SmartBoat® Modules

Multi-Network Protocol Gateway with Remote Diagnostics and Control

SmartFlex™ System

NMEA 2000

Wireless

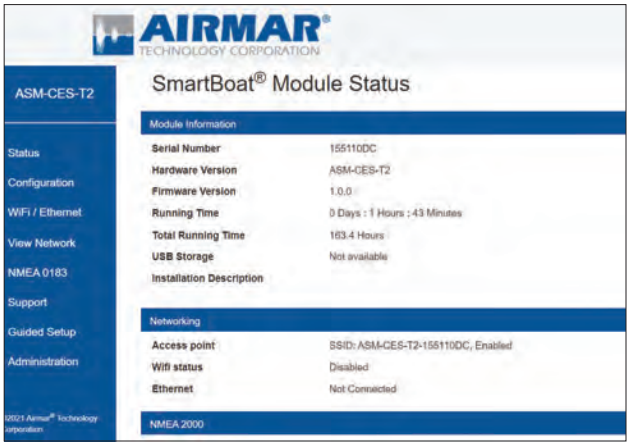
Patent Pending

AIRMAR® TECHNOLOGY CORPORATION

Connectivity and Full Control

SmartFlex™ View

Every model in the SmartBoat System features an embedded browser-based interface which uses intuitive, menu-driven guidance for the set up and control of all connected devices. SmartFlex View is directly available to any PC or tablet and via AIRMAR's CAST app on any mobile device. Once connected to the SmartBoat® module, each sensor can be controlled and configured through the intuitive, drop-down menu options, making the configuration of sensors and networks very easy. From setting username and passwords on modules to accessing advanced configurations, SmartFlex View provides all-in-one access. Within the SmartFlex View program is SmartFlex Alert and SmartFlex Filter for advanced capabilities.

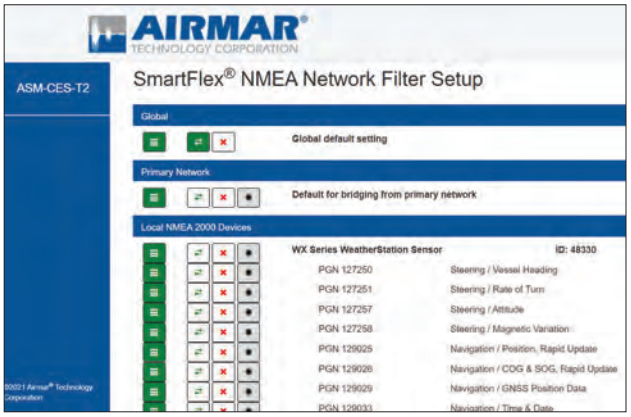


SmartFlex™ Alert

Advanced SmartBoat units support a highly configurable alerting system. Alerts can be defined based upon NMEA 2000® message field values, timer (to specify an event duration), and event counter (to take action after an event happens X many times), and can be combined as needed. In addition to displaying an alert status, binary switch values may be set and NMEA 2000 bus alert messages may be generated for display on a wide range of MFDs. SmartFlex Alert configuration allows for four types of alert variable; PGN value (from a PGN message), calculated value (logic equation from multiple values), timer (desired variable did or did not happen within a certain time), and event counter (event happened X many times within the measured time).

SmartFlex™ Filter

Once sensors are connected and configured, SmartFlex Filter can be used to control PGN message traffic between the primary and secondary NMEA 2000 buses. For each PGN, the Filter determines whether or not a PGN from one bus is bridged to the other. The SmartFlex Filter is configured using a "AllowList/BlockList" approach to allowing bridging or not.

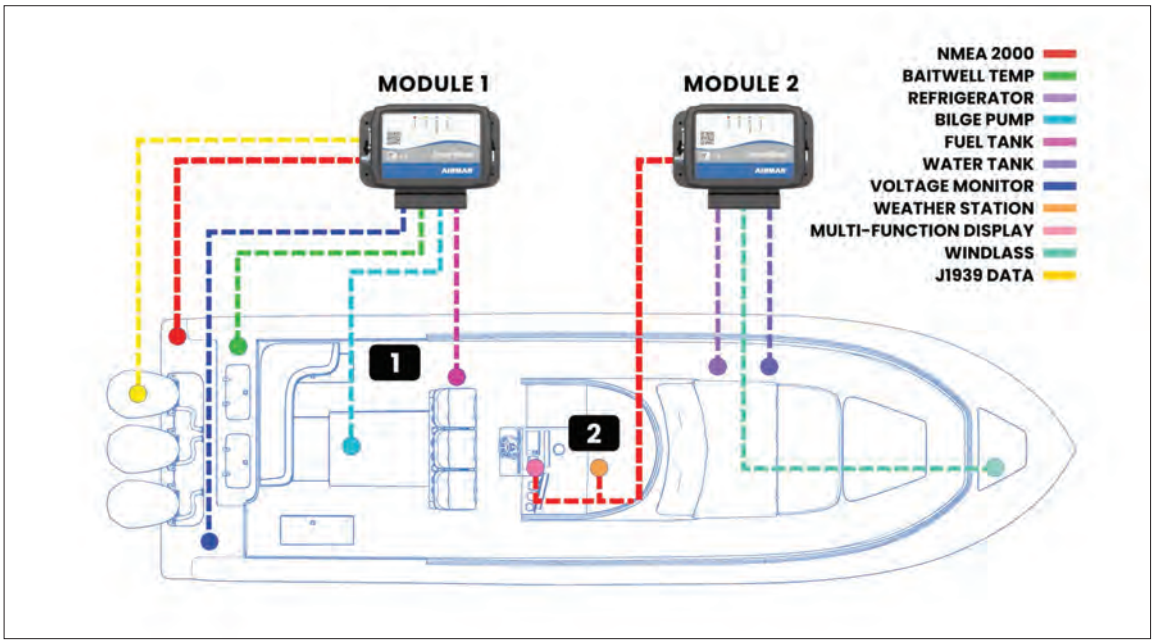


The SmartBoat® System Solution

The SmartBoat® system is uniquely designed to connect, control, and communicate sensor data across multiple networks regardless of sensor output protocols and peripheral types. SmartBoat delivers universal interfaces to the varied sensors and protocols onboard and provides the ability to control and manage what is required of each one, including setting alerts, AllowList/BlockList of PGNs, sensor state controlled actions and more. The system also significantly reduces the required interface devices, cabling and labor currently used for conventional networking systems, saving thousands on every install. Never has the marine market had such versatility, affordability, and rich support capabilities.

What Sets SmartBoat Apart?

- SmartBoat modules are certified for use with NMEA 2000 networks and designed specifically for marine applications (IP67 rated). They are the marine components of AIRMAR's new SmartFlex™ System products which support multiple network standards across many markets.
- SmartBoat modules all share a common set of features including built-in wireless networking support and browser-based configuration and management.
- Basic models provide highly configurable sensor interface for a wide range of analog devices and sensors including voltage, current loop sensors, resistive senders, thermistor and thermocouple temperature sensors, run detection, switch detection, relay control. And digital senders such a fuel flow meters, and engine data are also easily connected.
- Advanced models add support for multi-network bridging and management including multiple NMEA 2000 networks, NMEA 0183 support, and SAE J1939 engine interfaces.
- Digital Fuel Monitor interface using SmartBoat's exclusive single and dual chamber models. These CAN based DFM sensors are easily connected to the ASM and configured using SmartFlex View. Fuel flow data is then available via NMEA 2000.
- Browser-based interface, SmartFlex View, is accessed from any laptop, tablet, or mobile device, which features intuitive, menu-driven navigation for set up, control and management of connected sensors and networks.
- Industry leading alerting and automation via SmartFlex Alert, and SmartFlex Filter provide the ability to directly configure interfaced sensors to report, alert and filter data through user programmed parameters.
- The SmartBoat System is ideal for boat builders and installers. System settings are easily saved and cloned for duplication on future installations.



Significant Savings on Every Installation With SmartBoat!

