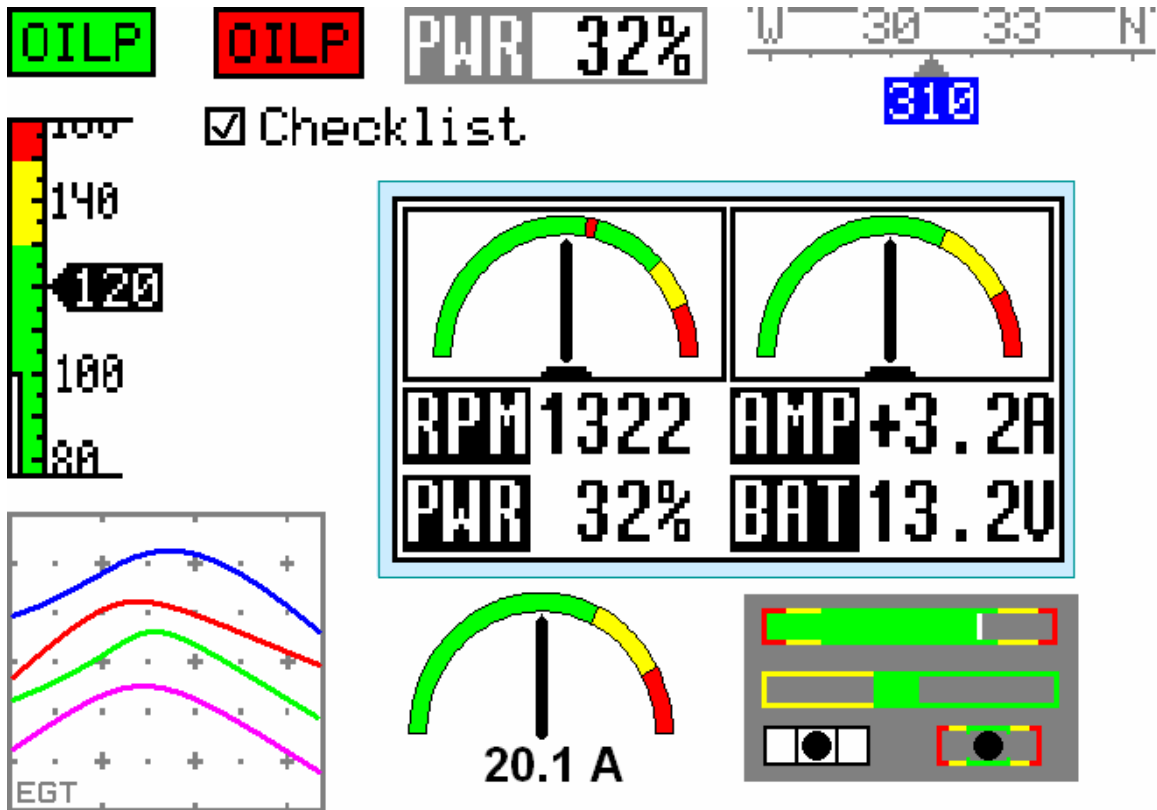


## DISPLAY FEATURES

### Flexible Color Graphics

All SensorNetics displays are color graphic based to provide easy to interpret analog indicators such as bar graphs and dials, along with numeric data for precise data presentation. Programmable graphic displays also offer the flexibility of changing the display format to match any situation (present and future) with just a software change.



All SensorNetics displays offer a number of standard and custom screens to present EIS/VFIS data, checklists, trend graphs, alarm info, setups, calculators, maintenance schedules, reminder data, and even custom bitmap pictures of your choosing. Information can be superimposed on a background bitmap such as an engine block diagram to show the graphic point(s) of measurement.

### Alarm Indicators

A sunlight readable bright LED indicator is built into all SensorNetics displays to indicate alarms by flashing red on an alarm condition. Once acknowledged the indicator stays a steady red as long as the alarm condition persists.



A large panel mount bright LED indicator light is also available that can be placed in a convenient location where it is sure to be noticed.

## EFIS vs VFIS SCREENS

An important feature of screen design is to match the information displayed to the mission. In IFR flight all attention is focused inside the cockpit and a lot of situational information needs to be available, while in VFR flight more of the situational information should come from outside the cockpit, with minimal time spent on scanning instruments.

To reduce scan time the VFR mission requires a different approach from IFR that provides only the information that is needed, and presents it in a way that can be easily and quickly interpreted (e.g. large character sizes for data, simple graphic indicators without unnecessary fine print numbers).

This simplified approach to Visual Flight Information Systems (VFIS) presentation is a guideline for most SensorNetics standard screens, and should be kept in mind for custom screens where appropriate. (Finding the best ways to do this will be a work in progress, and will evolve over time as we learn more about human factors).

