DNV·GL

Certificate No:
TAA00002M9

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electric Actuator

with type designation(s)
Actuator series DV25, DV45, DV75, DV100, DV150, DV300

Issued to
Valpes
Moirans, Isere, France

is found to comply with
DNV GL 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 GL.

Location classes:

Temperature	**D**
Humidity	**B**
Vibration	**B**
EMC	**A**
Enclosure	**D**

Issued at **Høvik** on **2020-02-28**
This Certificate is valid until **2025-02-27**.
DNV GL local station: **France CMC**

Approval Engineer: **Nils Jarem**

for **DNV GL**

Marta Alonso Pontes
Head of Section

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.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Job Id: **262.1-030705-1**
Certificate No: **TAA00002M9**

Product description

Electric Actuators to operate ball valves or butterfly valves.

VR and VS Range:	Operating torque:	Power supply:
DV25 series	25Nm max	100 to 240V AC 50/60Hz or 100 to 350V DC Or 15 to 30V AC 50/60Hz or 12 to 48V DC
DV45 series	45Nm max	
DV75 series	75Nm max	
DV100 series	100Nm max	
DV150 series	150Nm max	
DV300 series	300Nm max	

Other data:	
Travel:	0 to 180°
Enclosure coating:	Epoxy coating 45µm minimum
Degree of protection:	IP68 10m 72h
VR description:	Electric actuator 25 up to 75Nm modified for DV series for DNV GL approval
VS description:	Electric actuator 100 up to 300Nm modified for DV series for DNV GL approval

Actuator	Options (electronic boards or components)
DV25 up to DV300	P5: Analogic signal 0-10V or 4-20mA (Input/output signal) proportional operation
	EFC2: 2 additional limit switches
	ETPC: Analogic transmitter 0-10V or 4-20mA (I Output signal) proportional signal according to actuator position
	EPRxB: Feedback potentiometer (variable resistance signal according to actuator position. (X= resistor value from 1 to 10 kΩ)
	GF3: 3 positions option to operate 3 ways ball valves (0°-90°-180°)
	GS6: Battery backup option, in case of outage of power supply, battery pack takes the relay and drive actuator in position defined by customer (OPEN/CLOSE)
	GPS: Analogic signal 0-10V or 4-20mA (Input/output signal) + battery backup options combination
	GFS: 3 position option + battery backup option combination
	MB: MODBUS RTU
	167: 2 wires reverse polarity operation
	182: 4 wires pulse operation
	187: Varnished electronic boards
	Options Enclosure coating
	Marine coating NORSOK 6M 175µm minimum
	Options electrical connection
	HUM: 6 multipin Hummel connectors IP68
	MULTI: 24 multipin connectors

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, 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 GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Application/Limitation

EMC immunity in the range 2 GHz to 6 GHz according to DNVGL-CG-0339, December 2019 has not been documented. EMC immunity up to 6 GHz must additionally be documented for installation on ships contracted for construction on or after 2022-01-01.

Type Approval documentation

Tests carried out
Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

Marking of product
The products to be marked with:
- manufacturer name
- model name
- serial number
- power supply 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