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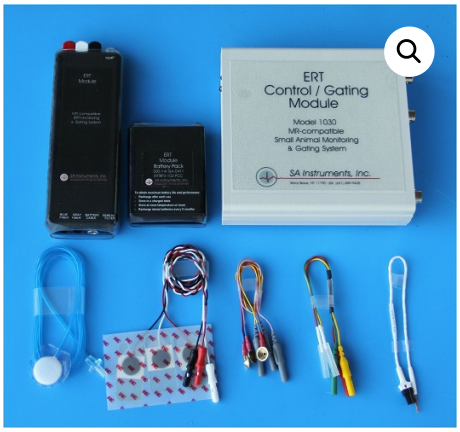

Model 1030 MR-compatible Monitoring & Gating System for Small Animals

The new MR-Compatible, Model 1030 monitoring and gating system is a 3rd generation system designed specifically to meet the physiological monitoring and gating needs for anesthetized mice, rats and larger animals in the MR environment. The system consists of an ERT Module located near the animal in the magnet bore and an ERT Control/Gating Module connected to a PC located near the operator console. The PC displays multiple waveforms, measured values, trends and gating pulses.

Category: Monitoring & Gating Systems

Description

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The new Model 1030 has increased performance, is simpler to use, monitors ECG, respiration and temperature with fewer components and at a reduced cost. In addition, all the SA Instruments MR-compatible optional measurement modules can be accommodated by the Model 1030. A cost effective upgrade path is available for existing Model 1025 systems. When requesting a quote mention in the comments that you have a Model 1025 and if you have or do not have the IBP option.

MONITORING	GATING
• ECG • Respiration • Temperature • Auxiliary Channels • Options	• ECG • Respiratory • ECG & Respiratory • Auxiliary Inputs
Temperature Control Waveform and Trend Data Acquistion	

The **ERT Module** measures ECG using three leads with needle or surface electrodes, respiration from a small pneumatic pillow sensor and/or from the movement of one ECG lead in the strong magnetic field and temperature with a small rectal thermister probe. Power is supplied by an external, rechargeable battery. The **ERT Control/Gating Module** receives data from the ERT Module and any of several optional acquisition modules. The ERT Control/Gating Module sends data to the PC for display and receives user instructions from the PC to control measurement and gating functions. Gates from ECG, respiration and any of the available options are generated by the ERT Control/Gating Module's microprocessor and sent to the MR system. The delay from the R-wave peak to the MR system gate is user selectable as is the expiration gate delay and width. The module also controls a heating system which can regulate the temperature of the animal. The following **options** are available for use with the Model 1030: invasive blood pressure (IBP) measuring systolic, diastolic and mean arterial pressure, pulse oximetry using fiber optic sensors to measure oxygen saturation (SpO2), heart rate and pulse distension, capnography measuring respiration, end-tidal and minimally inspired CO2, a ventilator regulating respiration, ultra-miniature fiber optic pressure (FOP) sensors to make minimally invasive pressure measurements and fiber optic temperature (FOT).

Specifications:

ERT Module:

ECG	Range:	40 - 900 BPM
	Accuracy:	±1%
	Input range:	-2.50 mV to 2.5mV
	Input Impedance	>10 MΩ @ 10 Hz
	CMRR:	100 dB @ 60 Hz
Resp	Range	15 - 300 bpm
	Accuracy	1 count
	Semsor	pneumatic pillow and/or ECG lead
Temp	Probe types	thermister
	Range	10 – 70 °C
	Accuracy	+/-0.2 °C
Module	Power - battery	rechargeable
	Battery life:	>15 hours
	Time to full charge	<2 hours
	Size: hxwxd cm	2.1x5.1x14.0

ERT Control/Gating Module:

Gating	R-wave to gate delay	user selectable
	Expiration gate width and delay	user selectable - 1 ms step size
Temp	Heater control	fiber optic PWM
	Size: hxwxd cm	3.8x13.3x12.5

Optional Modules:

IBP	Display range	0 – 300 mmHg
	Channels	3
SpO2	Range	70 – 100%
	Heart rate	40 – 700 BPM
CO2	end-tidal range	0 – 9.9%
FOP	Range	0 – 300 mm Hg
	Channels	3
FOT	Range	20 – 60 °C
	Channels	4

PC requirements:

Software:	any Windows including seven
Hardware:	>1 GHz processor, Serial or USB communication port, CD reader

Download the Model 1030 brochure

Related products

Monitoring and Gating Systems for 3 or 4 Animals

Request Quote

Model 1025T Monitoring & Gating System for non-MR Imaging Systems now with Fiber Optic Temperature

Request Quote

Model 1040 MR Monitoring & Gating System for Magnetic Particle Imaging

Request Quote

Model 1035 MR-compatible Monitoring and Gating System for Larger Animals

Request Quote