ORGAN BATH SYSTEM – 820MO

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

The Organ Bath System - 820MO represents a state-of-the-art 4-channel organ bath system for isolated vessel rings (>250 µm) or muscle strips (>20 mm). This system is designed from the traditional organ bath concept, and small footprint, programmable force transducers, built-in vacuum, and gas bubbling with easy addition of automatic refilling have all been incorporated into the design. Gone are the days of floor-to-ceiling organ baths that take up entire bench space. Changing transducers to study large rings or muscle strips is no longer needed as you can easily adjust the force range to give the most sensitive data collection for various tissues. Built-in vacuum and gas bubbling allows for a turn-key system ready for use as soon as it arrives

The design and materials used for the chambers make maintenance and cleaning as minimal as possible. Preparing the system for experimentation takes little time, and cleaning at the end of the experiment is a matter of a few water washes. The aluminum and stainless steel in the chambers do not require detailed cleaning procedures and will stand up to heavy use. The chambers can be easily moved to a dissection microscope for quick tissue mounting- regardless of rings or muscle strips.

The tissue mounts are positioned in the chamber, where one side is attached to the force transducer and the other side to a micrometer. The micrometers allow the accurate pre-load setting, while sensitive force transducers will measure isometric vessel and muscle contractions. Force output is available as an analog signal or digital format via a USB connection.

Following mounting and equilibration, the length-tension relationships of the tissue can be determined. During the actual experiment, the length of the muscle is kept constant. Compounds can be added directly to the chamber to assess function. To study striated muscle function, stimulation electrodes are built into the chamber cover (optional) and can be used to activate the muscle via field stimulation from a current stimulator.

This organ bath is well suited to work in combination with the Automatic Buffer Filler System - 625FS, which can be conveniently arranged side-by-side, making the 820MO ideal for work requiring high-throughput screening, such as drug testing or for experiments requiring the separation of tissue preparations in individual baths.

SYSTEM SPECIFICATIONS

Number of Chambers:	Four (4)
Tissue Size:	500 µm – 10 mm (rings)
	1 mm – 20 mm (strips)
Tissue Mounts:	Pins: tubular segments
	Clamps: strips
Chamber Material:	Stainless steel – acid resistant
Chamber Volume:	4 mm (min)
	8 mm (max)
Micrometer Graduation:	0.1 mm
Chamber Drain/Suction:	Individually or all simultaneously
	Automatic, time controlled
Chamber Oxygenation:	Individually controlled needle
	valves
Force Type:	Isometric
Force Range:	Selectable ±200/400/800/1600 mN
Force Resolution:	0.01 mN
Force Output:	Force (mN) or Grams (g)
Calibration:	Semi-automatic
Heating:	Electronical, build-in
Temperature Range:	> 50 °C
Temperature Resolution:	0.1 °C
Output Type:	BNC and USB
Analogue Output:	Filtered or unfiltered
Analogue Output Range:	2.5 V Full Scale
Serial Output:	USB 2.0
Voltage:	100 - 240 VAC
System Dimensions:	L48 x W24 x H17 cm

ADD-ONS AVAILABLE

Current Stimulator

Electrodes

Buffer Filler System

Vacuum Package

Gas Supply Manifold

Data Acquisition

Computer Package

Dissection Tool Kit

Dissection Microscope

Light Source

Heating Bath Circulator

pH Meter & Electrode

Service/Maintenance Contract

Extended Warranty

Danish Myo Technology A/S
Phone: +45 87411100
Email: sales@dmt.dk
Web: www.dmt.dk

DMT-USA, Inc.
Phone: +1 734 707 0250
Email: sales@dmt@usa.com
Web: www.dmt-usa.com