

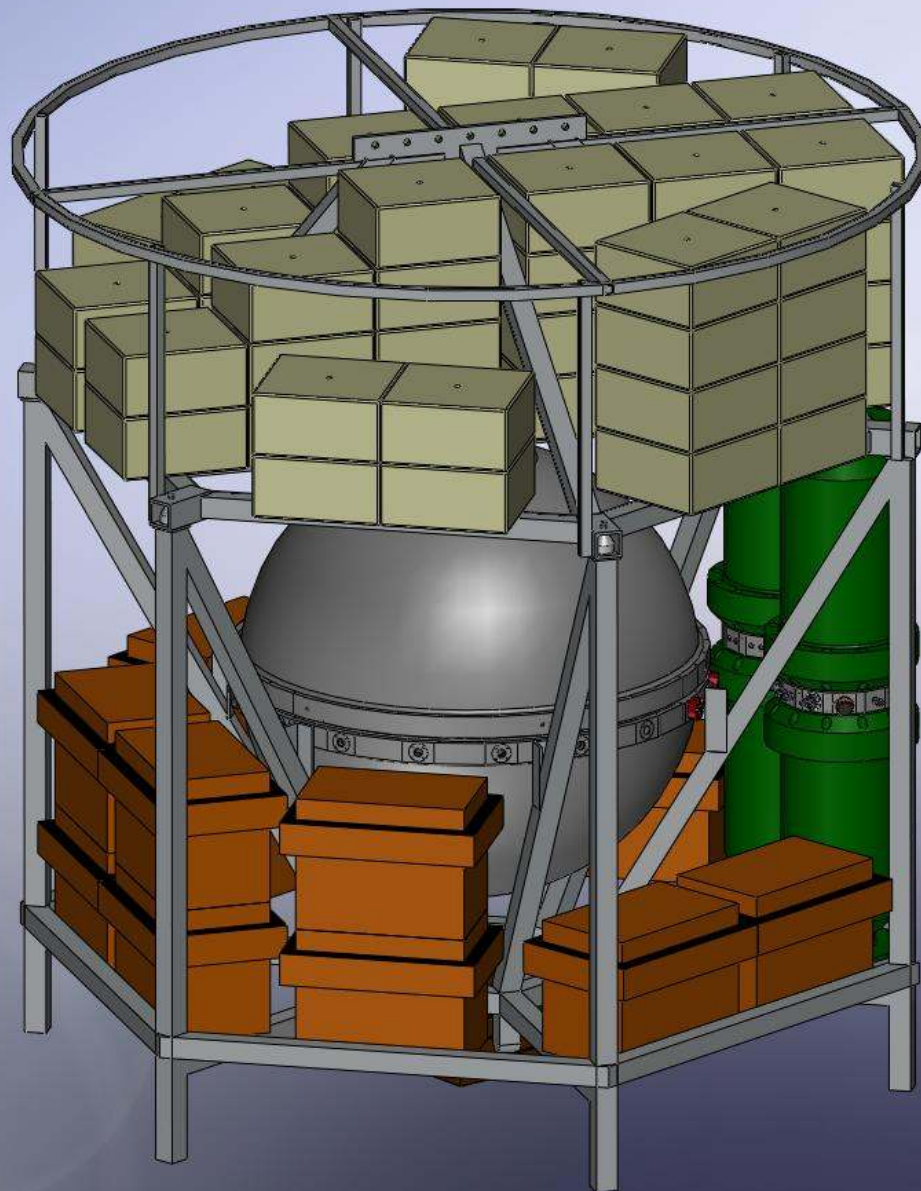
4km Deep ESP Elevator

Critically Preliminary
Design Review

