TYPE APPROVAL CERTIFICATE

Certificate no.:
TAA000011K
Revision No:
5

This is to certify:

that the Electric Actuator

with type designation(s)
QT250 2.4 EX, QT400 2.4 EX, QT800 2.4 EX, QT1000 2.4 EX, QT250 1.0 Exd, QT800 1.0 Exd, QT2500 1.0 Exd, QT2500 3.0, QT4000 1.0, QT6000 1.0

issued to

Eltorque AS

TRONDHEIM, **Norway**

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Location classes:

Type	Temperature	Humidity	Vibration	EMC	Enclosure
QT250 2.4 EX	D	B	A	B*	C/D
QT400 2.4 EX	D	B	A	B*	C/D
QT800 2.4 EX	D	B	A	B*	C/D
QT1000 2.4 EX	D	B	A	B*	C/D
QT250 1.0 Exd	D	B	A	B	C/D
QT800 1.0 Exd	D	B	A	B	C/D
QT2500 1.0 Exd	D	B	A	B	C/D
QT2500 3.0	C	B	A	A	D
QT4000 1.0	C	B	A	A	D
QT6000 1.0	C	B	A	A	D

*** QT250/400/800/1000 EX require use of power supply filter to fulfill EMC class B requirements. See page 2.**

Issued at **Høvik** on **2026-09-30**
This Certificate is valid until **2030-12-01**.
DNV local unit: **Trondheim**

for **DNV**

Approval Engineer: **Sonali Marathe**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

Electric quarter turn valve actuator

Power Supply:	QT250, QT 800	230 V AC 50/60 Hz
	QT2500	110-240 V AC 50/60 Hz
	QT1000	110-240 V AC 50/60 Hz
	QT4000	110-240 V AC 50/60 Hz
	QT6000	110-240 V AC 50/60 Hz
Operating Torque:	QT250	Max. 250 Nm
	QT800	Max. 800 Nm
	QT1000	Max. 1000 Nm
	QT2500 Exd	Max. 2300 Nm
	QT2500	Max. 2500 Nm
	QT4000	Max. 4000 Nm
	QT6000	Max. 6500Nm

Interface options as listed in table below.

Range	Actuator		Description	Firmware
	Basic	Hybrid Cable Connection		
QT250	EXD250.125.1[.xx]	EXD250.125.1H[.xx]	QT250 1.0 CANopen EXD Actuator	1.1.x
	EXD250.135.1[.xx]	N/A	QT250 1.0 Analogue EXD Actuator	1.1.x
	EXD250.115.1[.xx]	N/A	QT250 1.0 Digital EXD Actuator	1.1.x
	EX250.125.4[.xx]	EX250.125.4H[.xx]	QT250 2.4 CANopen EX Actuator */**	1.1.x
QT400	EX400.125.4[.xx]	EX400.125.4H[.xx]	QT400 2.4 CANopen EX Actuator */**	1.1.x
QT800	EXD800.125.1[.xx]	EXD800.125.1H[.xx]	QT800 1.0 CANopen EXD Actuator	1.1.x
	EXD800.135.1[.xx]	N/A	QT800 1.0 Analogue EXD Actuator	1.1.x
	EXD800.115.1[.xx]	N/A	QT800 1.0 Digital EXD Actuator	1.1.x
	EX800.125.4[.xx]	EX800.125.4H[.xx]	QT800 2.4 CANopen EX Actuator */**	1.1.x
QT1000	EX1000.125.4[.xx]	EX1000.125.4H[.xx]	QT1000 2.4 CANopen EX Actuator */**	1.1.x
QT2500	2500.120.3[.xx]	2500.120.3H[.xx]	QT2500 3.0 CANopen Actuator	1.0.x
	2500.140.3[.xx]	2500.140.3H[.xx]	QT2500 3.0 Modbus Actuator	1.0.x
	2500.130.3[.xx]	N/A	QT2500 3.0 Analogue Actuator	1.0.x
	2500.110.3[.xx]	N/A	QT2500 3.0 Digital Actuator	1.0.x
	EXD2500.125.1	EXD2500.125.1H	QT2500 1.0 CANopen EXD Actuator	1.1.x
	EXD2500.135.1	N/A	QT2500 1.0 Analogue EXD Actuator	1.1.x
	EXD2500.115.1	N/A	QT2500 1.0 Digital EXD Actuator	1.1.x
QT4000	4000.120.1[.xx]	4000.120.1H[.xx]	QT4000 1.0 CANopen Actuator	1.0.x
	4000.140.1[.xx]	4000.140.1H[.xx]	QT4000 1.0 Modbus Actuator	1.0.x
	4000.130.1[.xx]	N/A	QT4000 1.0 Analogue Actuator	1.0.x
	4000.110.1[.xx]	N/A	QT4000 1.0 Digital Actuator	1.0.x
QT6000	6000.120.1[.xx]	6000.120.3H	QT6000 1.0 CANopen Actuator	1.1.x
	6000.140.1[.xx]	6000.140.3H	QT6000 1.0 Modbus Actuator	1.1.x
	6000.130.1[.xx]	N/A	QT6000 1.0 Analogue Actuator	1.1.x
	6000.110.1[.xx]	N/A	QT6000 1.0 Digital Actuator	1.1.x

