



# OPW-FMS Aqueous Ethanol Float Sensor Competitor Device Comparison

Feature	OPW's AEF Sensor	Device A	Device B
Detects water and phase separation in ethanol blends up to E15 and signals alarms in a compatible tank gauge	✓	✓	✓
Includes a density sensor	✓	✗	✗
Provides true continuous in-tank phase separation detection by continuously monitoring density changes in the tank	✓	✗	✗
Issues warning prior to going into alarm	✓	✗	✗
Net-corrects for thermal changes in the tank, eliminating false phase separation alarms	✓	✗	✗
Detects phase separation in ethanol blends up to E85	✓	✗	✗
Detects density changes in E85 even if no water has collected at the bottom of the tank	✓	✗	✗
Offers programmable density thresholds	✓	✗	✗
Minimal detectable water height	5/16"	3/4"	3/4"
Triggers alarm with a water level of just 3/4"	✓	✗	✗
Minimum tank opening required	2"	4"	4"

# The Truth about Phase Separation Detection

OPW Fuel Management Systems recognizes that there are many misconceptions circulating about the capabilities of the various phase separation detection devices on the market today. We clarify those misconceptions below so that your operation can make informed choices in order to protect your site's inventory, reputation and bottom line at all times.

## Misconception #1:

Float-based phase separation detection devices provide the earliest detection of phase separation.

## Truth:

It is true that float-based phase separation detection devices outperform industry-standard water floats in their detection of phase separation. However, OPW's Aqueous Ethanol Float Sensor detects water and phase separation earlier than BOTH industry-standard water floats and newer float-based phase separation detection devices.

## Misconception #2:

All phase separation detection devices provide continuous and accurate monitoring of phase separation.

## Truth:

Only OPW's AEF Sensor utilizes a density sensor to provide an ongoing analysis of the quality of the fuel inside the tank. While it is true that float-based devices are inside the tank continuously monitoring for phase separation, they are engineered to only issue alarms at fixed densities.

## Misconception #3:

The only way to prevent false phase separation alarms is to disable the system's safety checks.

## Truth:

The density sensor on OPW's AEF Sensor net-corrects for thermal changes that commonly occur in the tank, which eliminates false phase separation alarms. Phase separation devices that utilize float detection are unable to account for in-tank temperature swings. By eliminating the frustration of false alarms, OPW's AEF Sensor helps operators continue safe operation of their system.

## Misconception #4:

All phase separation detection devices offer the same level of warning.

## Truth:

Float-based phase separation devices are unable to issue a warning because they signal density changes at predefined levels — either the float has risen enough to trigger an alarm or it has not, there is no in-between. This approach to phase separation detection is more of an after-the-fact approach. Because float-based devices do not continuously monitor fuel quality, they do not offer the operator an indication that phase separation is nearing; they simply issue an alarm. The density sensor on OPW's AEF Sensor is constantly monitoring fuel densities and those readings are continuously pushed to the tank gauge, which can be configured to issue a warning and then an alarm at user-defined thresholds.



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