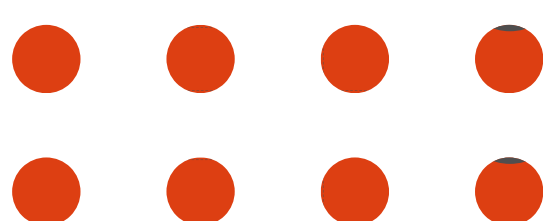


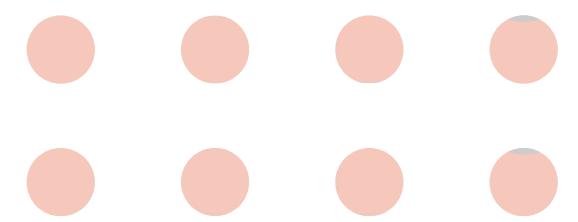
Solutions for Maritime Industry



AOI
AOITEC

Ultra Compact Electric Actuators
Engineered for the World

Actuation Solution For Every Industrial Need



AOITEC brings over 30 years of expertise in R&D and manufacturing of ultra-compact electric valve actuators, delivering innovative, reliable automation solutions worldwide—ranging from standard on-off/modulating types to advanced solutions featuring dual voltage capability, Brushless DC, Supercapacitor failsafe, high speed, and EXD certified models, offering reliability and flexibility to every actuation need.

Operating under ISO9001 standards, we deliver precise and reliable solutions for manufacturers, distributors, system integrators, and EPC contractors.



Marine Sector Coverage

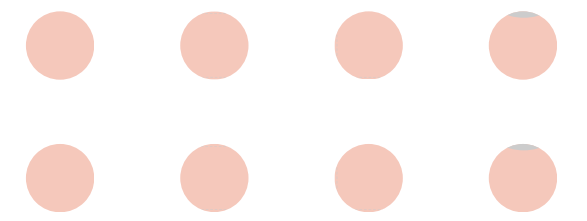
Vessel segments

- Commercial shipping
- Offshore oil and gas
- Passenger vessels
- Naval vessels
- Special purpose vessels

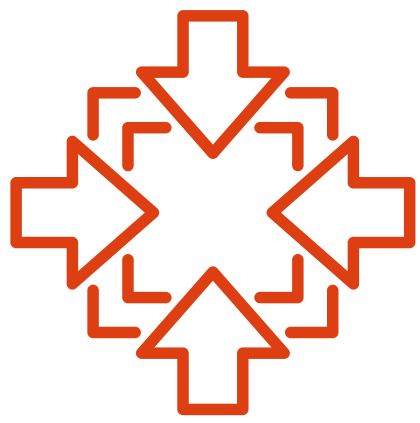
System segments

- HVAC and utilities
- Cooling systems
- Ballast systems
- Cargo systems
- Firefighting systems

THE AOITEC SOLUTIONS



AOITEC delivers advanced electric actuator solutions designed for efficiency, reliability, long service life, and compact integration, meeting the demanding requirements of modern industrial applications.



ULTRA COMPACT AND LIGHTWEIGHT DESIGN

AOITEC actuators feature a truly bracket-free ultra-compact design that significantly reduces installation footprint. The compact structure reduces space and weight by up to 60%. Our 6000 Nm unit weighs only 32 kg, providing a highly efficient torque to weight ratio. This is particularly beneficial for shipbuilders and system integrators where installation space inside engine rooms, pipe racks, and equipment cabinets is extremely limited.



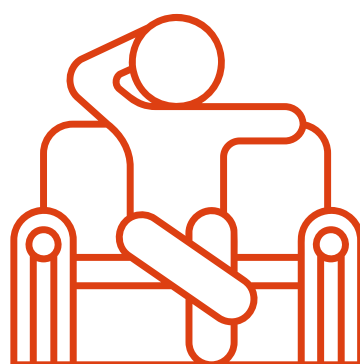
BLDC TECHNOLOGY FOR HIGH RELIABILITY

AOITEC actuators are powered by advanced brushless DC motor technology designed for high efficiency and long service life. Compared to traditional motor designs, BLDC technology reduces wear, improves efficiency, and minimizes heat generation, delivering stable and reliable performance in demanding marine environments.



100% DUTY CYCLE FOR CONTINUOUS OPERATION

AOITEC actuators with DC motor are designed to support true 100 percent duty cycle operation without overheating. This enables continuous and reliable valve actuation in marine systems that operate around the clock, such as seawater cooling circuits, ballast water systems, HVAC circulation systems, and fuel transfer applications.



ROBUST AND MAINTENANCE FREE DESIGN

AOITEC actuators are engineered for maintenance free operation without the need for lubrication or periodic servicing. The actuators are equipped with F class insulated motors and tested to withstand 1500 V dielectric strength, providing strong insulation protection for reliable operation in demanding environments. The actuators are CE certified, ensuring compliance with international safety and quality standards.



