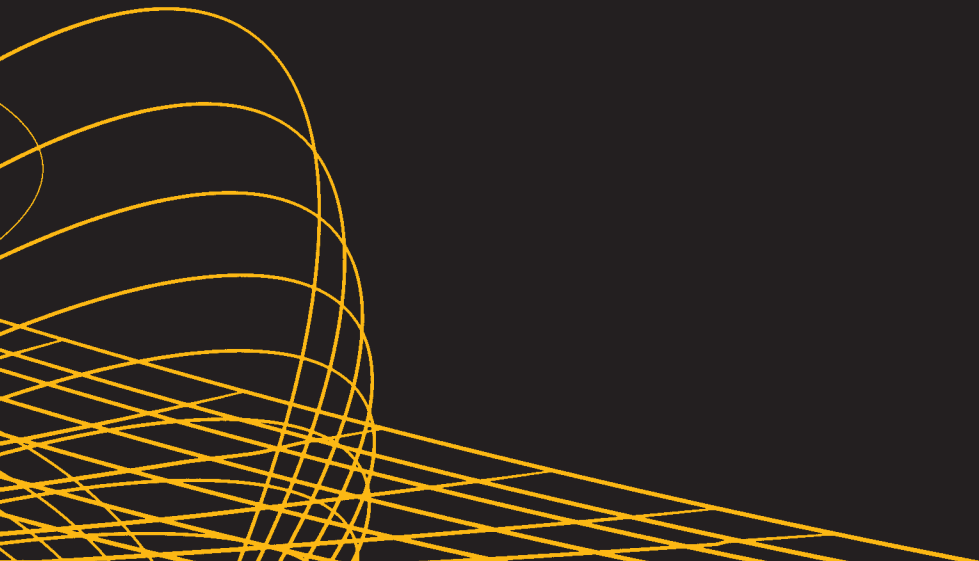


Respiratory Solutions



..... Designed with Your Research in Mind



Solutions You Can Trust for Your Respiratory Applications

DSI has developed proven technologies, products and services for researchers performing acute or chronic respiratory studies.

- Small to large laboratory animals
- Multiple product choices available: plethysmography solutions, implantable and external telemetry
- All software, components and accessories necessary for a successful study

Our respiratory solutions are used by researchers worldwide in a variety of industries including: Pharmaceuticals, Academia, Contract Research Organizations, Biological and Chemical defense, the Medical Device Industry, Government and Biotechnology companies.

> Acute Monitoring Solutions

DSI offers a variety of plethysmography solutions including chambers, helmets, accessories and replacement parts.

Our systems offer easy to use, high quality designs to obtain accurate results for various respiratory parameters such as tidal volume, minute volume and respiration rate. In addition, we also offer a wide array of signal conditioners and amplifiers necessary for your study.

These systems are complementary to DSI's implantable telemetry solutions, offering expanded physiologic monitoring capabilities to gain more data per laboratory animal.

Partner with DSI today
for a complete,
proven solution for your
respiratory studies.

Ponemah™ Software

Integrated, core software platform provides flexibility and versatility for respiratory studies.

SET-UP

- Efficient calibration tools
- Simple, automated features

ACQUIRE

- Collect data from plethysmography chambers, implantable or external telemetry

ANALYZE

- Maximum versatility with multiple analysis modules
- Report real-time, accurate results

> Chronic Monitoring Solutions

Proven health benefits for laboratory animals make telemetry a premium choice for physiologic monitoring. DSI offers implantable and external telemetry options for continuous measurement of the respiratory system.

Implantable Telemetry

Designed for monitoring physiologic parameters in conscious, freely moving laboratory animals.

- Stress-free data collection
- High quality signals
- Versatile option for monitoring both respiratory and cardiovascular parameters in one animal

External Telemetry

Designed to monitor respiratory parameters in a non-invasive manner with jacketed external telemetry.