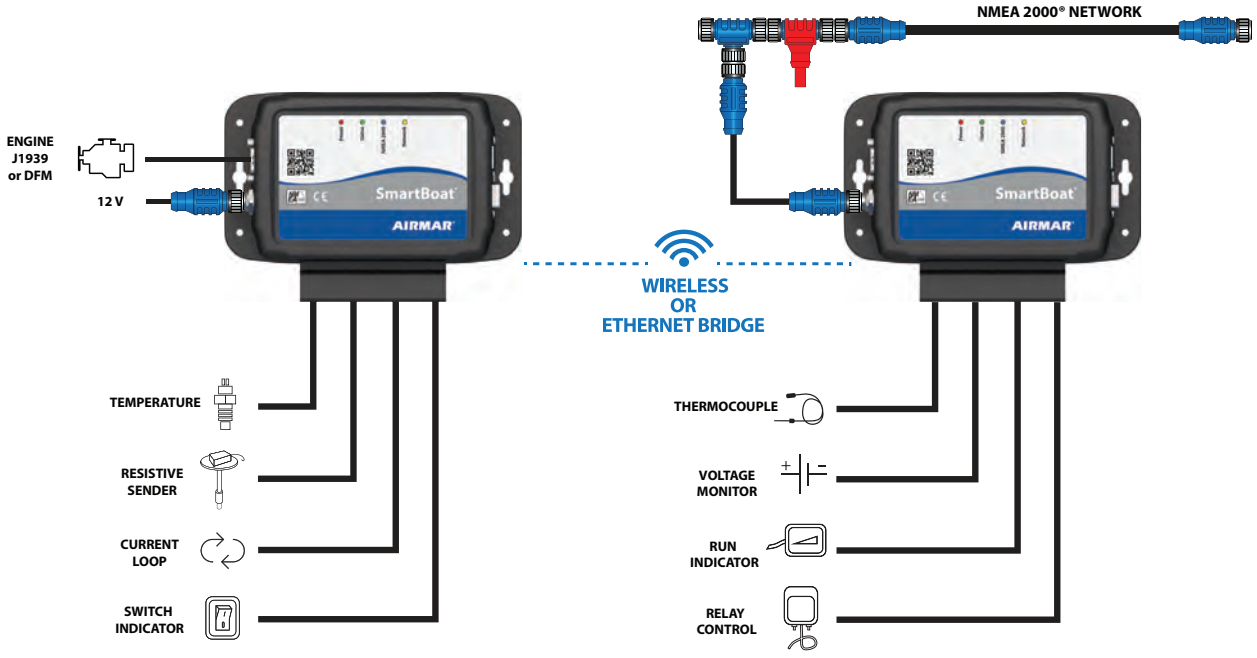
Current installation methods require:

- Individual translation modules for every sensor.
- NMEA 2000 cabling for every sensor type.
- Numerous NMEA 2000 hubs.

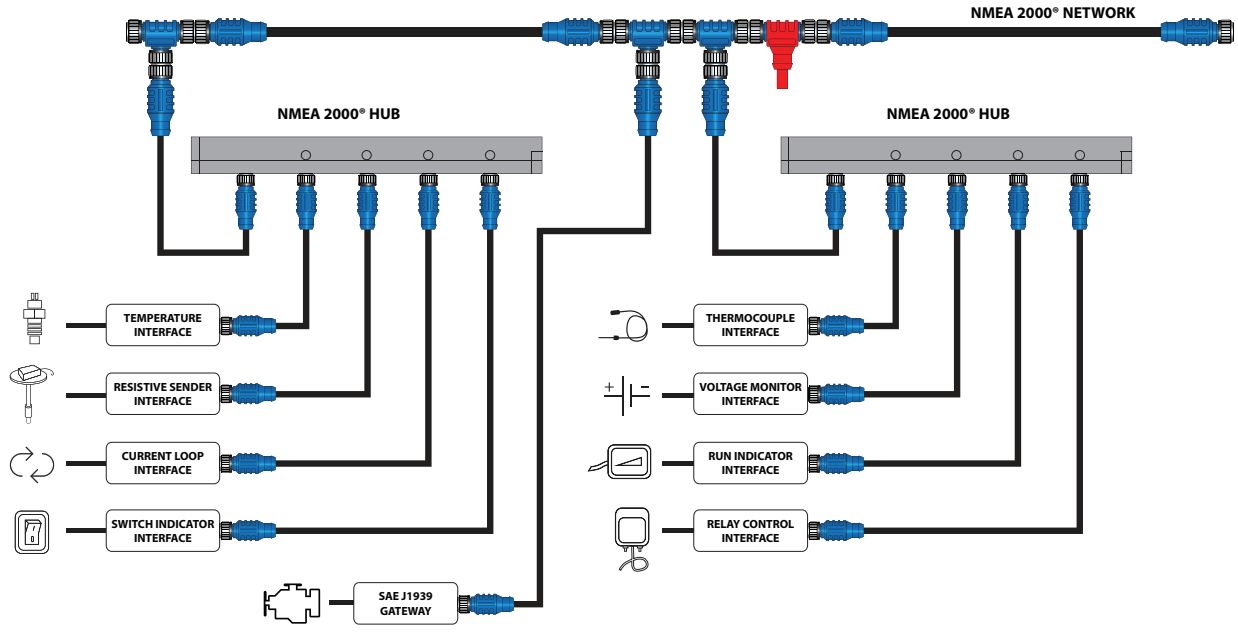
SmartBoat Installs:

- Eliminates expensive, single-purpose modules.
- Reduces expensive NMEA 2000 cabling and hubs.
- Reduces the labor cost needed for every install.