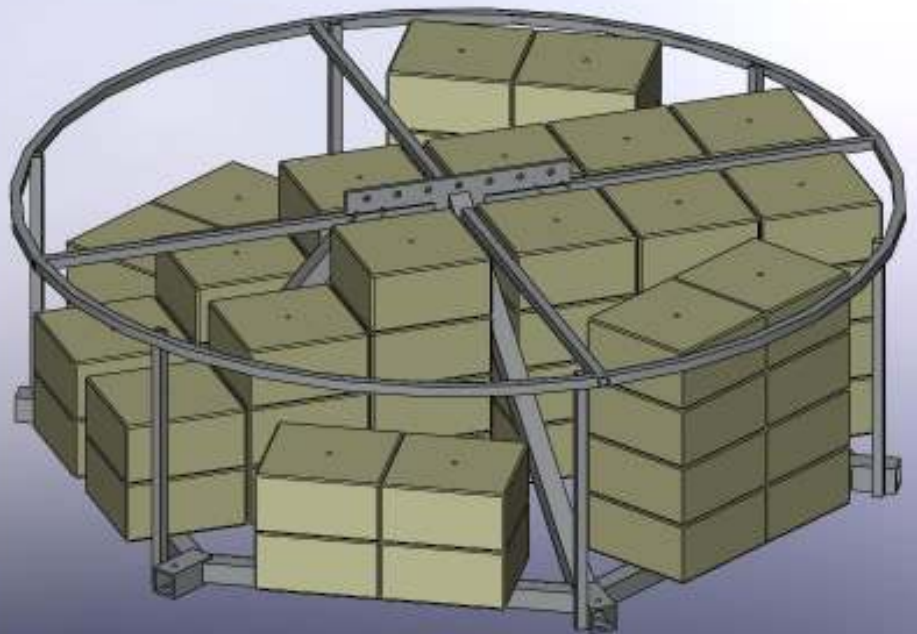
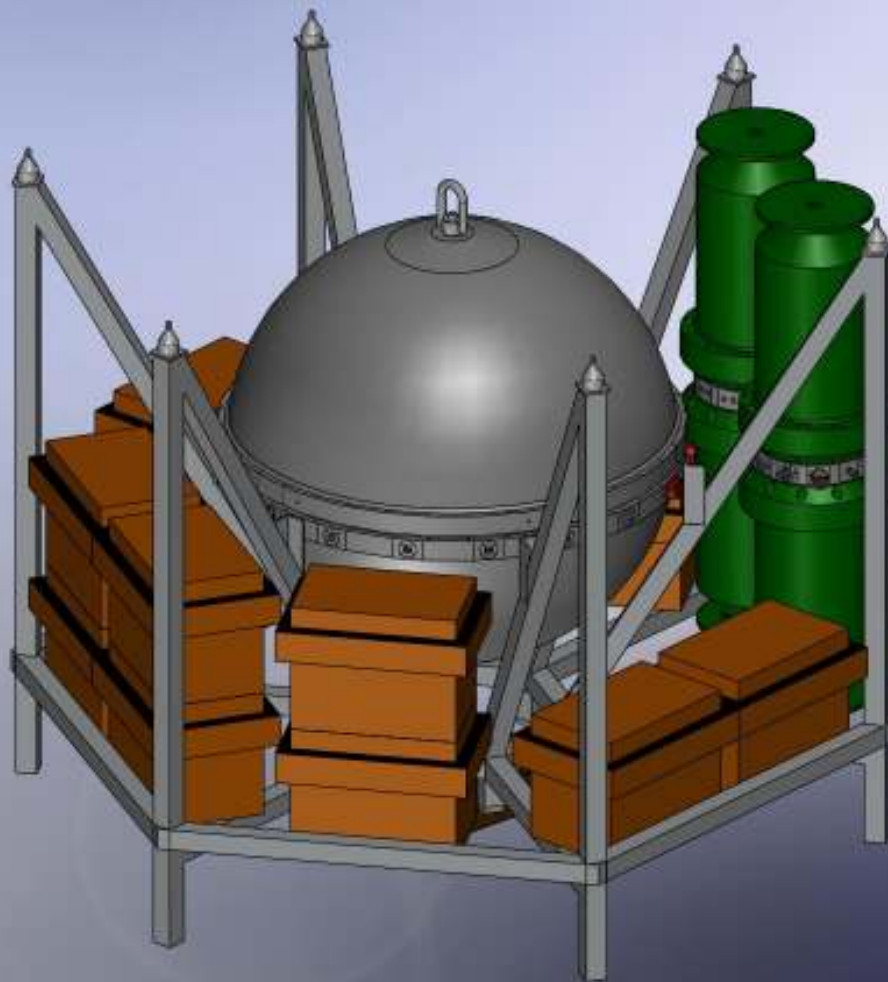
4k Deep ESP Elevator

