

- **Constant transmural pressure or luminal flow**
- **Visualization of vessel through optical base window**
- **Vessel diameter >30µm and <10mm length**
- **In-line pressure transducers**
- **XYZ alignment of pressurized vessel**
- **Acid resistant stainless steel chamber**



The Pressure Myograph System - 114PN has less optional features while still allowing experiments on pressurized small arteries, veins, and other vessels. This specific model is for researchers who want to design their pressure and flow studies without measuring the longitudinal force. A small, intact segment of an artery or vein is mounted onto two small glass cannulas and pressurized to a suitable transmural pressure. The near-physiological conditions permit the investigation of myogenic responses and flow-mediated dilation in response to pharmacological agents and other vasoactive compounds.

The force transducer and third positioning micrometer have been removed from the 114PN, making this system more economical. All other features and benefits from the 114P Pressure Myograph System have been included. 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, cumulative addition of drugs, and oxygenation. To facilitate cleaning, the chamber is made of acid-resistant stainless steel.

The state-of-the-art Pressure Myograph software MyoVIEW will collect data such as vessel wall thickness, changes in vessel and lumen diameter, intravascular pressure, and a host of other calculated parameters, such as shear stress and vascular resistance, setting pressure or perfusion myography apart from standard organ bath techniques.

As an option, the FlowMeter - 162FM can be added to the system to measure flow between 15-4000µl/min.

The Acquisition & Analysis Package

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



PRESSURE MYOGRAPH SYSTEM - 114PN

CHAMBER:

Chamber volume (min)	3.1 ml
Chamber(s)	1
Chamber material	Acid resistant stainless steel
Vessel size	>40 µm
Vessel alignment	X, Y, Z
Micrometer resolution	0.01 mm
Mounting type	Cannulas

TEMPERATURE:

Range	15.0 to 50.0 °C
Resolution	0.1 °C
Stability	±0.2 °C
Heating	Yes

TRANSDUCER PRESSURE:

Output reading	mmHg
Range	0 - 250 mmHg
Pressure stability	±0.5 mmHg
Resolution	0.1 mmHg
Force calibration	Yes

RESERVOIR:

Heated	Yes
Capacity	250 ml
Pressure circuit	Closed
Air inlet	1 bar (max)

OUTPUT:

Data communication	USB 2.0
Analogue output channels	4
Analogue output range	±2.5 V

