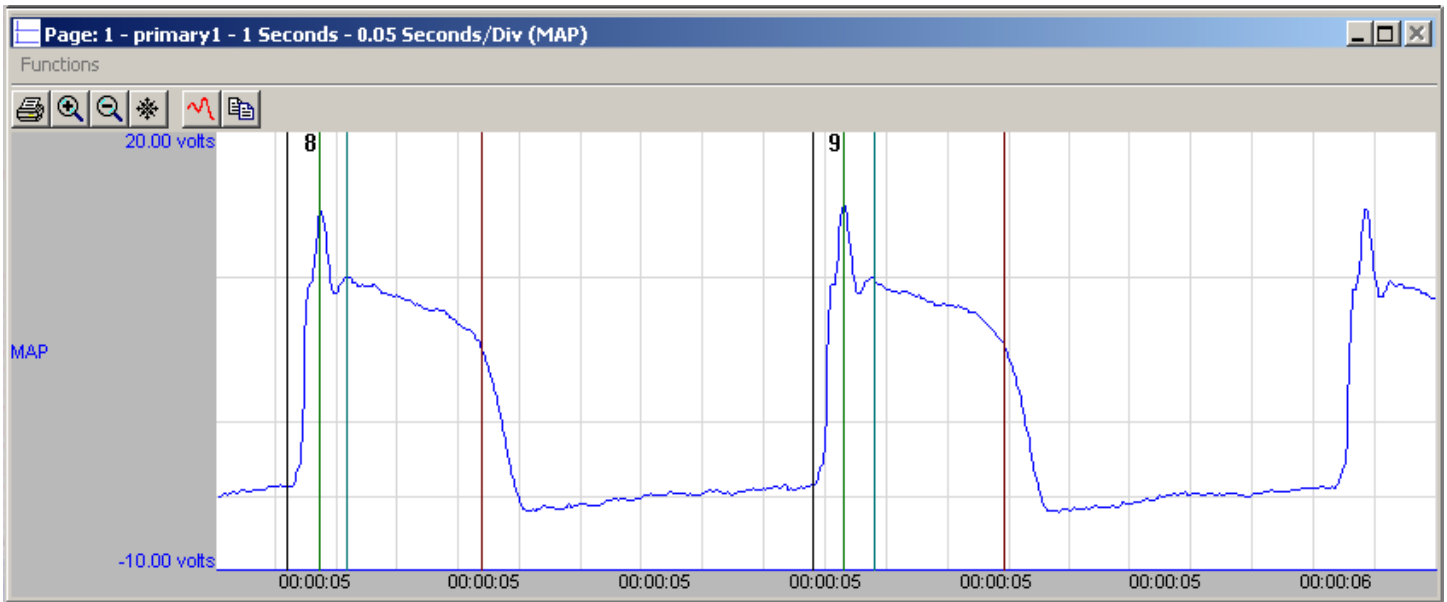




# Action Potential

The purpose of the Action Potential (MAP) Analysis Module is to compute physiologically meaningful parameters from digitized action potential data. The analysis functions by applying a series of logical tests to the digitized action potential signal using criteria selected by the user. The graph below represents a

typical action potential signal and its derivative as they would appear on the monitor. Automated validation marks for Upstroke (EDV), Maximum Slope Mark, Peak, Plateau and Recovery Marks are shown. The validation marks provide visual, on-line verification of the accuracy of the system.



# Technical Data Sheet

## Model PNM-MAP100W

### Action Potential Analysis Module

Name	Definition
Num	The number of the cardiac cycle.
Max	The Maximum Voltage that occurred during a cardiac cycle.
EDV	The voltage prior to the upstroke of the action potential.
Min	The minimum voltage that occurred during a cardiac cycle.
Plto	The plateau voltage.
Amp	PLTO minus EDV.
Rate	The beats-per-minute.
+dV	The maximum positive rate of change that occurred.
-dV	The maximum negative rate of change that occurred.
REC1	The time, in milliseconds, from the beginning of the upstroke of the action potential, to the point where the signal drops below the level corresponding to the % Recovery 1 level.
xR1	The number of cycles that did not reach the % Recovery 1 level, within the logging period.
REC2	The time, in milliseconds, from the beginning of the upstroke of the action potential, to the point where the signal drops below the level corresponding to the % Recovery 2 level.
xR2	The number of cycles that did not reach the % Recovery 2 level, within the logging period.
REC3	The time, in milliseconds, from the beginning of the upstroke of the action potential, to the point where the signal drops below the level corresponding to the % Recovery 3 level.
xR3	The number of cycles that did not reach the % Recovery 3 level, within the logging period.
%Max	The time, in milliseconds, from the beginning of the upstroke of the action potential, to the point where the signal recovers to 100% or as close to 100% as possible.
Time	The time interval between action potentials.
Cnt	The number of cycles in the logging period.
RiseT	The time, in milliseconds, between the EDV and Max points.

*DSI products are not intended for the purposes of diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease, or used as a life support device. Use of DSI products are solely for the purposes of conducting life science research.*