

perfusion system for mesenteric beds

productsheet

emka
TECHNOLOGIES

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emka TECHNOLOGIES' perfusion system for mesenteric beds: powerful & smart!

Our system allows you to study the effect of vasoactive substances and electrical stimulation on the mesenteric beds of small animals.

principles

Up to 4 mesenteric beds may be studied. Each organ lies on a stainless steel grid and bathes in a buffer solution. The organ is perfused at a constant flow rate via its artery. Several small cannulas are available to suit different artery sizes. Buffer flow rate is 5 to 10 times greater (maximum is 150ml/min.) than perfusion flow in order for perfusion to fully infuse bath liquid.

Pressure is measured just upstream of the cannula, reflecting changes in vascular tone. Heated water is circulated continually through the space behind the bath walls to maintain the buffer solution at the right temperature. Carbogen is released directly into the buffer solution.

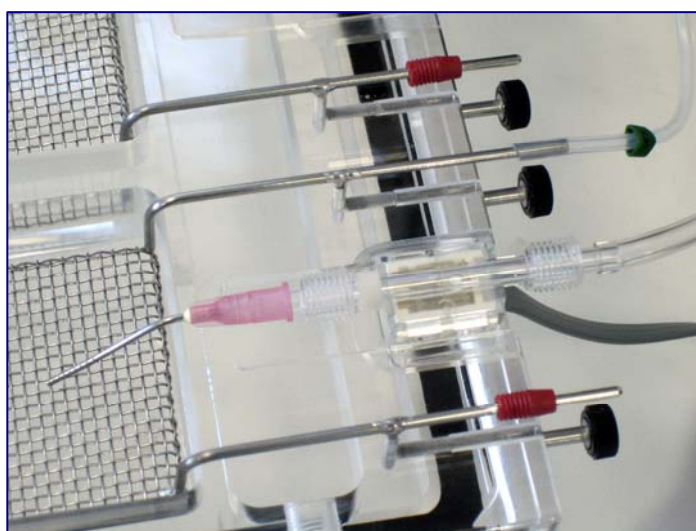
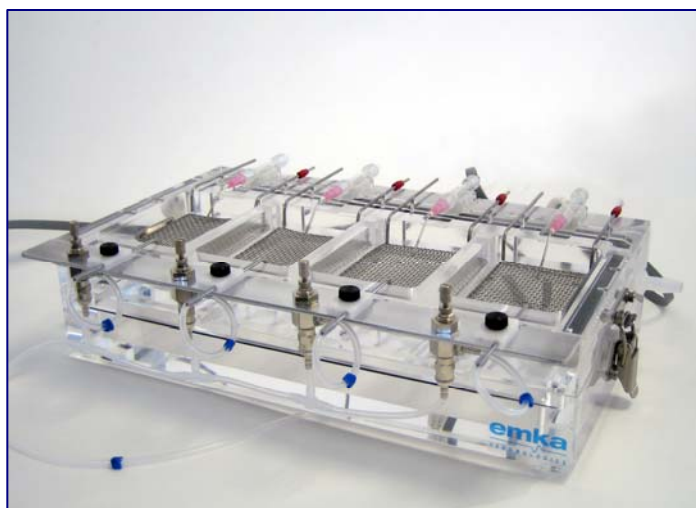
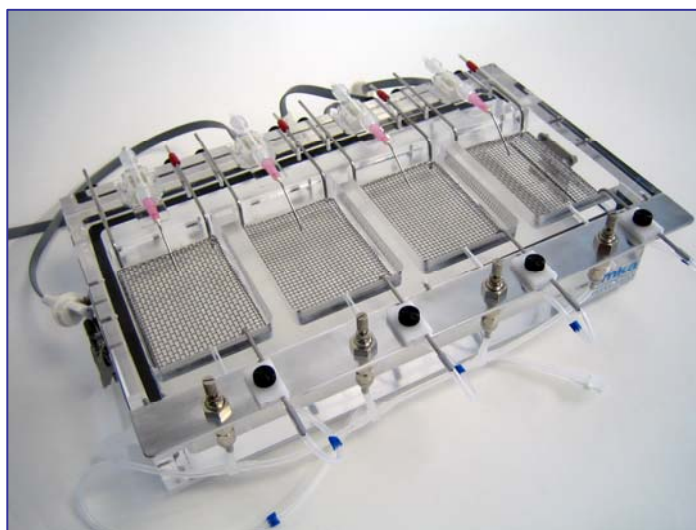
setup

The system consists of: 4 independent tissue baths; flow regulator (peristaltic pump); heater/pump for heating circuit and amplifier.

Each bath measures 90 x 60 x 20 mm.

main features

- 4 independent baths
- one protocol for each organ (different flow rate from one bath to another, simultaneous or staggered perfusion...)
- perfusate flow rate from 5 to 20 ml/min.
- easy to manipulate stainless steel grids
- adjustable bath volumes
- adjustable carbogen supply
- compact: tissue bath block fits onto an A4-sized sheet of paper!
- easy maintenance
- option: electrical stimulation (the impulse transmitted via the grids).



smart tools - swift services - sharp research

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iox2 software

The system can be used with iox2, emka TECHNOLOGIES's software for acquisition and real-time analysis.

iox also controls external devices. iox protocols allow you to automate the experiment.

signals acquired

In a standard system, one signal is acquired from each bed: perfusion pressure measured upstream of the mesenteric bed.

parameters generated

The analyzer generates an average value based on user-defined intervals.

1-bath system also available

Systems are also available for the study of one mesenteric bed. Do not hesitate to contact us for more information.



schematic diagram showing the fluid flows for one bath in a standard system of 4 baths.

