

QT50 QUARTER-TURN ACTUATOR

COMPACT QUALITY

Description

QT50 is the most compact quarter-turn actuator by Eltorque. With an operating torque of 50 Nm, the QT50 is ideal for use with butterfly and ball valves from DN25 to DN80. IP68 protection rating and maritime type approval ensures robustness and durability. The QT50 is designed in line with Eltorque's Lifelong Intelligent Control philosophy, meaning a maintenance free product with improved functionality and real-time feedback.

Type Approval Certificates

DNV-GL: TAA000009N

Temperature Range

-25°C to +70°C

Other QT-series products:

Product	Torque range	Valve range
QT250	50 - 250 Nm	DN80 - 200*
QT800	250 - 800 Nm	DN250 - 400*
QT2500	800 - 2500 Nm	DN450 - 600*
QT4000	2500 - 4000 Nm	DN600 - 800*



FEATURES

- Max torque: 50 Nm
- Valve range: DN25-80*
- IP68 enclosure
- CANbus interface
- Maintenance free
- Accurate real-time position control
- Real-time feedback on valves
- Easy installation and commissioning
- Emergency operation by hand wheel
- Over-Torque and -temperature protection
- Torque, speed and position configuration

OPTIONS

- Digital Interface (OPEN - CLOSE - ALARM)
- Analog Interface (4-20 mA)

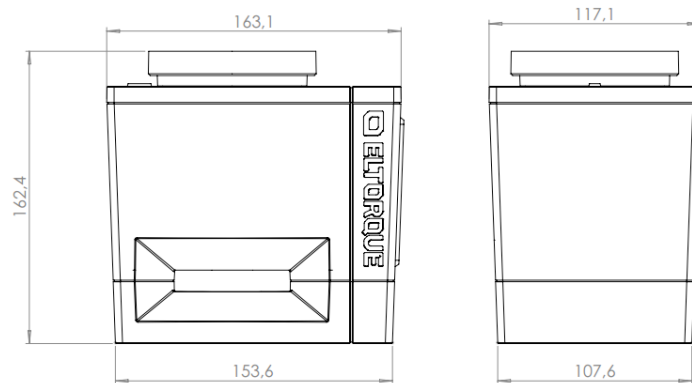
*) All max valve sizes are typical values that depends on pressure, temperature and valve specification

Function / interface	CANbus	Analog (4-20 mA)	Digital
OPEN/CLOSE W/FEEDBACK	✓	✓	✓
POSITIONING	Advanced	Yes	No
CONNECTION	Serial	Parallell	Parallell
ALARMS	Specific	General	General
ADVANCED CONTROL/FEEDBACK	✓		