- 4K Elevator
 - Weight
 - Descent/Ascent time
 - Size
 - Power interface
 - Comm interface

4k Deep ESP Elevator



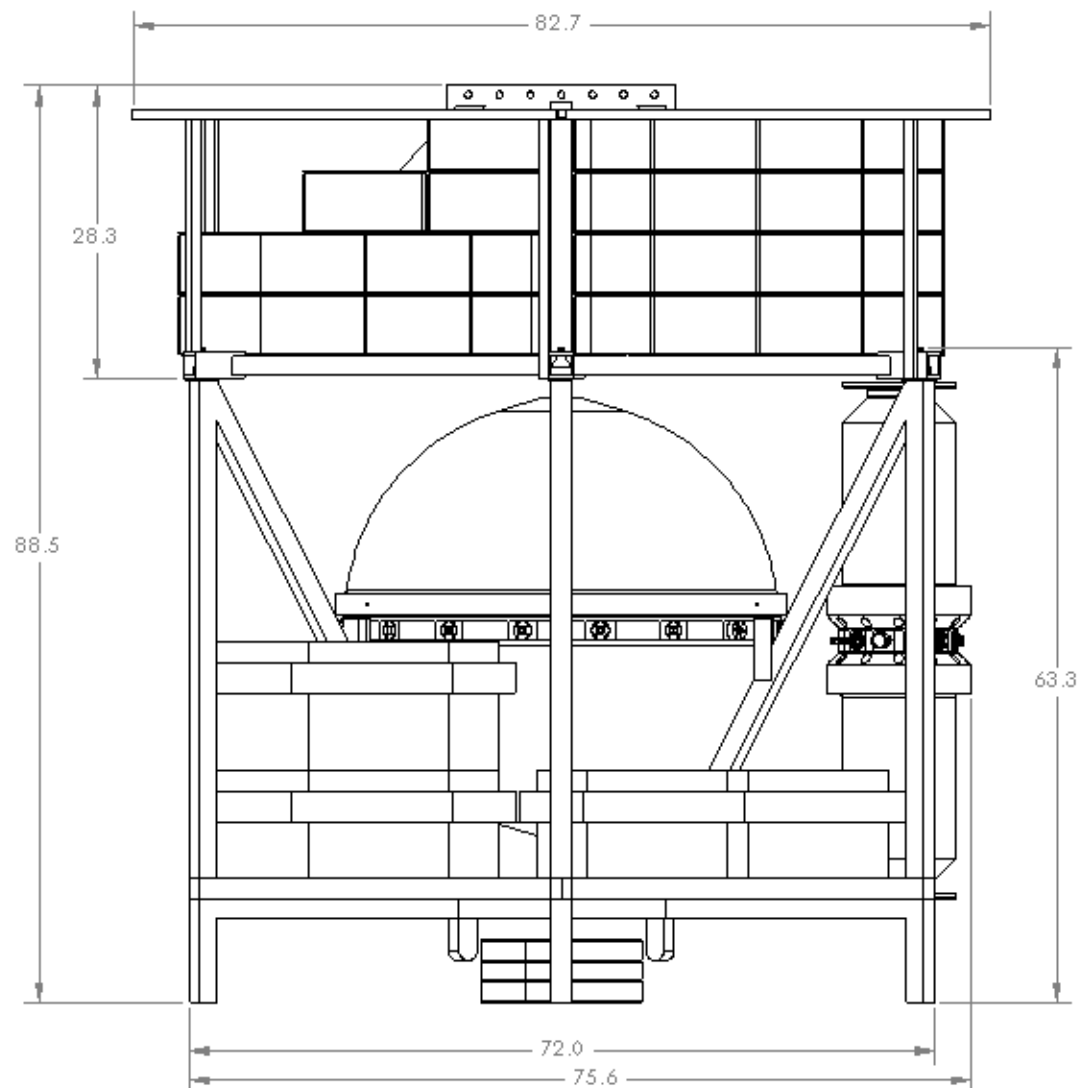
4k Deep ESP Elevator Elevator Layout



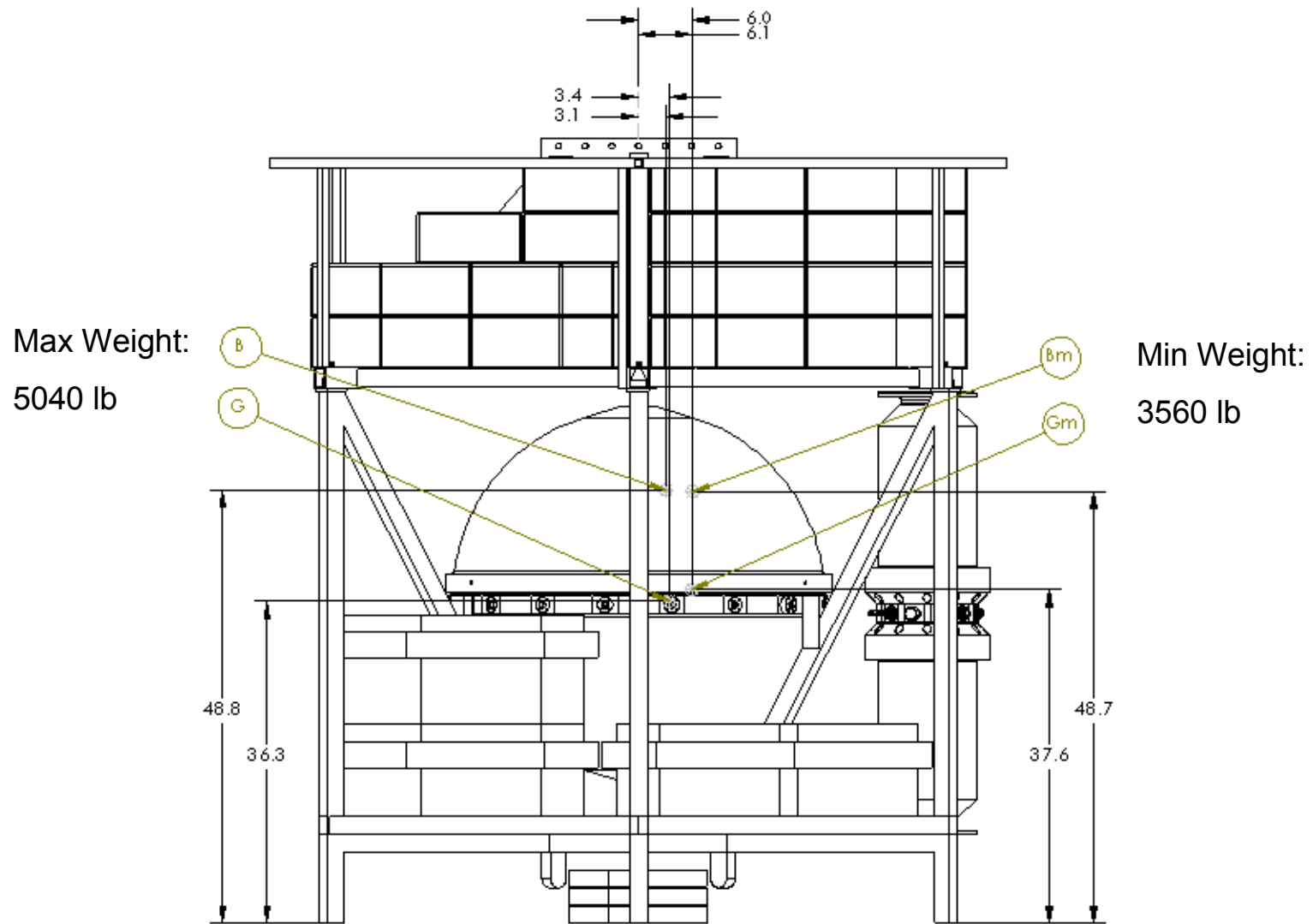
4k Deep ESP Elevator Weights

- Elevator weights
 - Max: 5040 lbs, Min: 3560 lbs
 - In water: -60, +140 lbs (200 lb drop weight)
 - Allows for
 - 40 lb loss of buoyancy (sphere compression)
 - 40lb loss of foam buoyancy (3% absorption)
- 1.0-0.5 m/sec descent speed
 - 2g impact w/ 2" shock travel

