

Stellar[★] Telemetry

The Freedom to move anywhere, anytime and still collect your data



▪ Pressure

▪ Tidal Volume

▪ Temperature

▪ Heart Rate

▪ Activity

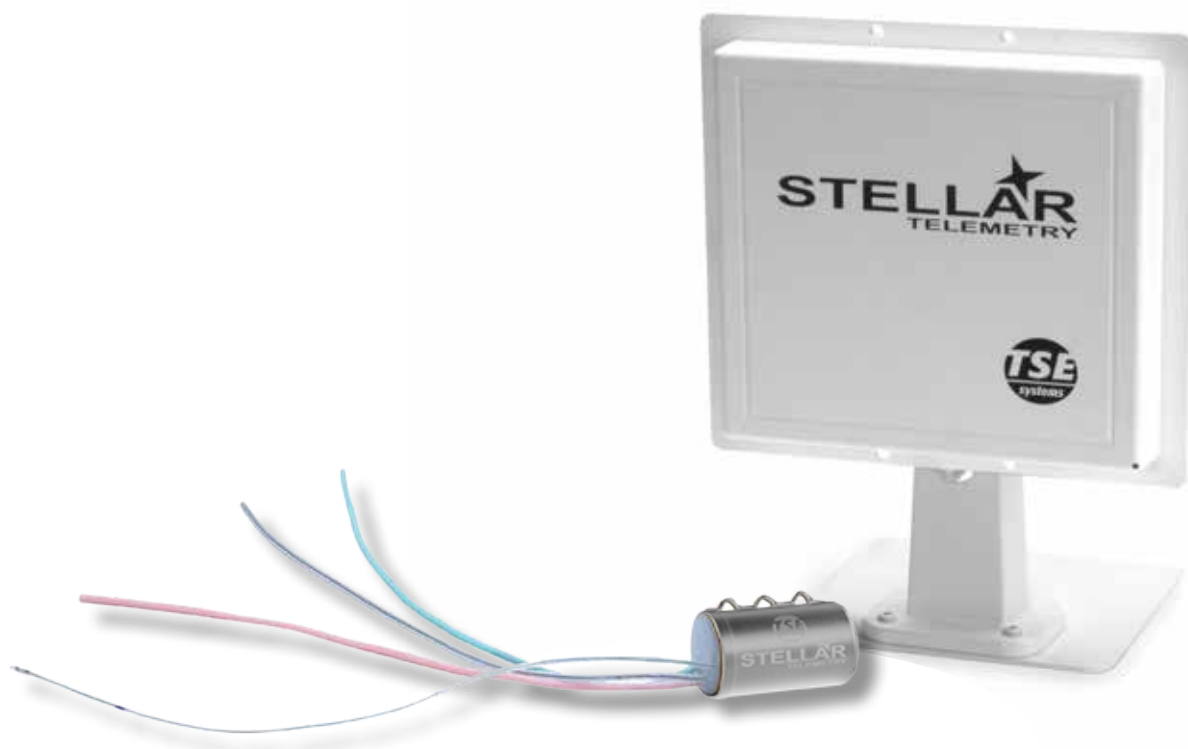
▪ ECG

▪ EEG

▪ EMG

▪ EOG

Mice to Large Animals



Stellar Telemetry: The Next Generation

Stellar Telemetry the next generation of implantable telemetry technology.

The system allows monitoring of unlimited animals with just one receiver thus allowing group housing **AND** social interaction studies **AND** monitoring of animals without the need for individual dedicated platforms under each cage. Further, no other system on today's market allows researchers the freedom to move your animals away from their home cage for the purpose of performing specific tests anywhere in your facility with no loss in data thanks to on-board controlled recording and storage. Animals are allowed to roam freely and interact in groups with no restriction in size and number. No large complicated, cumbersome set-ups required, just one receiver and transmitters are all that is required to perform studies. The Stellar Telemetry system can be implanted into any animal from mice up to bears or even aquatic animals with no additional items required. Finally an implantable telemetry system for research that performs with great efficiency, and ease without the large capital expense required with other systems on the market

The Stellar Telemetry system allows researchers to measure and collect vital signs while performing phenotyping, physiological, pharmacological, behavioral, metabolic, inhalation and any other studies in your facility.

Transmitters – Pressure, Heart-Rate, ECG, EEG, EMG, EOG, Temperature, Tidal Volume, and Activity.

Stellar Telemetry transmitters allow measurement of activity, pressure (P), tidal volume, electrocardiogram (ECG), electro-encephalogram (EEG), electromyography (EMG), electrooculography (EOG), heart rate and temperature in a hermetically sealed system. Catheters are solid state pressure tipped sensors, eliminating slow frequency response, head pressure and animal movement noise which are associated with fluid filled catheters. Transmitters can be ordered in any combinations of the following: Activity / Pressure / Tidal Volume / Temperature / ECG / EEG / EMG / EOG / Heart Rate.

Stellar Telemetry Receiver

Monitor thousands of animals with a single receiver.

Receive your data from anywhere in the lab. Animals can be removed from receiver range while still recording their parameters with Stellar's unique self-scheduling/data storing capabilities. Data transfer is resumed once the animal is within range. The Stellar receiver can be placed either on the wall, ceiling, or even in another room by utilizing the expansive 5m range.