## Intelligent Annunciator Bars

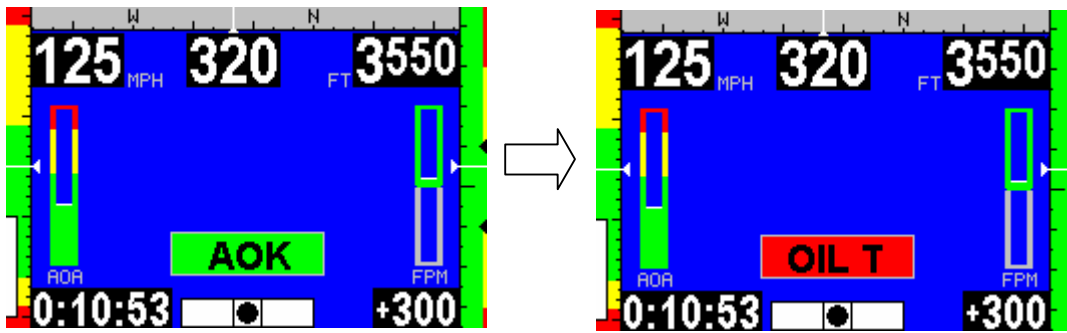
A unique feature of SensorNetics in support of this VFIS philosophy is configurable intelligent Annunciator Bars, which are solid labelled bar indicators, used to save space and scan time where numbers are not immediately needed.

Annunciator Bars have programmable text labels and colors to indicate various states, and have configurable state criteria such as switch open or closed, or level exceeded.



Multiple inputs can be used for Annunciator Bars, such as a canopy lock switch combined with engine RPM.

When the canopy is locked the bar is blue (or green depending on preference and convention followed). When the canopy is unlocked but RPM is below a certain level it will go yellow to indicate a caution state (but won't alarm for normal taxiing). If the throttle is advanced for takeoff while the canopy is still unlocked, the bar will go red and an alarm will sound.



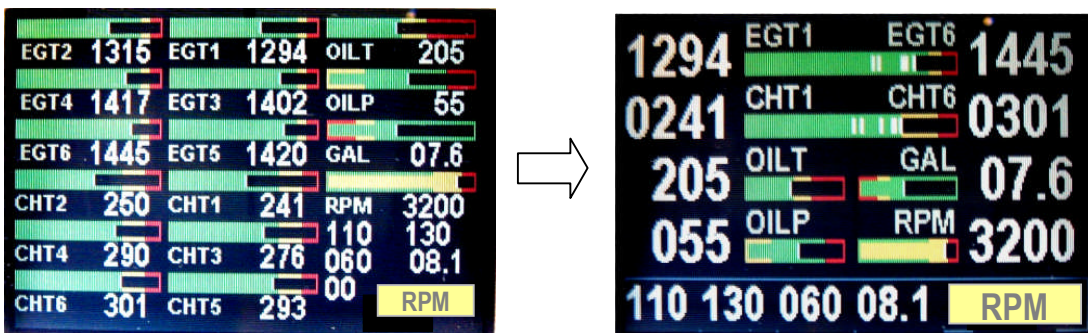
The ultimate simplification can be achieved when all off screen measurements (as many as 64) are consolidated into a single bar. When everything is within acceptable range the bar is green and indicates “AOK”. If a parameter goes into the caution range the bar will turn yellow and indicate the marginal parameter.

If a parameters goes out of range the bar will flash red while indicating the problem parameter and an alarm will sound. The screen can also jump to a more detailed alarm status page if desired. such as jumping to the engine page on a high CHT alarm to indicate where the engine is overheating.

### Bar/One™



Another unique feature of SensorNetics in support of the VFIS philosophy is the Bar/One graph, which can consolidate many readings into a single graphic object to reduce display space and clutter while giving status at a glance.



One example format is to consolidate 6 EGT or CHT readings into one temperature bar graph, where the max, min, and overall temperature distribution can be seen at a glance. The freed up space allows for bigger fonts and bar graphs for the remaining functions for improved readability.

## Positive Display Control

Time and motion spent on changing screens or changing parameters such as altimeter pressure setting should be minimally distracting, with a limited number of switches to be searched for and interpreted.

If you throw in turbulence or a neutrally stable aircraft it can be difficult to hit the right button and keep the aircraft in control, especially if you need both hands for a number of controls.



All SensorNetics instruments support external switch inputs that can be used in addition to the standard bezel mounted keypad. The external switches can be mounted on a convenient panel location (including optional switch guards) or can use switches directly on the stick grip for "hands on" operation in turbulence without searching for switches.

Stick grips with switches are supplied by a number of companies, or you can add your own switches for a custom grip or control yoke.

For the larger displays with the **touch screen** option, basic keys are used with as large an area as possible (e.g. right third of screen to advance to next screen, left third to go back to previous screen, and middle third to enter and leave screen edit functions). Again, external switches are supported for operation in turbulence if desired.