Certificate No.: 2208011411054381

TÜRK LOYDU

TYPE APPROVAL CERTIFICATE

This is to certify that the

Actuators

Manufacturer	ELTORQUE AS
Address	Julianus Holms Veg 34 7041 Trondheim NORWAY
Product Type	Multi-Turn Electric Valve Actuator
Particulars / Designation	MT50 1.0, MT150 1.0
Application	Electric actuators for butterfly and ball valves connection
Reference Rule	TL Rules, Part A, Chapter 2 - Material, 01.01.2021 TL Rules, Part B, Chapter 4 - Machinery, 01.01.2021 TL Rules, Part E, Chapter 107 - Naval Ship Technology, Ship Operation Installations and Auxiliary System, 01.01.2016
Place and Date	ISTANBUL / 07.09.2022

Subject to the conditions referred to in the following pages, this certificate is valid until 07.08.2027.

Emrah SÖĞÜTÇÜ

New Building Division Manager

128393

This certificate is subject to terms and conditions described below:

- Any significant change in design or construction may render this Certificate invalid. Type Approval Certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. This certificate is not valid for products without marking above mentioned. The manufacturer should notify TÜRK LOYDU of any modifications or changes to equipment in order to obtain valid certificate. This certificate shows that tested specimens as representative of the product complies of the TÜRK LOYDU rules, and revelant international instruments that apply to it.

Product Details: Multi-turn valve actuator
MT 50 1.0
MT 150 1.0

Application / Limitation (Approval Conditions) :
Approved products can be used navy and commercial vessels

Documentation:
TL Plan approval letters: PAE-EPAS/010722/21-0344/VA 19.10.2021, PAE-EPAS/011064/21-0344/VA 24.11.2021
Manufacturer Drawings for MT50, MT150
Test reports for Endurance test of EN 15714, hazardous "ex" classification, Ingress Protection levels

Product Description : Multi-Turn valve actuators

Electrical Characteristics

MT50

110-240 VAC 50/60 Hz or 125-230 VDC Max 120 W

MT150

110-240 VAC 50/60 Hz or 125-230 VDC Max 240W

Interfaces
Digital: 2 DI (Open - Close) & 3 DO (Open - Closed - Alarm)

CANopen Fieldbus: Max 127 nodes per network. Fieldbus allows positioning and other extended control of actuator.

Connection cable: Hybrid Connection Cable Eltorque CHMS (i) 250V 3G2,5mm2 + 1x0,75mm2 + 1x2x0,75mm2

	Type of Product	Electric Motor Type	Size	Operating Time	Max. Output Torque	Max. Stern. Diameter	Total Weight	IP Rating
1	MT50	Permanent Magnet	DN50/80/100	20/25/30 sec	50.0 Nm	17.0 mm	10.5 kg	IP68 (10 m – 72 h)
2	MT150	Permanent Magnet	DN125/150	60/65 sec	150.0 Nm	27.0 mm	19 kg	IP68 (10 m – 72 h)

Approval No / Date : PAE-EPAS/010722/21-0344/VA 19.10.2021
PAE-EPAS/011064/21-0344/VA 24.11.2021

Performed Tests : Type tests according to EN 15714

Test Place : Vanvikan

Last Inspection Date : 16.06.2022

Surveyor Name: Caner COŞKUN

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