

AV-block II arrhythmia detection in a dog ECG signal

## KEY FEATURES

- Automated online cardiac arrhythmia detection
- Detection of pauses, atrial, junctional and ventricular beats, AV-block II
- Customizable parameters for arrhythmia definition
- No waveform library needed
- Fit for multiple species
- Fit for all acquisition devices

## FINDING A TREE IN THE FOREST

Arrhythmia detection often is a time-consuming, uncertain and visually exhausting process requiring expertise. ECG signal review is therefore limited to a few sections of the whole acquired signal, leading to missed detections, a real issue in safety pharmacology studies.

To overcome these obstacles, NOTOCORD® developed a resourceful and time-saving solution: **ARR30a**.

With our **automated arrhythmia detector**, set your own parameters, let the module screen the whole signal and detect all these special beats!

## SELECTING ARRHYTHMIAS OF INTEREST

ARR30a is designed to detect 5 different types of arrhythmias:

- Sinus pause
- Atrial beat
- Junctional beat
- Ventricular beat
- Atrio-ventricular block type II (isolated P wave)

## TIME-SAVER AND SELF-LEARNER

Detection is based on **different criteria** including variations in the cardiac rhythm, QRS complex morphology changes and P wave analysis. **Species-specific presets** are available for fast and easy configuration: dog (conscious or anesthetized), non-human primate, pig / minipig, guinea pig and rat.

ARR30a does **not need any library** to perform detection, which has major advantages. It allows **fast processing** of the ECG signal: only 20 minutes are needed to analyze a 24-hour signal! Moreover, the detection process does not depend on predefined shapes for normal and abnormal beats.

Thanks to its self-learning capabilities, ARR30a is **independent from ECG signal shape**, which makes it fit for all types of ECG acquisition devices.

Browsing through all detected arrhythmias, or within a selected type, is made easy with RME10a.

## DEFINE YOUR OWN ARRHYTHMIA CRITERIA

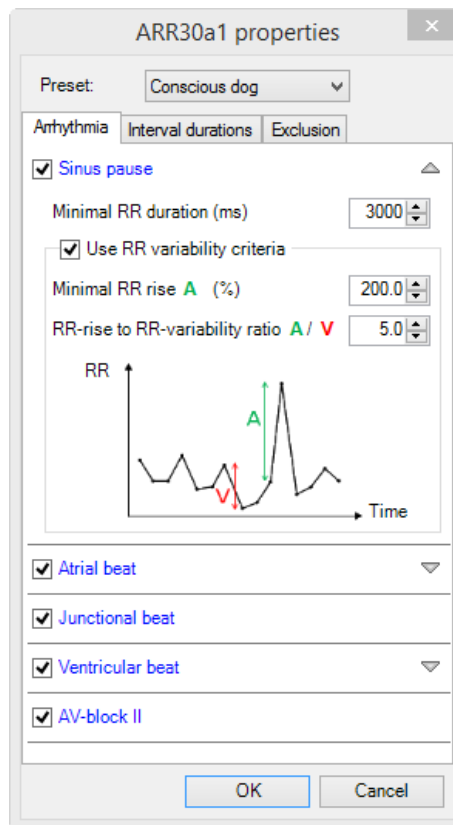
ARR30a properties window offers many possibilities to define your own conditions for arrhythmia detection.

In addition to species presets, the user can select all or distinct arrhythmias types of interest, and adjust interval duration and exclusion parameters for optimal detection process.

For specific arrhythmia types, additional settings are available such as abnormal cardiac rhythm criteria for sinus pause and atrial beat, and sensitivity of the QRS morphology criteria for ventricular beat.

Signal-to-noise ratio and QRS amplitude settings are strict exclusion parameters used to discriminate against noisy signal and artifacts.

Detections are indicated with user-defined color marks for easy location on the whole signal.



ARR30a properties window

## EASY EDITING AND VALIDATION WITH RME10a

RME10a, our mark editor for arrhythmia, is designed for manual editing and validation of arrhythmia marks generated with ARR0a, either on the whole signal or on user defined zones. Marks are quickly imported, moved, inserted, accepted or rejected.

### + Related products

- ECG30x Series of electrocardiogram analyzers
- ECG31p Conscious primate electrocardiogram analyzer
- ECG51a Semi-automated electrocardiogram analyzer
- RME10a Reference mark editor for arrhythmia
- SCP10m Scope display with memory function

### Working in a GLP environment?

21 CFR Part 11 compliance is achieved via our AccessManager security application, activating a highly secure and compliant Audit Trail.

# ARR30a

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