ELTORQUE PASSENGER SHIP SOLUTIONS

SAFETY AND PRECISION FOR
SEAMLESS CRUISE OPERATIONS

ELTORQUE
INTELLIGENT AND GREEN SOLUTIONS

30 YEARS EXPERIENCE

ELTORQUE HAS DEVELOPED, MANUFACTURED, AND MARKETS ELECTRIC ACTUATORS AND CONTROL SYSTEMS FOR THE INTERNATIONAL SHIPBUILDING AND ONSHORE INDUSTRIES SINCE 1996.

200 000+ ACTUATORS

MORE THAN 200.000+ ELTORQUE ACTUATORS HAVE BEEN INSTALLED ONBOARD OVER 200 VESSELS WORLDWIDE

OUR GOAL

IS TO PROVIDE THE CLEANEST AND MOST INTELLIGENT VALVE CONTROL SOLUTION ON THE MARKET, WITH COMPONENTS THAT LAST THE VESSEL'S LIFETIME.

BROAD SPECTER

WE DELIVER TAILOR-MADE, RELIABLE, AND INTUITIVE FLOW CONTROL SOLUTIONS FOR NUMEROUS VESSEL DESIGNS AND TYPES.

VALVE CONTROL FOR PASSENGER SHIPS

Eltorque's solution integrates redundancy at every level, from the central control system to the actuators and sensors. This comprehensive approach guarantees continuous operation—under challenging conditions—even after a casualty known as Safe Return to Port.

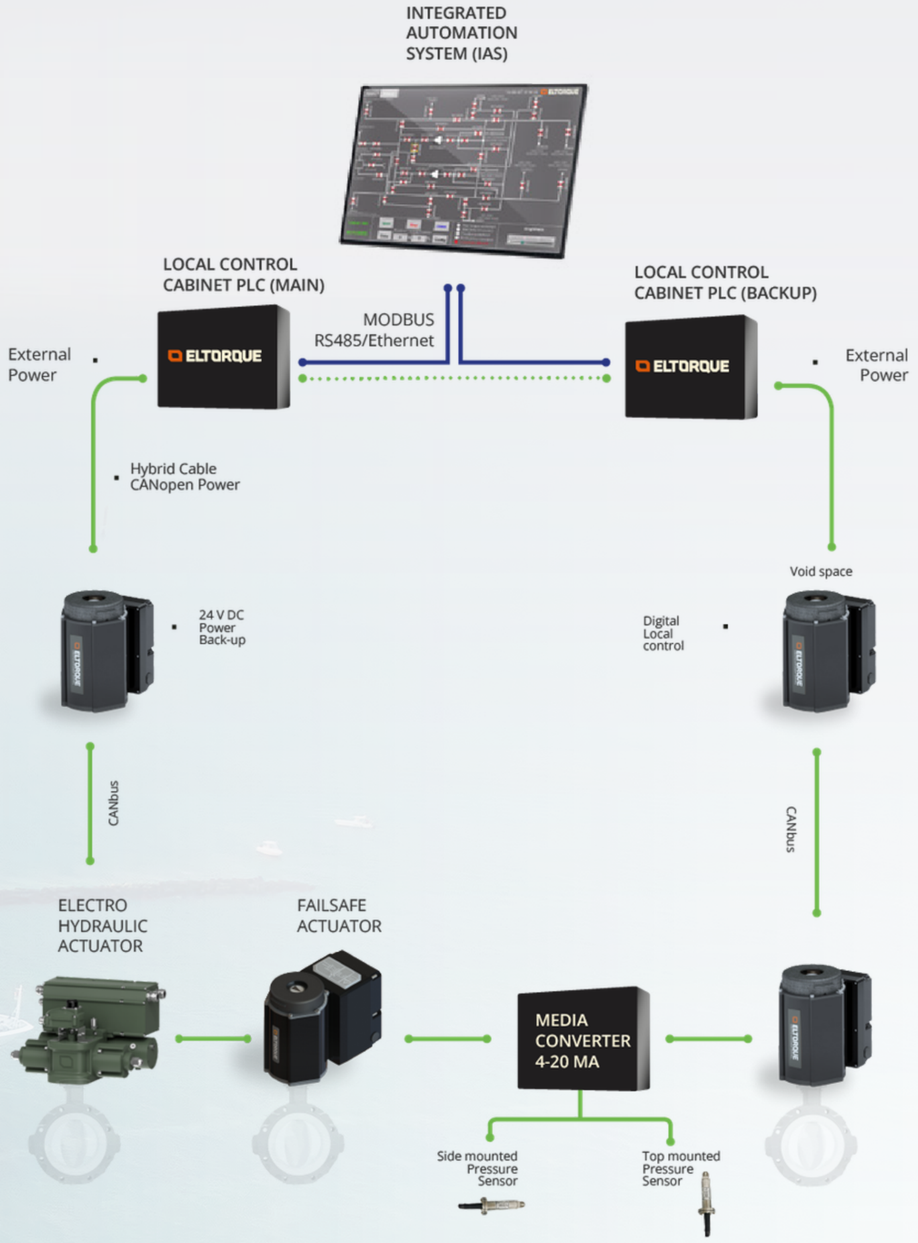
The result is an innovative, cost-effective solution that meets and exceeds modern safety requirements, ensuring all components contribute to reliable operation across all onboard ship systems.

ELTORQUE BENEFITS

Optimal performance for the maritime industry with a focus on reduced costs, sustainability and reliability.