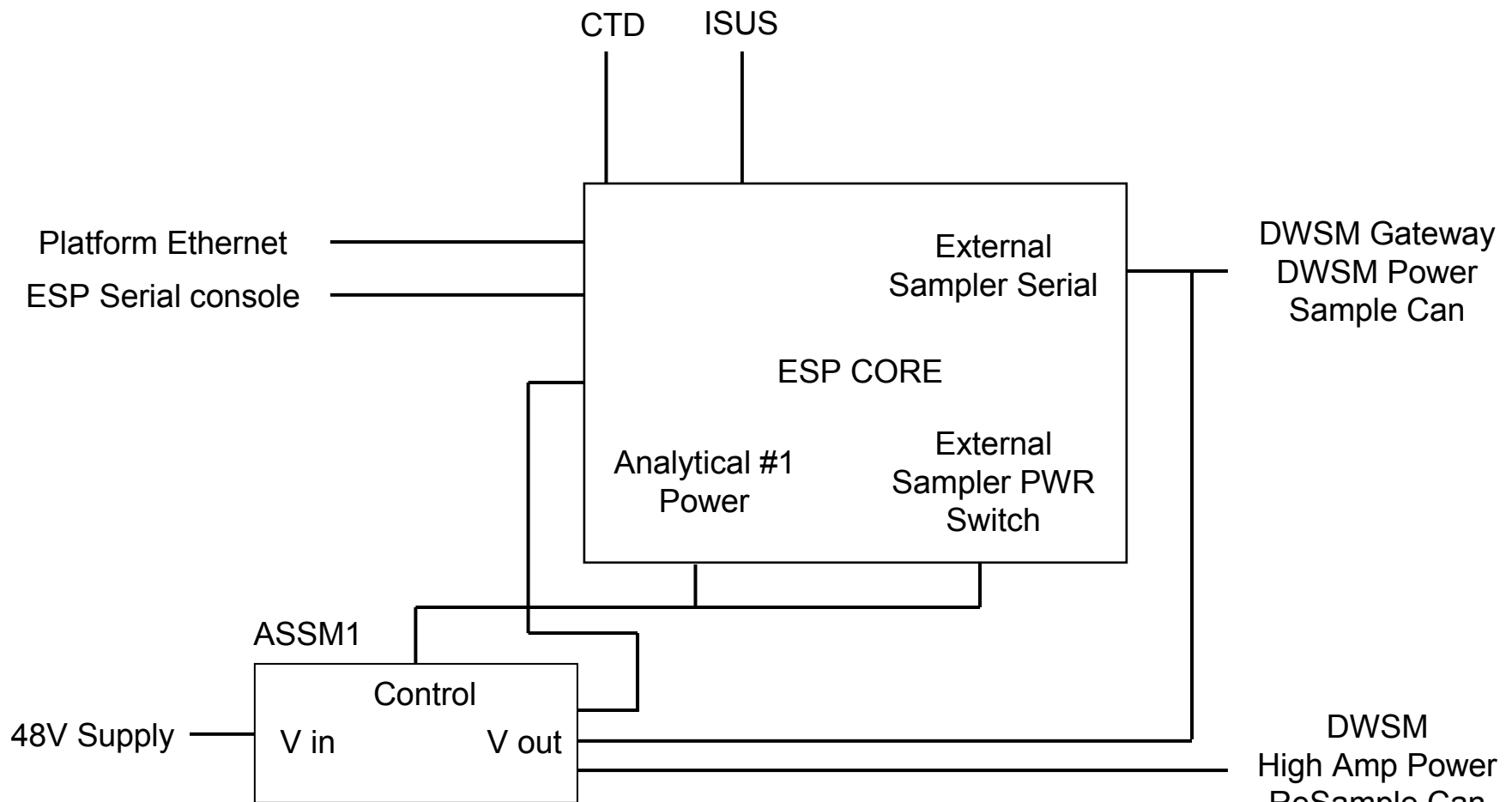
4k Deep ESP Elevator Elevator Dimensions



