



VivaQuantTM In-line Filter

An ECG Noise Reduction Solution for Nonclinical Studies.

Saves Time.

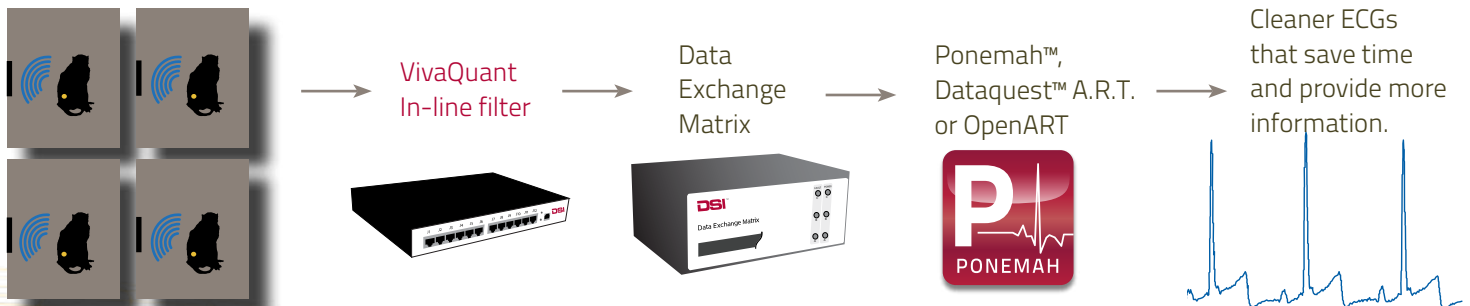
The VivaQuant In-Line Filter (ILF) is a tool that allows researchers to more quickly analyze ECG data from large animal nonclinical studies. The ILF effectively filters noise from ECG signals with subcutaneous lead placement.*

Improved ECG Signal Quality.

The ILF is compatible with DSI large animal telemetry system configurations including implants, receivers and software. Using the ILF, researchers can filter the noise commonly associated with ECG data collection. The reduction in noise has proven to increase analyzable data by up to 98%.*

Easy to Use.

The ILF offers a simple 3 step, plug-in process to install the filter and easily add on to an existing preclinical system setup. Validate the VivaQuant ILF via a simple change control. The pass-through ports allow for simultaneous comparison of filtered and unfiltered data. In addition, DSI offers on-site validation services plus system set-up assistance to get your studies running without delay.



Specifications

VivaQuant ILF Performance Specifications	Description
DSI compatible transmitter models	D70-PCT, D70-PCTP
DSI compatible receiver models	RMC-1, RPC-1, RSC-1
DSI compatible software	Ponemah, Dataquest A.R.T. and OpenART
Number of inputs / outputs (normal mode)	6 inputs / 6 filtered outputs
Number of inputs / outputs (validation mode)	4 inputs / 4 filtered outputs / 4 receiver pass-thru outputs
Validated Species	Dog, pig, non-human primate
Validated ECG Type	Subcutaneous

VivaQuant ILF Configuration Utility GLP Compliance	Description
Controlled user access	User log-in with password required
Traceability	Records user log-in and configuration changes

VivaQuant ILF Physical Attributes	Description
Size	25.5L X 18W X 3.8 D cm
Weight	850 grams
Power requirements	90-240 VAC, 50/60 Hz, 36W

*Published studies show that the interpretable portion of telemetered subcutaneous NHP ECG recordings range from 10% - 75%. The use of an epicardial or intravenous ECG sensing lead increases the interpretable portion to between 70% and 95%. VivaQuant ILF has been shown to increase the interpretable portion of subcutaneous NHP ECGs to between 84% and 97%. Details are available from the following publications:

Brockway, M., & Hamlin, R. L. Evaluation of cardiac safety using highly automated electrocardiogram analysis. *Journal of Pharmacological and Toxicological Methods*, 2011, 64, 16-24.

Kelly C.M., Miyamoto M., Brockway M. & Brockway B. Evaluation of an in line filter for reducing noise in subcutaneous telemetered ECGs. Abstract 68, page 13, *Toxicological Sciences* 2013.

VivaQuant[™]
Quantifying vital signs. Accurately.

Designed and manufactured for DSI by VivaQuant LLC.