plessey

WARDEN

plessey

EPIC™ Sensor

Warden's ECG system uses Plessey's EPIC (Electric Potential Integrated Circuit) sensor

ECG

Electrophysiological signals can be measured without skin contact

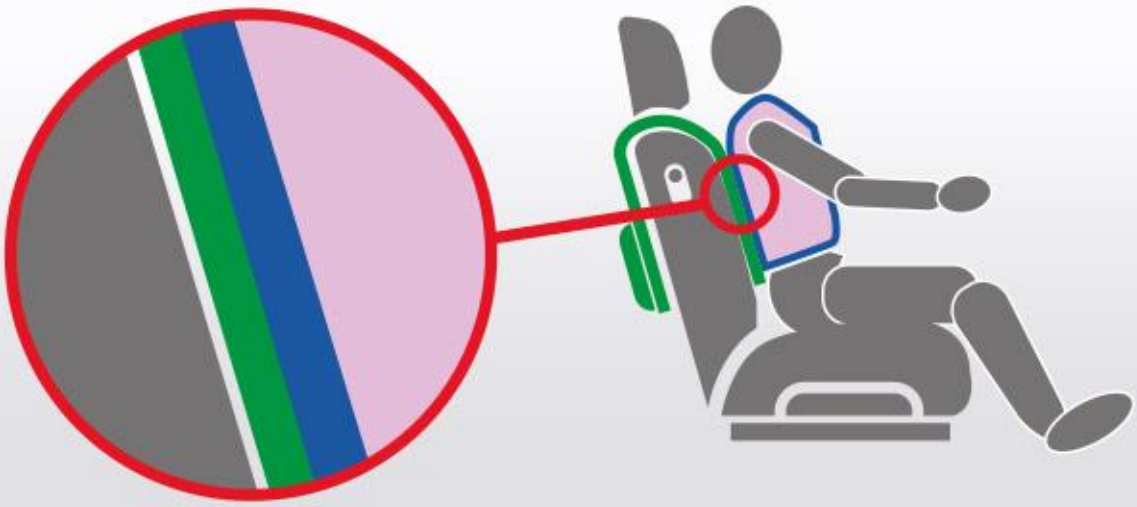
Bluetooth

Bluetooth and serial outputs for data monitoring and vehicle interface

Warden reads ECG signals without the need of skin contact

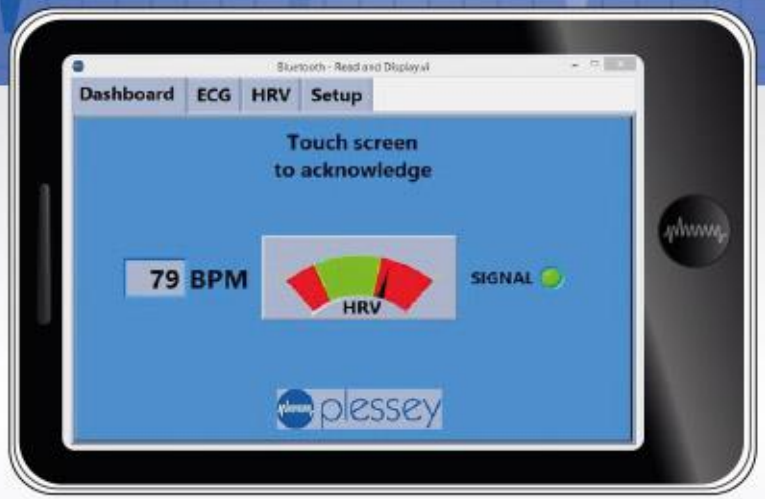
Capacitive sensor – input is effectively a parallel plate capacitor
High input impedance and low input capacitance enable ECG signals to be measured capacitively

- Human skin acts as a top plate
- Clothing and seat cover forms the dielectric
- Metal electrode is the bottom plate

