FUEL MONITORING SYSTEM (FMS)

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DESCRIPTION

Green Ark's - FUEL Sensor(GA-FS) is capacitive fuel sensor designed to provide real time information on the Diesel Generator's (DG) fuel level, generator run hours, refilled liters, DG running status and DG battery voltage.

The capacitive sensor works on the principle of measuring the capacitance change due to dielectric of liquid displacing the air space between two axially placed concentric pipes.
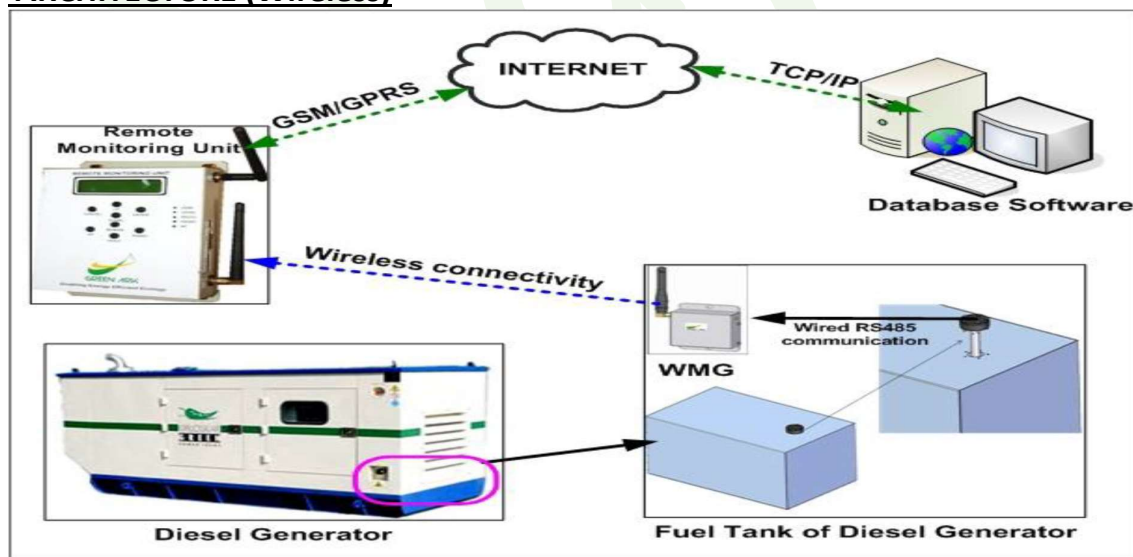
DG ON sensing is done through external PFC input/Inbuilt Accelerometer/DG battery sensing.

GA- Fuel sensor has an industrial grade EIA-RS485 communication interface, which allows having several sensors in one communication bus.
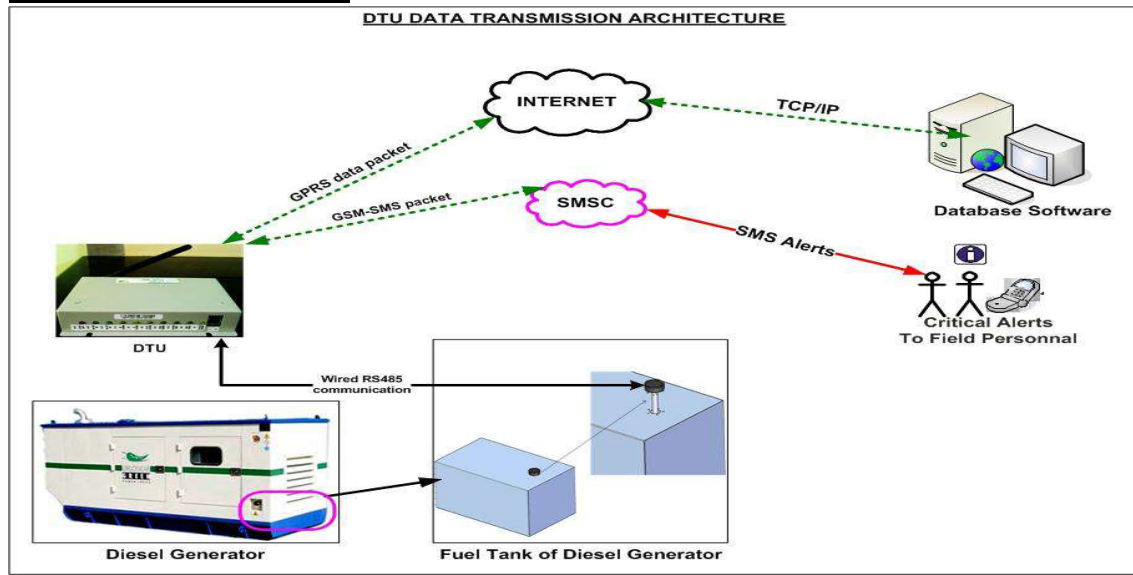
FEATURES

1. Capacitive Level sensing technology.

2. Fuel level measurement: in height (mm), in volume(liters) and in percentage of total tank capacity.

3. Measurement Accuracy +/- 2 mm at Midpoint at 25_0 C.

4. Detection of fuel pilferage.

5. Detection of fuel refill.

6. Detection of DG Start and Stop with inbuilt accelerometer.

7. Operating temperature range -10 to +70 degrees.

8. Communication Interface is RS485 (MODBUS Protocol).

ARCHITECTURE (Wireless)

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ARCHITECTURE (Wired)

TECHNICAL SPECIFICATIONS

S No	CATEGORY	PARAMETERS	SPECIFICATIONS
1	General	Operating Temperature	-10 to 70 deg C
		Power Supply	9-30V DC
2	Measurement	Principle	Capacitive
		Length Range	150mm -1000mm
		Measurement error	+/- 2mm at midpoint at 25^0 C.
3	Configuration	Tank Dimensions	Programmable through RS485
		Types of tanks	Rectangular and cylindrical tanks
4	PFC	Input sensing	Digital - for DG ON
5	RS -485	Baud Rate	9600 bps
		Hardware Interface	3 Wire (GND, A, B)
		Protocol	Modbus RTU

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
701-FS-CAP-PFCBATSENSE-RS485 – X mm	RS485 with external input to sense DG-ON/OFF
702-FS-CAP-PFCBATSENSE-ACCE-RS485 – X mm	RS485 with internal sense DG-ON/OFF

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