

## Electromagnetic Solutions for Naval System Actuators

*EMI filtering is a critical component in eliminating or reducing interference of actuator drive electronics.*

Electromagnetic interference (EMI) generated by electronics in Naval operations can be a challenge. High-performance electromechanical control actuation systems are susceptible to EMI from radar, wireless communication, and electronic warfare (EW) systems. Spectrum Control designs and manufactures the broadest line of EMI filtering products for electromagnetic compliance (EMC) in the industry and has the experience to validate these products to ensure system-level requirements.

Spectrum Control can develop a product or integrated assembly to help address military watercraft's mechanical, electrical, and power demands. We offer flexibility to filter EMI at the power source, at the I/O connection, in a barrier wall, or on the PCB. In addition, Spectrum Control has a catalog of standard products offering a wide range of electromagnetic solutions.

### Control Actuator Systems

#### *Circular EMI Filtered Connectors*

High-performance electromechanical control actuation systems are susceptible to EMI. Spectrum Control's connectors ensure the guided trajectory systems of missiles and other strategic weapons are not disrupted or fire unintentionally. The compact shell connectors provide an effective filtering device that reduces the amount of real estate required within a product enclosure.

### Actuator Drive DC Motors

#### *Custom Power EMI Filters*

DC motors are most commonly used for actuators. Spectrum Control can design a custom power EMI filter to mount directly to the motor and include feedthrough components for high-frequency attenuation. This method is ideal for filtering the power entering these systems, preventing radiated or conducted EMI.



### Actuation Systems

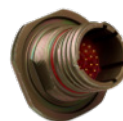
#### *Resin Sealed EMI Filters*

Converting energy and signals through a network of Naval watercraft requires EMI protection to keep the systems running. Resin sealed EMI filters offer a rugged case with resin seals at both ends, providing excellent environmental protection for harsh environments. MIL-PRF-15733 QPL filters are available.

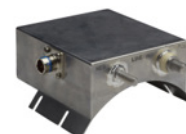
### Naval Applications

Spectrum Control will support numerous Naval watercraft applications by eliminating or reducing EMI:

- Aircraft carriers
- Cruisers
- Landing craft
- Ballistic missile submarines
- Attack submarines
- Destroyers
- Combat ships



*Filtered Circular  
Connectors*



*Custom Power  
Filters*



*Resin-Sealed  
Filters*