* Suitable for use on open deck

** EMC class A is OK without ELTORQUE PSF. Each actuator is to be powered through the ELTORQUE PSF to satisfy the EMC class B requirements.

[.xx] Denotes the actuator colour, the default is black.

Place of manufacture

Eltorque AS
Verkstedvegen 4
7125 Vanvikan
Norway

Eltorque Automation (Xiamen) Co., Ltd.
201, 2nd floor, Building 2, No. 9 Xinle East Road, Haicang District,
Xiamen City, Fujian Province,
China

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Ex installations to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Ex-certification is not covered by this certificate and the following paragraph, which is for information only, is based on information received from the manufacturer, but not verified by DNV.

Information on Ex-Certification received from manufacturer			
Basic	Hybrid Cable Connection	Certified	Certificate No.
EX250.125.4[.xx]	EX250.125.4H[.xx]	QT250 2.4 CANopen EX Actuator	IECEx NEM 13.0042 (Valid issue)
EX400.125.4[.xx]	EX400.125.4H[.xx]	QT400 2.4 CANopen EX Actuator	
EX800.125.4[.xx]	EX800.125.4H[.xx]	QT800 2.4 CANopen EX Actuator	
EX1000.125.4[.xx]	EX1000.125.4H[.xx]	QT1000 2.4 CANopen EX Actuator	
EX110.0066_00[.xx]	-	Eltorque PSF	
EXD250.125.1[.xx]	EXD250.125.1H[.xx]	QT250 1.0 CANopen EXD Actuator	IECex PRE 14.0056X (Valid issue)
EXD800.125.1[.xx]	EXD800.125.1H[.xx]	QT800 1.0 CANopen EXD Actuator	
EXD2500.125.1	EXD2500.125.1H[.xx]	QT2500 1.0 CANopen EXD Actuator	
EXD250.135.1[.xx]	N/A	QT250 1.0 Analogue EXD Actuator	
EXD800.135.1[.xx]	N/A	QT800 1.0 Analogue EXD Actuator	
EXD2500.135.1[.xx]	N/A	QT2500 1.0 Analogue EXD Actuator	
EXD250.115.1[.xx]	N/A	QT250 1.0 Digital EXD Actuator	
EXD800.115.1[.xx]	N/A	QT800 1.0 Digital EXD Actuator	
EXD2500.115.1[.xx]	N/A	QT2500 1.0 Digital EXD Actuator	

Type Approval documentation

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021.
QT2500 3.0, QT4000 1.0 and QT6000 1.0 tested for IP68 down to 10 m for 30 min. according to IEC 60529:2001.
QT250/800/2500 1.0 EXD tested for IP6x, IPx6 and IPx8 down to 10 m for 72 h according to IEC 60529:2001.
All other models tested for IP6x, IPx6 and IPx8 down to 10 m for 100 h according to IEC 60529:2001.

Marking of product

- Actuator model name
- Interface type
- Manufacturer name
- Serial number
- Input power ratings

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE