

Earthsafe Systems Inc.
Quick Specification
M4 Fuel Tank Fill Station

PART 1: GENERAL

1.01 System Description

- A. Provide the Earthsafe M4 Fuel Tank Fill Station for the Generator Fuel Tank.
- B. The system shall receive fuel from pump equipped delivery trucks and provide monitoring and overflow control for the generator fuel tank to be filled.
- C. The manufacturer shall have a minimum of 5 years experience in generator fuel systems for critical applications

PART 2: PRODUCTS

2.01 Equipment

- A. The fill station shall be 304 stainless steel weatherproof enclosure with architectural finish. The enclosure shall be ready for surface mounting. Where indicated the enclosure shall be mounted recessed into a wall opening with an integral 1.5 IN stainless steel bezel. Where indicated the fill station shall be furnished with a 24 IN high steel support frame for free-standing floor mounting.
- B. The fill station shall include an integral fuel containment of 3 gallon capacity. Where indicated the containment shall include a drain valve or hand pump.
- C. The fill station shall have a 2 IN cam and groove type connector for connection of the fuel delivery hose. A cam and groove dust cap shall be provided. The fill piping shall include a 2 IN manually operated ball valve within the enclosure. A 2 IN swing check valve shall be furnished loose for field installation at the fill station discharge pipe. The fill station discharge shall be a 2 IN NPT connection at the back of the enclosure, unless an alternate discharge location is indicated on the drawings.
- D. An actuated 2 IN Ball Valve shall be provided loose for field installation in the piping system for tank selection and overflow prevention. The actuator shall be 120 / 230 VAC powered with dry contact limit switch outputs. The valve actuator shall include a position indicator and manual over-ride device.
- E. Fuel tank level sensors shall be furnished loose for field installation. A 3 point level sensor shall be individual floats mounted on a common stem with activation at levels for 85% High Warning, 90% High Alarm, and 95% Critical High. Where indicated, an analog level transmitter shall be provided for tank % full and gallon readings at the controller.
- F. The system controller shall be a UL508 listed controller with micro PLC. The controller shall provide audible and visual alarms for tank level. The C1 Controller shall provide a red pulsing alarm light for level indication. The C8 Controller shall include a 4 inch color touch screen for operator interface.
- G. Multi-Tank fill operation shall be provided where indicated. The system shall include inlet control valves and sensors for each tank independently.

PART 3: EXECUTION

- A. Install the generator fuel tank fill station in accordance with the manufacturers written instructions.

- B. Piping between the unit and the storage tanks shall be 2 inch steel pipe. Piping shall be double walled where indicated on the drawings.
- C. Control valves for overfill protection and tank selection shall be installed where indicated on the drawings. Valve control wiring shall be routed to the controller in the fill station.
- D. Point level and analog level sensors shall be installed in the fuel tank control with manufacturer specified wiring routed to the controller in the fill station.