



POWERFUL, VERSATILE & EASY TO USE SYSTEM FOR LANGENDORFF & WORKING HEARTS

POWERFUL

- » 3 perfusion modes:
 - Constant flow in aorta (Langendorff mode)
 - Constant pressure in aorta (Langendorff mode)
 - Constant pressure in atria, with post charge in aorta
- » Up to 3 physiological liquids can be perfused
- » Left ventricular pressure (LVP) measurement by balloon or pressure sensor tip)
- » Electrode and amplifier for ECG monitoring
- » Electrical stimulation
- » Extra sensors & associated amplifiers: temperature, pH, pO₂, pCO₂

VERSATILE

- » Especially designed for mice and rats hearts
- » Adaptable to rabbits and guinea pigs hearts

EASY TO USE

- » Easily switch from Langendorff to working heart mode to facilitate experiment start
- » System is fully integrated, with all tubing and connexion clearly organized, yet easily accessible.
- » Heart chamber is spacious, has heated walls and floor and a wide opening through sliding door
- » Dead volume is limited
- » Temperature is optimized





STANDARD AVAILABLE SIGNALS

Langendorff (constant flow or constant pressure):

- » Perfusion flow (coronary)
- » Perfusion pressure
- » Left ventricular pressure by latex balloon
- » Temperature



Temperature module

Working heart :

- » Perfusion pressure (veinous atrial pressure)
- » Postload pressure
(mimic the load created by the complete artery network)
- » Perfusion flow (coronary and aortic)
- » Left ventricular pressure by PTFE catheter
- » Temperature



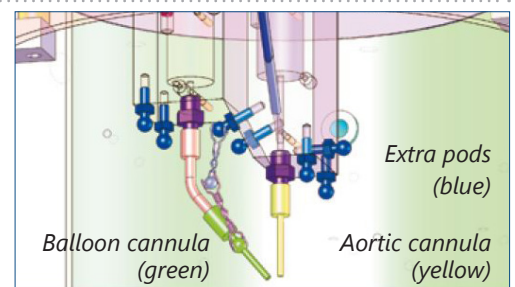
4 sizes of latex balloons for LVP measurement
7mm X 10mm, 4mm X 8mm, 3.5mm X 5mm & 1.5mm X 3mm

OPTIONAL SIGNALS

- » MAP, VAP measurement with contact micro eletrodes
- » Atrial flow with Transonic flowmeter in working heart mode
- » pH, pO2 (with additional hardware)
- » Electrocardiogram (ECG)
- » Electrical stimulation (with additional stimulator and electrodes)

PERFUSION HEAD FEATURES

- » Bubble trap (two sizes for rat or mouse)
- » Bolus injection port
- » Temperature probe port
- » Catheter port
- » Numerous pods for extra attachment (ECG or stimulation electrodes)



Balloon cannula (green)

Extra pods (blue)

Aortic cannula (yellow)

IOX2 SOFTWARE

- » Real-time analysis of recorded data
- » Dedicated modules for flow, pressure, LVP & ECG
- » Automation protocol feature
- » Connected hardware driving (regulator, electrovalves, etc.)
- » 21 cfr part 11 compliance
(data validation, audit trail & secured user access management)