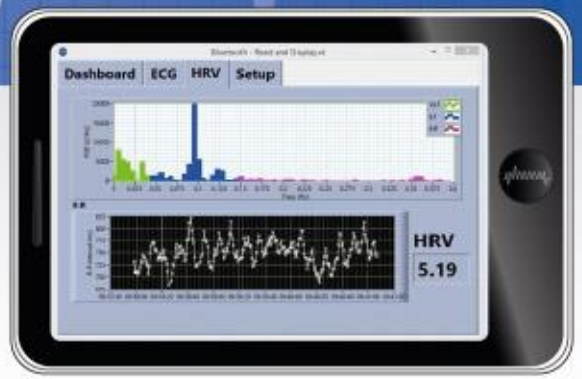


HRV Data

- Monitor connected to a tablet via Bluetooth
- Main screen shows key data
- HRV “limits” set from setup screen
- Driver must acknowledge HRV “out of bounds” due to fatigue for example

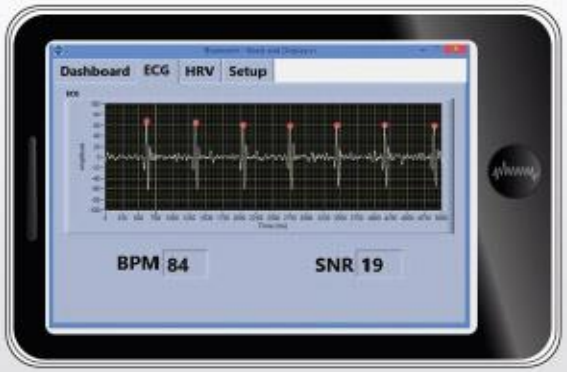


Main screen



HRV

Diagnostic screens enable viewing of input signals



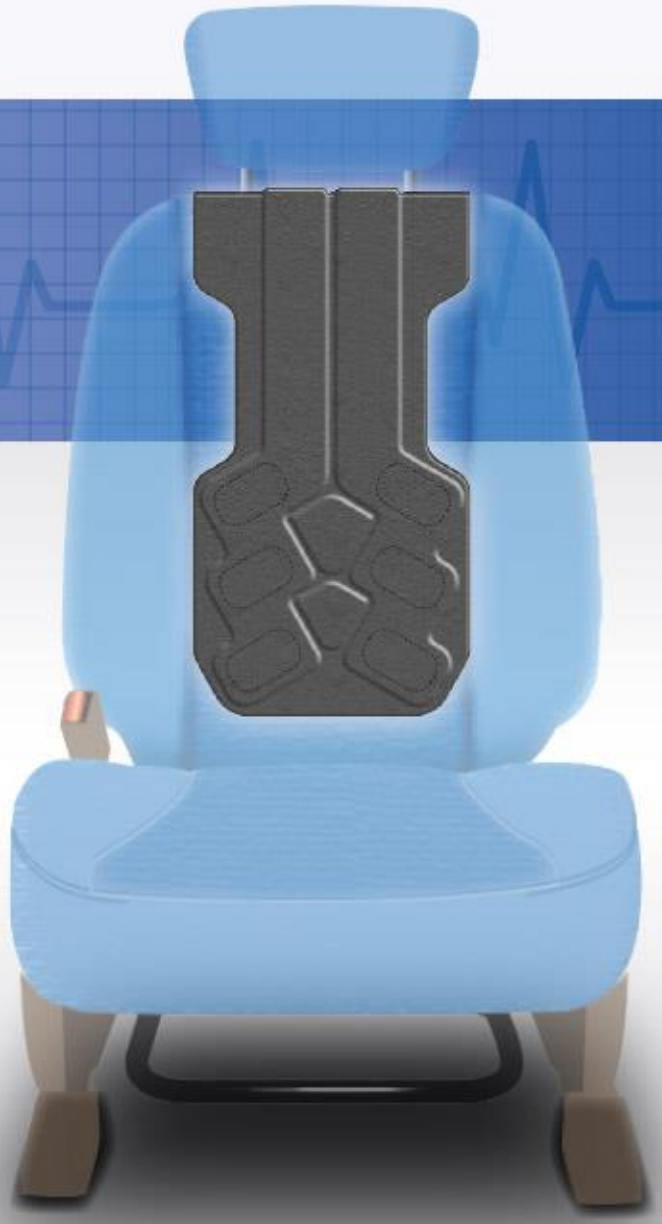
ECG

ARDEM

Tailored for in-car performance

plessey

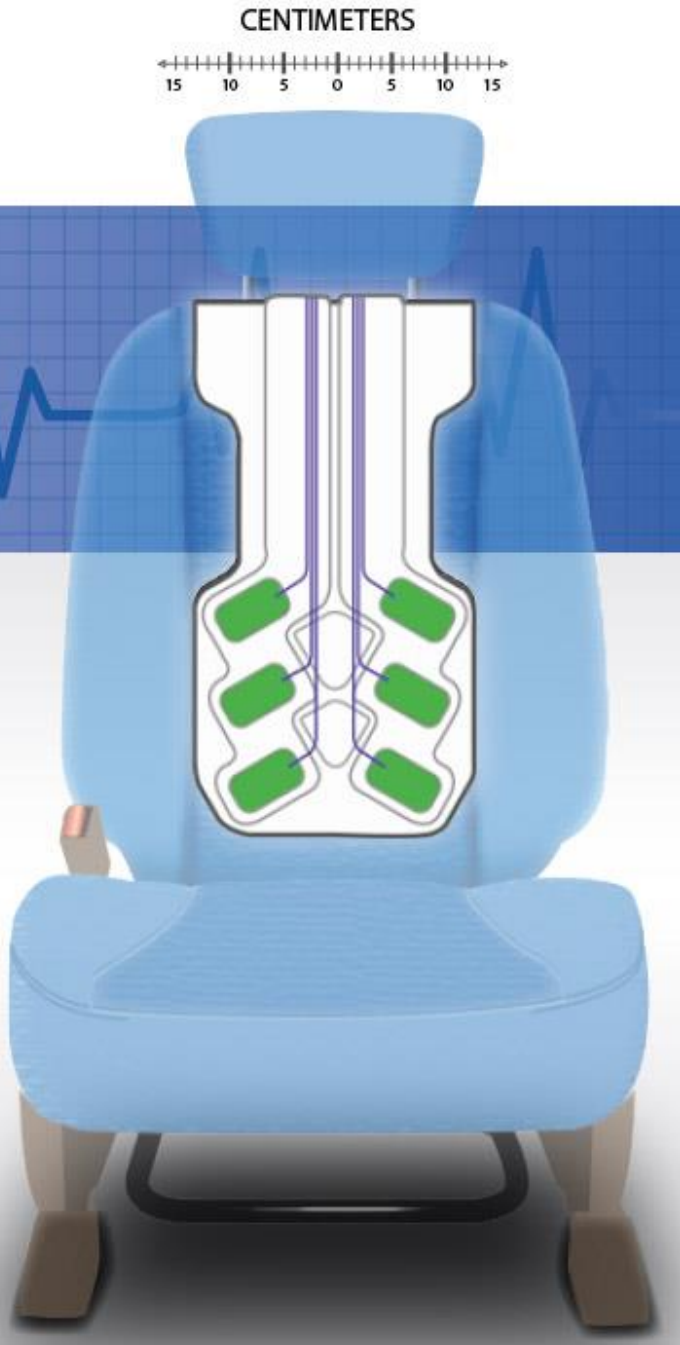
ARDEM



Settings and Features

- Power from 12 volt supply
- Custom algorithms used to identify R-peaks from noisy signals and calculate frequency domain HRV
- Bluetooth and Serial outputs for data monitoring, saving and vehicle interface

plessey



Electrodes

- Novel electrode design gives reliable signal quality in a moving vehicle
- Electrodes built into a professionally designed seat cover with e-leather cover
- Active ground driven right leg (DRL) built into the main unit
- All filtering and processing done locally in an electronics “pod” housed in the rear seat

ARDEM

Prototype

Ergonomic design to provide comfort for the driver whilst incorporating a cross-car fit

plessey

Contact us

It is easy to get in touch with us here at Plessey.
To request further information, please contact us:

Telephone:	+44 1752 693000
Email:	sales@plesseysemi.com
Website:	www.plesseysemi.com