Stellar Devices: Features & Benefits Overview

Features and benefits	Memory Devices	Continuous Devices
Transducer-tipped solid state pressure catheter High fidelity pressure recordings | No fluid head pressure	✓	✓
Wireless remote programming of implants Program while implanted	✓	✓
One receiver for multiple animals Lower cost | Easy placement | Minimal cabling	✓	✓
Continuous data collection Ensure every heartbeat and event is captured	✓	✓ (Optimal use)
Scheduled data collection Prolong battery life | Manage device to data protocol	✓ (Optimal use)	✓
Fully digital data transmission Minimize data corruption and loss	✓	✓
Built-in memory | Remote data collection Allow remote collection outside of confined cage environment	✓	
Transmission range Flexible receiver placement | Minimize number of receivers | Allow for enriched housing	>5 meters	1-3 meters
Available sizes Accommodate a wide range of implant sizes, animal sizes, and battery life	XS, M, L, XL, XXL	XS, M, L
Target animal size Multiple device sizes to accommodate a wide range of animal sizes	22g to unlimited (any animal size)	22g to 1.5kg (rodents/small animals)
User programmable sample rate Optimize sample rate based on signal type and required battery life	100/200/500/1000Hz Same for all channels	100/250/500Hz Adjust per channel
Battery life Tailor device size and battery life to animal size	1 day to 3 months (continuous) 30 days to >1 year (scheduled)*	18 days to 9 months (continuous) >1 year (scheduled)*
Pressure range Accommodates wide range of physiologic pressures	-20 to 300mmHg	-20 to 300mmHg
Biopotential range Accommodates wide range of physiologic biopotentials (ECG, EMG, EOG, EEG)	Varies	Varies
Temperature range Accommodates wide range of physiologic temperatures	0-45˚C** External probe available	0-45˚C** External probe available
Activity Provides qualitative measurement of movement	Relative movement (counts/sec)	Relative movement (counts/sec)

* Scheduled battery life based on 10-second sample every 10 minutes. Varies based on device size, number of channels, sample rate, and data collection protocol.

** Extended temperature range can be accommodated on request.