- Accurate measurements
- Easy to use with maximum portability
- Flexible and adaptable

Respiratory Parameters Available from DSI Solutions



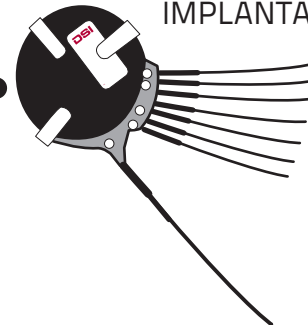
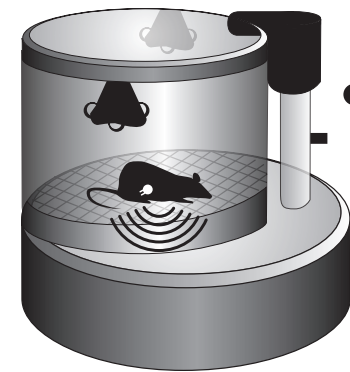
AVAILABLE PARAMETERS	METHODS						
	TELEMETRY		PLETHYSMOGRAPHY				Anesthetized Resistance & Compliance
	Implantable	External	Unrestrained Whole Body Chamber	Dual Chamber	Head-Out Chamber	Head-Enclosed Chambers/Masks	
Respiratory Rate	■	■	■	■	■	■	■
Tidal Volume	■	■	■	■	■	■	■
Minute Volume	■	■	■	■	■	■	■
Intrapleural Pressure	■						■
Resistance & Compliance	■ ¹				■ ¹	■ ¹	■
Enhanced Pause (Penh)			■				
Non-Invasive Airway Mechanics				■			
Diaphragmatic EMG	■						
Metabolism (CO ₂ , O ₂)			■	■			
Pulmonary Artery Pressure	■						

¹ Resistance and compliance parameters are available with the combined use of implantable telemetry and head-out plethysmography and/or head-enclosed plethysmography.

Multiple Sensing Options with a Single Acquisition System

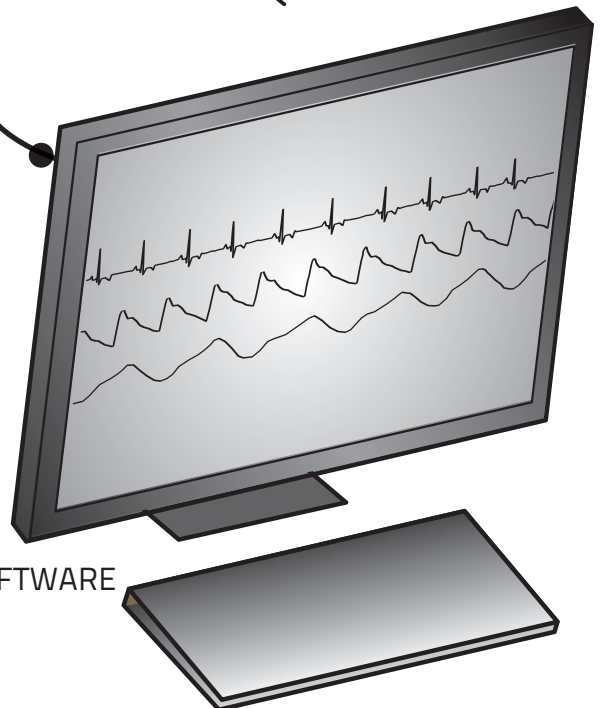
PLETHYSMOGRAPHY SOLUTIONS

IMPLANTABLE TELEMETRY



ACQUISITION HARDWARE

EXTERNAL TELEMETRY



PONEMAH SOFTWARE



Better Data. Better Science.

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Scientific Services

Available to help researchers successfully acquire and analyze respiratory study data.

SURGICAL SERVICES > Help minimize surgical challenges with implantable telemetry

DATA ANALYSIS SERVICES > Data Analysis services to aid in data evaluation and reporting

VALIDATION SERVICES > Validation services to ensure full software system compliance

About Data Sciences International

DSI is a pioneering biomedical research company focused on preclinical systems physiology and pharmacology. The recognized global leader in physiologic monitoring, DSI offers telemetry, instrumentation, software and services that help advance science. DSI serves many industries including: Pharmaceuticals, Academia, Contract Research Organizations, Biological and Chemical Defense, the Medical Device Industry, Government, and Biotechnology companies. We offer solutions that are tailored specifically to meet the unique research needs of our customers.

Unsurpassed Support

Should you need further assistance, DSI's Technical Support and Customer Service teams are, located around the world and available to provide answers to any questions you have regarding DSI solutions.

To learn more, contact your local DSI Representative today! www.datasci.com