



# ROSEMOUNT™ TGU 68 & 65 FOR MARINE ALTERNATIVE FUEL

Best in class radar for reliable and accurate fuel tank measurements for methanol fuel tanks.

Emerson is your trusted partner when it comes to radar-based fuel measurement systems. We have over 50 years of experience from measuring tank levels onboard ships. The solutions we offer today are based on best-in-class Frequency Modulated Continuous Wave (FMCW) technology which opt for reliable and accurate measurements of your fuel tank levels. We offer packages for measurement of methanol fuel tanks.

## Advantages of using level solutions for fuel tank gauging are:

- Extremely robust to any conditions in the tank
- High bandwidth – Better resolution to never miss the echo close to bottom
- High reliability and accuracy
- Easy to integrate with any 3<sup>rd</sup> party system
- Easy to use tool for diagnostics and service
- System based solution with excellent operation support to crew

## Redundancy and High Level / Overfill options

The unit is as standard equipped for level measurements but is prepared for optional redundant level or independent high level or overfill alarm measurements.

## Radar Transmitter - TGU

- Advanced signal processing and a high gain parabolic antenna, optimized for harsh marine and offshore conditions
- Delivers robust and accurate measurements even under harsh conditions in the tank
- Light weight and easy to install
- Optional integrated vapor pressure sensor
- Optional verification test valve for vapor pressure sensor

## Supply and Communication Unit - SCU

The SCU is the central cabinet for connection of the deck devices. All the information from the TGUs are processed in the SCU. With the optional use of the TGU with two or three independent channels it is possible to use a SCU with redundant level computers and thus get a compact and efficient installation. The cabinet control relay outputs and can be installed with a dedicated alarm panel. The SCU can be connected directly to a 3<sup>rd</sup> party system or Emerson work station.



Rosemount TGU 68  
Tank Radar Gauge



Rosemount TGU 65  
Tank Radar Gauge

The Rosemount TGU is suited for installation on fuel tanks with a tank height of up to 35 meters. The unit is available with either a parabolic or array antenna and is mounted on an 8" deck socket.

The gauge is intrinsically safe and operates based on FMCW radar technology. The advanced signal processing, the high bandwidth and the optimized antennas gives a superior robustness in measurement.

Rosemount TGU keeps operating under the most difficult conditions in the tank and on the deck.



Rosemount SCU 51

# ROSEMOUNT TGU 68 & 65 FOR METHANOL APPLICATIONS

## Service and Communications Display - SCD

The SCD is located in the SCU, offering a window for the crew into the system for tank data monitoring. From the display, advanced analyses and diagnostic functions can be performed to quickly resolve problems, or to quickly transfer information to our service engineers for remote assistance.



Rosemount SCD

## Vapor Pressure Sensor - VPS

The optional VPS 58 is installed as an integrated part of the TGU. The intrinsically safe sensor is installed with the purpose of measuring the vapor pressure and provide the relative pressure inside the fuel tank. The signals from the sensor are processed by the TGU and transmitted to the SCU over the same interface as the level and temperature signals. As an option we offer a test port for easy verification of the VPS without interfering with the tank atmosphere.



Rosemount VPS 58

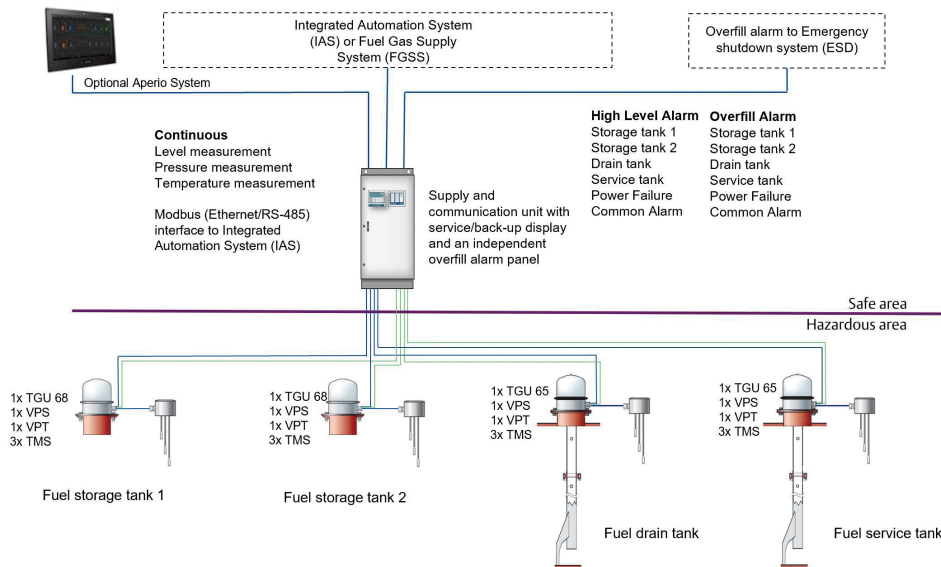
## Temperature Measurements Unit - TMU

The Rosemount TMU 51 enables temperature measurements of the fuel and vapor inside the tanks. Up to five individual temperature sensors can be distributed over the tank height.



Rosemount TMU 51

## System Overview



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