

- MULTI-PURPOSE FUNCTIONALITY
- COMPACT DESIGN
- RELIABLE & ROBUST MATERIALS
- ACCURATE & RELIABLE DATA
- SMALL FOOTPRINT & PORTABLE
- DIRECT DATA STREAMING
- STATE OF THE ART TECHNOLOGY

The No Force Perfusion Myograph System - 114PN is a system used to study the structure and function of isolated sections of small vessels (diameter $>40\ \mu\text{m}$) under near physiological conditions. Vessel diameters can be measured in response to pharmacological and physiological stimuli.

The 114PN offers the flexibility and functionality of the 114P pressure myograph: built-in heating, minimal working volume, steady or flow-based pressures, automated system control, ports for easy bath exchange and more. However, a few additional features, not absolutely required, are eliminated to reduce costs. Wall tracking and data about the system are still continuously recorded by a computer analysis software - MyoVIEW. The 114PN will work seamlessly with the FlowMeter - 162FM in order to measure flows between 15 - 4000 $\mu\text{l}/\text{min}$.

A built-in heating system maintains the desired chamber temperature, eliminating the need for continuous and often costly super fusion. A unique chamber design allows for open access for tissue mounting, while reducing the working volume to a few milliliters. The chamber cover includes ports for optional super fusion, rapid draining and filling, oxygenation and cumulative addition of drugs. To facilitate cleaning, the chamber is made of acid resistant stainless steel.



Because of the nature of the 114PN system, 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 vessel wall thickness, changes in vessel and lumen diameter, intravascular pressure, and a host of other calculated parameters can be collected, setting pressure or perfusion myography apart from standard organ bath techniques.



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.



NO FORCE PRESSURE MYOGRAPH SYSTEM - 114PN

CHAMBER:

Chamber Volume	3.1 ml	1
Chamber		1
Chamber Material	Stainless steel – acid resistant	
Vessel Size	>40 μ m	
Vessel alignment	X, Y, Z	
Micrometer resolution	0.01 mm	
Mounting type	Cannulas	

TEMPERATURE:

Temperature Range	15.0 to 50.0 °C
Temperature Resolution	0.1 °C
Temperature Stability	\pm 0.2 °C
Heating	YES

TRANSDUCER:

Calibration	YES
Pressure Output	mmHg
Pressure range	0 - 250 mmHg
Pressure stability	\pm 0.5 mmHg
Pressure resolution	0.1 mmHg
Reservoir heated	YES
Reservoir capacity	250ml
Pressure circuit	Closed
Air inlet	1 bar (max)

OUTPUT:

Data communication	USB 2.0
Analogue output channels	4
Analogue output range	\pm 2.5 V

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