450  $\mu\text{m}$  (on pin supports)**
- **The segments remain viable for >12 hours**
- **Built-in electrical heating, electronic valves for simultaneous rapid removal of buffer, analog output of force**
- **Optional add-on of the Automatic Buffer Filler System - 625FS allows semi-automated filling of all four chambers**

The Multi Wire Myograph System - 620M is the successor to our very popular Multi Myograph System - 610M. This 4-channel Multi Myograph System is a highly sophisticated yet robust research instrument. It is an easy-to-use system for in vitro studies of small and large blood vessels, trachea or gut mounted as larger ring preparations.

Each individual Myograph, made of aluminium, has a centrally located 8 ml stainless steel chamber. The tissue supports (jaws or pins) are then positioned in the chamber, where one side is attached to the force transducer and the other side is attached to a micrometer.

Each Myograph has individually controlled gas inflow and suction. Heating and connections for vacuum and gassing are in the Myograph Interface, permitting the preparations in all four chambers to be kept under physiological conditions (37 °C and bubbled with a gas mixture of your choice). The Interface also houses all the electronics, a micro-processor for calibration, the circuitry for analog outputs, and an USB port for easy updates.

Following mounting and equilibration, passive length-tension relationships for the vessels are determined using a normalization procedure. This ensures reproducibility amongst the segments and between experiments. During actual experiments, the circumference of the vessel is kept constant. Compounds can be added directly to the chamber, and the vessel's contractility and reactivity are measured under isometric conditions.

This Myograph System is highly suited for pharmacological investigations on vessel reactivity. Multiple Myographs, especially in combination with the Automatic Buffer Filler System - 625FS, can be conveniently arranged side-by-side. This makes the 620M an ideal system for work requiring a higher throughput, such as drug screening, concentration responses or experiments where individual testing of vessels in separate baths is necessary.

The Interface with touch screen makes it easy to set up and use. Furthermore, the Interface is compatible with the DMT Device Enabler allowing automatic recognition of supported devices by LabChart, use of multiple devices simultaneously, correct units and ranges in LabChart channels and simultaneous recording of data into LabChart alongside a PowerLab. The DMT Device Enabler allows the Multi Wire Myograph System - 620M to stream data directly into LabChart without a PowerLab unit.



## Features

### Multi Interface

- Power supply

### 4 x Wire Myographs - 620M

- 4 sets wire jaw supports and 4 sets 200 µm pin supports
- 4 x chamber covers

### Accessories:

- 1 x calibration kit (including bridge, T-balance and 2 gram weight)
- 4 x 40 mm funnels
- 1 x stainless steel wire 40 µm
- 3 x Allen keys
- 1 x high vacuum grease
- 1 x grease for protection of linear slides
- 5 x spare screws
- 1 x screwdriver

## Optional accessories

- Automatic Buffer Filler System - 625FS
- Chamber cover for field stimulation
- Plastic mounting jaws for field stimulation
- Stimulator
- Data Acquisition System - PowerLab
- Data Acquisition and Analysis Software - LabChart
- Normalization Module
- Vacuum pump
- Suction bottle

## Technical specifications

### Multi Interface

<b>Force range:</b>	User selectable at ±200/400/800/1600 mN
<b>Force resolution:</b>	0.1 mN
<b>Micrometer:</b>	Manually operated
<b>Weight calibration:</b>	Semi-automatic
<b>Heating:</b>	Built into chamber, independent of superfusion
<b>Temp. range:</b>	Ambient temp. to 45 °C
<b>Temp. resolution:</b>	0.1 °C
<b>Temp. probe:</b>	External
<b>Output reading:</b>	Force (mN)
<b>Analogue output:</b>	Independently filtered 4-channel output at 2.5 V full scale
<b>Voltage:</b>	100-240 VAC (auto) 50/60 Hz via external power supply
<b>Ambient temp.:</b>	15-30 °C

### Wire Myograph - 620M

<b>Vessel size:</b>	>30 µm (jaw supports) >450 µm (pin supports)
<b>Chamber:</b>	Four individual chambers
<b>Chamber material:</b>	Acid-resistant stainless steel
<b>Chamber volume:</b>	Max. 8 ml
<b>Chamber suction:</b>	Manual or automatic, time controlled, user defined
<b>Chamber cover:</b>	Supplied with connections for gassing
<b>Chamber gassing:</b>	Individually controlled per chamber by needle valves

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