4k Deep ESP Elevator Elevator CG and CB



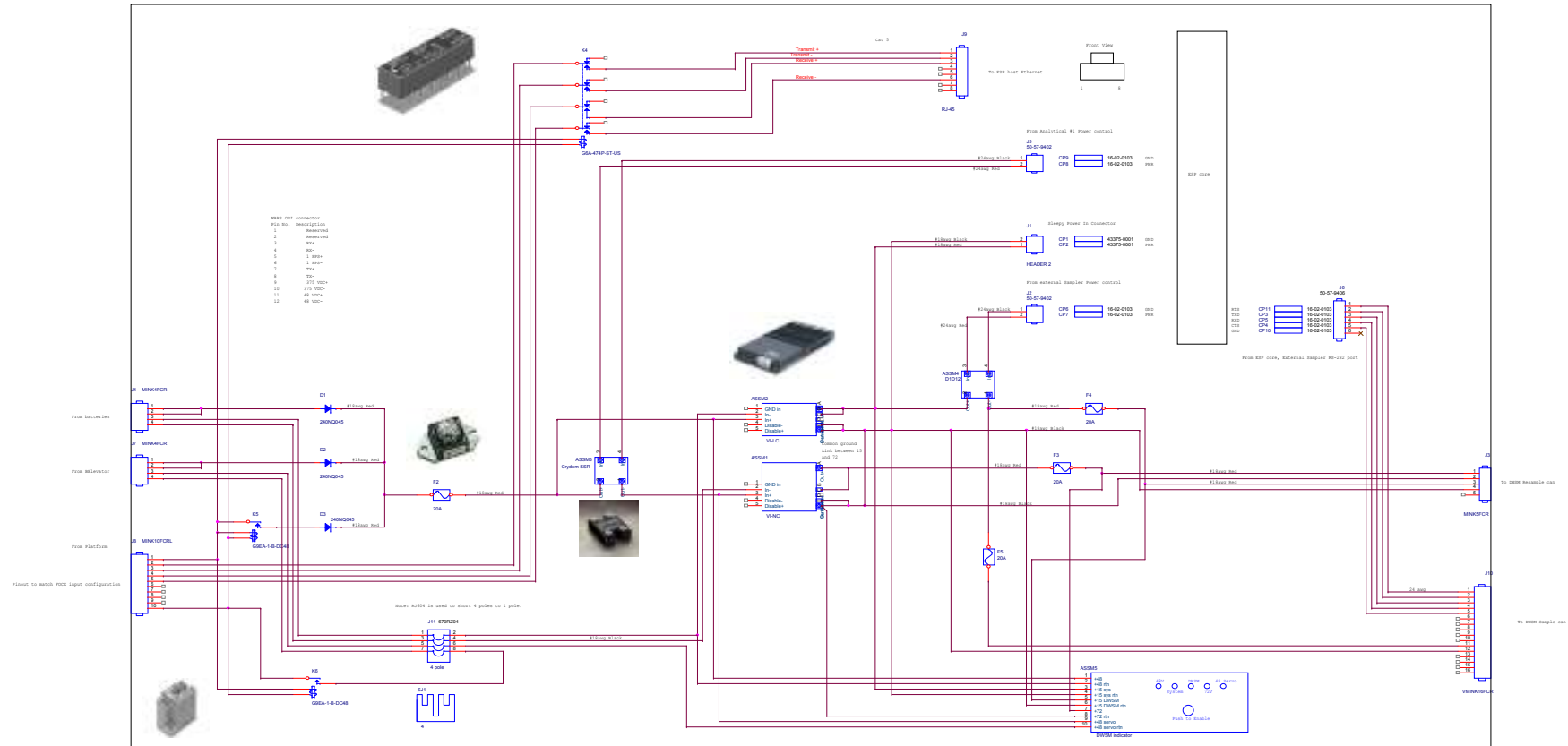
4k Deep ESP Elevator Ball Electronics



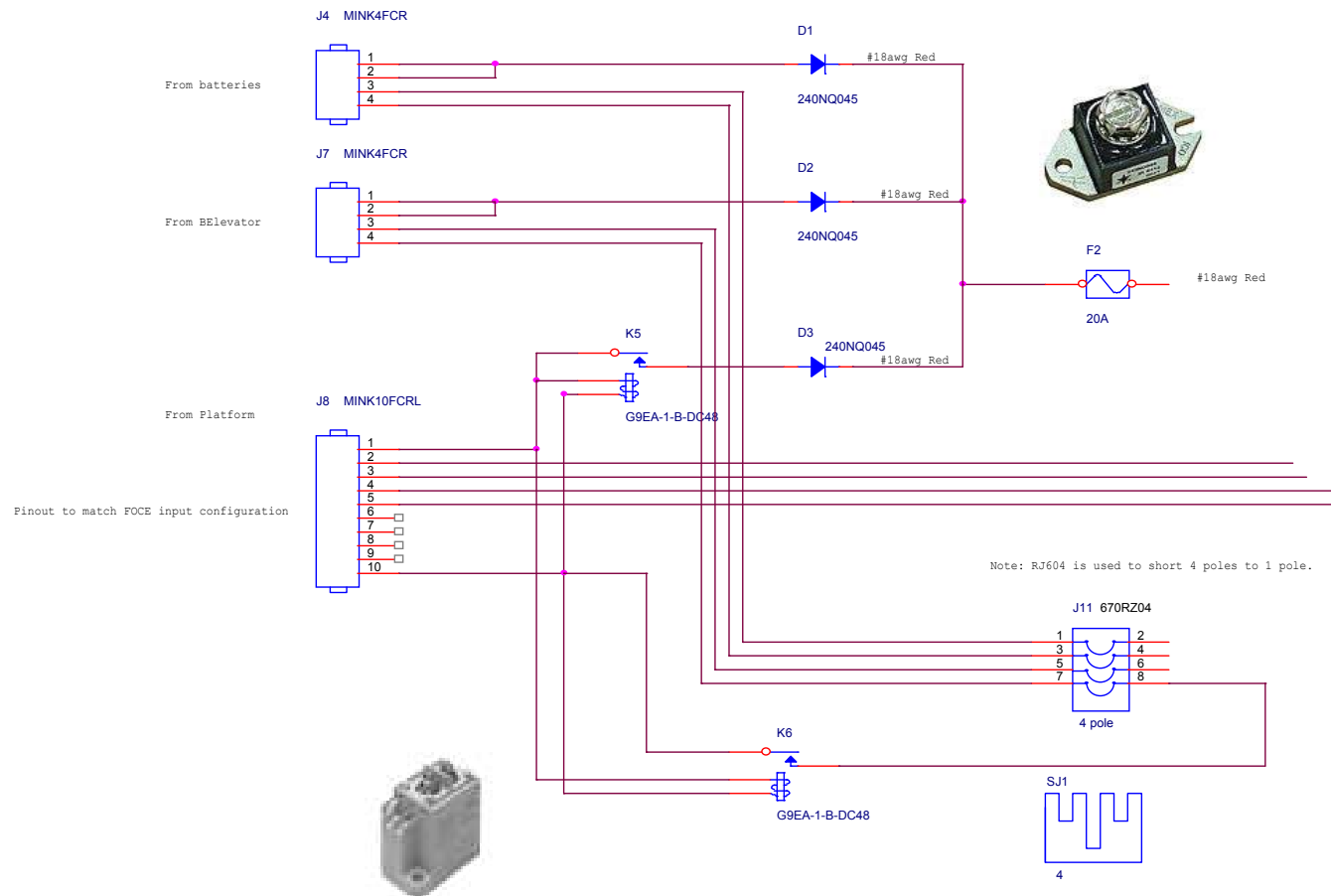
DWSM Power
Control inputs:

- 1) 15V Used as primary voltage to DWSM
- 2) HV Power – only turned on when high power pumps are needed.

