

Small Animal Capnograph for use with MR



- Mice and larger animals
- Low sample flow
- Ventilator compatible
- Easy to use
- Accurate
- Reliable

The **microCapStar Capnometer** provides accurate end-tidal or continuous measurement of expired CO₂ in animals as small as mice. It features very low sample flow requirements, rapid response time and long term stability. The Capnometer control and measuring module is positioned outside the magnet room and connected to the animal in the magnet bore using long pneumatic tubes. A Capnometer Interface Module sends data from the capnometer to a PC for recording and display. The microCapStar Capnometer can be used with the Model 1025 or 1030 MR-compatible Monitoring and Gating Systems as well as with the Model 1025L and 1025T Monitoring and Gating Systems for use in other imaging environments and in the laboratory.

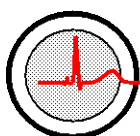
The CO₂ waveform, respiration rate, end-tidal CO₂ and absolute pressure are displayed and recorded along with all other available physiological monitoring parameters by a PC running SA Instruments' PC-SAM software. The CO₂ waveform and end-tidal CO₂ can be displayed in either mmHg or percent.

The heart of the microCapStar is a miniature, infrared CO₂ sensor with a temperature controlled sample cell. The heated sample cell prevents water condensation even during long measurement sessions. Low sample flow and rapid response is achieved with a carrier gas system where the high flow carrier gas quickly brings the low flow sample to the sample cell. Digitally controlled flow management automatically maintains a precise ratio of carrier flow to sample flow which is essential for accurate measurements.

Adjustable alarms provide a warning when end-tidal CO₂ is out of a user adjustable preset range. Built in diagnostics warn of plugged sample tubing or other fault conditions. Calibration is performed with a single calibration gas and room air.

Specifications:

CO ₂ analysis method	single beam IR
Measurement range end-tidal	0 – 9.9%
Accuracy end-tidal	0.15%
Measurement range mmHg	0 – 76.0
Accuracy mmHg	1.1 mmHg
Zero stability	0.2% (8 hours)
Interference effects 50% N ₂ O	0.6% at 5% CO ₂
Interference anesthetic agents	negligible
Optical bench temperature	48 °C
Warm up time	4 min to 0.2% 10 min to 0.1%
Sample flow	5 – 20 ml/min
Respiratory rate	5 – 200 breaths/min
Pneumatic tube length	8 m
Capnometer size: hwxwd	13x49x41 cm
Capnometer weight	10 lbs
Interface size: hwxwd	3.8x13.3x12.5 cm
Power	115/230 VAC



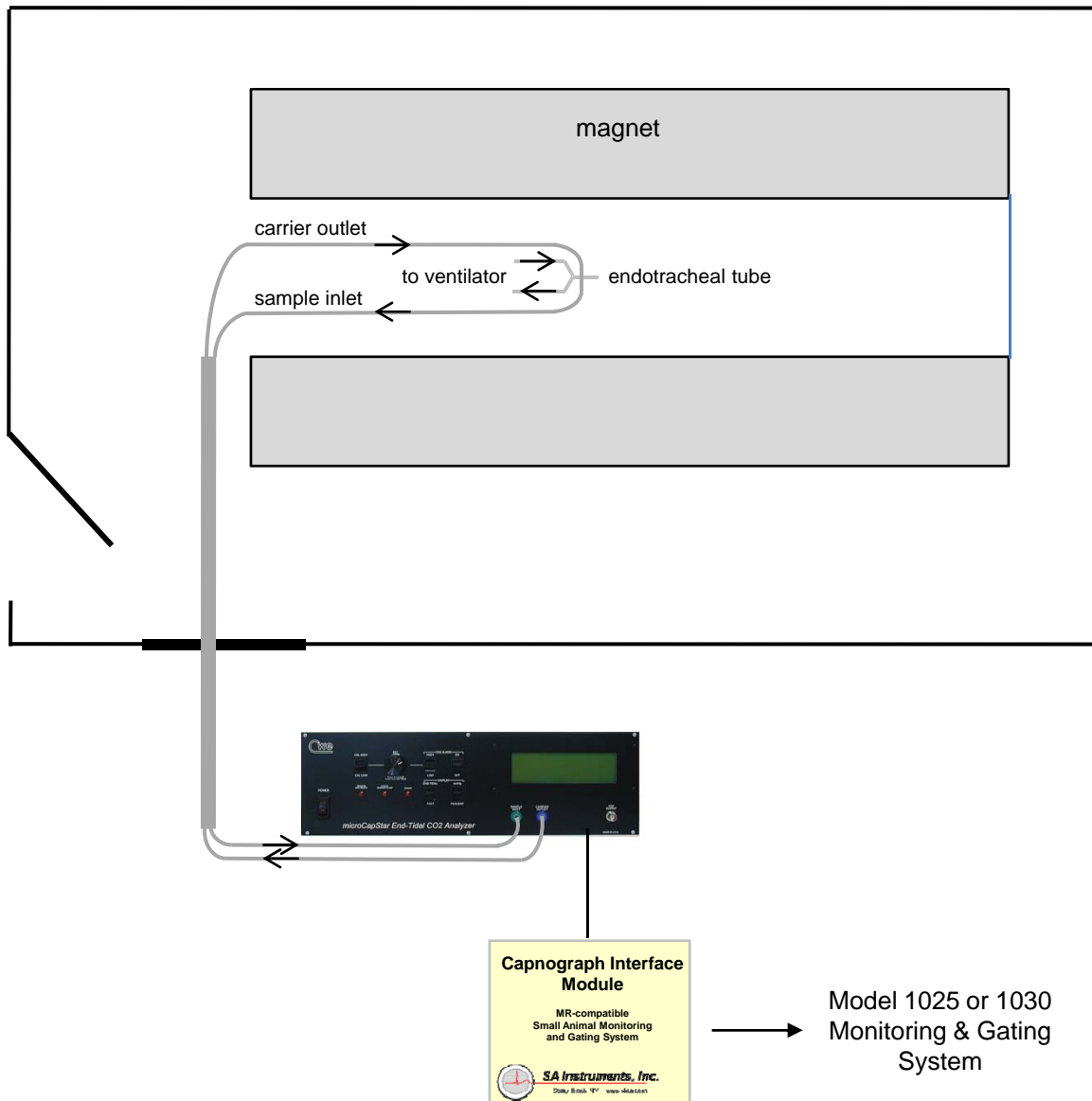
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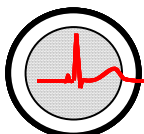
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Capnograph Connection in MR



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