YOUR BENEFITS

BENEFITS

- 24h data recording on board
- Activity
- Pressure (sensor tipped catheter)
- Tidal Volume
- ECG
- EEG
- EMG
- EOG
- Heart Rate
- Temperature
(Core Body, Brain, Tail, Brown Fat, etc.)



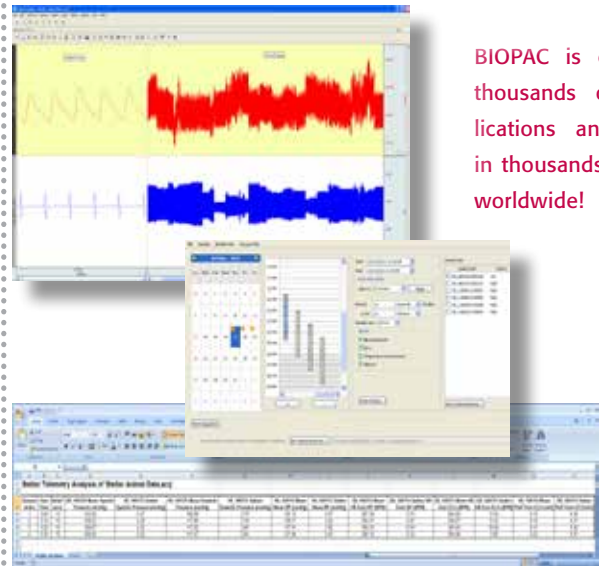
Stellar Telemetry: Dedicated Software

BIOPAC AcqKnowledge Software

Use the power of AcqKnowledge Software for seamless integration of animal scheduling, telemetry data recording, video monitoring, and fully automated signal analysis for a variety of physiological signal types. Scripting options allow for fully automated and customized analysis routines.

Key features

- Easy-to-configure animal schedule with intuitive calendar interface
- Powerful display options—view data in multiple formats simultaneously
- Signal conditioning tools including filtering options and artifact removal
- Multi-Animal, Multi-Channel simultaneous automated data analysis
- Data and results are automatically exported to Excel for further statistical analysis



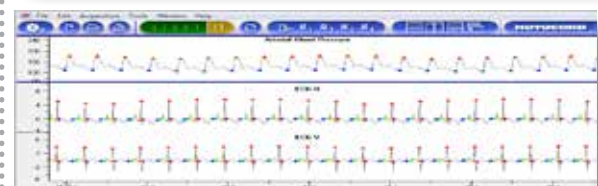
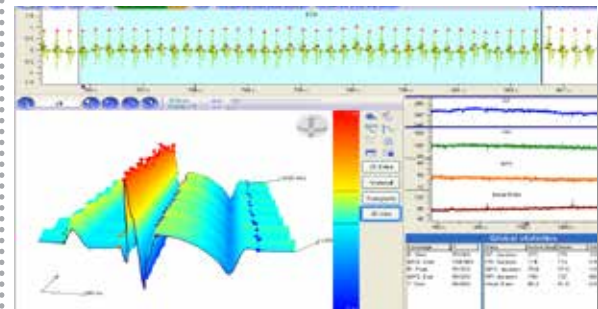
BIOPAC is cited in thousands of publications and used in thousands of labs worldwide!

NOTOCORD-hem™ Evolution

NOTOCORD-hem™ Evolution is an advanced software platform designed to acquire, display and analyze physiological signals.

Key features

- Flexible and open software platform providing customized analysis
- Simultaneous acquisition possible from different sources and systems (E.g. physiological data and video)
- Multiple sessions to acquire data from different channels in each session
- Compatible with various experimental setups and animal species
- Extensive library of signal processors and analyzers
- Various displays with advanced capabilities (continuous, digital, 2D, 3D, video...)
- Real time review of data and results during acquisition
- Ultra fast access to data whatever the experiment file size
- Fast and customizable reporting in Excel® with the possibility to create customized data extraction templates
- Single and highly compressed generated file containing all data
- GLP / 21 CFR Part 11 compliant



Battery Life

The Stellar battery life allows for unsurpassed lengths of recording time with the batteries lasting on average 4 times longer than current systems. The disposable Stellar transmitters can be reused as many times as needed until the battery is depleted. Replacement is fast and economical. Returning/refurbishing to factory is not required with the Stellar transmitters.

TECH DATA				
TRANSMITTER ANIMAL BODY WEIGHT	20 g+	170 g+	240 g+	500 g+
Typical range	5 meters / 16 ft			
Volume	1.9 cm ³	6 cm ³	8.9 cm ³	13.2 cm ³
Parameters	Pressure, Tidal Volume, Heart Rate, Temperature, Biopotentials, Activity			
Sample rate / sec	100 / 200 / 500 / 1000 Hz (1 ... 5000 Hz optional)			
Auto on / off	Unit is always in power saving mode until instructed by the computer to conduct a measurement session			
Battery life	up to 4 months	up to 12 months	up to 24 months	up to 36 months
CHANNEL PRESSURE				
Pressure range	-20 to +300 mmHG Solid State Pressure Sensor			
TEMPERATURE				
Temperature range	15...45 °C			
RECEIVER				
Maximum number of transmitters per receiver	unlimited			
Barometric pressure reading	Built into Receiver Unit			
Computer connection	USB			
Power	from USB Port			



TSE Systems 24h Service

TSE Systems offers an outstanding, global 24/7 premium customer service. Our experienced experts are dedicated to complete customer satisfaction and will solve your problem by e-mail, phone or an on-site visit.