With SmartBoat



Without SmartBoat

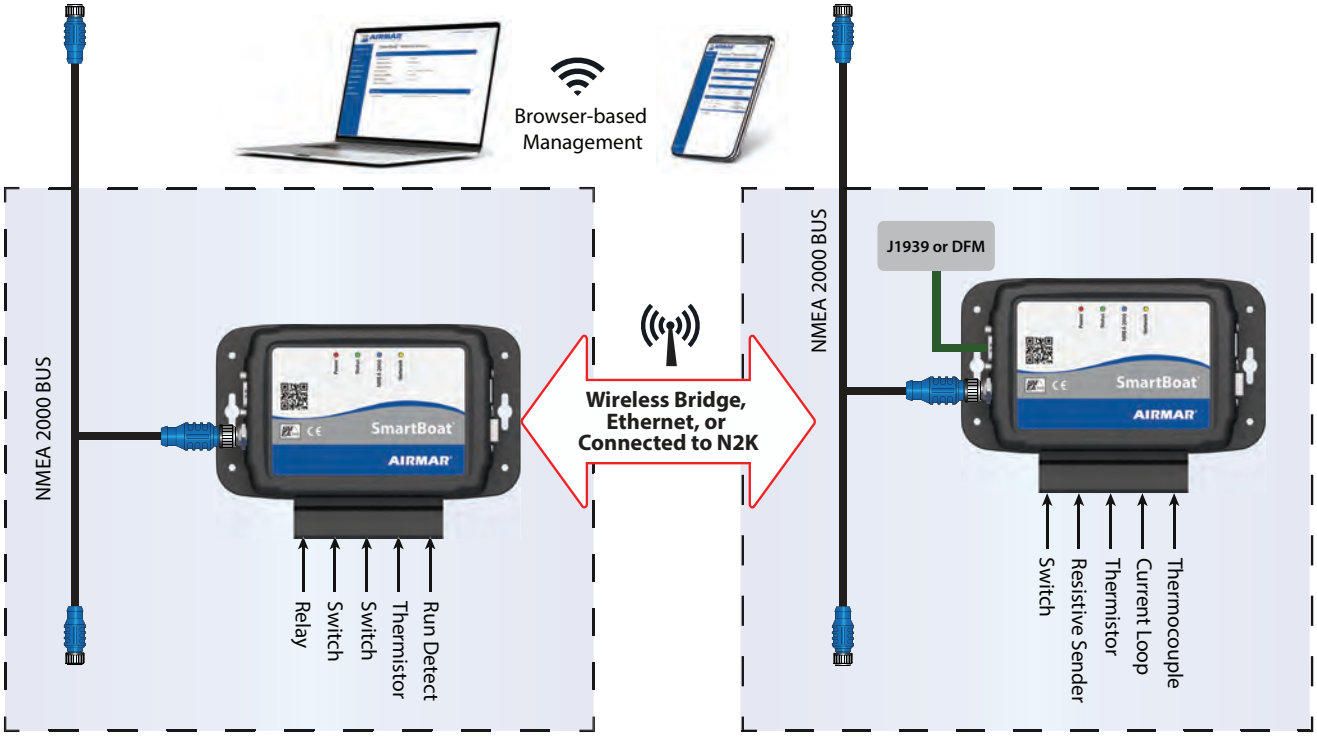


A Model for Every Installation!

	ASM-C	ASM-C-T1	ASM-C-T2	ASM-CES	ASM-CES-T1	ASM-CES-T2
Programmable Sensor Inputs [1]						
Thermistor (NTC)		8	4		8	4
Current Loop (2,3,or 4 wire interface)		8			8	
Resistive Senders (US, European, or custom)		8	4		8	4
Binary Switch (0,1,2 EOL Resistors)		8	4		8	4
Voltage (0-75VDC)			2			4
Fixed Sensor Inputs/Outputs [2]						
Thermocouples (J,K,N,E)		2			2	
Relays (10A Resistive, 5A Inductive)			4			4
Run Detector (9-240VDC/VAC rms)			4			4
External Connections						
Primary NMEA 2000	X	X	X	X	X	X
WiFi	X	X	X	X	X	X
USB 2.0				2	2	2
Ethernet (RJ-45)				1	1	1
DB9 Male includes: DFM, J1939 or NMEA 2000 (secondary) NMEA 0183 (RS-422, RS-485, RS232)				1	1	1
OneNet®				Future	Future	Future

[1] Maximum, inputs are shared in a unit.
[2] Dedicated, all can be used at the same time.

Expand Networks, Communicate Like Never Before



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