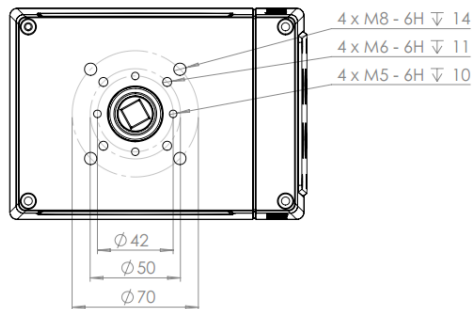
QT50 SPECIFICATIONS

QT50	
MAX-MIN TORQUE	10 - 50 Nm
MIN-MAX CLOSING TIME 0-100% (0-90°)	Min: 5 sec, Min recommended: 8 sec, Max: 15 sec
VALVE SPINDLE ADAPTER	SQ11
VALVE FLANGE	F04, F05, F07. According to ISO5211.
VALVE APPLICATIONS	Butterfly and ball valves. Max valve size depends on valve and system specifications.
PHYSICAL PROPERTIES	
WEIGHT	4.5 kg
DIMENSIONS H/W/D	163/118/164 mm
PROTECTION RATING	IP68 (10m 72h) External materials: anodized aluminium and PC+ABS
COLOR	Black
OPERATING CONDITIONS	-25°C to +70°C Type approval in progress for outdoor - and Open Deck usage on ships. Not designed for exposure to corrosive materials.
TEMPERATURE PROTECTION	Motor current is switched off in case of over-heating.
ELECTRICAL AND CONTROL PROPERTIES	
POWER SUPPLY	110-240 V AC 50/60Hz. Max 60 VA
CABLE GLANDS	For use with Eltorque Hybrid Marine Cable, 2 glands are needed. These are available from Eltorque. For use with traditional cabling, 2 power glands and 2 EMC signal glands are required.
INTERFACE OPTIONS	Digital: 2 DI (Open - Close) & 3 DO (Open - Closed - Alarm) Analog: AI (Set position), AO (Feedback position) & DO (Alarm). 4-20 mA AI/AO signal. CANopen Fieldbus: Max 127 nodes per network. Fieldbus allows positioning and other extended control of actuator. Number of nodes will be limited by control system
POSITION SENSOR	Position range: 360°. Accuracy: 0.39% (0.35°) at calibrated position For positions far from calibrated position, accuracy is typically 0.8°
CONFIGURATION	USB connection to PC with Eltorque Manager.
CONFIGURABLE PARAMETERS	Open and Closed positions . Actuator speed, torque and valve position regions. Inverted IO or fieldbus parameters depending on control interface.
EMERGENCY AND SAFETY	
MANUAL OPERATION	Standard feature using fixed hand-wheel. Mechanical valve position indicator.
COVER OF HAND WHEEL	Can be removed and refitted without tools. Protects mechanism against mechanical damage and foreign objects.
NUMBER OF TURNS	19 for 0-100% (0-90°) valve operation
POSITION INDICATOR LIGHT	Green: Open Blinking green: Moving towards Open Yellow: Close Blinking yellow: Moving towards Close Blinking red: Alarm Blue: Reached position between Open and Close (For regulation purposes)

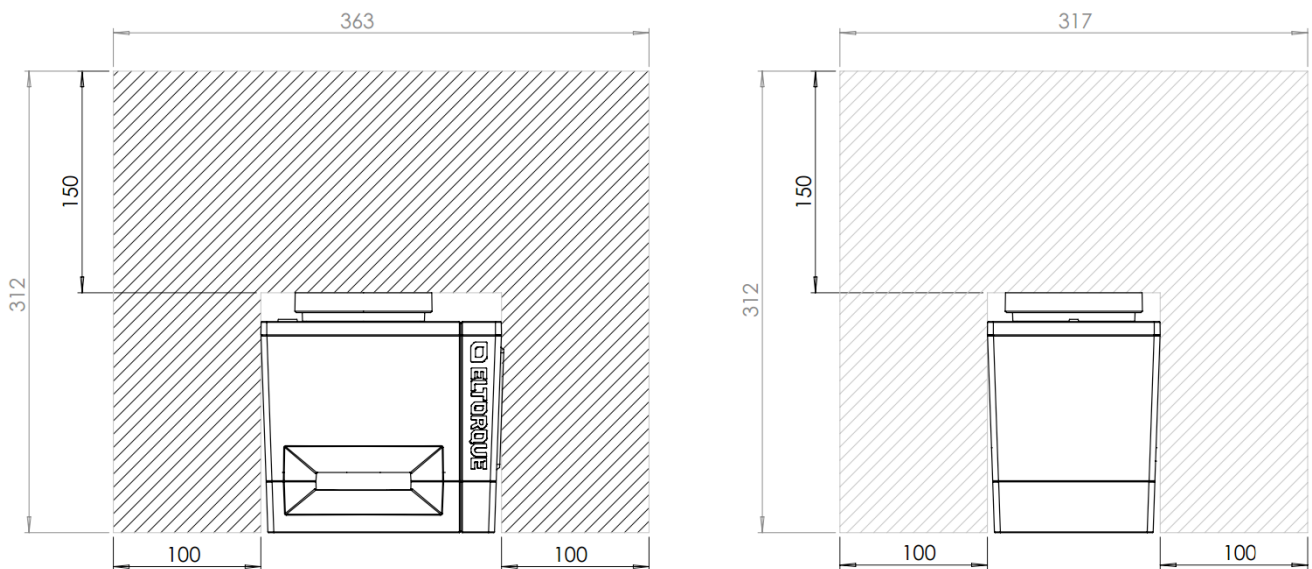
QT50 DIMENSIONS



QT50 side views (dimensions in mm)



QT50 bottom view (dimensions in mm)



QT50 installation space requirement (dimensions in mm)