VALVE CONTROL SYSTEM ENABLING SRtP

- Fault-tolerant valve control by applying a hot standby cabinet
- Failsafe actuator versions
- Connected to the ship side system, like Emergency Shut Down and integrated automation systems (IAS)
- Integration of sensors to enhance safety
- Dual power supply option
- Submerged operation of actuators



ELECTRO-HYDRAULIC ACTUATORS

TORQUE RANGE FROM 90-19000 NM

INTERFACE	Analog 4-20mA, Digital, Modbus, Profibus, CANOpen
OPTIONS	IP 68 10m/72h, Open Deck, Permanent submerged options
VARIATIONS	Quarter-turn and Multi-turn with Single and Double Acting

- Electrical activation using local HPU: hydraulic reservoir operated by a pump, e. g. no need to attach oil pipe
- Single and double acting versions
- Local extension box to control actuators with limited access (void spaces, submerged), aka “split actuator”
- Valve Position Indicator
- Mechanical interface according to ISO5211
- High speeds and high torque application like ballasting

INTERFACE	Analog, Digital, Modbus, CANbus
OPTIONS	IP 68 10m/72h, Open Deck, Failsafe, DUAL Power

ELECTRIC ACTUATORS

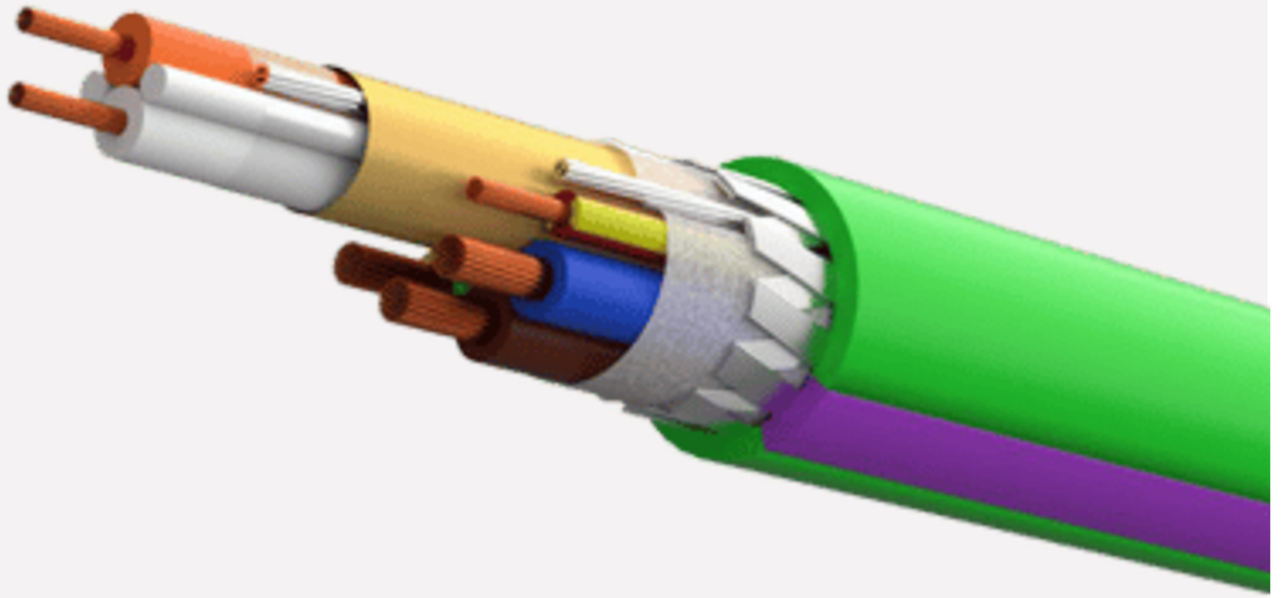
TORQUE RANGE FROM 50-4000 NM

- Permanent magnet motor technology
- Excellent controlling possibilities with built-in encoders
- Plug-and-play solution with low installation costs and a high level of security
- CANopen communication protocol enables installation in loops
- Suitable with Butterfly and Ball valves from DN25 to DN800
- Several Failsafe and Redundancy options
- Real-time Feedback on Valves
- Fully Electric and Serial Connected

HYBRID MARINE CABLE

CABLE FOR POWER & CONTROL

- First Hybrid CANbus/Power cable in maritime application
- Speeds up installation while at the same time reducing footprint, weight, and risk of errors
- The cable combines CANbus with a 2.5 mm cross-section power conductor (Class 5)
- Doble shield construction (CHMS)
- DNV-GL Type Approved product



The cable is specially developed and produced exclusively for Eltorque AS and should only be used with Eltorque actuators

FUTURE-PROOF SOLUTIONS DELIVERING PRECISION, SAFETY AND PIECE OF MIND

SAFETY AND PRECISION FOR PASSENGER SHIPS

Eltorque actuators combine SOLAS & SRtP compliance and certified maritime excellence with robust, redundant communication and dual power redundancy, delivering uncompromised cruise safety and rapid, reliable responses even under the most challenging conditions.

REDUNDANT COMMUNICATIONS

- Integrated Failsafe option
- Switching valves into the safe state - defined by the ship design
- Local emergency operation
- Power redundancy ensures continuous critical operations.

DURABLE VALVE CONTROL

- Encoder-based positioning
- Integrated temperature control
- Epoxy-encapsulated electronics

Rigorous Lifetime Testing

CERTIFIED FOR MARITIME EXCELLENCE

- Safe return to port (SRtP)
- IMO'S Safety of Life at Sea (SOLAS)
- DNV-GL, ABS, EX

THANK YOU FOR YOUR ATTENTION

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OUR CRUISE REFERENCES