

PRESSURE MYOGRAPH SYSTEM – 110P-XL



- MULTI-PURPOSEFUNCTIONALITY
- COMPACT DESIGN
- RELIABLE & ROUBUST
 MATERIALS
- ACCURATE &
 RELIABLE DATA
- SMALL FOOT-PRINT & PORTABLE
- DIRECT DATA STREAMING
- STATE-OF-THE-ART TECHOLOGY

The Pressure Myograph System – 110P-XL is used to study the structure and function of large arteries, veins, and other vessels. Large vessel reactivity and compliance can be measured during diameter changes while the tissue is under physiological pressures, precisely controlled via the system interface.

The tissue mounts can accommodate vessels with internal diameters of $1.5-6.0\,\mathrm{mm}$. A built-in heating system maintains the chamber temperature, eliminating the need for continuous and often costly superfusion. The chamber cover includes ports for superfusion, rapid draining and filling, oxygenation and cumulative addition of drugs. To facilitate cleaning, the chamber is made of acid resistant stainless steel.

Once the vessel is mounted onto the two cannulas, the large optical window allows for tissue observation and continuous diameter measurements. The dimension analysis software MyoVIEW will control the temperature and internal pressure, while also recording diameter changes.

The 110P-XL system generates constant pressures, so pressures can be adjusted, but flow is not possible. Therefore the primary area of research is physiological responses under myogenic tone. Any experiment studying a pressurized vessel can be performed.

The state of the art Pressure Myograph software MyoVIEW will collect data such as changes in outer wall diameter, intravascular pressure, and a host of other calculated parameters, setting pressure or perfusion myography apart from standard organ bath techniques. However, the use of low-power objectives will have an impact on the ability to image through the vessel to the internal walls.

The Acquisition & Analysis Package
The DMT Inverted Microscope, inverted
Zeiss, Nikon or similar inverted microscopes
(contact DMT for further specifications)
with USB camera, computer and Data
Acquisition Software - MyoVIEW.



SYSTEM SPECIFICATIONS

CHAMBER

Chamber Volume (min) 8.0 ml Chamber Volume (max) 20.0 ml

Chamber 1

Chamber Material Stainless steel - acid resistant

1.5 mm- 6.0 mm Vessel Size (diameter) Vessel Size (length) 3.0 mm- 33.0 mm

Vessel alignment X, Y, Z 0.01 mm Micrometer resolution

Mounting type Cannulas (1.5mm, 2.0mm, 3.0mm

and 5.0mm)

TEMPERATURE

Temperature Range 15.0 to 50.0 °C

Temperature Resolution $0.1\,^{\circ}C$ Temperature Stability ±0.2 °C YES Heating

TRANSDUCER PRESSURE

Pressure Output mmHg

Pressure Range 0 - 250 mmHg Pressure stability ±0.5 mmHg Pressure Resolution 0.1 mmHg

RESERVOIR

Reservoir Heated YES 250ml Reservoir capacity Pressure circuit Closed **Pressure Circuit** 1 bar (max)

OUTPUT

Data communication **USB 2.0** Analogue channels 4

ADD-ONS AVAILABLE

MyoVIEW Acquisition

Computer Package (Desktop)

Inverted Microscope Stage Micrometer

Camera - High-Speed

Vacuum Package

Heating Bath Circulator

Dissection Stereo Microscope

Light Source - Arm Swan-neck

Dissection Tool Kit

Nylon Suture

Gas supply manifold- 4-channel

Peristaltic pump

Cannulas – Other sizes optional

Service & Maintenance

Agreement

Extended warranty +3 years *

* 2-Years of Warranty included in purchase

Analogue output range ±2.5 V

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