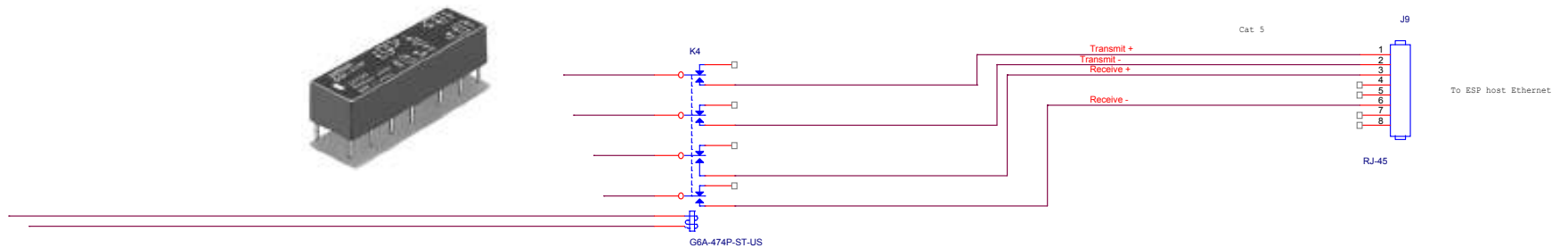
4k Deep ESP Elevator Power Supply



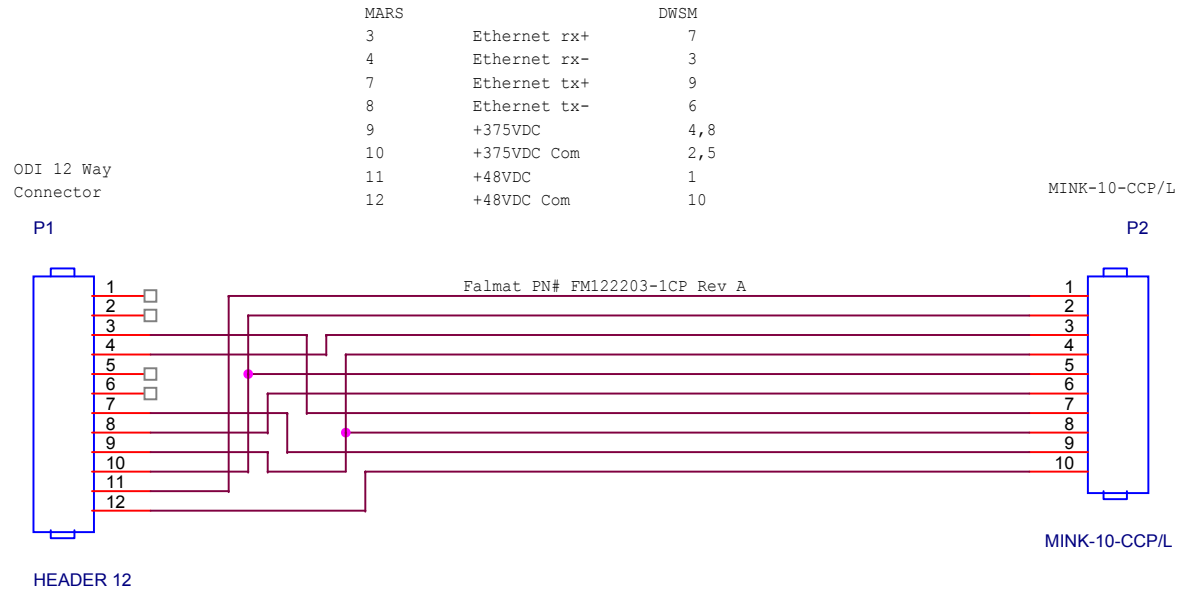
4k Deep ESP Elevator Power Switching



4k Deep ESP Elevator Power Switching



4k Deep ESP Elevator Platform Umbilical



Cable layout was copied from FOCE cable design to maintain compatibility.