DUAL VOLTAGE FLEXIBILITY FOR SHIP CONTROL SYSTEMS

AOITEC offers AC24V and DC24V dual voltage actuators designed to simplify integration with marine control systems. AC24V wiring is identical to standard AC models, while DC24V operation allows direction control through polarity switching between control terminals. This dual voltage capability simplifies installation, reduces actuator model variation, and makes spare parts management easier for shipbuilders and vessel operators.



SPRING FREE FAIL SAFE DESIGN

AOITEC supercapacitor return actuators eliminate the need for mechanical spring mechanisms by using supercapacitor energy storage. Compared with conventional spring return actuators, this design removes spring fatigue and reduces mechanical wear while allowing a more compact actuator structure. The spring free design is particularly beneficial for marine installations where space is limited and long term reliability is critical.

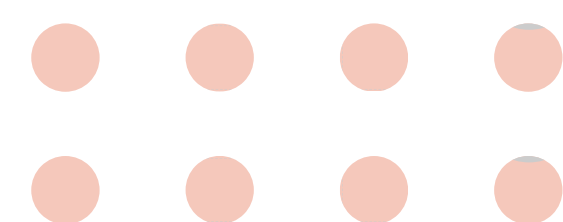


COMPETITIVE GLOBAL PRICING

AOITEC combines high performance and functionality with competitive global pricing through optimised product design and efficient manufacturing. With a manufacturing facility located in Taiwan, AOITEC products are not subject to China related tariffs, helping customers maintain stable procurement costs and supporting a resilient global supply chain. This allows shipbuilders, distributors, and system integrators to access high quality actuator solutions while maintaining cost competitiveness in international markets.



Quarter-Turn Electric Actuators



Valve compatability

DN15-DN1000

Control mode

On/Off, Modulating

Control Signal

Digital, Analog, Modbus

Mounting Standard

ISO 5211

Power Supply

AC380V, AC/DC24V, AC220V, AC110V

Duty Cycle for DC Motor

100%

Ingress protection

IP68

Motor insulation class

F class

Temp range

-40°C(space heater required) to 55°C

Advanced Options

Dual Voltage, EXD, High Speed,
Brushless DC motor, SuperCapacitor
Failsafe, Silent Operation

QUARTER-TURN ELECTRIC ACTUATORS FROM 50NM-500NM



Ulli-5

Torque: 50Nm

Stroke time @50Hz: 30 Sec

Duty cycle for AC motor: 80%

Weight: 2.6 kg

Valve Size: DN25-50

Dimension (L × W × H): 155 × 101 × 113 mm



Ulli-10

Torque: 100Nm

Stroke time @50Hz: 30 Sec

Duty cycle for AC motor: 80%

Weight: 3.7 kg

Valve Size: DN50-80

Dimensions (L × W × H): 208 × 120 × 122 mm



Ulli-25

Torque: 250Nm

Stroke time @50Hz: 30 Sec

Duty cycle for AC motor: 60%

Weight: 7.5kg

Valve Size: DN80-100

Dimensions (L × W × H): 256x × 153 × 146mm



Ulli-50

Torque: 500Nm

Stroke time @50Hz: 30 Sec

Duty cycle for AC motor: 50%

Weight: 8.0kg

Valve Size: DN100-300

Dimensions (L × W × H): 256x × 153 × 146mm

Note:

- Torque is fully customizable from 20 Nm to 6000 Nm. Stroke time can be customized within a certain range depending on application requirements.
- Functions can be configured and combined to provide maximum operational flexibility.
- Valve size is provided for reference only.

QUARTER-TURN ELECTRIC ACTUATORS FROM 1000NM-6000NM



Ulli-100

Torque: 1000Nm

Stroke time @50Hz: 50 Sec

Duty cycle for AC motor: 50%

Weight: 12.0kg

Valve Size: DN300-400

Dimensions (L × W × H): 280 × 156 × 158mm



Ulli-200

Torque: 2000Nm

Stroke time @50Hz: 100 Sec

Duty cycle for AC motor: 50%

Weight: 12.0kg

Valve Size: DN400-500

Dimensions (L × W × H): 280 × 156 × 158mm



Ulli-400

Torque: 4000Nm

Stroke time @50Hz: 150 Sec

Duty cycle for AC motor: 50%

Weight: 32.0kg

Valve Size: DN600-700

Dimensions (L × W × H): 408 × 261 × 172mm



Ulli-600

Torque: 6000Nm

Stroke time @50Hz: 150 Sec

Duty cycle for AC motor: 50%

Weight: 32.0kg

Valve Size: DN800-1000

Dimensions (L × W × H): 408 × 261 × 172mm

Note:

- Torque is fully customizable from 20 Nm to 6000 Nm. Stroke time can be customized within a certain range depending on application requirements.
- Functions can be configured and combined to provide maximum operational flexibility.
- Valve size is provided for reference only.

Options & Add-ons

Flat/Spherical Viewing Window

Female/Male Type

Outer Cover Colour

Voltage Options

Handwheel

Brushless DC Motor Drive


Wireless Control Module

Electronic Overload Protection

Power Outage Return

Current Position Feedback

H-Class Configuration



**AOITEC is the reliable partner for
valve automation solutions**



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