

PULSE OXIMETER COMPARISON

Manufacturer Product	Kent Scientific Corporation <i>PhysioSuite/ MouseSTAT</i>	Starr Life Sciences <i>MouseOx</i>
Performance:		
SpO2 Sensitivity	70% to 100% Oxygen Saturation with low level visual and audio alarms	70% to 100% Oxygen Saturation with no low level visual and no audio alarms
Real-time Data Acquisition	Yes	No- Delayed Real-time Observation: 1.2 seconds
Motion Resistance	Subject should not move- motion artifact	Subject should not move- motion artifact/ offers 'Awake' sensor- inconsistent
Ambient Light Resistance	Yes	No- requires a provided blanket to eliminate ambient light such as overhead lighting
Noise Resistance	Yes	No- failure to acquire measurements in any slightly noisy frequency environment
Dropout Rate	None	When the pulse signal is lost, the computer display 'grays out' and provides no values
Reliability	Yes- for the full SPO2 measurement range	Unreliable especially in the 70% to 80% measurement range
Consistency	Yes- for the full SPO2 measurement range	Inconsistent SPO2 measurements
Signal Reliability Monitoring	Yes- by the gold standard Perfusion Index	Yes- manufacturer designed software algorithm
Peer-Reviewed Clinical Validation	Yes- Mice and Rats	Yes- but only rats, not mice
Bandwidth	Wide range	Narrow range
Functionality:		
Multiple Vital Sign Parameters	Oxygen Saturation, Heart Rate, Respiratory Rate, and Perfusion Rate	Oxygen Saturation, Heart Rate, Respiratory Rate, No Perfusion Rate
Integrated Physiological Parameters	CapnoScan CO2 Monitoring and RightTemp Temperature Monitoring Options	None
Multi-functional Capabilities	RoVent Automated Ventilator and SomnoSuite Anesthesia System Options	None
Internal Memory	1000 Pulse Oximetry Measurements with auto refreshing capabilities	None
Sensor Selection	Mouse and Rat Sensors, Whole Body Pup Sensors	Mouse and Rat Sensors, Collar, No Pup Sensors
Sensor Site Preparation	Standard, no special preparation required	Special preparation required- fur must be shaved/ removed
Standard MRI Sensor Compatibility	Yes	No- offering an expensive custom MRI Fiber Optic Assembly
3rd Party Sensor Compatible	Yes- will interface with Nellcor and Nonin SPO2 Sensors to accommodate larger animals	No sensor compatibility with any other companies
Durability:		
Sensor Longevity	50,000 Hours	Planned Obsolesce- Sensor is programmed to stop at 100-hours requiring replacement
Product Warranty	1-Year 100% Parts & Labor, Extended Warranties available	1-Year 100% Parts & Labor, No Extended Warranties available
100% Return Guarantee	100% Return Guarantee with no penalties or re-stocking charges	100% Return Guarantee but a 20% Re-stocking Charge Penalty
Technical & Clinical Support	Phone and email post-sale support by the clinical department and Onsite Training Visits	No Clinical Department / No Onsite Support
Usability:		
Design/ Dimensional Footprint	All-in-one small footprint standalone	Not a standalone product, multiple large parts / Separate Computer Required
Installation & Set-up	Plug & Play' Set-up	Many components and proprietary software needed for installation on your computer
User-friendly Interface	Customer Preference User Menus	Limited
Real-time Integrated Display	Yes- Built-in High-Definition Display	No- Your Computer Screen is required to display measurements
Data Acquisition Transfer/ Exporting	Yes	Yes
3rd Party Data Acquisition Capabilities	Yes- including ADI Lab Chart	No
Multiple Power Options	Yes- AC Power and Remote Powered with External Battery	No
Price Range:		
	\$ 1,475 to \$ 4,975	\$ 3,000 to \$ 8,000
	MouseStat Jr. is available as a handheld, standalone device too	Requires the purchase of a Computer and proprietary software